Reference costs guidance for 2012-13

A draft for NHS feedback

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Contact Details	Payment by Results Team Department of Health Quarry House Quarry Hill Leeds LS2 7UE pbrdatacollection@dh.gsi.gov.uk www.dh.gov.uk/health/category/policy-areas/nhs/resources-for-managers/nhs-costing/
For Recipient's Use	

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Feedback

We would welcome comments on this draft guidance. In particular, we would appreciate comments on the following questions:

1. Should we collect FCE cost pool data for all admitted patient care core HRGs or for core HRGs in chapters F, H and P?
2. Based on the answer you gave to question 1, how likely are you to participate in this collection on the following scale of 1-5?

   1 = We do not intend to submit cost pool data

   2 = We are unlikely to submit cost pool data

   3 = Undecided

   4 = We are likely to submit cost pool data

   5 = We intend to submit cost pool data
3. If you scored 1 or 2 in response to question 2, what are your reasons (e.g. our costing supplier would not support this, we do not currently comply with the HFMA standards, workload)?
4. Do you have any views about our preferred design of the cost pool collection?
5. Would you be able to exclude costs and activity (rather than net off income and exclude activity) relating to non-NHS patients?
6. What are your views on removing TFC from the reporting of admitted patient care FCE costs?
7. Do you have any comments on our proposed validations of the data?
8. What would be an appropriate minimum unit cost for admitted patient care, outpatient, and unbundled service HRGs?
9. Can you suggest an activity measure to facilitate the reporting of unit costs for adult critical care outreach services?
10. If you cannot suggest a measure, should adult critical care outreach services be reported as an on cost to admitted patient care or excluded from reference costs?
11. Do you have any views on the changes to the currencies for direct access pathology services?
12. Is there a costing group in your area that we have not listed?
13. Are there any services listed as exclusions that could be included in future reference cost collections? Please provide as much detail as possible.
14. Do you provide a service that you want us to consider for the exclusions list? Please provide as much detail as possible.
15. Have you identified any other compatibility issues between PLICS and reference costs?
16. Do you have any other examples of best practice or workarounds for producing reference costs from PLICS data?

Please provide comments using the response form on our website[1] and return it to pbrdatacollection@dh.gsi.gov.uk by **5pm on Thursday 17 January 2013**.

We will consider your comments as we finalise the guidance for publication in early 2013.

[1] http://www.dh.gov.uk/health/category/policy-areas/nhs/resources-for-managers/nhs-costing/

Section 1: Introduction

Purpose and context

1. This guidance forms chapter 3 of Monitor's *Approved Costing Guidance*[2], which brings together NHS costing guidance into a single framework as follows.

   Chapter 1: Costing principles – high-level principles that support all NHS costing exercises

   Chapter 2: Costing standards – the clinical costing standards for acute and mental health, published by the Healthcare Financial Management Association (HFMA)

   Chapter 3: Reference costs guidance – this guidance, which supersedes reference costs guidance issued in previous years and sets out the mandatory requirements for the collection of 2012-13 reference costs from NHS trusts and NHS foundation trusts (trusts). Reference costs are the average unit cost to the NHS of providing defined services in a given financial year to NHS patients in England and are collected annually by the Department of Health

   Chapter 4: PLICS collection guidance – guidance to support a new pilot collection of patient level costs by Monitor.

Essential resources

2. Trusts will also need the following resources when preparing and submitting their reference costs:

   Unify2[3] – the Department's corporate data collection system

   Reference costs system and workbook user guide – a manual to help NHS users submit their reference costs in Unify2

   The collection templates, comprising four Microsoft Excel Macro-Enabled 2007-2010 workbooks (for which trusts will require Excel 2007 or later to run)
   - a main **reference costs workbook** for reporting unit costs and activity
   - a **cost pools workbook** for the voluntary reporting of core HRG admitted patient care finished consultant episode (FCE) costs by cost pool group
   - a **reconciliation workbook** for reconciling total costs reported in reference costs to the final accounts
   - a **spells workbook** for reporting spell unit costs and activity

   We have posted draft copies of the workbooks on the Unify2. At this stage, they include only structure and content, and not functionality or validations. Nevertheless, we encourage trusts to consider them alongside this guidance and to provide feedback.

   Healthcare Resource Group 4 (HRG4) 2012-13 Reference Costs Grouper and

[2] http://www.monitor-nhsft.gov.uk/costingpatientcare
[3] http://nww.unify2.dh.nhs.uk/unify/interface/homepage.aspx

documentation - HRG4 is the currency for a significant part of the reference collection. The National Casemix Office[4] at the Health and Social Care Information Centre (HSCIC) publish the Grouper and supporting documentation including user manual, the Code to Group workbook, chapter summaries and listings, and a high level summary of changes from the previous costing Grouper release

The **Terminology Reference-data Update Distribution (TRUD)** service[5] supply a number of data sets to support consistent coding of activity, including:

- the **chemotherapy regimens list**, including adult and paediatric regimens, with mapping to OPCS-4 codes that have one-to-one relationships with unbundled chemotherapy HRGs
- the National Interim Clinical Imaging Procedure (NICIP) code set of **clinical imaging procedures**, with mapping to OPCS-4 codes that relate to unbundled diagnostic imaging HRGs
- the **high cost drugs list** and map to OPCS-4 codes
- the National Laboratory Medicines Catalogue, a national catalogue of **pathology tests**.

We encourage organisations to register for the TRUD service in order to access the most up-to-date versions of these lists. Costing accountants should speak to their coding departments in the first instance because the trust may already be registered with TRUD. We will consider placing these lists on the Unify2 forum before the collection.

Costing principles and standards

3. For this collection, trusts should have due regard to the costing principles and standards set out in *Approved Costing Guidance*. There are also a number of principles specific to reference costs. These are that reference costs:

   (a) are calculated on a full absorption basis to identify the full cost, including redundancy and reorganisation costs, of all services listed in subsequent sections of this guidance
   (b) are allocated and apportioned accurately by maximising direct charging and where this is not possible using standard methods of apportionment
   (c) are matched to the services that generate them to avoid cross subsidisation
   (d) are retrospective, and the quantum of costs used in their production should be reconciled to the audited accounts. Movements in provisions, e.g. for bad debts, redundancy, early retirement etc, that are reflected in the income and expenditure account should be included in the quantum of costs. The reconciliation statement that forms part of the return is an integral element of the audit trail for this reconciliation
   (e) are average unit costs, irrespective of the underlying data supporting their calculation
   (f) include the costs of drugs (paragraph 163) or devices (paragraph 159) against the relevant HRGs, even if the drugs or devices are excluded from the national tariff or separately reported as a memorandum item in the reconciliation

[4] http://www.ic.nhs.uk/casemix
[5] http://www.uktcregistration.nss.cfh.nhs.uk/trud3/user/guest/group/0/home

statement workbook (paragraph 612)

(g) emphasise the cost of delivering the service, and not the funding streams that are used to recover these costs. The services covered are those provided for NHS patients under a range of contractual arrangements.

4. This guidance sets out the requirements for capturing activity to derive unit costs from total costs. As a starting point, we recommend working through the guidance to determine which services the trust provides and how to count activity needed for each service.

5. Include all activity unless we state in Section 15 that it should be excluded. We recommend liaising closely with the trust's information department to ensure that all activity is captured and is an accurate reflection of data reported by the trust in other activity returns such as hospital episode statistics (HES). The data in these returns may not exactly match reference costs and it may be necessary to provide a reconciliation between the various sets of data for audit.

6. We are no longer publishing an *NHS Costing Manual*. Its content has been reviewed and incorporated into the appropriate chapters of the *Approved Costing Guidance*.

7. We have incorporated our *Patient level information and costing systems and reference costs best practice guide* into this reference costs guidance.

ROCR approval

8. We have applied to the Review of Central Returns Committee (ROCR)[6] to approve this reference costs collection. If approved, it will be mandatory for all NHS trusts and NHS foundation trusts, who must comply fully with this guidance and its timescales, ensuring they have the necessary resources and systems to meet full compliance.

9. We based our evidence to ROCR on the administrative burden of collating and submitting reference costs on findings from a survey by the Audit Commission reported in *Reference costs – review of uses by NHS bodies (February 2010)*[7]. 46% of organisations reported spending between 21 and 50 days collating the data required to submit their annual return. 51% of acute and specialist trusts reported spending more than 50 days.

10. ROCR are keen to receive feedback on central data collections from colleagues who submit returns, in particular information about the length of time data collections take to complete and any issues, suggested improvements or duplication. Feedback should be submitted to ROCR using an online form[8].

11. This year's reference costs survey (Annex A) also includes questions about the resource commitment of running costing systems and submitting reference costs.

Main changes for 2012-13

12. The reference costs collection in 2012-13 will build on the changes and

[6] http://www.ic.nhs.uk/rocr
[7] http://www.dh.gov.uk/en/Managingyourorganisation/NHScostingmanual/DH_104762
[8] http://www.ic.nhs.uk/webfiles/Services/ROCR/Data%20Collection%20Feedback%20Template.xls

improvements we made in 2011-12, guided by the following principles:

(a) supporting the development of price setting, and the development of the scope and design of currencies
(b) improving data quality, validation and assurance
(c) ensuring reference costs remain fit for purpose.

Supporting the development of price setting, and the development of the scope and design of currencies

13. Whilst it will be for Monitor and the NHS Commissioning Board (NHS CB) to decide to what extent 2012-13 reference costs are used to set prices in 2015-16, we are making a number of changes and improvements to support the development of price setting, and the development of currencies (for services to which prices could be applied in the future).

14. We are **continuing to mandate the submission of spell costs by all trusts submitting equivalent FCE costs for admitted patient care**. Given that the national tariff for admitted patient care is based on spells rather than FCEs, this could support a move towards more transparently calculated prices in the future. We are incorporating lessons learned from the 2011-12 collection, and extending a number of non-mandatory validations to the spells return in order to improve their quality. However, we recognise the additional burden that submitting both FCE and spell costs places on trusts, and the issues around continuing to publish two sets of costs and RCIs, and will be considering the ongoing need to collect both in future years after a full assessment of data quality.

15. We are **piloting a voluntary collection from acute trusts of core HRG admitted patient care FCE costs by cost pool group, based on definitions in the *HFMA acute health clinical costing standards 2013-14*** (paragraph 187). Monitor has suggested that cost pool data could be used for validations, and provide a richer data set for benchmarking.

16. We are **inviting views on whether this collection should be for**:

(a) **all admitted patient care core HRGs, or**
(b) **core HRGs in chapters F (digestive system), H (musculoskeletal system) and P (diseases of childhood and neonates)**.

Question 1: Should we collect FCE cost pool data for all admitted patient care core HRGs or for core HRGs in chapters F, H and P?

Question 2: Based on the answer you gave to question 1, how likely are you to participate in this collection on the following scale of 1-5? 1 = We do not intend to submit cost pool data 2 = We are unlikely to submit cost pool data 3 = Undecided 4 = We are likely to submit cost pool data 5 = We intend to submit cost pool data

Question 3: If you scored 1 or 2 in response to question 2, what are your reasons (e.g. our costing supplier would not support this, we do not currently comply with the HFMA standards, workload)?

17. Our preferred approach is to collect only unit costs, and not unit costs and activity, against each cost pool group. This is to minimise the burden of data collection, and to encourage participation from trusts with and without PLICS. Paragraph 192 illustrates an alternative approach.

Question 4: Do you have any views about our preferred design of the cost pool collection?

18. Monitor's *Costing patient care*[9] contains a proposal to reduce the distortion caused to the cost of patient care by netting off income from non-NHS patient care activities, termed non-contractual income (Section 16). We are working towards a position where, in future years, trusts will exclude from reference costs the cost of providing the service, rather than the income, from funding streams such as education and training and research and development. We would **welcome views on whether trusts should exclude costs rather than net off income (and bad debts) from non-NHS patients** (paragraph 580), although we recognise this would be relatively simpler for trusts with patient level information costing systems (PLICS).

Question 5: Would you be able to exclude costs and activity (rather than income and activity) relating to non-NHS patients?

19. We are **inviting views on removing the requirement to report TFC alongside HRG in the collection of admitted patient care FCE costs**. Unify2 requires us to create data combinations for every permutation of department code (i.e. admission method), HRG and TFC, regardless of whether trusts submit these combinations[10]. Nationally, TFC was not utilised by the Department in previous tariff calculations. However, our Reference Costs Advisory Group (RCAG) advised against removing TFC because of its usefulness locally. They told us:

    "This would lessen the usefulness of the feedback organisations receive from reference costs. Organisations benchmark the costs of their services… and this is most useful at specialty level, which normally fits with the organisations management structure."

    "Whilst it may help with the dataset combinations, Trusts use TFC for activity reporting, as a basis for service lines with SLR and general operational management and therefore we doubt its removal would be welcomed."

    "Everything is geared to speciality - costs should be useful to organisations producing them not just the centre."

20. Arguments for removing TFC include:

    (a) that it has not been used in previous tariff calculations
    (b) that it would potentially shorten the timetable for releasing the main reference

[9] http://www.monitor-nhsft.gov.uk/costingpatientcare
[10] For example, 147 TFCs * 1,849 HRGs * 5 cost/activity = 1,359,015 ordinary elective combinations.

costs workbook by several weeks, and simplify some of the validations included in the workbook

(c) that the landscape is changing (e.g. with the collection of cost pool and PLICS data) and Monitor has stated that in time, a national PLICS database could be made available to providers for benchmarking (p17, *Costing Patient Care*).

21. Arguments against include those advanced above. We would welcome further views before making a final decision in January.

Question 6: What are your views on removing TFC from the reporting of admitted patient care FCE costs?

22. We have **learned lessons from the mental health care cluster collection** introduced in 2011-12, and made some changes to the guidance (Section 9). Specifically, we have:

(a) removed the requirement to report the total number of unique service users
(b) added a requirement to report the average length of completed cluster review periods.

Improving data quality, validation and assurance

23. There are many important uses for reference costs and, since its joint review of reference costs with the Audit Commission in 2010, the Department has made progress against its action plan to improve their quality. However, we also recognise suggestions in Monitor's *Costing patient care* that there is further room for improvement, and the proposals in that document for helping to bring about such improvement. We have **added a new Section 2 to this guidance – data quality, validation and assurance – that sets out our approach for reference costs in 2012-13**.

24. In addition to the current process whereby Finance Directors sign off reference costs on the basis that certain requirements have been met, **we are adding a requirement for Boards to approve the costing process** (paragraph 136). This will help raise the profile of costing.

25. We are **enhancing the quality checklist, introduced in 2011-12 based on work by the Audit Commission, and mandating its completion and submission via Unify2** (paragraph 135).

26. We have **developed our guidance on non-mandatory validations, and provided examples of cost data that would need reviewing** (paragraph 108).

Question 7: Do you have any comments on our proposed validations of the data?

27. We are **setting a mandatory minimum unit cost of £5 for all admitted patient care, outpatient and unbundled service HRGs** (paragraph 132). Whilst in the final 2011-12 dataset, only 28 admitted patient care data records covering 169 FCEs (0.001% of all submitted costs) had a unit cost of £5, these were the least understood of the remaining non-mandatory validations. We would **welcome feedback on whether £5 is an appropriate minimum for these services**.

Question 8: What would be an appropriate minimum unit cost for admitted patient care, outpatient, and unbundled service HRGs?

28. We have **clarified the distinction between a non-elective long and short stay** (paragraph 145). As a result, trusts must not report any activity as long stay that has an average length of stay (inlier length of stay plus number of excess bed days) of less than two days.

29. We are **introducing new non-mandatory validations** covering:

    (a) use of same costs against different HRGs (paragraph 123)
    (b) cost relativities that are inconsistent with HRG design (paragraph 111).

Ensuring reference costs remain fit for purpose

30. We have made a number of other changes designed to ensure:

    (a) this guidance is clear, comprehensive and accessible, and clarifies all known issues raised during the 2011-12 collection
    (b) only good quality and relevant cost data are collected
    (c) the collection is aligned wherever possible with the NHS Data Model and Dictionary

31. We have **removed the requirement for trusts to submit separately the unit costs of services sub-contracted to the independent sector** (in effect, the contract price for these services rather than the actual cost of provision). Such total costs will instead form a balancing line in the reconciliation statement workbook (paragraph 608). Whilst these data have in the past been used to help understand the cost differentials between the NHS and independent sector, and to support the ONS productivity index, the benefits are outweighed by the demands of anticipating and collecting these additional data combinations in Unify2 at a time when there is a requirement to collect other data. Furthermore, Monitor has set out its intentions to collect cost data directly from the independent sector in future. Following the removal of unit costs for services directly commissioned by primary care trusts (PCTs) from the independent sector in 2011-12, and the removal of unit costs relating to services sub-contracted to the independent sector in 2012-13, the reference costs collection henceforth will relate only to the costs to trusts themselves of providing services to NHS patients in England. The costing of mental health care clusters (paragraph 396), which includes some sub-contracted out services, is the sole exception to this rule.

32. We have **changed the requirement to report UZ01Z activity in ordinary elective and non-elective settings from an excess bed day cost per excess bed day, to an inlier cost per FCE** (paragraph 156). It will not be possible to report excess bed days against UZ01Z, and the Grouper will not generate them.

33. We have **updated the list of devices (paragraph 159) and drugs (paragraph 163)** that should be reported in the reconciliation statement workbook

34. We have **removed the split between trauma (pseudo TFC code 110T) and non-trauma (pseudo TFC code 110N), allowing trusts to submit all activity in trauma and orthopaedics against TFC 110**.

35. We have **removed the option of reporting total costs rather than unit costs for cancer multidisciplinary teams** (paragraph 233)

36. We have **aligned the collection of emergency medicine costs to the NHS Data Model and Dictionary** by replacing the previous splits between (i) 24 hour A&E services, (ii) non-24 hour A&E services, (iii) minor injury units and (iv) walk-in centres, with splits based on the national codes for A&E department types (Section 5).

37. We have **allowed for the reporting of UZ01Z in critical care settings** (paragraph 279). Previously, the reference costs workbook has only allowed for UZ01Z in admitted patient care and emergency medicine. Whilst we strongly discourage the reporting of any costs against UZ01Z, a number of trusts sought our advice during the 2011-12 collection about volumes of UZ01Z codes in their paediatric critical care datasets. Whilst a new HRG – XB09Z, Paediatric Critical Care, Enhanced Care - should address this issue, making UZ01Z available will assist investigation into any remaining instances where the treatment of these patients was insufficient to trigger an unbundled HRG.

38. We are **inviting feedback on whether a suitable activity measure exists to facilitate the reporting of unit costs for adult critical care outreach services** (reported as a total cost in previous reference cost returns). If no suitable activity measure can be identified, we propose asking **trusts to report this service as an on cost to admitted patient care** (paragraph 294).

Question 9: Can you suggest an activity measure to facilitate the reporting of unit costs for adult critical care outreach services?
Question 10: If you cannot suggest a measure, should adult critical care outreach services be reported as an on cost to admitted patient care or excluded from reference costs?

39. We have made some **changes to the currencies against which direct access pathology services (paragraph 385) are collected** by:

    (a) **removing neuropathology services** – which are rarely accessed directly from primary or community settings
    (b) **adding a currency for anti-coagulation services**
    (c) **adding a currency for integrated blood sciences services**.

Question 11: Do you have any views on the changes to the currencies for direct access pathology services?

40. We have **added a separate reporting lines against mental health outpatient attendances and community contacts for specialised adult eating disorder services** (paragraph 424).

41. We have **added separate reporting line against mental health specialist teams for** (paragraph 443):

    (a) **drug and alcohol services**
    (b) **eating disorder services**
    (c) **forensic community**
    (d) **IAPT**.

42. We have **removed the requirement to report memorandum activity for completed packages of hospital at home care** (paragraph 480).

43. We have **added the following services to the national exclusions list** (Section 15):

    (a) armyloidosis
    (b) chronic pulmonary aspergillosis service
    (c) community veterans mental health pilots
    (d) fixated threat assessment centre
    (e) gait analysis
    (f) genetic laboratory services
    (g) high secure infectious disease units
    (h) low energy proton therapy for ocular oncology
    (i) malignant hyperthermia unit
    (j) medical equipment loans
    (k) photopheresis
    (l) poisons information service and clinical toxicology service
    (m) pseudomyxoma peritonei service
    (n) rare mitochondrial disorder
    (o) rare neuromuscular disease
    (p) retinoblastoma
    (q) severe intestinal failure treatment.

44. We have **removed the following exclusions**:

    (a) clinical audit and research unit (CARU) – we agreed with ambulance trusts, after the 2011-12 guidance was published, but before the 2011-12 collection began, that this should not be excluded
    (b) directly accessed anti-coagulation services – which should be reported against the relevant currency (paragraph 385)
    (c) other specialised services – which we concluded was insufficiently precise. All specialised services that we have agreed to exclude from reference costs, whether nationally or regionally commissioned, are listed in their own right.

45. Historically, any service excluded from reference costs is, by default, excluded from the national tariff. Our intention is that the national exclusions list should be definitive, and the use of user-defined lines should be minimal. **Trusts should submit applications to exclude any other service not on this list to pbrdatacollection@dh.gsi.gov.uk by 17 January 2013, providing as much detail as possible about:**

    (a) total costs
    (b) volumes
    (c) primary and secondary classification codes
    (d) other trusts known to provide the service.

46. In particular, we would encourage trusts providing specialised services that do not have a currency in the reference costs collection, and that are not listed as exclusions, to contact other trusts providing the same service and agree a consistent approach. If all trusts agree the service should be excluded than a joint request should be made to us.

47. We have asked for **more granular information about home delivery of drugs and supplies** (Table 62).

48. We have **amended and simplified the reporting requirements in the reconciliation statement workbook** as follows:

    (a) we have **removed the worksheet for sources of non-contractual income and added a line to the reconciliation worksheets for R&D income**. Income relating to other charitable contributions, continuing professional development, NVQs and NHS learning accounts should be included in the other income category
    (b) from the memorandum worksheet we have:
        (i) **removed the requirement to report the standard length of time that drugs are prescribed for patients on discharge**
        (ii) **removed the requirement to report total costs of clinical negligence scheme for trusts (CNST) payments and the maternity element of CNST payments**
        (iii) **removed the requirement to report types of cancer MDT** included in the other category, having collected useful information in 2011-12
        (iv) **removed the question relating to the separate costing of initial assessments for the mental health care clusters**

49. We have **made some additions and amendments to our mandatory survey** (Annex A). In particular, we are adding some questions about the resource commitment of running costing systems and preparing reference costs. Alongside this, the HFMA are planning to run their next annual (voluntary) survey about the clinical costing standards during the reference costs collection window in July 2013.

50. We are **removing the cluster averages from the Verification Report in Unify2**.

Future planning

51. There are a number of areas in development that may:

    (a) impact reference cost collections after 2012-13 or
    (b) result in additional collections during 2013.

52. As part of the work the Department is doing to move to a tariff based system for education and training, we expect there to be a **collection of education and training costs using the newly designed Education Resource Groups (ERGs) in the autumn of 2013**. This will be a separate collection based on costs from April to September 2013, and will not change the method of calculating 2012-13 reference costs, i.e. education and training income will continue to be netted off the quantum.

53. The move to ERGs may require new data to be collected in many trusts. To help trusts with the process, and ensure the data will be available to cost ERGs in 2013-14, the costing methods and templates used by the pilot sites developing the ERGs will be made available on the HFMA website. The methods and templates will be added after completion of each pilot collection, which will be carried out to the following draft timetable:

(a) undergraduate medical and dental clinical placements – by the end of November 2012
(b) undergraduate non-medical clinical placements – by the end of February 2013
(c) postgraduate medical, dental and non-medical placements – by the end of June 2013.

54. During 2012-13, the roll out of the new HIV adult outpatients currency[11], supported by the new HIV and Aids Reporting System (HARS)[12] data set, has begun. The currency is a clinically designed year of care pathway for HIV adult patients aged over 18 years divided into three groupings (newly diagnosed, stable, medically complex). Because these have not been rolled out across the majority of HIV providers, we are not changing the collection of 2012-13 costs. **But, for 2013-14 reference costs, we will consider how a collection based on the average pathway costs against the HIV adult outpatient currency can best be achieved**. We will be monitoring the roll out of HARS and the delivered outputs, and will use this to inform future approaches to cost collection.

55. 2012-13 is also a shadow year for new maternity pathway system. The intention is to mandate this for contracting in 2013-14, supported by the implementation of a maternity minimum data set from 1 April 2013. We are not changing the collection of 2012-13 costs, but we anticipate changes in 2013-14 to support costing of the three stages of the pathway (antenatal care, the birth episode, postnatal care), and the casemix levels in each stage.

Scope

56. Reference costs are part of the financial regime for NHS trusts and NHS foundation trusts as designated in relevant NHS legislation and guidance.

57. The only NHS trusts not required to submit reference costs are Calderstones Partnership NHS Foundation Trust and NHS Direct.

58. NHS trusts and NHS foundation trusts should submit unit costs for all services, except those listed in Section 15, relating to their own provider function. Work sub-contracted to other trusts should be included by the receiving trust, in line with guidance for provider-to-provider agreements (paragraph 596).The total costs of sub-contracting services to the independent sector should be submitted as a reconciling line in the reconciliation statement workbook.

59. This guidance applies to all NHS trusts and NHS foundation trusts in existence between 1 April 2012 and 31 March 2013. Following changes to the Treasury's *Financial reporting manual* for 2012-13, combining two or more public bodies or transferring functions from one part of the public sector, is now accounted for using absorption rather than merger accounting. Reference costs, however, will continue to follow the principle of merger accounting. Thus:

(a) where trust A is dissolved in-year, e.g. on 30 June 2012, and is acquired in-year by trust B, e.g. on 1 July 2012, it is the responsibility of trust B to ensure a single 2012-13 reference cost return combining the costs and activity of both trust A and B is submitted by the mandatory deadline. When completing the

[11] http://www.dh.gov.uk/health/2012/04/pbr-sexual-health
[12] http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/HIV/HIVAndAIDSReportingSystem/

reconciliation statement workbook, trust B will need to reconcile to the sum of two sets of accounts: one covering trust A from 1 April 2012 to 30 June 2012, and one covering trust A and B combined from 1 April 2012 to 31 March 2013

(b) where trust C is dissolved on 31 March 2013 and is acquired by trust D on 1 April 2013, a separate reference cost return will be required for each trust, although responsibility for the completion of both returns by the mandatory deadline will fall to trust D

(c) where there is a transfer of function from trust A to trust B, the costs of the whole year's services will be accounted for by the body receiving the transfer, trust B. The body divesting of the service, trust A, will have nil costs for the year for these services. This applies whether the divesting body trust A continues to operate or dissolves.

60. It may be necessary to speak to financial accounts colleagues about any such transfers within the organisation.

61. Successful applicants to NHS foundation trust status during the financial year must submit one full year's reference costs for the sum of the NHS trust and the foundation trust.

62. Where a spell begins in the preceding reporting year (2011-12) and continues into the current reporting year (2012-13), all associated FCEs should be included in reference costs. Where a spell begins in the current reporting year (2012-13) and continues into the next reporting year (2013-14), all associated FCEs should be excluded.

Timetable and format

63. Table 1 gives an overview of the 2012-13 reference costs collection.

Table 1: Format of the 2012-13 reference costs collection

Collection	Workbook name	Status	Collection method	No. of participating trusts
Reference costs	REFC	Mandatory	Excel 2010 workbook and Unify2	All
Reconciliation statement	RECON	Mandatory	Excel 2010 workbook and Unify2	All
Self assessment quality checklist	N/A	Mandatory	Unify2	All
FCE cost pools	POOLS	Voluntary	Excel 2010 workbook and Unify2	Not known
Spell costs	SPELLS	Mandatory	Excel 2010 workbook and Unify2	All trusts submitting equivalent FCE costs

64. Table 2 gives a high-level timetable for 2012-13 reference costs.

Table 2: Timetable for 2012-13 reference costs

Date	Milestone
20 December 2012	Publish draft Reference costs guidance for 2012-13 for consultation
17 January 2013	Deadline for comments on draft guidance
Early 2013	Monitor publishes Approved Costing Guidance Department publishes Reference costs guidance for 2012-13 HFMA publishes Clinical costing standards for 2013-14

Date	Milestone
January 2013	Release of Unify2 non-compliant draft workbooks
28 March 2013	Release of HRG4 2011-12 Reference Costs Grouper and documentation
April 2013	Release of Unify2 compliant test workbooks
May 2013	Release of Unify2 compliant final workbooks
May 2013	Publication of reference costs system and workbook user guide
24 June 2013	Reference costs submission window opens for FCE costs
22 July 2013	Reference costs submission window closes
September 2013	Release of draft RCIs on Unify2
November 2013	Publication of national schedules of reference costs, final RCIs and source data

65. Previously, SHAs have provided valuable support to the reference costs collection by:

    (a) disseminating key communications about the collection to trusts within their areas
    (b) hosting training sessions to brief trusts on changes to the collection
    (c) answering a significant proportion of queries on our behalf
    (d) managing submissions on SHA designated days during the collection window.

66. The closure of SHAs on 31 March 2013 therefore has a number of implications for the running of the collection. In terms of the collection window itself, we will continue to designate a regional week, with four regions based on the geography of the SHA clusters.

67. These reference costs will therefore be submitted during a four week submission window starting on 24 July 2013, (Table 3), with a fifth week for trusts to submit voluntary cost pool data (paragraph 178).

Table 3: Collection window

w/c 24 June					w/c 1 July					w/c 8 July					w/c 15 July					w/c 22 July				
M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F	M	T	W	Th	F
Validation and open submission															Regionally managed submission					Voluntary cost pool submission				

68. The collection window will run as follows.

Validation and open submission (24 June to 12 July)

69. During these three weeks, all trusts will use their own local validations alongside the validation tools produced by the Department to ensure that the submission is accurate, and reducing the need for further uploads following initial submission. Experience from previous years suggests that trusts that wait until the third week before making an initial submission face the biggest challenge in terms of timeliness and accuracy. In 2011-12, we required all trusts to input an initial submission into the system during this period. The trusts in Table 4 did not comply.

Table 4: Trusts that did not comply with our initial submission requirement in 2011-12

Bridgewater Community Healthcare NHS Trust
Gateshead Health NHS Foundation Trust
Hertfordshire Community NHS Trust

Hertfordshire Partnership NHS Foundation Trust
King's College Hospital NHS Foundation Trust
Liverpool Heart and Chest NHS Foundation Trust
Luton and Dunstable Hospital NHS Foundation Trust
North West London Hospitals NHS Trust
Peterborough and Stamford Hospitals NHS Foundation Trust
Royal National Orthopaedic Hospital NHS Trust
Sheffield Children's NHS Foundation Trust
South Essex Partnership University NHS Foundation Trust
South London Healthcare NHS Trust
The Queen Elizabeth Hospital, King's Lynn. NHS Foundation Trust
The Whittington Hospital NHS Trust
West London Mental Health NHS Trust
West Suffolk Hospitals NHS Trust

70. **In 2012-13, all trusts must comply with the requirement to upload outputs from the reference costs workbook (and spells workbook where appropriate) into Unify2 by Friday 12 July, ahead of the regionally managed submission week**.

71. Those trusts that are ready to sign off their final reference costs returns during this period may do so.

Regional submission days (15 to 19 July)

72. In this week there will be designated days when trusts in each region are expected to submit and sign off their final reference costs returns (Table 5). We expect that unless there are exceptional circumstances all trusts will have uploaded and signed off on the agreed regional day.

Table 5: Regional days

15 July	16 July	17 July	18 July
Monday	Tuesday	Wednesday	Thursday
London	South of England	Midlands and East	North of England

73. Trusts unable to sign off on the agreed date should contact us to agree an alternative submission date. Unless there are exceptional circumstances, any request for an alternative submission date will be allocated an earlier date. By the end of the managed submission week all organisations are expected to have submitted and signed off their 2012-13 reference costs workbook, spells workbook, reconciliation statement, and self-assessment quality checklist.

74. We will not allow trusts to resubmit after 26 July 2013. Nevertheless, trusts must alert us immediately if they subsequently become aware of any errors in their return.

Voluntary cost pool submission (22 to 26 July)

75. In this week, voluntary cost pool submissions should be uploaded and signed off. Trusts that are ready to upload before this period may do so.

NHS Data Model and Dictionary

76. Where possible, we have aligned the requirements of the reference cost collection with the definitions in the NHS Data Model and Dictionary[13] (the Data Dictionary). The guidance includes numerous links to the Data Dictionary where definitions exist. A few terms do not have nationally assured definitions, e.g. short stay emergency, pre-booked appointment.

Treatment function codes

77. Admitted patient care and outpatient activity should be reported by treatment function[14]. The Information Standards Board (ISB) issued the latest changes to treatment function codes (TFCs) in Amd 17/2012[15] in November 2012. These changes have been incorporated into the list of TFCs[16] in the Data Dictionary, but trusts should note they are only available to flow in the latest version of the commissioning data sets (CDS 6.2). All these TFCs will be available in the reference costs workbook, except those listed in Table 6. A few trusts have opted to report all admitted patient care and outpatient activity using reference costs pseudo code 999. However, trusts should where possible report against the relevant TFC.

Table 6: TFCs excluded from reference costs

TFC	Description	Rationale	Para
290	Community paediatrics	Costs should be reported against community paediatric services	471
318	Intermediate care	Intermediate and continuing care is excluded from reference costs	555
424	Well babies	Costs should be reported under obstetrics (501) or midwife episodes (560), and activity excluded	555
657	Prosthetics	Discrete external aids and appliances services are excluded from reference costs	555
658	Orthotics		
700	Learning disability	Learning disability services are excluded from reference costs	555

78. Table 7 lists pseudo codes for activity not covered by TFCs.

Table 7: Pseudo codes

Pseudo TFC code	Description
999	Global trust codes
CMDT_B	Breast cancer MDT meetings
CMDT_C	Colorectal cancer MDT meetings
CMDT_LG	Local gynaecological cancer MDT meetings
CMDT_SpG	Specialist gynaecological cancer MDT meetings
CMDT_SpU	Specialist upper gastrointestinal cancer MDT meetings
CMDT_Oth	Other cancer MDT meetings
DAPF	Direct access plain film
FPC	Family planning clinic attendances
H/A	HIV or AIDS attendances

[13] http://www.datadictionary.nhs.uk/
[14] http://www.datadictionary.nhs.uk/data_dictionary/classes/t/treatment_function_de.asp?shownav=1
[15] http://www.isb.nhs.uk/documents/isb-0028/amd-17-2012/index_html
[16] http://www.datadictionary.nhs.uk/web_site_content/supporting_information/main_specialty_and_treatment_function_codes.asp?shownav=1

Healthcare resource groups

79. HRGs, developed and maintained by the National Casemix Office at the HSCIC, underpin Payment by Results (PbR) from costing through to payment. Reference costs for admitted patient care, outpatients, emergency medicine and unbundled services are collected using the latest version, HRG4.

80. Trusts must use outputs from the HRG4 2012-13 Reference Costs Grouper[17] (the Grouper), and the suite of supporting documentation, which will be released on 28 March 2013, when compiling their reference costs.

81. HRG4 currencies are refined every year in line with changing clinical practice and policy requirements. Changes in 2012-13 include:

    (a) an increase in the number of HRGs from 1,657 to 2,100
    (b) two new subchapters
        (i) EC Congenital Cardiac Surgery
        (ii) LE Dialysis for Acute Kidney Injury (unbundled HRGs)
    (c) the introduction of interactive complications and comorbidities (CCs)
    (d) improved recognition of multiple procedures.

82. The Grouper will be supported by the underlying primary classification systems and requires inputs from commissioning data sets (CDS) covering admitted patient care, critical care, outpatients and emergency medicine. The renal dialysis core HRGs for chronic kidney disease are generated by use of fields from the National Renal Dataset rather than from a CDS (paragraph 360).

83. The Grouper reports automatically add one bed day to admitted patients with a length of stay of zero. This is done to reflect the fact that costs are often apportioned on a bed day basis and avoids a zero length of stay incorrectly incurring nil costs. Currently, this only includes episodes with patient classification code 1 (ordinary admission). The National Casemix Office is considering amending the reports to include patient classification code 5 (mother and baby using delivery facilities only) in a future Grouper product. However, these extended reports will not be available in the HRG4 2012-13 Reference Costs Grouper.

84. Unbundled HRGs (Section 5) are a key design feature in HRG4. This guidance explains where costs and activity should be reported against unbundled HRGs, and where they should be reported against core HRGs.

85. Table 8 lists HRGs where zero costs should be allocated. We will remove these HRGs from the reference costs workbook.

Table 8: Zero cost HRGs

HRG	Description	Rationale
PB03Z	Healthy Baby	Costs should be reported as part of the maternity delivery episode
DZ13A	Cystic fibrosis with complications and comorbidities (CC) Score 1+	Costs should be reported against cystic fibrosis year of care currencies

[17] http://www.ic.nhs.uk/services/the-casemix-service/using-this-service/reference/downloads/costing

HRG	Description	Rationale
DZ13B	Cystic fibrosis without CC Score 0	
PA13C	Cystic fibrosis with length of stay 0 days	
PA13D	Cystic fibrosis with length of stay between 1 and 7 days	
PA13E	Cystic fibrosis with length of stay between 8 and 14 days	
PA13F	Cystic fibrosis with length of stay 15 days or more	
LA97A	Same Day Dialysis Admission or Attendance, 19 years and over	Costs should be reported against the LD HRGs
LA97B	Same Day Dialysis Admission or Attendance, 18 years and under	

86. The National Service Framework for children defines a child as up to and including 18 years of age and an adult as 19 years and over. These definitions of a child and adult are generally applied within HRG4 and to other services in reference costs, except where specified, e.g. cystic fibrosis.

Primary classifications

87. HRG4 relies on two underlying primary classification systems:

    (a) the International Statistical Classification of Diseases and Related Health Problems Tenth Revision (ICD-10)
    (b) the OPCS Classification of Interventions and Procedures (OPCS-4).

88. The NHS should have implemented:

    (a) ICD-10 4th Edition on 1 April 2012, as notified in ISB 0021[18]. NHS Connecting for Health (CfH) have provided updated data files and training materials[19] for the NHS and system suppliers
    (b) OPCS-4.6[20], released on 1 April 2011.

89. These revisions underpin HRGs in the HRG4 2012-13 Reference Costs Grouper.

Queries

90. A number of national costing groups are overseeing the development of costing in areas such as mental health and ambulance services.

91. Local costing groups (Table 9) help providers to share best practice. We can provide contact details on request. These are likely to increase in importance given the closure of SHAs and we would be pleased to hear about the emergence of other groups.

[18] http://www.isb.nhs.uk/library/standard/119
[19] http://www.connectingforhealth.nhs.uk/systemsandservices/data/clinicalcoding
[20] http://www.connectingforhealth.nhs.uk/systemsandservices/data/clinicalcoding/codingstandards/opcs4/opcs-4.6

Table 9: Local costing groups

East Midlands
Shropshire and Staffordshire
Yorkshire and the Humber

Question 12: Is there a costing group in your area that we have not listed?

92. Another way to find out information is on the Unify2 discussion forum. This is an informal forum, where NHS costing colleagues seek advice from one another, although we may sometimes participate in the discussion. We also use the Unify2 forum to post other relevant materials in the lead up to the submission window.

93. The Department's pages on NHS costing are at http://www.dh.gov.uk/health/category/policy-areas/nhs/resources-for-managers/nhs-costing/.

94. Queries about HRGs and the HRG4 2012-13 Reference Costs Grouper should be directed to enquiries@ic.nhs.uk, and queries about clinical coding and the Data Dictionary to datastandards@nhs.net.

95. Trusts should contact us directly at pbrdatacollection@dh.gsi.gov.uk with queries that cannot be resolved using these resources.

Section 2: Data quality, validation and assurance

The importance of data quality

96. The need for high quality reference costs cannot be overstated. Accurate cost data will be fundamentally important to support the joint responsibility of Monitor and the NHS CB for pricing NHS services in England. Monitor has stated its long-term aspiration to move to a pricing system based on PLICS data, but this will take time to implement. In the meantime, it is likely that these 2012-13 reference costs will be used nationally to inform the 2015-16 tariff.

97. NHS providers and commissioners use the data for reporting to executive teams, benchmarking, contract negotiations and local pricing of non-tariff areas.

98. Reference costs support the Department's commitment to improving data transparency and making a vast wealth of information available to the public as set out in its business plan for 2011 to 2015[21], and inform several input indicators in the business plan quarterly data summary[22].

99. They are also used by the Department, Monitor, the NHS CB, the NHS Trust Development Authority (NHS TDA), the HSCIC, and other organisations and individuals to:

    (a) hold the Department and its ministers to account for the use of NHS resources in replies to parliamentary questions, freedom of information requests and other official correspondence
    (b) support elements of national programme budgeting[23], an alternative method of assessing NHS expenditure across broader categories of illness such as cancer, cardiovascular diseases and mental health
    (c) support implementation of the EU cross border healthcare directive, which requires transparent and objective mechanisms for the reimbursement of patient costs between member states
    (d) inform the weighted capitation formula used to allocate resources to NHS commissioners
    (e) provide comparative costs to support evaluation of new or innovative medical technologies
    (f) help assess whether NHS trusts are ready to become NHS foundation trusts
    (g) support Office for National Statistics (ONS) estimates of NHS productivity
    (h) inform the design of HRGs and other currencies.

100. *Reference costs 2011-12* describes the actions we took before the 2011-12 collection to support improvements to the quality of reference cost returns, and includes an analysis on how trusts performed against our validations. Our approach for 2012-13 is to build on this work, and to implement the proposals in Monitor's *Costing patient care*. Specifically, we are:

    (a) enhancing the validations we perform on the data during and after submission.

21 http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_128494
22 http://www.dh.gov.uk/en/Aboutus/HowDHworks/Transparency/DH_128480
23 http://www.dh.gov.uk/health/2011/12/programme-budgeting-pct-benchmarking-tool-2011/

Trusts must investigate these validations before submission, make any necessary corrections, and confirm that they have carried out these actions as part of the self assessment quality checklist

(b) enhancing the quality checklist developed by the Audit Commission, and embedding this within the collection

(c) adding a requirement for Boards to approve the costing process.

101. Acute trusts should continue to use the *National Benchmarker*[24], the Audit Commission online tool that compares hospital activity data, clinical coding and PbR related measures with other organisations. The *National Benchmarker* includes three separate reference costs tools containing the analysis used to support the Audit Commission's review of reference costs submissions. They are:

(a) cost variance tool - looks at differences between reported and expected unit costs for each treatment area

(b) activity reconciliation tool - compares activity data submitted in reference costs to activity reported in hospital episode statistics (HES)

(c) activity share tool - looks at whether a trust is undertaking its expected share of activity for its size.

102. We are expecting confirmation shortly on the arrangements for Capita providing the *National Benchmarker* in future.

Clinical and financial engagement

103. Stakeholder engagement is one of the five costing principles in *Approved costing guidance*.

104. One area of engagement that we are supporting nationally, through the work of Dr Mahmood Adil, the Department's adviser on quality innovation productivity and prevention (QIPP), is collaborative relationships between clinicians and finance managers. As a result of this work, our 2011-12 survey asked trusts to assess themselves against four levels of engagement from purely board level (level 1) through to full engagement at different levels and across all clinical specialties (level 4):

Level 1: Engagement is only at board/strategic level. For example, dialogue takes place between medical director and finance director, but there is no real joined-up, collaborative work between the wider clinical and finance teams

Level 2: There is some joined-up, collaborative work between clinical and finance teams but only on an ad hoc basis when required, for example for a specific Commissioning for Quality and Innovation (CQUIN) project

Level 3: Joined-up collaborative working between clinical and finance teams is the norm in at least one clinical specialty/directorate. For example, a finance manager works as an integral part of a clinically led quality improvement team. There is also a plan to roll this out across other directorates

[24] http://www.audit-commission.gov.uk/health/audit/paymentbyresults/benchmarkerandportal/Pages/default.aspx

Level 4: Joined-up collaborative working between clinical and finance teams is the norm across all clinical specialties/departments. Finance managers routinely work as integral members of clinically led quality improvement teams and both professional groups share cost and quality data to improve outcomes.

105. In early 2013 the Department is hosting, in conjunction with the HFMA and a small number of leading trusts, a national clinical and financial engagement workshop, the aims of which will be to:

    (a) review and refine the four levels of clinical and financial engagement, to enable organisation to asses themselves accurately and objectively.
    (b) collate examples of tangible benefits of achieving level four clinical engagement, both in terms of clinical quality improvements and cost efficiency
    (c) collate examples of best practice including processes and outputs which can be incorporated into costing and cost collection guidance.
    (d) develop an assessment pathway to help organisations to move towards level four, incorporating the examples collected below.

106. We will share the outcomes of this workshop before July 2013 and consider any resulting changes that need to be made to our 2012-13 survey.

Mandatory validations

107. Our mandatory validations are designed to assure the basic integrity of the data. We have embedded the checks in the following tables in either the collection workbooks or Unify2. Trusts will not be able to sign off their returns until their data passes each of these validations.

Table 10: Mandatory validations in the reference costs workbook

Validation	Description	Worksheet	Source
Activity > 0	Activity must be positive	All	Unify2
Activity = integer	Activity must be an integer	All	Unify2
Activity and unit cost	If activity is reported, then a unit cost must be reported, and vice versa	All	Unify2
Bed days > = FCEs	Number of inlier bed days must be greater than or equal to FCEs	EL, NEL	Unify2
Data type invalid	Data type must be OWN	All	REFC
Duplicate entry	Each combination of data type, department code, service code and currency code must be unique	All	REFC
Excess bed day costs without excess bed day activity	If excess bed day costs are reported, then excess bed day activity must be reported, or vice versa	EL, NEL	Unify2
Excess bed days without inlier activity	If excess bed day costs are reported, inlier activity must be reported	EL, NEL	Unify2
HRG code invalid	HRG codes must match those provided in the HRG4 2012-13 Reference Costs Grouper	All worksheets that use HRGs	REFC
Inlier bed days < HRG trim point * no. of FCEs	Inlier bed days should not be greater than the HRG trim point multiplied by number of FCEs	EL, NEL	Unify2
Missing entry	Missing values (excluding cost or activity) within a row of data	All	REFC
NEI_L average length of stay >= 2	Average length of stay, i.e. number of inlier bed days divided by number of FCEs, must be greater than or equal to two for non-elective long stays.	NEL	Unify2
No data	Codes have been supplied, but no unit costs or activity	Flexible worksheets	Unify2
Patient type invalid	Patient type must be a valid code, e.g. DC, EI etc	Flexible worksheets	REFC

Validation	Description	Worksheet	Source
SB97Z and SC97Z = 0	Costs should not be allocated to SB97Z or SC97Z (paragraphs 263 and 323)	CHEMDAY, RADDAY	REFC
TFC code invalid	TFC codes must match those in the Data Dictionary or Table 7	EL, NEL, NES, DC, RDNA, OPATT, OPPROC, DIAGIM	REFC
Unit cost > 5	Unit cost must be positive and greater than or equal to £5.00	EL, NEL, NES, DC, RDNA, OPATT, OPPROC, Unbundled HRG worksheets	Unify2
Unit cost > 0	Unit cost must be positive and greater than or equal to £0.01	All worksheets except above	Unify2
Unit cost = #.##	Unit cost must be to two decimal places	All	Unify2

Table 11: Mandatory validations in the spells workbook (all worksheets)

Validation	Description	Source
Activity > 0	Activity must be positive	Spells
Activity = integer	Activity must be an integer	Spells
Activity and unit cost	If activity is reported, then a unit cost must be reported, and vice versa	Spells
Bed days > = spells	Number of inlier bed days must be greater than or equal to spells	Spells
Excess bed days without inlier activity	If excess bed days are reported, inlier spell bed days must be reported	Spells
Inlier bed days < HRG trim point * no. of spells	Inlier bed days should not be greater than the HRG maximum trim point multiplied by number of spells	Spells
Unit cost > 5	Unit cost must be positive and greater than or equal to £5.00	Spells
Unit cost = #.##	Unit cost must be to two decimal places	Spells

Table 12: Mandatory validations between workbooks

Validation	Description	Source
REFC and RECON	The reconciliation workbook cannot be signed off until the reference costs workbooks has been uploaded and vice versa	Unify2
REFC and RECON	The sum of all unit costs and activity in the reference costs workbook must be within +/- 1% of line 33 in the reconciliation worksheet	Unify2
SPELLS and REFC	Total spell costs should be within +/- 0.1% of total FCE inlier and excess bed day costs by each admission type (day case, ordinary elective, and ordinary non-elective short and long stay combined)	Workbooks
SPELLS and REFC	The ratio of the number of FCEs to the number of spells for the same department code and HRG combinations must be greater than or equal to 1	Workbooks
POOLS and REFC	The unit cost (including excess bed days) reported for each department, TFC and HRG combination in POOLS and REFC match	Workbooks
POOLS and REFC	The sum of inlier and excess bed day cost * activity in all cost pool groups for each department, TFC and HRG combination in POOLS and REFC match	Workbooks

Non-mandatory validations

108. Our non-mandatory validations, summarised in Table 13 and described in detail in the following paragraphs, are designed to improve the quality and accuracy of the data. We will build many, if not all, of these into the workbooks. Some will apply to both the main reference costs and the spells collection. We will post regular feedback on the Unify2 forum during the collection window in the form of an Excel spreadsheet showing each trust's validations.

109. There may be valid reasons for data not passing a non-mandatory validation check. A trust may reconfigure a service, causing a large variance in costs between years.

Or unbundling may cause the average costs reported against an HRG to display apparent inconsistency with the HRG design. In these circumstances, there is clearly no need to resubmit the data.

110. Nevertheless, trusts must investigate these validations and make any necessary corrections, confirming they have done so on the self-assessment quality checklist.

Table 13: Non-mandatory validations that require investigation in the reference costs workbook

Validation	REFC/Spells workbook	Worksheet
Cost relativities inconsistent with HRG design	Both	EL, NEL, NES, DC, OPPROC
Costs that do not cover the costs of a high cost device	Both	EL, NEL, NES, DC, OPPROC
Day case unit costs more than double ordinary elective unit costs	Both	DC, EL
Market share of costs or activity is greater than 5%	REFC	All
Mental health care cluster and admitted patient care	REFC	MHCC
Outliers	Both	All
Paediatric critical care HRGs	REFC	PNCC
Same costs against different currencies	REFC	EL, NEL, NES, DC, OPROC
Single professional outpatient attendance unit costs greater than multi professional unit costs	REFC	OPATT
Spinal cord injuries and TFC 323	REFC	OPATT
Unit costs over £50,000	Both	All
Unit costs under £5	Both	All
Variance between reference cost years is greater than 25%	REFC	Summary

Cost relativities inconsistent with HRG design

111. Reference costs sometimes produce cost relativities that are inconsistent with the clinical design of HRGs. Table 14 gives an example from the final 2011-12 dataset. This might be for valid reasons: for example, unbundling results in a lower unit cost for an HRG with a complications and comorbidities split than the same HRG without. In the past, these have resulted in numerous pricing adjustments when draft tariff prices are sense checked with clinicians and other stakeholders. We are introducing a non-mandatory validation into the 2012-13 reference costs workbook to test HRG cost relativities. Trusts must investigate any costs that are flagged.

Table 14: Inconsistent HRG cost relativities

Dept code	HRG	HRG name	Unit cost £	No. FCEs
DC	HB55C	Minor Hand Procedures for Non-Trauma, Category 2, without CC	1,095	864
DC	HB56C	Minor Hand Procedures for Non-Trauma, Category 1, with CC	1,171	39

Costs that do not cover the cost of a high cost device

112. The reference costs workbook will highlight a small number of HRGs where the activity should always include a high cost device, and an expected minimum cost for that device. Trusts must investigate all HRG unit costs that are less than the expected minimum.

113. Table 15 lists examples of this validation from the final 2011-12 data set.

Table 15: HRGs where the reported costs were less than the cost of a high cost device, 2011-12

HRG	HRG name	Minimum expected cost £	Lowest reported cost £	Reported cost / Minimum expected cost	% of FCEs with unit costs below minimum expected
AB07Z	Insertion of neurostimulator or intrathecal drug delivery device	5,000	168	3%	37%
CZ25N	Cochlear Implants with CC	14,000	1,225	9%	7%
CZ25Q	Cochlear Implants without CC	14,000	781	6%	18%
FZ42A	Wireless Capsule Endoscopy, 19 years and over	400	64	16%	19%
FZ42B	Wireless Capsule Endoscopy, 18 years and under	400	73	18%	8%
RC11A	Endovascular Stent Graft for Ruptured Abdominal Aortic Aneurysm, One Branched Stent Graft	4,000	801	20%	32%
RC11B	Endovascular Stent Graft for Ruptured Abdominal Aortic Aneurysm, One Fenestrated Stent Graft	4,000	1,169	29%	33%
RC11C	Endovascular Stent Graft for Ruptured Abdominal Aortic Aneurysm, One Stent Graft	4,000	142	4%	21%
RC11D	Endovascular Stent Graft for Ruptured Abdominal Aortic Aneurysm, Two Stent Grafts	8,000	338	4%	43%
RC11E	Endovascular Stent Graft for Ruptured Abdominal Aortic Aneurysm, Three or more Stent Grafts	12,000	1,541	13%	58%
RC12A	Infrarenal or Aorto-Uni-Iliac Endovascular Stent Graft for Non-Ruptured Abdominal Aortic Aneurysm, One Branched Stent Graft	4,000	124	3%	11%
RC12B	Infrarenal or Aorto-Uni-Iliac Endovascular Stent Graft for Non-Ruptured Abdominal Aortic Aneurysm, One Fenestrated Stent Graft	4,000	212	5%	7%
RC12C	Infrarenal or Aorto-Uni-Iliac Endovascular Stent Graft for Non-Ruptured Abdominal Aortic Aneurysm, One Stent Graft	4,000	1,033	26%	13%
RC12D	Infrarenal or Aorto-Uni-Iliac Endovascular Stent Graft for Non-Ruptured Abdominal Aortic Aneurysm, Two Stent Grafts	8,000	154	2%	53%
RC12E	Infrarenal or Aorto-Uni-Iliac Endovascular Stent Graft for Non-Ruptured Abdominal Aortic Aneurysm, Three or more Stent Grafts	12,000	1,211	10%	54%
RC13A	Other Endovascular Stent Graft for Non-Ruptured Abdominal Aortic Aneurysm, One Branched Stent Graft	4,000	270	7%	19%
RC13B	Other Endovascular Stent Graft for Non-Ruptured Abdominal Aortic Aneurysm, One Fenestrated Stent Graft	4,000	4,691	117%	0%
RC13C	Other Endovascular Stent Graft for Non-Ruptured Abdominal Aortic Aneurysm, One Stent Graft	4,000	106	3%	15%
RC13D	Other Endovascular Stent Graft for Non-Ruptured Abdominal Aortic Aneurysm, Two Stent Grafts	8,000	395	5%	27%
RC13E	Other Endovascular Stent Graft for Non-Ruptured Abdominal Aortic Aneurysm, Three or more Stent Grafts	12,000	202	2%	48%

Day case unit costs more than double ordinary elective unit costs

114. We would generally expect the same HRG to cost less in a day case setting than in an elective setting. Trusts must investigate and make any necessary corrections where day case unit costs that are more than double the elective unit cost for the same HRG. Table 16 gives some examples from the final 2011-12 data set. In these examples, the ordinary elective unit costs are of uncertain credibility.

Table 16: Day case more than double elective unit costs, 2011-12

HRG	HRG description	Day case unit cost £	Day case FCEs	Elective unit cost £	Elective FCEs	Ratio of day case to elective unit cost
HB54B	Intermediate Hand Procedures for Non-Trauma, Category 1, with CC	1,828	4	6	1	293
HB71C	Major Elbow and Lower Arm Procedures for Non-Trauma, without CC	1,313	2	6	1	211
PA34B	Musculoskeletal or Connective Tissue Disorders, without CC	1,313	2	6	1	211

HRG	HRG description	Day case unit cost £	Day case FCEs	Elective unit cost £	Elective FCEs	Ratio of day case to elective unit cost
LB65B	Major Endoscopic Kidney or Ureter Procedures, 19 years and over without Major CC	5,591	33	38	29	147
WA20Y	Examination, Follow-up or Special Screening, without CC	373	3	3	1	134

Market share of costs or activity is greater than 5%

115. We will query, and trusts must investigate, data returns where the market share of costs or activity within a service (defined as the combination of department code and HRG sub-chapter for acute services, or department code and currency for non-acute services) is greater than 5%.

Mental health care cluster and admitted patient care

116. We will query, and trusts must investigate, any cluster days reported in an admitted patient care setting, for mental health care clusters 01, 02 and 03.

Outliers

117. We will use red and amber highlighting in the reference costs workbook to highlight unit costs that are significant outliers from 2011-12 equivalent national mean unit cost. Red for costs that are one-twentieth or twenty times the mean, amber for costs that are one-tenth or ten times the mean. Given the number of HRG changes in 2012-13, we will perform this analysis at HRG level where possible, or at HRG root level where there have been changes.

118. During the collection window, we recommend that organisations refer to the Unify2 verification report, which is updated overnight and shows real time national averages.

119. The feedback we post on the Unify2 forum during the collection will be based on the 2012-13 national mean unit cost calculated in real time during the collection.

120. Very high unit costs are generally understood, although trusts should take care to ensure they have not included costs relating to unbundled services such as critical care. Very low unit costs are of uncertain credibility. Table 17 and Table 18 give some examples from 2011-12.

Table 17: Unit costs that were less than one-twentieth of the national mean, 2011-12

Dept	HRG	Description	Unit cost £	Mean cost £	Ratio of unit cost to mean cost	No of FCEs	Total FCEs
EI	HB54B	Intermediate Hand Procedures for Non-Trauma, Category 1, with CC	6	2,882	7/3238	1	444
NEI_L	VA15B	Multiple Trauma Diagnoses score 24-32, with Interventions score >=45	29	13,798	7/3310	1	39
NEI_L	AA21A	Minor Intracranial Procedures Except Trauma with Other Diagnoses with CC	10	6,096	16/9647	1	727
EI	HA99Z	Other Procedures for Trauma	6	4,302	2/1381	1	634
NEI_L	FZ12J	Major General Abdominal Procedures, 1 year and under with Major CC	20	28,898	3/4279	1	33

Table 18: Unit costs that were more than twenty times the national mean, 2011-12

Dept	HRG	Description	Unit cost £	Mean cost £	Ratio of unit cost to mean cost	No of FCEs	Total FCEs
NEI_S	DZ17C	Respiratory Neoplasms without CC	37,339	559	67	2	876
NEI_L	JC14Z	Skin Therapies Level 2	52,488	803	65	2	307
DC	PA57Z	Examination, Follow-up, Special Screening or other Admissions, with length of stay 1 day or more	22,067	414	53	1	423
NEI_L	EA39Z	Pacemaker Procedure without Generator Implant, including Re-siting and Removal of Cardiac Pacemaker System	243,470	5,916	41	1	630
NEI_S	SA33Z	Diagnostic Bone Marrow Extraction	32,659	862	38	1	589

Paediatric critical care HRGs

121. We expect the trusts in Table 19 to report the majority of the national cost of services provided for HRG XB01Z. We will query any of the trusts not reporting activity against this HRG, and query any other trust reporting against this HRG.

Table 19: Providers of ECMO, ECLS or aortic balloon pump

Code	Name
RBS	Alder Hey Children's NHS Foundation Trust
RQ3	Birmingham Children's Hospital NHS Foundation Trust
RP4	Great Ormond Street Hospital For Children NHS Trust
RJ1	Guy's and St Thomas' NHS Foundation Trust
RR8	Leeds Teaching Hospitals NHS Trust
RT3	Royal Brompton and Harefield NHS Foundation Trust
RHM	Southampton University Hospitals NHS Trust
RTD	The Newcastle Upon Tyne Hospitals NHS Foundation Trust
RA7	University Hospitals Bristol NHS Foundation Trust
RWE	University Hospitals of Leicester NHS Trust

122. Only the trusts in Table 20 with paediatric intensive care units are expected to report costs against HRGs XB02Z to XB05Z. We will query any of the trusts not reporting activity against these HRGs, and query any other trust reporting against these HRGs.

Table 20: Providers with paediatric intensive care units

Code	Name
RBS	Alder Hey Children's NHS Foundation Trust
RNJ	Barts and the London NHS Trust
RQ3	Birmingham Children's Hospital NHS Foundation Trust
RGT	Cambridge University Hospitals NHS Foundation Trust
RW3	Central Manchester University Hospitals NHS Foundation Trust
RP4	Great Ormond Street Hospital for Children NHS Trust
RJ1	Guy's and St Thomas' NHS Foundation Trust
RWA	Hull and East Yorkshire Hospitals NHS Trust
RYJ	Imperial College Healthcare NHS Trust
RJZ	King's College Hospital NHS Foundation Trust
RR8	Leeds Teaching Hospitals NHS Trust
RVJ	North Bristol NHS Trust
RX1	Nottingham University Hospitals NHS Trust
RTH	Oxford Radcliffe Hospitals NHS Trust

Code	Name
RT3	Royal Brompton and Harefield NHS Foundation Trust
RCU	Sheffield Children's NHS Foundation Trust
RTR	South Tees Hospitals NHS Foundation Trust
RHM	Southampton University Hospitals NHS Trust
RJ7	St George's Healthcare NHS Trust
RTD	The Newcastle Upon Tyne Hospitals NHS Foundation Trust
RJE	University Hospital of North Staffordshire NHS Trust
RA7	University Hospitals Bristol NHS Foundation Trust
RWE	University Hospitals of Leicester NHS Trust

Same costs against different HRGs

123. Earlier costing guidance included a minimum requirement for trusts to profile accurately the costs of HRGs that cover at least 80% of cost and activity at each point of delivery by treatment function code, with standard costs allowable for the remaining 20%. The 2011-12 guidance removed this discretion. Given that HRGs are iso-resource and expected to have different costs, it is inappropriate to report the same costs against multiple HRGs.

124. We recognise that trusts without PLICS may apply a traditional top down costing methodology in which costs are allocated from the general ledger to specialties to HRGs. Nevertheless, we are concerned at the apparent lack of sophistication in some of the reported reference costs for 2011-12, for example:

    (a) a single cost applied across all non-elective short stays regardless of specialty and regardless of HRG
    (b) a single cost applied to all HRGs in a specialty
    (c) a single cost applied to all HRG splits in a root HRG
    (d) emergency medicine HRG costs that have no regard to whether the patient is admitted or not
    (e) critical care HRG costs that have no regard to the number of organs supported.

125. Boards, or their Audit Committees, will wish to be mindful of the extent to which same costs are applied to different activities before approving the costing process.

Single professional outpatient attendance unit costs greater than multi professional unit costs

126. We would generally expect an outpatient attendance where one care professional was present to cost less than an attendance where more than one care professional was present. We will query, and trusts must investigate, all single-professional unit costs (HRGs in WF01*) that are more than double the multi-professional unit cost (HRGs in WF02*) for the same outpatient attendance in the same TFC. Table 21 gives some examples from 2011-12.

Table 21: Single professional more than double multi professional outpatient attendance unit costs, 2011-12

Consultant led / non consultant led	TFC	TFC description	WF01* unit cost	No. of attendances	WF01* unit cost	No. of attendances	Ratio of WF01* to WF02* unit cost
CL	140	Oral surgery	147	3,289	7	1	20
CL	291	Paediatric neuro-disability	471	667	24	352	20
CL	302	Endocrinology	279	883	17	2	16
NCL	101	Urology	219	1,040	14	9	16
CL	291	Paediatric neuro-disability	486	443	37	35	13

Spinal cord injuries and TFC 323

127. The specialised services national definition set (SSNDS) for specialised spinal services[25] [26] designates eight specialist spinal cord injury centres (Table 22). Only these centres should use TFC 323 to submit costs and activity for patients with spinal cord injuries.

Table 22: Specialist spinal cord injury centres

Code	Centre
RXQ	Buckinghamshire Hospitals NHS Trust
RXF	Mid Yorkshire Hospitals NHS Trust
RNZ	Salisbury NHS Foundation Trust
RHQ	Sheffield Teaching Hospitals Foundation NHS Trust
RTR	South Tees Acute Hospitals NHS Trust
RVY	Southport and Ormskirk Hospital NHS Trust
RL1	The Robert Jones and Agnes Hunt Orthopaedic Hospital NHS Trust
RAN	The Royal National Orthopaedic Hospital NHS Trust

Unit costs over £50,000

128. Admitted patient care HRG unit costs over £50,000 generally reflect episodes of complex and costly patient care returned by specialist hospitals. Table 23 gives some examples from the final 2011-12 dataset.

Table 23: Unit costs over £50,000 in admitted patient care HRGs, 2011-12

Department	HRG	Description	Unit cost	Mean unit cost	FCEs
NEI_L	FZ12J	Major General Abdominal Procedures, 1 year and under with Major CC	422,546	28,898	1
NEI_L	PA26A	Other Gastrointestinal Disorders with CC	280,173	2,581	1
NEI_L	SA28B	Peripheral Blood Stem Cell Transplant, Allogeneic, 18 years and under	278,041	90,963	1
NEI_L	EA39Z	Pacemaker Procedure without Generator Implant, including Re-siting and Removal of Cardiac Pacemaker System	243,470	5,916	1
EI	FZ79A	Complex General Abdominal Procedures with Major CC	225,952	12,332	1

[25] http://www.specialisedservices.nhs.uk/doc/specialised-spinal-services-all-ages
[26] The NHS Commissioning Board is currently consulting on draft service specifications for specialised services at http://www.commissioningboard.nhs.uk/2012/12/12/ssc-consult/

129. Unit costs over £50,000 in other settings are rare and generally relate to the cystic fibrosis year of care currency or high cost drugs. Table 24 gives some examples of uncertain credibility from the final 2011-12 dataset.

Table 24: Unit costs over £50,000 in other settings, 2011-12

Department	Service	Currency	Description	Unit cost £	Mean unit cost £	Activity
DA	DADS	DAPF	Direct Access Plain Film	220,339	30	2
CL	308	WF01A	Non-Admitted Face to Face Attendance, Follow-up	133,774	371	11
RADTHPY	IP	SC49Z	Preparation for Superficial Radiotherapy with Simple Calculation	84,571	5,585	1
DIAGIMOP	211	RA37Z	Nuclear Medicine, Category 3	51,845	238	1

130. Trusts must investigate all unit costs over £50,000.

Unit costs under £5

131. Table 25 gives some examples of some admitted patient care unit costs that were under £5 in the 2011-12 dataset.

Table 25: Unit costs under £5, 2011-12

Department	HRG	Description	Unit cost £	Mean unit cost £	FCEs
NEI_S	LA08F	Chronic Kidney Disease with length of stay 1 day or less, not associated with Renal Dialysis	1.52	488	1
DC	HD40A	Malignancy of Bone or Connective Tissue, with Major CC	1.50	325	8
DC	LB36Z	Extracorporeal Lithotripsy	1.43	502	129
EI	GA10E	Laparoscopic Cholecystectomy, 19 years and over, with length of stay 0 days, without CC	0.91	1,697	1
NEI_S	AA22A	Non-Transient Stroke or Cerebrovascular Accident, Nervous System Infections or Encephalopathy, with CC	0.63	586	1

132. Trusts we spoke to suggested that small costs might arise when patients are immediately discharged, or transferred to another consultant. Whether such reasons would apply to all relevant records in the final dataset, or such costs would be under £5 in admitted patient care, is not understood. We are therefore introducing a mandatory validation in 2012-13 to ensure that all HRG unit costs in admitted patient care, outpatients, and unbundled services are greater than £5.

133. Low unit costs are expected for some services, for example some pathology tests have a mean cost under £5. Trusts must investigate unit costs under £5 for all other services.

Variances between reference cost years is greater than 25%

134. Trusts must investigate variances between their 2012-13 and 2011-12 reference costs that are greater than 25%. The analysis should be at least at department level for non-acute services, and at HRG subchapter level for acute services.

Self-assessment quality checklist

135. The checklist at Table 26 builds on the Audit Commission's quality checklist introduced in 2011-12, and must be completed in Unify2 by all trusts as part of their 2012-13 return.

Table 26: Self-assessment quality checklist

Check	Response
Total costs: The 2012-13 reference costs quantum has been fully reconciled to the signed annual accounts through completion of the reconciliation statement workbook in line with guidance	o Fully reconciled to within +/- 1% of the signed annual accounts o Fully reconciled to within +/- 1% of the draft annual accounts [state reason]
Total activity: The activity information used in the reference costs submission has been fully reconciled to the Hospital Episode Statistics and documented	o Fully reconciled and documented o Partly reconciled o Not reconciled o n/a – reconciliation completed but to another source [state reason]
Sense check: All unit costs under £5 have been reviewed and are justifiable (direct access pathology services are exempt)	o All unit costs under £5 reviewed and justified [state reason] o n/a – no costs under £5 within the submission
Sense check: All unit costs over £50,000 have been reviewed and are justified	o All unit costs over £50,000 reviewed and justified [state reason] o n/a – no costs over £50,000 within the submission
Sense check: All unit cost outliers (defined as less than one-tenth or more than ten times the previous year's national mean average unit cost) have been reviewed and are justifiable	o All unit cost outliers reviewed and justified [state reason] o n/a – no unit cost outliers within the submission
Benchmarking: Data has been benchmarked where possible[27] against national data for individual unit costs and for activity volumes (this information is available in the Audit Commission's National Benchmarker)	o All cost and activity data within the submission has been benchmarked using the Audit Commission's National Benchmarker prior to submission o All cost and activity data within the submission has been benchmarked using another benchmarking process [state] o Some but not all cost and activity data within the submission has been benchmarked using the Audit Commission's National Benchmarker prior to submission o Some but not all cost an activity data within the submission has been benchmarked using another benchmarking process [state] o No benchmarking performed on the cost data prior to submission

[27] Allowing for the significant number of HRG changes in 2012-13.

Check	Response
Data quality: Assurance is obtained over the quality of data for 2012-13	o An external audit has been performed on data quality for 2012-13 o An internal audit has been performed on data quality for 2012-13 o Internal management checks have provided assurance over data quality for 2012-13 o Assurance has been obtained over data quality but not for 2012-13 o No assurance has been obtained over data quality
Data quality: Assurance is obtained over the reliability of systems	o An external audit has been performed on system reliability for 2012-13 o An internal audit has been performed on system reliability for 2012-13 o Internal management checks have provided assurance over system reliability for 2012-13 o Assurance has been obtained over system reliability but not for 2012-13 o No assurance has been obtained over system reliability
Data quality: Where issues have been identified in the work performed on the 2012-13 data and systems, these issues have been resolved to mitigate the risk of inaccuracy in the 2012-13 reference costs submission	o All exceptions have been resolved and the risk of inaccuracy in the 2012-13 reference costs submission fully mitigated o Some exceptions have been resolved but not all o Exceptions have all been resolved going forward but there is an historical risk to the accuracy of the 2012-13 reference costs submission due to resolution being during 2012-13 and not being applied retrospectively o Exceptions have yet to be resolved o n/a – no exceptions noted
Data quality: All other non-mandatory validations as specified in the guidance and workbooks have been investigated and necessary corrections made	o All non-mandatory validations have been investigated and necessary corrections made o All non-mandatory validations have been investigated and some but not all necessary corrections have been made [specify and state reason] o No non-mandatory validations have been investigated [state reason] o n/a – no non-mandatory validations have occurred

Board approval and Finance Director sign off

136. The onus on the production of sound, accurate and timely data that is right first time rests with each NHS organisation. In 2012-13, in addition to the existing requirement for Finance Directors to sign off the data, we are adding a requirement for Boards to approve the costing process. Approval will be on the process and methodology of costing rather than the costs themselves, and will take place in advance of the submission of the reference cost return. This change is designed to raise the profile of costing. It is intended that some trusts' confirmations will be subject to external review as part of a wider external assurance programme.

137. The Board of each NHS trust and NHS foundation trust, or its Audit Committee or other appropriate sub-committee, is therefore required to confirm that it is satisfied with the trust's costing processes and systems, and that the trust has submitted its reference cost return in accordance with guidance. In providing this confirmation, Boards may wish to satisfy themselves that procedures are in place to ensure that the self-assessment quality checklist can be completed at the time of the reference cost submission. Trusts that are unable to provide this confirmation should provide details of non-compliance. Specifically, Boards are required to confirm that:

    (a) costs have been prepared with due regard to the principles and standards set out in Monitor's *Approved Costing Guidance.*
    (b) appropriate costing and information capture systems are in operation
    (c) costing teams are appropriately resourced to complete the reference costs return accurately within the timescales set out in the reference costs guidance
    (d) procedures are in place such that the self assessment quality checklist will be completed at the time of the reference costs return.

138. The Finance Director is required to sign off the reference costs return, confirming that:

    (a) the Board has approved the costing process ahead of the collection
    (b) the return has been reconciled internally and is an accurate reflection of cost and activity terms of the services provided
    (c) finance teams have actively engaged clinicians and other relevant non-finance stakeholders in the costing process
    (d) the self-assessment quality checklist has been completed and used to improve quality and to provide assurance to the Department about the accuracy of the return.

Section 3: Admitted patient care and day care facilities

Introduction

139. This section covers the following types of admitted patient care:

    (a) day case electives[28]
    (b) ordinary electives[29] [30]
    (c) ordinary non-elective short stays and long stays
    (d) regular day or night admissions[31].

140. It also covers regular attendances at day care facilities for stroke, elderly and other patients.

141. Trusts must submit their admitted patient care costs by FCE, TFC and HRG. It is for trusts to decide which TFC to use for a given service.

142. Trusts must also submit, in a separate spells workbook, their admitted patient care costs (excluding regular day or night admissions) by spell and HRG.

143. The HRG4 2012-13 Reference Costs Grouper will attach a core HRG to every FCE or spell. Trusts will only report core HRGs here. Trusts will report unbundled HRGs separately (Section 5).

Issues affecting the collection of FCE costs

144. The following paragraphs cover issues that affect the regular collection of FCE costs and, unless otherwise indicated, spell costs.

Ordinary non-elective short stays and long stays

145. NHS providers should return data for each type of patient admission that has occurred. Patients who have a planned admission as an ordinary elective but are allowed home on the same day will be recorded on some patient administration systems (PAS) as an ordinary elective admission with a length of stay of zero. For consistency, such admissions will have a standard length of stay definition of date of discharge less date of admission plus one. This adjustment should be made after filtering out services reported using bed days rather than FCEs, e.g. critical care, rehabilitation and specialist palliative care, and after grouping the data.

146. Short stay costs and activity inform the calculation of the short stay emergency adjustment in the national tariff. All ordinary non-elective activity in the FCE and spell

[28] http://www.datadictionary.nhs.uk/data_dictionary/attributes/p/pati/patient_classification_de.asp?shownav=1

[29] http://www.datadictionary.nhs.uk/data_dictionary/attributes/p/pati/patient_classification_de.asp?shownav=1

[30] http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/e/elective_admission_de.asp?shownav=1

[31] http://www.datadictionary.nhs.uk/data_dictionary/attributes/p/pati/patient_classification_de.asp?shownav=1

collections must therefore be separately identified as

(a) short stay – average length of stay (number of inlier plus excess bed days divided by number of FCEs) less than or equal to one day, using patient type code NEI_S
(b) long stay – length of stay two days or more than one day, using patient type code NEI_L.

147. The decision about whether an admission is short stay or long stay should be taken after, not before, length of stay adjustments for critical care, rehabilitation and specialist palliative care.

148. The short and long stay categories are mutually exclusive. For example, a two day episode would not be reported as one short stay episode plus an excess bed day, but instead the whole two day episode would be reported as a single long stay episode.

149. The Grouper automatically adds one day to admitted patient care activity with a zero length of stay, so short stay care should always be activity with a length of stay of one. The Grouper reports are created at individual FCE level, including the episode duration field, which provides the length of stay in days.

Excess bed days and trim points

150. Excess bed day costs must be reported separately for FCEs but not for spells. Spell unit costs should be untrimmed.

151. For each HRG there are a small number of FCEs which have an abnormally high length of stay. Instead of excluding outliers, which would skew the actual mean length of stay for an HRG, only excess bed days beyond the upper trim point should be excluded from the inlier cost. This means that all episodes will be included and costed within the HRG including those which have been truncated. The excess bed days beyond the trim point should be costed separately and a cost per bed day reported. This eliminates outlier FCEs and introduces a standard treatment for truncated episodes and excess bed days.

152. The cost per day for excess bed days should include only the costs associated with the time based ward costing pool, and any associated variable costs. This is primarily low intensity nursing, drugs, dressings, therapies, and hotel costs. We would expect that care of patients is less intensive than at the beginning of the FCE and thus costs will be less per day than for the truncated HRG.

153. Given that the costs may vary by admission method, costs and activity for excess bed days should be reported separately for ordinary elective and non-elective FCEs. The Grouper splits these between ordinary electives and non-electives as a matter of course. Excess bed days need to be calculated, as a minimum, on the basis of their total cost divided by their number.

154. Trusts should use the trim points included in the HRG4 2012-13 Reference Costs Grouper and supporting documentation to calculate HRG length of stay and associated excess bed days.

155. Some HRGs have a trim point of 32,000. This is due to insufficient data available to calculate valid trim points or where maximum length of stay logic is included in the HRG4 design. These trim points are also valid.

UZ01Z

156. From 2012-13, HRG UZ01Z, Data invalid for grouping, will have a trim point of 32,000 rather than zero. Therefore, trusts should report UZ01Z codes occurring in ordinary elective and non-elective settings as inlier FCE unit costs, with the associated number of FCEs and inlier bed days, rather than unit costs per excess bed day as previously. Trusts should continue to report UZ01Z codes occurring in day case or regular day or night admission settings as FCE inlier costs, given that by their nature there are no bed days associated with this activity.

157. We exclude UZ01Z costs from the calculation of the reference cost index (RCI). The national tariff for UZ01Z is zero to encourage evaluation of this activity and minimise its use.

Regular day or night admissions

158. Regular day or night admissions[32] are reported in the FCE collection (but not the spells collection) as a single, separate category, matched to the relevant HRG and TFC. Admissions for specialist care such as cystic fibrosis, radiotherapy, or renal dialysis should be reported against the relevant sections of the collection, and not here.

Devices

159. Costs and activity relating to all devices, even if currently excluded from PbR, should be included in the admitted patient care and outpatient worksheets, against the HRG to which they relate. To assist tariff development, the number and total cost of the devices listed in Table 27, and the number of patients to which they were fitted, should also be reported for admitted patient care and outpatient attendance settings in the reconciliation statement workbook.

Table 27: Devices to include in the reconciliation statement workbook

Device	Comment
3 dimensional mapping and linear ablation catheters used for complex cardiac ablation procedures	
Aneurysm coils and flow diverters for intracranial aneurysms	Added ‘and flow diverters for intracranial aneurysms’
Bespoke orthopaedic prostheses	Bespoke prostheses designed and manufactured for individual patients plus modular limb salvage replacements for femur or shoulder (non CE marked)
Biological mesh	
Bone anchored hearing aids (BAHA)	
Bone growth stimulators	
Circular external fixator frame	
Cochlear implants	Added to track cost of implants

32 http://www.datadictionary.nhs.uk/data_dictionary/attributes/p/pati/patient_classification_de.asp?shownav=1

Device	Comment
Consumables associated with per oral single operator cholangioscope	
Consumables for robotic surgery	
Devices used in connection with pulmonary artery banding	
Drug-eluting peripheral angioplasty balloon	
ICD with cardiac resynchronisation therapy (CRT) capability	Bi-ventricular (three leads)
Implantable cardioverter-defibrilator (ICD)	Single or dual chamber (one or two leads)
Insulin pumps and pump consumables	
Intracranial stents	
Intrathecal drug delivery pumps	
Pacemaker extraction sheaths	Changed from laser sheath
Maxillofacial bespoke prostheses	
Neurostimulation devices: deep brain	
Neurostimulation devices: occipital nerve	
Neurostimulation devices: sacral	
Neurostimulation devices: spinal cord	
Neurostimulation devices: vagal	
Occluder, vascular, appendage and septal devices	Added ‘appendage’
Percutaneous valve repair and replacement devices for mitral and pulmonary valve only	Added ‘for mitral and pulmonary valve only’
Percutaneous valve replacement devices for TAVI	Added to track cost of TAVI valves
Radiofrequency, cryotherapy and microwave ablation probes and catheters	When used for treating tumours. Added “and catheters”.
Stents: carotid, iliac and renal stents	Includes embolic protection devices
Stents: endovascular stent graft	Includes aortic stent grafts
Stents: peripheral vascular stents	Includes peripheral vascular drug eluting stents
Ventricular assist devices (VAD) and prosthetic hearts	Added ‘and prosthetic hearts’

160. Costs and activity for fixtures for a BAHA should be reported against CZ27Z. Fitting of a BAHA, including the cost of the device, should be reported against CZ28Z. Maintenance of BAHAs in outpatients remains excluded from reference costs.

161. Costs submitted against cochlear implant HRGs should cover the cost of the external processor (which may be activated at a later time) as well as the cochlear implant itself.

162. Our non-mandatory validations include a minimum expected cost for a small number of HRGs where the activity should always include a high cost device (paragraph 112).

Drugs

163. The high cost drug OPCS codes, and therefore the unbundled high cost drug HRGs (paragraph 310), do not capture all high cost drugs. Others are included in core HRGs. To inform tariff development, the costs of the drugs in Table 28 should be reported in the relevant unbundled or core HRG (except cystic fibrosis drugs which should be excluded from the year of care currencies for cystic fibrosis (paragraph 538)). They should also be reported in the drugs and devices worksheet in the

reconciliation statement workbook (paragraph 612), except when used in chemotherapy to treat neoplasms.

Table 28: High cost drugs

Drug name	Rationale for collecting costs in drugs and devices worksheet
Alisporivir	PbR exclusion from 2013-14
Aztreonam Lysine (when delivered via nebulisation/inhalation)*	To collect cystic fibrosis and non-cystic fibrosis costs
Cinacalcet	Renal drug being monitored for future use in tariff
Cobicistat	PbR exclusion from 2013-14
Colistimethate sodium (when delivered via nebulisation/inhalation)*	To collect cystic fibrosis and non-cystic fibrosis costs
Collagenase	PbR exclusion from 2013-14
Conestat alfa	PbR exclusion from 2013-14
Darbopoetin alfa	Renal drug being monitored for future use in tariff
Dimethyl fumarate	PbR exclusion from 2013-14
Dolutegravir	PbR exclusion from 2013-14
Dornase alfa (when delivered via nebulisation/inhalation)*	To collect cystic fibrosis and non-cystic fibrosis costs
Elvitegravir	PbR exclusion from 2013-14
Elvitegravir with Cobicistat, Emtricitabine and Tenofovir	PbR exclusion from 2013-14
Epoetin alfa	Renal drug being monitored for future use in tariff
Epoetin beta	Renal drug being monitored for future use in tariff
Epoetin zeta	Renal drug being monitored for future use in tariff
Faldaprevir	PbR exclusion from 2013-14
Gammanorm	PbR exclusion in 2012-13 (but not coded)
Hizentra	PbR exclusion in 2012-13 (but not coded)
Ivacaftor	PbR exclusion from 2013-14
Lanthanum	Renal drug being monitored for future use in tariff
Laquinimod	PbR exclusion from 2013-14
Mannitol*	To collect cystic fibrosis and non-cystic fibrosis costs
Pazopanib	PbR exclusion from 2013-14
Sevelamer	Renal drug being monitored for future use in tariff
Simeprevir	PbR exclusion from 2013-14
Teriflunomide	PbR exclusion from 2013-14
Tobramycin (when delivered via nebulisation/inhalation)*	To collect cystic fibrosis and non-cystic fibrosis costs
Treprostinil sodium	PbR exclusion from 2013-14
Turoctocog alfa	PbR exclusion from 2013-14

* these drugs should be reported separately for cystic fibrosis (by the currency bandings 1 to 5) and for other care

Multiple trauma

164. We would expect activity in the higher scoring sub-chapter VA HRGs to be concentrated in the 22 major trauma centres.

Renal transplants

165. We are working with NHS colleagues on the development of a currency and tariffs for

renal (kidney) transplants, and we plan to introduce the currency on a mandatory basis in 2013-14.

166. All trusts submitting these costs should read *Reference costs for kidney transplantation: Review of data quality and action plan for improvement (NHS Kidney Care, May 2012)*[33]. It includes a bottom up costing template and a number of basic rules:

    (a) kidney transplants from deceased donors (HRGs LA01* and LA02*) are carried out as non-electives
    (b) kidney transplants from live donors (LA03*) are carried out as electives
    (c) non-elective short stays are very unlikely.

167. The transplant pathway is broken down into three main elements that map to relevant HRGs, as follows:

Preparation for transplantation (recorded at each visit)

LA10* Live donor screening
LA11* Kidney pre-transplantation work-up - live donor
LA12* Kidney pre-transplantation work-up of recipient

The transplant episode

LA01* Kidney Transplant from Cadaver non-heart beating donor
LA02* Kidney Transplant from Cadaver heart beating donor
LA03* Kidney Transplant from Live donor
LB46* Live Donation of Kidney

Post transplantation outpatients (recorded at each visit)

LA13* Examination for post-transplantation of Kidney
LA14* Examination for post-transplantation of Kidney of live donor

168. We recognise that clinical coding is not nationally mandated when a procedure takes place in an outpatient setting and, unless locally mandated, pre and post transplant HRGs may not be automatically generated. It may therefore be necessary to liaise with the renal unit to manually adjust activity where appropriate to reflect the fact that this pre and post transplant activity is taking place. We would encourage this issue to be raised with renal clinicians and the clinical coding team to ensure the activity is accurately coded in future. The separate reporting of activity (and costs) against these pre- and post-transplant HRGs is essential to recognise the fact that non-transplanting units may undertake this activity but not the transplant itself.

169. Where a kidney is rejected by a patient after discharge from hospital (the inpatient transplant episode), and readmission is required, a new spell of care should be recorded.

170. NHS Blood and Transplant (NHSBT) record all kidney transplants in real time. As a matter of course, this information, available from an organisation's renal transplant unit, should be used as a validation check against reference cost activity.

[33] http://www.kidneycare.nhs.uk/resources/?dispFolder=458

171. The kidney transplant expert working group are currently developing more detailed costing guidance which will include details of how histocompatability testing and specific transplant drugs should be treated, i.e. included or excluded from the cost of kidney transplant HRGs. Further guidance will follow.

172. As far as possible, costs related to pre and post transplant activity should not be included within the composite cost of the transplant episode (recipient or donor), but identified and reported separately in HRGs LA10* to LA12* and LA13* to LA14* respectively.

173. All pre transplantation outpatient activity, related to both recipient and any potential living donor, should be recorded against the appropriate LA10* to LA12* HRG each time the patient is seen within an outpatient clinic, including initial assessment and whilst being maintained on the transplant waiting list. All relevant costs should be included, as follows (this is not an exhaustive list):

    (a) Initial assessment clinic (suitability for transplant), including:
        (i) Cardiology tests (echocardiogram, ECG, angiogram, exercise ECG)
        (ii) Nuclear medicine tests (stress MIBI)
        (iii) Microbiology tests
        (iv) Registration on local kidney transplant waiting list
        (v) Registration on ODT (UK Transplant) kidney transplant waiting list
    (b) Follow up outpatient activity whilst maintaining patient on the list (whilst awaiting transplant), including
        (i) Cardiology tests (echocardiogram, ECG, angiogram, exercise ECG)
        (ii) Vascular lab tests (duplex scans)
        (iii) Nuclear medicine tests (stress MIBI)
        (iv) Pathology (FBC, clotting screen)
        (v) Radiology (chest x-ray, CT abdo, abdo ultrasound).

174. The HRGs related to the actual transplant inpatient episode will be automatically generated through the HRG grouper and all relevant costs should be included, as follows (this is not an exhaustive list):

    (a) pre operative checks and tests
    (b) the kidney transplant procedure (in theatre)
    (c) any required readmission to theatre (whilst the patient is still in hospital)
    (d) all post operative inpatient care
    (e) stent removal.

175. The cost of kidney transplants should also include the costs incurred of matching to suitable donors. Costs relating to a deceased donor should be included in the composite costs of the relevant recipient HRGs (LA01* and LA02*). Costs related to live donors should be included as part of the relevant donor HRG.

176. Currencies for antibody incompatible recipient transplantation are still in development. Activity and costs related to this should not be included within the transplant HRGs LA01* to LA03* HRGs, but reported separately.

177. All post transplantation outpatient activity, related to both recipient and any potential living donor, should be recorded against the appropriate HRGs LA13* to LA14*, each time the patient is seen within an outpatient clinic, including annual reviews. All

relevant costs should be included, as follows (this is not an exhaustive list):

(a) all relevant pathology tests
(b) antibody monitoring.

Spell costs

178. We will continue to collect spell costs in addition to FCE costs for admitted patient care in 2012-13, building on lessons learned in 2011-12.

179. Until 2011-12, reference costs had only been reported by FCE, whilst the national tariff for admitted patient care has always been spell based. The conversion of FCE costs into spell costs is complicated, and the collection of spell costs in 2011-12 was designed to support consideration of a move towards a more transparent calculation of the tariff.

180. A hospital provider spell[34] is defined as the period of admission to discharge or death for the same patient at the same provider. Where a patient has multiple distinct admissions on the same day (e.g. a planned day case in the morning, discharged, re-admitted in the afternoon for a second day case and then discharged) then each of these admissions should be counted separately. To be consistent with the FCE collection, only spells ending in 2012-13 should be included (paragraph 62).

181. Spells data will be submitted as follows:

(a) in a separate workbook
(b) for organisation's own costs, ignoring any sub-contracted services (paragraph 58)
(c) by admission method (day case, ordinary elective, ordinary non-elective short stay and ordinary non-elective long stay)
(d) number of spells by HRG. Spells should be assigned based on the SpellReportFlag field in the Grouper. Unlike FCEs, there is no requirement to differentiate spells by TFC
(e) average unit cost per spell by HRG, untrimmed for any excess bed days
(f) number of spell inlier bed days by HRG
(g) number of spell excess bed days by HRG.

182. Except where stated above, the submission of spell costs and activity should be on the same basis as the submission of FCE costs and activity. Each spell cost should be the sum of the inlier and excess bed day costs of each of its constituent FCEs. Ideally, spell costs should be built from patient level costings. Where this is not possible, providers should use FCE average unit costs to construct spell costs.

183. Total spell costs must reconcile to within 0.1% of total FCE inlier and excess bed day costs by each admission method (but with ordinary non-elective short stays and long stays combined for the purpose of this reconciliation).

184. Table 29 and Table 30 illustrate. Annex D gives a worked example for a sample

34 http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/h/hospital_provider_spell_de.asp?shownav=1

dataset, illustrating how FCE costs can be mapped to spell costs.

Table 29: FCE data

A	B	C	D	E	F	G	H	I	J	K=G+H*J
FCE HRG	FCE trim point (days)	Spell HRG	Admission	FCE counts	Spell counts	FCE inlier unit cost	Excess bed day unit cost	Inlier bed days	Excess bed days	Total FCE costs
AA01Z	4	AA01Z	NE	1	1	100	10	4	2	120
AA02Z	3	AA01Z	NE	1	0	75	0	2	0	75
AA03Z	3	AA01Z	NE	1	0	50	0	2	0	50
				3	1			8	2	245

Table 30: Spell data

Spell HRG	Spell trim point (days)	Admission	Spell counts	Untrimmed unit cost	Inlier bed days	Excess bed days
AA01Z	7	NE	1	245	7	3

185. In their 2011-12 spell cost returns, a small number of trusts reported:

(a) FCE to spell ratios that deviated significantly from the national average ratio of 1.16
(b) all their non-elective short stay FCEs as non-elective long stay spells.

186. We are introducing some additional non-mandatory validations in 2012-13 to address these issues.

Cost pools

187. Monitor has suggested that cost pool data could be used for validations, and to provide a richer data set for benchmarking. However, we recognise that not all trusts are ready to submit costs against cost pools. We are therefore piloting a voluntary collection of cost pool data for admitted patient care FCEs (excluding regular day and night admissions), based on definitions of cost pool groups in standard 2 of the *HFMA Acute health clinical costing standards 2013/14*.

188. Standard 2 defines cost pool groups as accumulated types of costs in logical groupings that support analysis, audit and benchmarking of costing. We are using the same definitions of cost pools as in Monitor's PLICS collection (p43, draft *Approved Costing Guidance)*. These differ in a few respects from the *HFMA Acute clinical costing standards*, to support collection of data at a more granular level, and are listed in Table 31.

Table 31: Cost pool groups and sub cost pools

Cost pool group and sub cost pool	Comment
Blood	
Clinical negligence scheme for trusts (CNST)	
Critical care	
Drugs (excluding high cost drugs)	
Emergency department	
Endoscopy unit	

Cost pool group and sub cost pool	Comment
High cost drugs	Include high cost drugs that do not result in an unbundled HRG, as per Table 28
Imaging	Include imaging that does not result in an unbundled HRG (e.g. plain film x-ray)
Medical staffing	
Non-patient care activities	Income from non-patient care activities such as education, training and research (paragraph 567) should not be netted off against costs. The income should be recorded in this data field and the cost should be included in the cost pool groups where appropriate.
Operating theatres	
Other clinical supplies and services	
Other diagnostics	
Other specialist nursing staff	
Outpatients	
Overheads	
Pathology	
Pharmacy services	
Prostheses, implants and devices	
Radiotherapy	
Secondary commissioning costs	
Special procedure suites, excluding endoscopy unit	
Therapies	
Wards	

189. Some of these cost pools are not relevant for admitted patient care, and therefore we would not expect to see costs reported against critical care, emergency department, outpatients or radiotherapy. These columns in the workbook should be left blank.

190. The initial advice we have received from RCAG and others is that the collection should cover all admitted patient care core HRGs rather than a subset of chapters. However, we are inviting wider views on whether it should be for:

    (a) all admitted patient care core HRGs
    (b) a subset (possibly three chapters) of admitted patient care core HRGs, selected because of the significant proportion of costs that they cover, and their relatively lower levels of unbundling, in the form of
        (i) chapter F (digestive system) – which is considered reasonably mature in costing terms
        (ii) chapter H (musculoskeletal system) – which has caused significant problems in previous years in terms of securing clinical agreement to the prices based on reference costs
        (iii) chapter P (diseases of childhood and neonates) – which is diagnosis driven.

191. Our preference is to collect only an average cost pool cost and not an activity count against each cost pool. We define average as the total cost pool cost divided by total number of FCEs for a given HRG, irrespective of whether or not each FCE applied to that cost pool. Table 32 gives a sample dataset at the FCE level, and Table 33 illustrates how this data should be returned. The unit costs submitted against each cost pool group must sum to the combined unit inlier and excess bed day cost

submitted for each department, service and HRG combination.

Table 32: FCE level data

FCE ID	Dept code	TFC	HRG	Activity	Total unit cost (including excess bed days)	Ward unit cost	Operating theatre unit cost	Drugs unit cost
FCE1	DC	100	AA02A	1	150	100	50	0
FCE2	DC	100	AA02A	1	150	100	0	50

Table 33: Cost pool workbook (preferred option)

Dept code	TFC	HRG	Activity	Total unit cost (including excess bed days)	Ward unit cost	Operating theatre cost	Drugs cost
DC	100	AA02A	2	150	100	25	25

192. An alternative option would be to collect an average cost and an activity against each cost pool group, where the activity represents the number of FCEs that apply to the cost pool. Table 34 illustrates how this data would be returned. In this option, the total costs submitted against each cost pool group must sum to the combined total inlier and excess bed day cost submitted for each department, service and HRG combination.

Table 34: Cost pool workbook (alternative option)

Dept code	TFC	HRG	Activity	Total unit cost (including excess bed days)	Ward unit cost	No. of FCEs with a ward cost	Operating theatre unit cost	No. of FCEs with an operating theatre unit cost	Drugs cost	No. of FCEs with a drugs cost
DC	100	AA02A	2	150	100	2	50	1	50	1

193. Our preferred option (Table 33) is designed to minimise the burden of data collection, and to encourage participation from trusts with and without PLICS.

194. Acute trusts participating in this voluntary pilot will do so to the same timetable as the rest of the collection, with the discretion of submitting during a final week in the collection window (paragraph 75), using Unify2 and a separate workbook illustrated above.

195. The workbook will contain a number of basic mandatory validations to ensure that:

(a) the unit cost reported for each department, TFC and HRG combination matches the inlier and excess bed day unit cost reported for that combination in the reference costs workbook
(b) the total cost reported for each department, TFC and HRG combination matches the total cost reported for that combination in the reference costs workbook
(c) the activity reported for each department, TFC and HRG code combination in each cost pool group is always less than or equal to its number of FCEs.

Regular attendances at day care facilities

196. In costing services provided through day care facilities, the Data Dictionary definition[35] should be used. Day care Facilities catering for elderly, stroke, mental health (paragraph 432), and other patients are included. Facilities catering primarily for the long term physically disabled and learning disability patients are excluded, as are all services for these patients.

197. There is a lack of routinely collected patient information to assess the services provided through these facilities. Available data is limited to patient days, and until further developments are achieved in recording activity, patient days will continue to be the activity and unit cost measure used for reference costs.

198. Often patients attend these facilities for a number of days each week and the number of attendances per patient will vary due to the different nature of the patient's condition. Generally, the number of places each day is fixed, e.g. 20 patients each day over five days gives 100 patient days, or one patient attending one day per week for 20 weeks gives 20 patient days. A conversion should be made from a part day attendance to a patient day for patients attending for only part of a day, e.g. a morning only attendance equals 0.5 patient days.

199. Any additional costs incurred when an admitted patient attends a day care facility, and their bed is not filled but retained for their later use, should be removed from the total cost of the day care facility and reported as part of the composite cost of that admission. No day care facility activity should be counted for such patients.

35 http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/d/day_care_facility_de.asp?shownav=1

Section 4: Outpatient services

Introduction

200. This section covers:

(a) outpatient attendances, including ward attendances
(b) procedure driven HRGs in outpatients.

201. Outpatient attendances and procedures should be reported using the latest HRG4 and TFC currencies. Where a procedure is reported in outpatients, an outpatient attendance cannot also be counted for the same activity. The output of the HRG4 2012-13 Reference Costs Grouper may attach one or more unbundled HRGs to the core HRG produced. Only core HRGs should be reported within this section. Unbundled HRGs should be reported separately (Section 5).

202. The costs of investigations, tests, drugs, devices or other care that do not generate a separate HRG should be included at the point of commitment, up to the point where the patient accesses another service that is separately identified in another area of the reference costs collection.

203. For example, some trusts might provide blood tests as part of a first outpatient attendance. In other trusts, patients might return for blood tests at their convenience or on an appointment basis, prior to a follow up outpatient appointment. In both circumstances, the costs of these tests should be reported as part of the first outpatient attendance only, as they are generally completed prior to a subsequent follow up outpatient attendance and do not generate a separate HRG. But a patient returning for a colonoscopy in outpatients, for example, would generate a separate HRG and these costs would not be included at the point of commitment.

Outpatient attendances

204. Outpatient attendances[36] in HRG4 (WF01* and WF02*), generated from a number of mandated fields in the outpatient CDS, are organised by:

(a) first and follow up attendance
(b) face to face and non face to face attendance
(c) single and multi-professional attendance.

205. Where a patient sees a healthcare professional in an outpatient clinic setting and receives healthcare treatment, this can be counted as valid outpatient activity. NHS providers offer outpatient clinics in a variety of settings and should be included in reference costs where operated by the provider within a contract. This includes clinics outside main hospital sites in premises not owned by the NHS provider, such as GP practice premises.

206. Outpatient clinics held by a clinician or nurse whilst acting in a private capacity, and which are not part of the trust's income stream, are excluded from reference costs.

[36] http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/o/out-patient_attendance_consultant_de.asp?shownav=1

The same rules apply to outpatient clinics held by a clinician or other primary care practitioner as part of any primary medical services contract.

207. Reference costs do not distinguish between attendances that are pre-booked or not. A different consultant other than the one a patient was admitted under seeing that patient (e.g. for psychiatric assessment of a medical patient), should be reported here as a consultant led outpatient attendance. A patient attending a ward for examination or care will be counted as an outpatient attendance if seen by a doctor. If seen by a nurse, they are a ward attendance[37]. No designated worksheet exists for ward attendances, costs and activity for which should be reported here as non consultant led outpatient attendances under the appropriate TFC.

First and follow up

208. First attendances[38] are defined in the Data Dictionary. Follow up attendances are those that follow the first attendance irrespective of whether it happened in a previous financial year. Single professionals seeing a patient sequentially as part of the same clinic should be reported as two separate attendances.

Face to face and non face to face

209. Non face to face contacts[39] should only be included in the collection where there is an opportunity for discussion between patient and healthcare professional. A telephone call to explain the ramifications of test results to a patient would be included, but a telephone call, text or e-mail solely to inform patients of results are excluded.

210. Both face to face and non face to face activity is only valid if it directly entails contact with the patient or with a proxy for the patient, such as the parent of a young child. Contacts with proxies only count if the contact is in lieu of contact with the patient, and the proxy is able to ensure more effectively than the patient that the specified treatment is followed. This is most likely to be the case where the patient is unable to communicate effectively, say for an infant, or for a person who is mentally ill or has learning disabilities.

211. Contacts about the patient, either face to face or non face to face, cannot be counted as valid activity in any service reported in reference costs, with the single exception of cancer multi-disciplinary teams as discussed in paragraph 233. Where organisations are unable to distinguish between face to face and non-face to face activity, all costs for a particular TFC should be reported as face to face activity only.

212. As a general principle, the same patient can access a service as a face to face and non face to face contact in the same financial year. A single patient can therefore

37 http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/w/ward_attendance_de.asp?shownav=1

38 http://www.datadictionary.nhs.uk/data_dictionary/data_field_notes/f/first_attendance_de.asp?query=First%20Attendance&rank=100&shownav=1

39 http://www.datadictionary.nhs.uk/data_dictionary/attributes/c/cons/consultation_medium_used_de.asp?shownav=1

appear in both categories accessing the same service in two different ways. There is no requirement that stipulates that only those patients that have had a face to face contact can be counted as having subsequent non face to face contacts.

213. There are no plans to allow the reporting of triage services as activity rather than an overhead in reference costs. Introducing this without the ability to distinguish between patient facing and non patient facing would compromise HES.

Single and multi-professional

214. The generation of one of the multi-professional HRGs depends on the recording of OPCS codes in the patient record that denote a multi-professional or multi-disciplinary attendance.

215. Multi-professional attendances are defined as multiple care professionals (including consultants) seeing a patient together, in the same attendance, at the same time.

216. Multi-disciplinary attendances are defined as multiple care professionals (including consultants) seeing a patient together, in the same attendance, at the same time when two or more of the care professionals are consultants from different national main specialties.

217. These definitions apply when a patient benefits in terms of care and convenience from accessing the expertise of two or more healthcare professionals at the same time. The clinical input of multi-professional or multi-disciplinary attendances must be evidenced in the relevant clinical notes or other relevant documentation.

218. They do not apply if one professional is simply supporting another, clinically or otherwise, e.g. in the taking of notes, acting as a chaperone, training, professional update purposes, operating equipment and passing instruments. They also do not apply where a patient sees single professionals sequentially as part of the same clinic. Such sequential appointments count as two separate attendances, and should be reported in line with existing Data Dictionary guidance on joint consultant clinics[40].

219. The multi-disciplinary attendance definition does not apply to multi-disciplinary meetings, where care professionals meet in the absence of the patient. Multi-disciplinary meetings should not be recorded as multi-disciplinary attendances.

Consultant led and non consultant led

220. The collection requires consultant led and non consultant led outpatient attendances to be reported separately.

221. Consultant led[41] activity occurs when a consultant retains overall clinical responsibility for the service, team or treatment. The consultant will not necessarily be physically present for each patient's appointment, but takes overall clinical responsibility for patient care. The activity will take place in a consultant clinic,

[40] http://www.connectingforhealth.nhs.uk/systemsandservices/data/nhsdmds/faqs/cds/outpatact/sharedcare

[41] http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/c/consultant_led_activity_de.asp?shownav=1

defined as per the mandatory outpatient attendance CDS type 020, using the consultant code field[42], main specialty code and TFC.

222. Clinics run by general practitioners with a special interest (GPwSI) or specialist therapists are normally taking patients from what would have been a consultant list, and are classed as consultant led activity.

223. Non consultant led activity takes place in a clinic where the consultant is not in overall charge (i.e. any activity not covered in paragraph 221). Again, these clinics are identified in the CDS by default codes for non consultants in the consultant code field, together with the main specialty code and TFC.

HIV and AIDS

224. Costs associated with outpatient services for patients with HIV or AIDS, including testing, contact tracing of former partners etc, should be reported using pseudo code H/A. The costs of antiretroviral therapies should be included in the unbundled high cost drug HRGs (paragraph 316), but the associated costs should be included against pseudo code H/A. Both the first and follow up categories of outpatient attendances may be used.

Paediatric treatment function codes

225. Providers should allocate costs and activity to paediatric TFCs in line with their Data Dictionary definition as “dedicated services to children with appropriate facilities and support staff”. A small number of patients aged over 18 years also receive care in specialist children’s service, including patients with learning disabilities, cystic fibrosis and congenital heart disease. Such activity is assumed to have a similar resource usage to children rather than adults and should also be reported under the relevant paediatric TFC.

226. Costs and activity coded to community paediatricians (TFC 290) should be included against community paediatric services (paragraph 471) and not here.

227. Paediatric neuro-disability (TFC 291) should include all neuro-developmental conditions and not just neurological, including behavioural problems, e.g. autism or attention deficit hyperactivity disorder (ADHD). Neuro-disability work by community paediatricians should be reported under TFC 291 and not TFC 290 or the community paediatric services worksheet (paragraph 471). In this instance it is the treatment function that matters, not the type of specialist who delivers it.

228. Neuro-disability has only recently been recognised as a separate specialty so the majority of neuro-disability work will continue to be done by community paediatricians for the near future. Multi-disciplinary assessments including child development centre (CDC) assessments should be reported under TFC 291 as multi-professional face to face contacts.

229. We recognise that it may not always be possible to separate neuro-disability patients from general paediatric patients seen in community paediatric clinics, and where a

[42] http://www.datadictionary.nhs.uk/data_dictionary/attributes/c/cons/consultant_code_de.asp?shownav=1

community paediatrician has a separate general paediatric clinic, this should be reported under paediatrics (TFC 420).

Sexual health services

230. Activity that takes place in a sexual and reproductive health clinic[43] is defined by pseudo code FPC, and should be reported as non consultant led activity, regardless of the location of the clinic.

Therapy services

231. Physiotherapy, occupational therapy, and speech and language therapy (TFCs 650, 651 and 652) should be used where referral for treatment carried out has been made by a clinical or other professional, including when accessed directly by a GP or self-referral, and where the patient attends a discrete therapy clinic solely for the purpose of receiving therapy treatment. As with other types of support services and care, where these services form part of an admitted patient care episode or outpatient attendance in a separate specialty, the costs will form part of the composite costs of that episode or attendance.

Procedures in outpatients

232. Trusts should report procedures carried out in outpatients by HRG and TFC. The Grouper generates a core HRG relevant to procedures carried out in an outpatient setting, instead of a core attendance HRG.

Cancer multi-disciplinary teams

233. There is only one exception to the non face to face rule in paragraph 209 and this is for specific cancer multi-disciplinary team (MDT) meetings to discuss a patient. Cancer MDTs have been defined by the National Institute for Health and Clinical Excellence (NICE) as essential to the delivery of high quality cancer care. Although currently outside the scope of tariff, their costs may in the future be built into a specific cancer outpatient tariff and therefore an improved understanding of MDT costs is necessary.

234. Trusts should submit data against six categories of cancer MDT:

    (a) colorectal
    (b) local gynaecological - local teams diagnose most cancers, provide treatment for some types of cancer, and refer people on to the specialist teams if necessary.
    (c) specialist gynaecological - specialist teams provide specialist care and treatment for people whose cancer is less common or who require specialist treatment for other reasons
    (d) breast
    (e) specialist upper gastrointestinal
    (f) other.

43 http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/s/sexual_and_reproductive_health_clinic_de.asp?shownav=1

235. Cancer MDTs take place in addition to and not instead of outpatient activity. Cancer outpatient clinics are often multi-disciplinary in nature and similarly MDTs can deal specifically with one type of cancer or a group of cancers.

236. The MDT meetings bring together representatives from different healthcare disciplines on a formal timetabled basis to discuss new cancer patients and agree individual treatment plans for initial treatment and on each occasion where the treatment plan needs to be varied or updated e.g. on relapse. The core role of the MDT is to resolve difficulties in diagnosis and staging and to agree a management plan. Further definitions of MDTs can be found in NICE improving outcomes guidance.

237. The activity measure for the collection is the number of individual patient treatment plans developed for each MDT. MDTs will always have a defined consultant lead, who is responsible for chairing the meeting, ensuring treatment decisions are recorded etc. Therefore, MDT costs and activity should be reported as consultant led, multi-professional, non face to face, first attendances (HRG WF02D) by MDT type.

238. A suggested methodology for costing this activity is to begin by making contact with the cancer services manager for each MDT to determine:

    (a) their number, frequency and duration
    (b) the staff involved
    (c) the number of individual patient treatment plans developed for meetings.

239. Apportion consultant costs as per their job descriptions, which could be available from either financial management or consultant job plans or sessional information. Similarly, apportion the costs of support staff (e.g. pathology, medical records department) used in preparation and follow up of meetings. Cancer services managers should be able to help identify where the costs of MDT co-ordinators were coded as they are responsible for such staff. The cost of any data collection should also be included.

240. Although an MDT may draw on membership from several NHS providers, the host organisation responsible for its running must report the costs.

Section 5: Emergency medicine

241. This section covers all emergency medicine attendances, defined by the sub-chapter VB HRGs, supported by the A&E minimum dataset, and split between:

    (a) patients who are admitted for further investigation or treatment rather than discharged from A&E
    (b) patients who are not admitted but are discharged or die whilst in A&E.

242. In a change from previous years, we are aligning the collection to the four A&E department types[44] as defined in the Data Dictionary.

243. Emergency departments (national code 01) and consultant led mono specialty accident and emergency services (national code 02) may be 24 hour or non-24 hour.

244. Other types of A&E or minor injury (national code 03) include minor injury units and urgent care centres.

245. Costs and activity for minor injuries units (MIU) should only be reported separately if:

    (a) the MIU ward is discrete, and the attendance is instead of, and has not already been counted as, an emergency medicine attendance
    (b) the MIU is not discrete but patients are seen independently of the main A&E department.

246. Where MIUs are part of an A&E department, their costs should be included as an oncost to the A&E department, and their activity excluded from reference costs, to avoid artificially reducing the average unit costs of emergency medicine attendances.

247. NHS walk in centres (national code 04) can be additionally defined as predominantly nurse-led primary care facilities dealing with illnesses and injuries - including infections and rashes, fractures and lacerations, emergency contraception and advice, stomach upsets, cuts and bruises, or minor burns and strains - without the need to register or make an appointment. They are not designed for treating long-term conditions or immediately life-threatening problems.

248. A&E mental health liaison services should not be included here, but in the mental health specialist teams worksheet (paragraph 443).

249. The Grouper does not generate separate unbundled HRGs for emergency medicine. The costs of activity typically unbundled should therefore be included within the core emergency medicine HRGs.

250. Subject to confirmation in the Grouper documentation, patients brought in dead (A&E patient group code 70)[45] should generally be coded and costed against HRG VB11Z No investigation with no significant treatment.

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44 http://www.datadictionary.nhs.uk/data_dictionary/attributes/a/acc/accident_and_emergency_department_type_de.asp?shownav=1

45 http://www.datadictionary.nhs.uk/data_dictionary/attributes/a/a_and_e_patient_group_de.asp?shownav=1

Section 6: Unbundled services

Introduction

251. This section covers unbundled HRGs for:

    (a) chemotherapy
    (b) critical care
    (c) diagnostic imaging
    (d) high cost drugs
    (e) radiotherapy
    (f) rehabilitation
    (g) specialist palliative care.

252. Unbundled HRGs for renal dialysis for acute kidney injury are covered separately in Section 7.

253. Unbundled HRGs were developed to identify specialist services, ensure recognition of priority areas, support service redesign and patient choice, and improve the performance of HRGs so they better represent activity and costs.

254. With one exception, the costs and activity of these services should be separately identified (i.e. unbundled) from all admitted patient care and outpatients, and reported by HRG. The costs of diagnostic imaging in admitted patient care should not be unbundled from core admitted patient care HRGs.

255. The costs of unbundled services in A&E should not be unbundled from emergency medicine core HRGs.

256. With the exception of critical care, costs should be separately reported by admitted patient care, outpatient and other settings. The other category recognises that these unbundled HRGs are setting independent, and should be used where the service is delivered outside hospital (e.g. chemotherapy or rehabilitation in the home or community). It must not be used to misreport admitted patient care or outpatient care due to coding or software issues.

Chemotherapy

257. The unbundled chemotherapy HRGs are organised to reflect the procurement of chemotherapy drug regimens and the delivery of chemotherapy. Each patient is allocated one unbundled HRG for the regimen procured and one unbundled HRG for delivery. This section should be read alongside the HRG4 chapter summary for chemotherapy which includes further guidance on coding and mapping to HRGs.

258. The chemotherapy procurement HRGs are for the procurement of drugs for regimens in 10 bands. SB17Z takes account of the delivery of regimens not on the national list.

259. The activity measure for the chemotherapy procurement HRGs is the number of cycles[46] of treatment and the unit cost is per average cycle. Note that the Grouper

[46] http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/a/anti-

outputs the number of procurements rather than number of cycles.

260. Chemotherapy procurement HRGs are designed to cover the cost of the entire procurement service and therefore, in contrast to unbundled high cost drugs (paragraph 316), the cost of each HRG should include pharmacy oncosts (including indirect costs and overheads) as well as all other costs associated with procuring each drug cycle. The cost of supportive drugs – which are any drugs given to prevent, control, or relieve complications and side effects and to improve the patient's comfort and quality of life - should also be included within these HRGs.

261. The definitions in Table 35 may assist with costing of the chemotherapy delivery HRGs.

Table 35: Chemotherapy delivery

Definition	Explanation
Deliver simple parenteral chemotherapy	Overall time of 30 minutes nurse time and 30 to 60 minutes chair time for the delivery of a complete cycle.
Deliver more complex parenteral chemotherapy	Overall time of 60 minutes nurse time and up to 120 minutes chair time for the delivery of a complete cycle.
Deliver complex chemotherapy, including prolonged infusional treatment	Overall time of 60 minutes nurse time and over two hours chair time for the delivery of a complete cycle.
Deliver subsequent elements of a chemotherapy cycle	Delivery of any pattern of outpatient chemotherapy regimen, other than the first attendance, i.e. day 8 of a day 1 and 8 regimen or days 8 and 15 of a day 1, 8 and 15 regimen.

262. In addition to these unbundled chemotherapy HRGs, there is a core HRG (SB97Z) for a same day chemotherapy admission or attendance that is generated by the Grouper if:

(a) chemotherapy has taken place
(b) the activity has length of stay less than one
(c) no major procedures have taken place and the core HRG which would otherwise be generated is diagnosis driven.

263. This core HRG attracts a zero tariff to ensure appropriate overall reimbursement where a patient is admitted or attends solely for delivery of chemotherapy and no additional activity has taken place. We still require activity to be reported against SB97Z in the reference costs workbook but the cost of delivery should be included against the unbundled chemotherapy delivery HRGs.

264. Supportive care costs for cancer patients receiving chemotherapy should be allocated according to the matching principle. Therefore:

(a) the costs of services directly related to the treatment of cancer, before and after surgery, should be allocated to the appropriate surgical HRG
(b) supportive care costs not associated with the surgical procedure should be allocated to the appropriate non-surgical cancer HRG.

265. Chemotherapy should be reported in the following categories to reflect differences in clinical coding guidance between these settings:

cancer_drug_cycle_de.asp?shownav=1

(a) ordinary elective or non-elective admissions
(b) day case and regular day or night attendances
(c) outpatients
(d) other.

Ordinary admissions

266. The reporting of ordinary elective or non-elective admissions should include the core HRG and the relevant chemotherapy procurement HRGs where generated. Chemotherapy delivery HRGs will not be generated because OPCS chemotherapy delivery codes are not recorded for ordinary admissions (Table 36). The ability to deliver chemotherapy is expected to be part of the routine care delivered on a ward, and therefore costs should be reported as an oncost to the core HRG.

Table 36: Reporting chemotherapy ordinary admissions

Core HRG	Chemotherapy procurement HRG	Chemotherapy delivery HRG
Report in elective or non elective sheet	Report separately when generated	No delivery HRG reported as not OPCS coded

267. Table 37 gives an example. From this table:

(a) the episode derives a core HRG of LB35H that is reported as an ordinary elective
(b) the episode receives an additional unbundled chemotherapy procurement HRG SB03Z which is reported as part of the average cycle of treatment for reference cost purposes
(c) there is no unbundled chemotherapy delivery HRG. Current clinical coding guidance states the only time delivery is recorded for chemotherapy is when it is day case, outpatient or a regular day attender, including when the chemotherapy delivery happens at a day case setting and the patient is subsequently admitted (therefore generating an admitted patient care HRG).

Table 37: Coding chemotherapy ordinary admissions

	Diagnosis 1	Procedure 2 (chemotherapy procurement)	Procedure 3 (chemotherapy delivery)
ICD-10 OPCS-4 (input)	C62.9 Malignant neoplasm of testis unspecified	X70.3 Procure chemotherapy drugs for regimens in band 3	Not coded
HRG (output)	LB35H Scrotum, Testis or Vas Deferens Disorders, without Interventions, with CC Score 0	SB03Z Procure chemotherapy drugs for regimens in band 3	Not coded

Day case and regular day or night admissions

268. The reporting of day cases and regular day or night admissions solely for the delivery of chemotherapy should include an unbundled chemotherapy delivery HRG, and may include an unbundled chemotherapy procurement HRG where the procurement of a

cycle is recorded. The core HRG SB97Z will be generated for patients admitted for same day chemotherapy treatment if no other significant procedure has taken place (Table 38).

Table 38: Reporting chemotherapy day cases and regular day or night attenders

Core HRG	Chemotherapy procurement HRG	Chemotherapy delivery HRG
SB97Z Zero cost	Report separately if recorded	Report separately

269. Table 39 gives an example of a day case (first attendance of second cycle). From this table:

(a) if there are no other procedures within the episode, the episode derives a core HRG of SB97Z. All of the chemotherapy costs should be reported using the procurement and delivery HRGs
(b) the episode receives an additional unbundled HRG of SB03Z for the chemotherapy procurement, reported as part of the average cycle of treatment for reference costs
(c) the episode receives a further unbundled HRG of SB14Z for chemotherapy delivery, which is reported as a delivery per patient attendance.

Table 39: Coding chemotherapy day cases and regular day or night admissions

	Diagnosis 1	Procedure 1	Procedure 2 (chemotherapy regimen)	Procedure 3 (chemotherapy delivery)
ICD-10 OPCS-4 (input)	C62.9 Malignant neoplasm of testis unspecified	N/A	X70.3 Procure chemotherapy drugs for regimens in band 3	X72.1 Deliver complex chemotherapy for neoplasm including prolonged infusional treatment
HRG (output)	N/A	SB97Z Same day chemotherapy admission/attendance	SB03Z Procure chemotherapy drugs for regimens in band 3	SB14Z Deliver complex chemotherapy, including prolonged infusional treatment at first attendance

Outpatients

270. Outpatients attending solely for the delivery of chemotherapy should be reported as an unbundled chemotherapy delivery HRG, and may be reported as an unbundled chemotherapy procurement HRG where the procurement of a cycle is recorded. The core HRG SB97Z will also be generated for patients attending for same day chemotherapy treatment (Table 40).

Table 40: Reporting chemotherapy outpatients

Core HRG	Chemotherapy procurement HRG	Chemotherapy delivery HRG
SB97Z Zero cost	Report separately if recorded	Report separately

271. Table 41 gives an example of an outpatient (first attendance of second cycle). From this table:

(a) if there are no other procedures within the attendance, it derives a core HRG of SB97Z. All of the chemotherapy costs should be reported using the procurement and delivery HRGs
(b) the attendance receives an additional unbundled HRG of SB03Z for the chemotherapy procurement, which is reported as part of the average cycle of treatment for reference costs
(c) the attendance receives a further unbundled HRG of SB14Z for chemotherapy delivery, which is reported as a delivery per patient attendance for reference costs. Subsequent attendances for the oral delivery of chemotherapy drugs should be reported as SB11Z and not SB15Z.

Table 41: Coding chemotherapy outpatients

	Procedure 1	Procedure 2 (chemotherapy regimen)	Procedure 3 (chemotherapy delivery)
OPCS-4 (input)	N/A	X70.3 Procure chemotherapy drugs for regimens in band 3	X72.1 Deliver complex chemotherapy for neoplasm including prolonged infusional treatment
HRG (output)	SB97Z Same day chemotherapy admission/attendance	SB03Z Procure chemotherapy drugs for regimens in band 3	SB14Z Deliver complex chemotherapy, including prolonged infusional treatment at first attendance

Other

272. This setting should be used to report community chemotherapy, which describes services where patients receive their chemotherapy treatment outside of cancer centres or cancer units in facilities nearer to home such as a GP surgery or in their own homes.

Additional notes

273. Although rare, some patients may have two regimens delivered at one attendance which results in two delivery HRGs. An example is a patient receiving an intrathecal component of a regimen where this component will generate a separate procurement and delivery alongside any other regimen they may be receiving.

274. Further guidance relating to the treatment of regimens not on the national list can be found in the OPCS-4 clinical coding instruction manual[47].

275. Patients receiving both an infusion plus oral treatment as part of a single regimen on the same day will be counted as one delivery and coded to an intravenous delivery code. Patients may also receive other intravenous and oral drugs for their cancers on the same day as their chemotherapy regimen, e.g. administration of bisphosphonates. The costs of these should be attributed to the relevant core HRG

47 http://www.connectingforhealth.nhs.uk/systemsandservices/data/clinicalcoding/codingstandards/publications/ccim

and not included with the chemotherapy delivery HRG.

276. To maintain consistency with national coding guidance, the OPCS procurement and delivery codes for chemotherapy should only be used where the treatment is for systemic anti-cancer therapy, i.e. malignancy and not for the treatment of non-malignant conditions. Certain drugs appear in both the chemotherapy regimens list and high cost drugs list as they can be used to treat neoplasms as well as a range of other non-neoplastic conditions for example rheumatology. These should be coded using the OPCS high cost drugs codes and not the OPCS procurement and delivery codes.

277. Current clinical coding guidance stipulates when to code delivery of oral chemotherapy (SB11Z). If a regimen includes oral and parenteral administration, the parenteral administration determines the delivery code. SB11Z will be assigned to regimens made up of only drugs administered orally and the costs should reflect current practice in light of recommendations within the National Patient Safety Agency (NPSA) report on oral chemotherapy[48].

278. We are aware that some supportive drugs may have a disproportionately high cost compared to the other expected costs of care within the unbundled chemotherapy procurement HRG, and that some hormonal drugs may similarly have a disproportionately high cost within the core HRG. We are working towards implementing a solution to these issues. Currently the treatment of such drugs should be as per Table 42.

Table 42: Supportive and hormonal drug treatment

Method of delivery	Hormone treatments	Supportive drugs
As an intrinsic part of a regimen	If included within a regimen ignore	If included within a regimen ignore
By itself	Code to the relevant admitted patient or outpatient core HRG generated (not chemotherapy specific)	Apportion over procurement bands, potentially extra delivery time and costs
As part of supportive drug	Include costs within supportive drug costs	N/A

Critical care

279. Critical care reference costs are collected separately for:

(a) adult critical care
(b) paediatric critical care
(c) neonatal critical care.

Adult critical care

280. The adult critical care minimum dataset (CCMDS) is a sub-set of the admitted patient care dataset. A patient that is admitted to a critical care unit will have an admitted patient care dataset record for their hospital admission, which will produce a core HRG and other unbundled HRGs, and a CCMDS record producing their unbundled critical care HRG.

[48] http://www.nrls.npsa.nhs.uk/resources/?entryid45=59880

281. Adult critical care HRGs are based on the total number of organs supported in a critical care period. Research to develop the HRGs by the University of Sheffield established that the total number of, rather than the type of, organ was the best way of grouping patients to produce HRGs that reflect relative resource use.

282. The CCMDS (ISB 0153/Amd 81/2010[49] refers) collects a wider range of organ support information. Reference costs uses these organ support categories to classify cost and activity data. The costs and activity for stays in critical care should therefore be excluded from the composite cost and length of stay for the admitted patient care. A separate cost per bed day should then be produced.

283. The Grouper will only output one HRG per critical care period. This HRG signifies the total number of organs supported, from zero to six, in that critical care period. Only if there is more than one critical care period will there be more than one critical care HRG in the episode (e.g. if a patient transfers from an intensive care unit to a high dependency unit).

284. The following adult critical care service types should be reported:

    (a) critical care units as defined by critical care unit function type in the CCMDS, excluding the two types below
    (b) burns critical care units
    (c) spinal injuries critical care units.

285. For each of these service types, the unit cost per bed day, total number of critical care bed days, and number of critical care periods should be reported.

286. Data for children treated in adult critical care units should be reported as part of its costs. It is not necessary to identify separately activity relating to children undertaken in an adult unit.

Critical care periods

287. Record the number of critical care periods[50] that have occurred within each hospital spell. A critical care period is a continuous period of care or assessment (i.e. a period of time) within a hospital provider spell during which a patient receives critical care in any one single unit function type of the critical care unit. A new critical care period commences with each new CCMDS record.

288. Discrepancies can arise when counting critical care bed days for all types of critical care services activity. For reference costs, counting of critical care should follow the example in Table 43.

Table 43: Critical care bed day count

	Critical care admission date and time	Critical care discharge date and time	Count
Adult with different dates of critical care admission and discharge	5 November 13:00	7 November 10.30	3 critical care bed days

[49] http://www.isb.nhs.uk/library/standard/112
[50] http://www.datadictionary.nhs.uk/data_dictionary/classes/c/critical_care_period_de.asp?shownav=1

Adult with same date of critical care admission and discharge	5 November 13:00	5 November 22:00	1 critical care bed day

289. Given this counting convention, a critical care bed vacated and subsequently occupied by a second patient over the course of 24 hours should be counted as two critical care bed days.

Costing critical care

290. We would expect the following costs to be included in the cost per critical care bed day:

(a) hotel services
(b) nursing and other clinical staff
(c) therapies
(d) medical staff
(e) ward consumables
(f) drugs
(g) blood and blood products
(h) diagnostics undertaken whilst the patient is in critical care, e.g. pathology, plain film x-rays, MRIs
(i) medical and surgical equipment (include the costs of specialist equipment, e.g. CPAP and NIPPY machines, and ensure that the costs of devices excluded from the national tariff are also reported in the reconciliation statement workbook).

291. The costs of any theatre time must be reported against the core HRG and not the unbundled critical care HRG. If a patient's TFC changes on admission to a critical care unit, a new FCE will begin, and theatre costs will not form part of the total cost for the critical care service. But even if a new FCE does not start on admission to critical care, or an FCE is wholly within critical care under a critical care consultant from admission to discharge, theatre costs should still be excluded from critical care, and reported against the core HRG.

292. Where there is no theatre time, this may result in a relatively small or even zero cost against the core HRG. In these circumstances, organisations have the discretion to exclude these zero cost HRGs on the same principle that other zero cost HRG are excluded (paragraph 85). The key principle here is that critical care represents the highest level of complexity and only the daily costs of providing critical care should be recorded against the unbundled critical care HRG. Meanwhile, costs relating to treating the patient's condition, including any surgery or theatre irrespective of setting, should be reported against the core HRG.

293. The costs of relevant high cost drugs or blood products should included in the unbundled high cost drugs HRGs (paragraph 310) and not here.

Adult critical care outreach services

294. Many organisations have critical care outreach teams that operate outside the parameters of the discrete adult critical care unit. Outreach services support general ward staff in caring for higher acuity patients, facilitate admission to and discharge from critical care, help avoid unnecessary critical care admissions, share clinical skills, and follow up patients to monitor outcomes and services.

295. In previous reference cost returns, we asked trusts to submit a total cost and an activity count of 1 for adult critical care outreach services, and we excluded this cost from the 2011-12 RCI calculation. We are inviting feedback on whether trusts are recording a suitable activity measure (e.g. number of patient contacts, or number of patient bed days) to facilitate the separate reporting of a unit cost. If no suitable activity measure can be identified, we propose asking trusts to report this service as an on cost to ordinary elective and ordinary non-elective long stay costs.

Paediatric critical care

296. Costs should be reported against the following unbundled HRGs, which are supported by the paediatric critical care minimum dataset (PCCMDS)[51] and further qualified in terms of scope on page 2 of DSCN 01/2007 version 3[52]:

    XB01Z - solely for use for extra corporeal membrane oxygenation (ECMO) or extra corporeal life support (ECLS) within a designated provider and commissioned by the National Commissioning Group (NCG) or Specialist Commissioning Groups (SCGs). The providers in Table 19 are expected to report the majority of costs.

    XB02Z to XB05Z - relate to intensive care. Only the providers in Table 20 with paediatric intensive care units are expected to report costs. Our clinical advisors continue to express concerns about the credibility of activity reported by a few trusts that do not have paediatric intensive care units (ICUs). Children in an adult ICU should have a CCMDS rather than a PCCMDS record and be reported against adult critical care.

    XB06Z to XB07Z - relate to high dependency care. This care can be delivered on children's wards in many hospitals, as well as in designated high dependency and intensive care units. Any provider may submit these costs.

    XB08Z - relates to paediatric critical care transport.

    XB09Z - Paediatric Critical Care, Enhanced Care. A new HRG for 2012-13, designed to represent the resources involved in providing critical care to children where the critical care activity codes recorded do not indicate high resource. This should reduce the number of UZ01Zs previously reported by some trusts.

297. The HRGs can be derived in a variety of settings. Therefore costs for delivery of critical care on children's wards, also known as non-discrete high dependency care, should be included and underpinned by the completion of a PCCMDS record. Care should be taken to ensure these costs are not double counted against the admitted patient care core HRG. Cost and activity for XB01Z to XB07Z should be reported on an occupied bed day basis, with each occupied bed day producing an HRG (i.e. one HRG per day). XB08Z should be reported using unit cost per journey, with number of patient journeys as the activity measure.

51 http://www.datadictionary.nhs.uk/data_dictionary/messages/supporting_data_sets/data_sets/paediatric_critical_care_minimum_data_set_fr.asp?shownav=1

52 http://www.isb.nhs.uk/documents/dscn/dscn2007

298. In 2006, the Casemix Service analysed the results of an observational costing study of staff resource costs in 10 paediatric intensive care units (PICU). The work is discussed in the *National report of the Paediatric Intensive Care Audit Network (PICANET), January 2004 – December 2006*[53]. The relative staff resource costs across HRGs arising from this work, and a worked example of how organisations might use these to benchmark their own reference costs returns before submission, are shown in Table 44, where we assume a hypothetical paediatric intensive care unit is delivering 5,000 bed days of activity a year at a cost of £10 million. The staff resource costs are expressed as a cost ratio with XB05Z as the reference HRG with a value of 1.00.

Table 44: Using benchmark cost ratios to inform paediatric critical care reference costs

		A	B	C = A * B	D = C / Sum C * £10 million	E = D/B
HRG	Description	**Cost ratio**	Bed days	Weighted bed days	Total cost of weighted bed days £	Average unit cost per bed day £
XB01Z	Paediatric critical care intensive care – ECMO/ECLS	**3.06**	100	306	546,233	5,462
XB02Z	Paediatric critical care intensive care advanced enhanced	**2.12**	150	318	567,654	3,784
XB03Z	Paediatric critical care intensive care advanced	**1.40**	500	700	1,249,554	2,499
XB04Z	Paediatric critical care intensive care basic enhanced	**1.22**	1,000	1,220	2,177,794	2,178
XB05Z	Paediatric critical care intensive care basic	**1.00**	2,000	2,000	3,570,154	1,785
XB06Z	Paediatric critical care high dependency advanced	**0.91**	750	683	1,219,207	1,626
XB07Z	Paediatric critical care high dependency	**0.75**	500	375	669,404	1,339
			5,000	5,602	10,000,000	

299. Organisations may wish to use the cost ratios to assist with the compilation of their reference costs. However, they are indicative only and if organisations can provide robust cost apportionments of their own, they should use these instead. They were obtained from a study undertaken within PICUs, with a higher nursing input to a patient requiring a high dependency level of care than might be delivered to the same patient in a high dependency unit or ward setting. As a consequence, reference costs for delivering high dependency levels of care outside of PICUs would be expected to be lower.

Neonatal intensive care

300. Cost and activity for XA01Z to XA05Z should be reported on an occupied bed day basis, with each occupied bed day producing an HRG (i.e. one HRG per day). XA06Z relates to neonatal critical care transport and should be reported using unit cost per journey, with number of patient journeys as the activity measure.

53 http://www.picanet.org.uk/Documents/General/Annual_Report_2007/PICANet%20National%20Report%202004%20-%202006.htm

Diagnostic imaging

301. The unit of activity for unbundled diagnostic imaging (radiology) HRGs in sub-chapter RA is examinations. For example, a patient who attends an orthopaedic clinic and has three MRI scans should be recorded and costed as three MRIs plus the core orthopaedic attendance HRG. But individual HRGs may account for scans of multiple body areas within the same visit to a scanner (e.g. RA05Z – Computerised tomography scan, three areas without contrast). Therefore, one scan should equal one HRG, but the scan may be of multiple body areas.

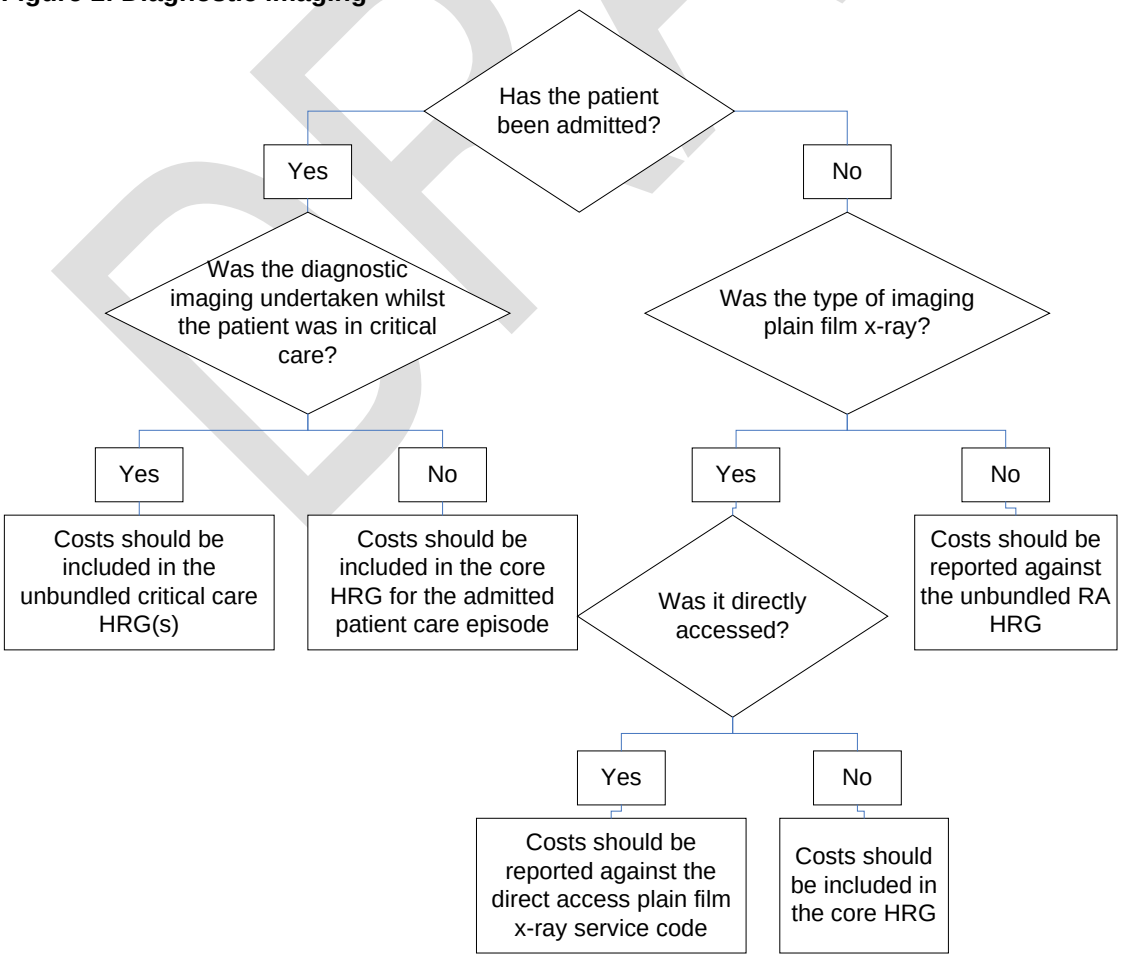
302. Diagnostic imaging should also be reported by the TFC of the outpatient clinic in which the imaging was requested. Trusts should use pseudo code 999 if they are unable to assign a TFC accurately.

303. Plain film x-rays are not unbundled. The reporting arrangements for these, when directly accessed is covered in paragraph 384. HRGs in sub-chapter RC for interventional radiology, created to support best practice tariff policy, are also not unbundled.

304. Diagnostic imaging should be separately reported under the following settings (Figure 1):

    (a) outpatient
    (b) direct access
    (c) other.

Figure 1: Diagnostic imaging



305. Some diagnostic imaging is not coded in a way that generates an unbundled diagnostic imaging HRG. For example, a correctly coded obstetric ultrasound in outpatients is likely to group to one of the obstetric medicine core HRGs (paragraph 517). Costs and activity for these scans should not be unbundled, but reported within the generated core HRG.

Admitted patient care

306. The costs of diagnostic imaging in admitted patient care should be included within the core HRG. The costs of diagnostic imaging in critical care, rehabilitation or specialist palliative care should be included in the unbundled critical care, rehabilitation or specialist palliative care HRG. Any unbundled diagnostic imaging HRGs produced by the Grouper should be ignored.

Outpatients

307. Diagnostic imaging accessed as a part of an outpatient attendance should be reported here. Where no other procedures are recorded in outpatients, the Grouper will output a core outpatient attendance HRG as well as an unbundled diagnostic imaging HRG. The outpatient attendance should be reported and costed separately. However, where a patient attends for diagnostic imaging only, a core outpatient attendance HRG should not be reported.

Direct access

308. Direct access (defined in Section 8) diagnostic imaging should be reported here. A separate core outpatient attendance HRG should not be reported.

Other settings

309. Diagnostic imaging in settings other than admitted patient care (including critical care), outpatient and direct access settings should be reported here.

High cost drugs

310. Not all drugs that are high cost have an OPCS code, and therefore an unbundled high cost drug HRG. We discuss these in paragraph 163.

311. Drugs that do have an OPCS code will generate a separate unbundled high cost drug HRG in addition to the core HRG for the care episode. For reference costs, high cost drugs should be separately identified for:

    (a) admitted patient care
    (b) outpatients
    (c) other settings.

312. The OPCS-4 clinical coding instruction manual[54] states that high cost drugs are

54 http://www.connectingforhealth.nhs.uk/systemsandservices/data/clinicalcoding/codingstandards/publications/ccim

coded per hospital provider spell and not FCE, and usually assigned in the first episode where the drug is administered, e.g. a patient receiving a particular high cost drug 10 times in a spell would be coded once. This should result in one unbundled high cost drug HRG from the Grouper per drug, per spell.

313. Should a patient receive two different high cost drugs within a single spell, then these would be coded separately and outputted by the Grouper separately, once for the first drug and once for the second drug.

314. It is also possible for the Grouper to output more than one of the same high cost drug HRG in a single spell when different drugs assigned to the same OPCS-4 code are delivered. For example, a patient may receive two drugs in a single spell, both of which belong to the same type of high cost drug. Coding guidance states it would be legitimate to record both drugs even though the same OPCS-4 code is used twice, because these are different drugs. The Grouper would output this as two HRGs.

315. The current HRG4 design does not consider dosage. Taking this, and the coding guidance above into consideration, and to ensure that costs and activity are recorded consistently, the average cost of a high cost drug should be identified across the admitted patient spell or outpatient attendance.

316. The costs of each unbundled HRG should include only the actual costs of the drug. All other pharmacy oncosts, and the costs of drugs administered with high cost drugs, should remain in the core HRG.

Admitted patient care

317. For admitted patient care, report the unit costs per spell of high cost drug HRGs produced by the Grouper. From Table 45:

    (a) the first spell derives a core HRG of EB15C reported as elective activity
    (b) this spell generates an additional unbundled HRG XD38Z for the high cost drug recorded in the episode, which is included in a calculation to work out the unit cost of a high cost drug per average spell for reference cost
    (c) the same procedure and high cost drug occurs in a second and third spell
    (d) in a fourth spell, both abacavir and amprenavir are administered to the patient, i.e. two high cost drug HRGs are coded.

Table 45: High cost drugs in admitted patient care

Primary diagnosis	Procedure	HRGs
I27.0 Pulmonary hypertension	X86.6 Antiretroviral drugs band 1 (abacavir administered)	Core HRG EB15C Primary Pulmonary Hypertension with CC Score 0-3 High cost drug HRG XD38Z Antiviral drugs band 1

318. Table 46 illustrates the calculation of reference costs from this information.

Table 46: Calculation of high cost drugs unit cost

	Instances of X86.6	Cost £
Spell 1	1	400
Spell 2	1	390
Spell 3	1	395
Spell 4	2	765
Total	5	1,950
Average unit cost [£1,950/5] = £390		

Outpatients

319. For outpatients, report the unit cost per attendance of high cost HRGs produced by the Grouper.

Other settings

320. For other activity outside admitted, outpatient or direct access settings, the stand alone pharmacy data system should be used in the absence of clinical coding to derive the appropriate OPCS-4 code and thus generate the HRG, which should be reported on a per average attendance basis.

Radiotherapy

321. The unbundled radiotherapy HRGs are similar to the design of the unbundled chemotherapy HRGs, in that an attendance may result in an additional two HRGs: one HRG for pre-treatment planning and one HRG for radiotherapy treatment. The radiotherapy dataset, introduced in 2009, should be used as a source of data for submitting reference costs. This will result in the vast majority, if not all activity reported as outpatient attendances although the collection offers the following settings for consistency:

    (a) ordinary elective or non-elective admissions
    (b) day case and regular day or night attendances
    (c) outpatients
    (d) other.

322. In addition to these unbundled chemotherapy HRGs, a core HRG (SC97Z) for a same day external beam radiotherapy admission or attendance is generated by the Grouper if:

    (a) external beam radiotherapy has taken place
    (b) the activity has length of stay less than one
    (c) no major procedures have taken place and the core HRG which would otherwise be generated is diagnosis driven.

323. This core HRG attracts a zero tariff to ensure appropriate overall reimbursement where a patient attends solely for delivery of radiotherapy and no additional admission or attendance has taken place. We still require activity to be reported against SC97Z in the reference costs workbook but its costs should be allocated against the unbundled radiotherapy HRGs.

324. Activity should be allocated for each fraction of radiotherapy delivered and only one

fraction per attendance should be coded. The intention in HRG4 is that each fraction would be separately counted, rather than the number of courses of treatments. However, clinical coding guidance states that only one delivery fraction should be recorded per stay. Therefore, the unit of activity for ordinary admissions is per admission, unless the patient has treatment to more than one body site when it would be permissible to record a delivery fraction for each area treated if a change in resources was identified from delivery on a single site. Table 47 clarifies the Grouper output for different patient settings (providing organisations have followed coding guidance) and the treatment of the data for reference costs.

Table 47: Radiotherapy outputs

Setting	HRG output from the Grouper	Treatment of HRG in reference costs
Ordinary elective or non-elective admission	Core HRG + Planning HRG (one coded per admission) + Delivery HRG (one coded per admission)	Report core HRG costs separately from radiotherapy costs Report planning costs using planning HRGs Report all delivery costs for the admission using delivery HRG
Day case, regular day or night attendance, and outpatients	SC97Z sameday external beam radiotherapy + Planning HRG (one coded per course of treatment) + Delivery HRG (one coded per fraction delivered every appointment)	Report SC97Z at zero cost (all radiotherapy costs are reported in planning or delivery activity) Report unit cost of planning HRG per course of treatment Report average cost per fraction and number of attendances
Other (for any activity not included above)		Report planning per course and delivery per fraction

325. A first outpatient attendance may result in the two HRGs described, (one planning HRG and one delivery HRG), with the follow up attendances only resulting in the delivery HRGs and SC97Z being assigned. Consider the example in Table 48. A patient is diagnosed as having Hodgkin's lymphoma. Prior to bone marrow transplant, the patient receives a three fraction course of total body irradiation in outpatients. The total body irradiation is planned and the first treatment is given immediately afterwards (same attendance).

Table 48: Coding radiotherapy in outpatients

	1st attendance	2nd attendance	3rd attendance
OPCS-4 input	X67.2 Preparation for total body irradiation X65.1 Delivery of a fraction of total body irradiation	X65.1 Delivery of a fraction of total body irradiation	X65.1 Delivery of a fraction of total body irradiation
HRG output	Core HRG based on any other significant procedure or SC97Z + SC42Z Preparation for total body irradiation + SC25Z Deliver a fraction of total body irradiation	Core HRG based on any other significant procedure or SC97Z + SC25Z Deliver a fraction of total body irradiation	Core HRG based on any other significant procedure or SC97Z + SC25Z Deliver a fraction of total body irradiation

326. From this table:

(a) the attendance derives a core HRG based on procedures or, where no other procedure has taken place, SC97Z is allocated as the core HRG. The cost of this should be included as an overhead within the fraction cost and the activity ignored
(b) the first attendance generates additional unbundled HRGs for the radiotherapy preparation SC42Z and radiotherapy delivery SC25Z. The planning HRG is intended to cover all attendances required for completion of the planning process. It is not intended that individual attendances for parts of this process will be recorded separately
(c) the planning HRG does not include the consultation at which the patient consents to radiotherapy, nor would it cover any outpatient attendance for medical review required by any change in status of the patient. This should be reported separately as appropriate outpatient activity
(d) the subsequent attendances generate an unbundled radiotherapy delivery HRG SC25Z and core HRGs based on procedures or SC97Z (which should be included as an overhead within the fraction cost and the activity ignored).

327. Consider also the example in Table 49. A patient is diagnosed with breast cancer, which is typically treated by 25 fractions and one planning course. Only one instance of treatment is shown in the example.

Table 49: Coding radiotherapy in ordinary admissions

	Diagnosis	Planning	Treatment (Radiotherapy delivery)
ICD-10 OPCS-4 (input)	C50.9 Malignant neoplasm of breast, unspecified	X67.5 Preparation for simple radiotherapy with imaging and dosimetry	X65.4 Delivery of a fraction of external beam radiotherapy NEC
HRG (output)	SC97Z Same day external beam radiotherapy admission/attendance	SC47Z Preparation for simple radiotherapy with imaging and simple calculation	SC29Z Other radiotherapy treatment

328. An average unit cost per treatment course should not be reported for delivery costs in day case, regular day or night attendance, or outpatient settings. Instead, cost per fraction should be reported by HRG. In addition, the number of relevant attendances or admissions that relate to the number of fractions should be reported. This additional activity data will be used for the development of tariff. Organisations should take care not to double count the activity data within the outpatient section of the return.

329. Supportive care costs for cancer patients receiving radiotherapy in an ordinary elective or non-elective setting should be allocated as set out in paragraph 264.

330. Advice from the National Cancer Action Team (NCAT)[55] highlights the need to allocate costs according to the type of radiotherapy being delivered. There are predominantly two types of radiotherapy:

(a) external beam radiotherapy and

[55] http://www.cancer.nhs.uk/radiotherapy/

(b) brachytherapy and liquid radionuclide administration.

331. Work to develop the brachytherapy classification is ongoing. Until this work is complete, it is important that brachytherapy costs are only reported within the current set of brachytherapy HRGs.

Rehabilitation

332. For the purposes of reference costs, rehabilitation services are those provided to enable a patient to improve their health status, and involve the patient actively receiving medical attention. Rehabilitation for patients with mental health problems should be costed and reported as part of the mental health service section and not under rehabilitation as defined here. Intermediate or continuing care, which is effectively long term care with little or no medical treatment, is excluded from reference costs.

333. The unbundled rehabilitation HRGs in this collection are used to describe patients:

(a) admitted for discrete rehabilitation or
(b) treated on a discrete rehabilitation ward or unit.

334. Costs and activity should be split by the following settings:

(a) admitted patient care
(b) outpatient
(c) other.

335. Each setting is further divided as follows:

(a) complex specialised rehabilitation services level 1
(b) specialist rehabilitation services level 2
(c) non-specialist rehabilitation services level 3.

336. The Grouper will output an unbundled rehabilitation HRG for discrete rehabilitation accompanied by a multiplier showing the days of rehabilitation within the FCE, and adjust the core length of stay for this activity. Table 50 illustrates the Grouper output and the reporting requirements for reference costs.

Table 50: Reporting rehabilitation services

What happens to the patient?

Patient has hip replacement (10 days)	Patent then has discrete rehabilitation as part of admission (20 days)
Total length of stay for spell = 30 days	

What does the grouper output?

One core HRG (reported in ordinary admission worksheet)	20 unbundled HRGs (reported in rehabilitation worksheet)

What costs should be reported and where?

Length of stay = 10 days for core HRG (and excess bed day costs if applicable)	Activity = 20 days for unbundled HRG (reported in rehabilitation worksheet)

Admitted patient care

337. The activity measure for the rehabilitation delivery HRGs is occupied bed day. These HRGs are generated by the recording of OPCS U50 to U54 codes. Where a patient is not admitted specifically to a rehabilitation ward or unit, or where rehabilitation treatment is undertaken without transfer to a specialist consultant, or without transfer to a rehabilitation unit, this should not have been reported under OPCS U50 to U54 codes and thus should not be reported as discrete rehabilitation. Trusts should refer to the OPCS-4 clinical coding instruction manual for further advice.

338. If there are multiple types of rehabilitation delivery coded within a single episode, the Grouper will output an unbundled rehabilitation delivery HRG per day per rehabilitation delivery type (as identified by the appropriate rehabilitation delivery OPCS code).

339. Trusts should therefore take care when reporting the number of rehabilitation delivery days in reference costs, to ensure that these days are not double counted, and that the number of total rehabilitation delivery days reported across all rehabilitation types for a patient does not exceed the episode duration that contains those rehabilitation delivery OPCS codes.

Outpatients

340. The activity measure for the rehabilitation assessment HRGs is attendance. These HRGs are generated by the recording of OPCS X60.1 to X60.3 codes. Coding guidance also allows these to be used for admitted patient care. Where a rehabilitation assessment procedure is not recorded in outpatients, then the Grouper will output a normal outpatient attendance HRG. Where OPCS codes have not been coded, outpatient attendances for rehabilitation should be reported under the relevant TFC in the outpatient attendance worksheet.

341. OPCS X60.1 to X60.3 codes are assessment only not delivery and coding guidance states that where a patient receives assessment and delivery during the same admission, only one code is required for the delivery from OPCS U50 to U54 as it is assumed that that assessment has already been carried out.

342. We would not expect rehabilitation delivery HRGs VC04* to VC42* to be generated in an outpatient setting because they are not generally coded. These HRGs, when generated in outpatients, should be ignored and the costs and activity reported under the outpatient attendance.

343. When an unbundled rehabilitation HRG is reported in outpatients, an outpatient procedure or attendance HRG must not be reported.

Complex specialised rehabilitation services

344. Certain aspects of rehabilitative care are delivered by specialist NHS providers. Associated with the delivery of complex specialised and specialist rehabilitation are an expectation of increased resource usage and longer durations of admitted patient care. To report the activity and costs of these as part of composite discrete

rehabilitation would be to mask the extent of the resources used incurred. Therefore, to support the definitions of specialised services in the SSNDS[56] [57], the collection requires that the NHS separately identify not only those complex specialised rehabilitations services, but also those that might be termed specialist. The SSNDS are currently being revised as part of the transfer of commissioning responsibility to the NHS Commissioning Board.

345. The SSNDS includes 38 specialised services which are subject to different commissioning arrangements from other NHS services. Complex specialised rehabilitation services (CSRS) level 1 are high cost and low volume services, already commissioned on a wide geographical basis (e.g. regional or supra-regional) to provide highly specialised services for people with complex needs.

346. CSRS that fall within this definition set and contain components relating to admitted patient rehabilitation are:

(a) specialised spinal services (all ages)
(b) specialised rehabilitation services for brain injury and complex disability (adult)
(c) specialised burn care services (all ages)
(d) specialised pain management services (adult).

Specialist rehabilitation services

347. A specialist rehabilitation service (SRS) level 2 is one that is not designated a CSRS level 1 service but has the following characteristics:

(a) a co-ordinated multi-disciplinary team of staff with specialist training and experience, including a consultant with specialist accreditation in the specific area of rehabilitation
(b) carries a more complex caseload, as defined by agreed criteria
(c) meets the national standards for specialist rehabilitation laid by the appropriate royal college and specialist societies, e.g. the British Society of Rehabilitation Medicine (BSRM) for amputee musculoskeletal and neurological rehabilitation (including stroke and brain injury rehabilitation)
(d) serves a recognised role in education, training and published research for development of specialist rehabilitation in the field.

348. The BSRM have developed criteria and checklists for the identification of these level 2 services that conform to the standards required of a specialist rehabilitation service, which may be applied through a scheme of peer review and benchmarking of reported data to confirm service quality.

Non-specialist rehabilitation services

349. Non-specialist rehabilitation services (NSRS) level 3 are any not specialist or complex specialised and are therefore identified by exception rather than by definition. Where organisations cannot recognise themselves as either providers of CSRS or SRS, they should report as non-specialist.

[56] http://www.specialisedservices.nhs.uk/info/specialised-services-national-definitions
[57] The NHS Commissioning Board is currently consulting on draft service specifications for specialised services at http://www.commissioningboard.nhs.uk/2012/12/12/ssc-consult/

Costing rehabilitation services

350. Rehabilitation should only be separately identified where discrete rehabilitation has been carried out. No attempt should be made to separately identify non-discrete rehabilitation costs during an admitted patient care stay.

351. Increasingly, rehabilitation services are provided by community hospitals following transfer from an acute provider. Community hospitals should note the following:

    (a) community hospitals providing a rehabilitation service should report this on an occupied bed day basis by HRG
    (b) when patients are admitted to a community hospital after discharge from an acute provider (i.e. a different organisation), the patient may be admitted under the previous acute HRG
    (c) community hospitals that provide rehabilitation services should submit this data as rehabilitation (i.e. because that is the service being provided), rather than using the acute HRG that relates to the condition for which the patient has undergone treatment in the acute provider
    (d) where patients are transferred from acute to community hospitals whilst in an acute stage of treatment to facilitate early discharge and still require acute care and stabilisation before rehabilitation treatment, organisations should report the acute phase of care using an appropriate specialty and HRG, and report the rehabilitation using the appropriate rehabilitation services category
    (e) it is inappropriate to report the post-acute element of care as rehabilitation, and it may be similarly inappropriate to report it as the discharge HRG from the acute provider.

352. Unbundled rehabilitation HRGs should not be used to describe the cost of activity beyond an HRG trim point for any acute or non-specified HRG. This should still be reported as excess bed days.

Specialist palliative care

353. The unbundled specialist palliative care HRGs should be reported under the following settings:

    (a) ordinary elective or non-elective admissions, including support hospital teams
    (b) day cases and regular day or night admissions
    (c) outpatients
    (d) other.

354. The unbundled HRGs include care that is provided under the principal clinical management of a specialist palliative care medicine consultant, either in a palliative care unit or in a designated palliative care programme. This care should usually be reported using main specialty codes for palliative medicine (315), nursing episode (950) or allied health professional episode (960).

355. Bereavement counselling should only be included in specialist palliative care or other HRGs in the unusual circumstance it is provided directly to the patient or, where the patient is a child, to the carer as a proxy to the child. In all other situations, it should be treated as an overhead.

Ordinary admissions

356. Specialist palliative care for ordinary elective or non-elective admissions should be reported using HRG SD01* reported on a bed day basis. The Grouper will output an unbundled specialist palliative care HRG accompanied by a multiplier showing the days of specialist palliative care within the FCE, and adjust the core length of stay for this activity.

357. If a patient is not admitted under the care of a specialist palliative medicine consultant but is receiving support from a member of a specialist palliative care team, this is classed as specialist palliative care support and should be reported using HRG SD03*.

Day case and regular day or night attenders

358. Same day specialist palliative care should be reported under HRG SD02*. The Grouper will automatically add one bed day.

Outpatients

359. For non-admitted care, HRG SD04* should be reported for medical and HRG SD05* for non-medical specialist palliative care attendances. A core outpatient attendance HRG should not also be reported when a patient attends for specialist palliative care only.

Section 7: Renal dialysis

Introduction

360. This section covers:

(a) renal dialysis for chronic kidney disease
(b) renal dialysis for acute kidney injury.

361. These services should be separately identified from other services and reported using HRG4 against a single setting (rather than the separate categories of ordinary admission etc).

Renal dialysis for chronic kidney disease

362. Renal dialysis for chronic kidney disease is described by the sub-chapter LD core HRGs. These are generated from data items contained in the NRD[58].

363. When a patient has dialysis for chronic kidney disease, some trusts record a dialysis session (patient solely admitted for dialysis) as an outpatient or regular day admission within the CDS. This should generate the LD HRG for the dialysis, and a core HRG of LA97A or LA97B for the CDS activity. As all the costs relate to dialysis, and are reported under the LD HRG, there should be zero costs allocated to the LA97* HRGs which we have removed from the reference costs workbook.

Haemodialysis

364. The following HRGs are to be used for reporting reference costs for haemodialysis

(a) LD01* to LD04* (hospital haemodialysis)
(b) LD05* to LD08* (satellite haemodialysis)
(c) LD09* and LD10* (home haemodialysis).

365. Activity should be reported by individual session, i.e. each session of haemodialysis treatment received on a given day for each patient.

366. Because the HRGs are automatically generated from the NRD it should be possible for providers to identify all activity, which may not previously have been recorded on the hospital PAS system, admitted patient care CDS or outpatient CDS, but held locally.

367. Where separate costs for patients with blood borne viruses receiving haemodialysis are identified these should include the cost differential arising from the need to provide isolation dialysis if its delivery reduces staffing flexibility and increases the capital costs through patient specific dialysis machine usage.

368. There is an additional requirement to report as memorandum information the average number of sessions per week per patient of home haemodialysis for patients aged 19 years and over. Trusts will need to liaise with their renal unit to obtain this

[58] http://www.ic.nhs.uk/services/datasets/dataset-list/renal

information.

Dialysis away from base

369. There is an additional requirement to identify separately the costs and activity associated with providing haemodialysis to patients aged 19 years and over whilst they are away from their normal base. This will help ensure that tariffs differentiate appropriately between the costs of dialysis away from base and at the patient's normal base. Trusts will need to liaise with their renal unit to obtain this information. Costs should be provided on exactly the same basis as for regular dialysis at the base unit.

Peritoneal dialysis

370. The LD13* HRGs describe assisted automated peritoneal dialysis (APD), and are designed to capture patients receiving APD at home with the assistance of a healthcare professional. Costs for these HRGs should be reported on a per day basis as described in the NRD and not based on the number of bags or exchanges.

371. In costing continuous ambulatory peritoneal dialysis (CAPD) and APD, the cost of the bags used for each session is a major cost driver. These bags can differ in size, so using number of bags is not a good proxy for number of sessions. Instead, patient days should be used as a proxy for sessions. The cost of the fluids for exchange, plus the operating costs of the machine facilitating the exchange in APD should be included.

Renal dialysis for acute kidney injury

372. Renal dialysis for acute kidney injury is described by a new unbundled subchapter LE in the HRG4 2012-13 Reference Costs Grouper, containing four HRGs split between haemodialysis and peritoneal dialysis for adults and children.

373. About one third of patients who receive dialysis for acute kidney injury have a primary diagnosis of acute kidney injury and generate a core HRG of LA07*. The other two thirds of patients have other primary diagnoses and treatments, so the LE unbundled HRGs can be generated alongside any core HRG.

374. Each session of dialysis a patient has for acute kidney injury within admitted patient care will generate an unbundled HRG to which the costs associated with the dialysis should be assigned.

Costing renal dialysis

375. Renal medicine admitted patient care costs should be mapped accordingly to admitted patient care cost pools and not to renal dialysis except where these costs are directly related to dialysis in admitted patient care. The full range of staffing inputs should be allocated to all dialysis modalities including, but not limited to, medical and nursing staff (including erythropoiesis stimulating agents (ESA) management), nutrition and dietetic staff, social work, pharmacy and medical engineering or technical staff. Costing models must allocate these appropriately to peritoneal dialysis therapies. Costs should also include the revenue costs of buying and maintaining buildings and equipment, allocated appropriately between the

different types of dialysis.

376. Outpatient activities associated with each dialysis modality should be separately recorded and linked to the outpatient point of delivery e.g. pathology testing or drug prescriptions issued in clinics. The outpatient attendance HRGs should not be reported for patients attending for renal dialysis only

377. For dialysis undertaken using the hub and spoke configuration, the activity and costs should be recorded within the submission of the NHS provider with contractual responsibility for the delivery of the care.

378. The costs of all ESAs and drugs for bone mineral disorders should be included in the LD HRG costs. Some of these drugs should also be reported separately in the reconciliation statement workbook:

    (a) the ESAs Epoetin alpha, beta and zeta, and Darbetin alpha
    (b) the drugs for bone mineral disorders Cincalcet, Sevelamer and Lanthanum.

379. In a number of cases, drugs related to associated conditions are required. All of these drug costs should be treated as any other cost of treatment and attributed at the point of delivery or as in outpatients, the point of commitment, unless separately identified.

380. Patient transport services (PTS), which are a significant cost component of haemodialysis services, are excluded from reference costs and therefore must be excluded from costs reported for renal dialysis services.

Section 8: Direct access services

Introduction

381. This section covers the following direct access services[59]

(a) diagnostic services
(b) pathology services.

382. Diagnostic or pathology services that are undertaken in admitted patient care, critical care, outpatients or emergency medicine are included as part of the composite costs of these types of care. However, instead of occurring during the course of an admission or outpatient attendance, these services are also often carried out independently from an admission or attendance. This activity is classified as services accessed directly, and relates to all sources of referral for diagnostic tests and services outside these settings, e.g. when a patient is referred by a GP for a test or self-refers. Trusts should be careful to avoid double counting such activity.

Diagnostic services

383. Patients can directly access a range of diagnostic services, including physiological and clinical measurement tests. These are identifiable in CDS release 6.2, and trusts should report them using the relevant HRGs.

384. Plain film x-rays are not unbundled in any setting and the composite costs should be included within the core HRG or unbundled critical care HRG irrespective of patient setting. However, direct access plain film x-ray should be reported separately alongside other direct access diagnostic services under pseudo code DAPF.

Pathology services

385. Costs and activity for the following pathology services should be submitted based on the number of tests, with the number of requests for pathology investigation[60] required as a memorandum:

(a) anti-coagulation services
(b) cytology (excluding cervical screening programmes)
(c) histopathology and histology
(d) integrated blood sciences services (including clinical biochemistry, haematology and immunology)
(e) clinical biochemistry
(f) haematology
(g) immunology
(h) microbiology (including bacteriology, virology and mycology)
(i) phlebotomy

59 http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/d/direct_access_service_de.asp?shownav=1

60 http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/r/request_for_pathology_investigation_de.asp?shownav=1

(j) other.

386. Trusts may submit costs against integrated blood sciences, or separately against clinical biochemistry, haematology and immunology, but must not submit costs against both.

387. Trusts should refer to the recently released National Laboratory Medicine Catalogue[61], a catalogue of pathology tests designed to support consistent, standardised reporting. It is available via TRUD (paragraph 2).

388. The Department, working with NHS Midlands and East, has also produced a toolkit to support commissioning of community (i.e. direct access) pathology services[62]. Whilst primarily intended for commissioners, providers of pathology services may also find some of the tools helpful.

389. Direct access pathology costs will vary depending on whether the service is hospital or community based. Care should be taken to include the entire cost, including costs incurred in the transportation of samples where appropriate.

[61] http://www.connectingforhealth.nhs.uk/systemsandservices/pathology/projects/nlmc
[62] http://www.dh.gov.uk/health/2012/05/pathology-toolkit/

Section 9: Mental health services

Introduction

390. This section covers:

(a) adult (working age and older peoples) mental health services
(b) children and adolescent mental health services (CAMHS)
(c) drug and alcohol services
(d) specialist mental health services
(e) secure mental health services.

391. As the first step towards the introduction of a national tariff for mental health services, the Department mandated the use of the mental health care clusters as the currencies for adult mental health services for working age adults and older people. This guidance should be read alongside *Draft mental health payments by results guidance for 2013-14*[63], which includes a set of indicative cluster costs based on 2011-12 reference costs that can be used for benchmarking. Continued improvements in the quality of data that trusts submit for 2012-13 will be very important in supporting a future transition towards a national tariff, the timetable for which will be for Monitor and the NHS Commissioning Board to agree.

392. The care clusters cover most services for working age adults and older people, and replace previous reference cost currencies for adult and elderly mental health services. They also replace some currencies previously provided for specialist mental health services or mental health specialist teams. Existing reference cost currencies for children and adolescent, drug and alcohol, and some specialist mental health services remain, but we have refined these in light of the introduction of the care clusters. Some services previously excluded from reference costs should now be included in care clusters and existing reference cost currencies.

393. Table 51 summarises the allocation of mental health services across the reference cost currencies.

Table 51: Allocation of mental health services within reference costs

Service	Included in cluster reference costs	Included in non-cluster reference costs	Excluded from reference costs
Approved social worker services*	Yes		
Assertive outreach teams	Yes		
Crisis accommodation services	Yes		
Crisis resolution and home treatment teams	Yes		
Early intervention in psychosis services from age 14	Yes		
Eating disorder services (adult, excluding specialised eating disorders)	Yes		
Emergency clinics or walk in clinics	Yes		
Emergency duty teams (which are not emergency assessments e.g. for sectioning under the Mental Health Act)*	Yes		
Homeless mental health services	Yes		

[63] http://www.dh.gov.uk/health/category/policy-areas/nhs/resources-for-managers/payment-by-results/

Service	Included in cluster reference costs	Included in non-cluster reference costs	Excluded from reference costs
Local psychiatric intensive care units	Yes		
Mental health counselling and therapy***	Yes	Yes	
Psychology ***	Yes	Yes	
Psychotherapy ***	Yes	Yes	
A&E mental health liaison services (psychiatric liaison)		Yes	
Adult specialist eating disorder services[64]		Yes	
Autism and asperger syndrome		Yes	
CAMHS		Yes	
Drug and alcohol services		Yes	
Eating disorder services (children and adolescents)		Yes	
Forensic and secure mental health services		Yes	
Improving access to psychological therapies (IAPT)**		Yes	
Learning disability services in high dependency or high secure units		Yes	
Mental health services provided under a GP contract		Yes	
Perinatal mental health services (mother and baby units)[65]		Yes	
Primary diagnosis of drug or alcohol misuse		Yes	
Specialised addiction services		Yes	
Specialist psychological therapies (admitted patients and specialised outpatients)		Yes	
Acquired brain injury			Yes
Community veterans mental health pilots			Yes
Complex or treatment resistant disorders in tertiary settings			Yes
Gender identity disorder services			Yes
Learning disability services not provided in high dependency or high secure units			Yes
Neuropsychiatry			Yes
Specialist mental health services for deaf people			Yes

* these services are only included in clusters where NHS funded, otherwise they are excluded.
** other specialist teams.
*** Where the service is provided to a clustered user, the cost is included in the cluster. Where the service is provided to a non-clustered user, the cost is included in a non-cluster currency.

394. The collection and guidance is therefore organised from the perspective of service users and the settings in which mental health services are delivered. For non-cluster activity, the following settings apply:

(a) ordinary elective and non-elective admissions on an occupied bed day basis
(b) day care facilities on a patient day basis
(c) outpatient attendances
(d) community contacts
(e) mental health specialist teams.

395. The clusters are setting independent, but we will continue to collect separately the

[64] http://www.specialisedservices.nhs.uk/doc/specialised-mental-health-services-all-ages
[65] http://www.specialisedservices.nhs.uk/doc/specialised-mental-health-services-all-ages

cost and number of cluster days in admitted patient care and other settings as additional memorandum fields.

396. Mental health trusts should separately identify the costs of sub-contracting services from non-NHS providers, including the voluntary sector, for non-cluster currencies in the reconciliation statement workbook (paragraph 608). Sub-contracted costs, however, should continue to be included within the clusters and recorded in the reconciliation statement (paragraph 609).

397. Only mental health trusts should use these currencies. Other trusts should use HRGs.

Adult mental health services

Mental health care clusters

398. The mental health care clusters[66] for working age adults and older people, focus on the characteristics and needs of a service user, rather than the individual interventions they receive or their diagnosis. The care clusters are numbered from 00-21, although 09 is not currently used and 99 is used for patients not assessed or clustered.

399. Mental health professionals rate service users using a mental health clustering tool (MHCT) that will help them determine which cluster best describes the characteristics of a particular service user. The tool has 18 scales (e.g. depressed mood, problems with activities of daily living). The first 12 scales are the Health of the Nation Outcome Scales (HoNOS), which are already part of the Mental Health Minimum Data Set and routinely used by clinicians. Each scale is rated from 0 (no problem) to 4 (severe to very severe problem).

400. An updated suite of documents to help organisations clinically cluster their service users has been published as part of the 2013-14 PbR package[67]. These include the Mental Health Clustering Booklet for 2011-12, which outlines the care clusters and the supporting MHCT, and contains the likely Care Transition Protocols for each cluster. Their use is encouraged as they are intended to improve the accuracy of cluster allocation, which will improve the overall functioning of the clinical and currency model.

401. The clusters cover extended time periods which may contain multiple different care interventions. For instance, whilst in cluster 3 (non-psychotic (moderate severity)) a service user might have several sessions of psychological therapies, contacts with a care coordinator and a prescription for exercise. Each cluster has an associated review period, which should be taken as a **maximum rather than a minimum** period duration. Trusts must ensure that reviews do take place and once the review has taken place service users are reallocated to a new cluster if necessary. The cluster is finished for a service user only when they have been either moved to a different cluster, to a service outside clusters, or formally discharged.

66 http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/m/mental_health_care_cluster_de.asp?shownav=1

67 http://www.dh.gov.uk/health/category/policy-areas/nhs/resources-for-managers/payment-by-results/

402. To support the development of prices, we will be collecting average review periods from 2012-13.

403. Table 52 shows the clusters and their maximum review period.

Table 52: Mental health care clusters

Code	Cluster label	Review interval (maximum)*
00	Unable to assign mental health care cluster code	12 months
01	Common mental health problems (low severity)	12 weeks
02	Common mental health problems (low severity with greater need)	15 weeks
03	Non-psychotic (moderate severity)	6 months
04	Non-psychotic (severe)	6 months
05	Non-psychotic (very severe)	6 months
06	Non-psychotic disorders of over-valued ideas	6 months
07	Enduring non-psychotic disorders (high disability)	Annual
08	Non-psychotic chaotic and challenging disorders	Annual
09	This cluster is under review and should not be used**	Not applicable
10	First episode psychosis	Annual
11	Ongoing recurrent psychosis (low symptoms)	Annual
12	Ongoing or recurrent psychosis (high disability)	Annual
13	Ongoing or recurrent psychosis (high symptom and disability)	Annual
14	Psychotic crisis	4 weeks
15	Severe psychotic depression	4 weeks
16	Dual diagnosis	6 months
17	Psychosis and affective disorder (difficult to engage)	6 months
18	Cognitive impairment (low need)	6 months
19	Cognitive impairment or dementia (moderate need)	6 months
20	Cognitive impairment or dementia (high need)	6 months
21	Cognitive impairment or dementia (high physical or engagement)	6 months
99	Patients not assessed or clustered	N/A

* Note the review periods in the *Draft mental health payments by results guidance for 2013-14* have been updated and are different to this table.
** Cluster 09 will not be available in the workbook.

Costing adult mental health services

404. Mental health providers should cost their services to the same costing principles set out in *Approved Costing Guidance* that apply to all NHS providers, and to the costing standards set out in the *HFMA clinical costing standards for mental health.*

405. The key to costing accurately at cluster level is having the activity and interventions recorded by service user and the cluster assigned appropriately so costs can be built up by service user.

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406. Due to the nature and length of mental health care clusters, with some beginning in one financial year and running to the next, and others having a length of 12 months or more, costs will not be collected on a completed cluster basis. The collection will therefore capture data at a cost per cluster per day level, produced using the length of clusters falling in the reference costs year (expressed in days, similar to an acute spell or episode), and the costs of interventions within them.

407. The non-cluster collection generally excludes activity which continues into the next reporting year (paragraph 62). To take account of the potential length of some of the mental health care clusters **all activity and costs which occur in the financial year must be reported**, regardless of whether the clusters have completed.

408. Costs per cluster per day can be calculated using a number of different methodologies, depending on the costing system in place. Organisations with more detailed activity data using PLICS will be able to adopt a bottom up approach which is likely to involve applying a weighted cost per day per cluster based on the length of cluster. This is the methodology used by the Care Pathways and Packages Project (CPPP)[68] to cost their clusters (Annex C). CPPP calculate a cost per day by cluster, based on a series of relative value units or cluster weightings, to reflect the differing treatment intensity. This cost can then be multiplied up to get a cost by patient in a specific cluster.

409. Another approach, where less detailed activity data are available, is used by trusts in West Midlands and builds on a predominantly top down methodology used in traditional reference costs, to produce a cost per day per cluster (Annex D). Here, each community visit, outpatient attendance, admitted bed day etc can be costed and then totalled up by patient to give a cluster cost for each service user, from which an average cost can be produced.

410. The clusters are designed to be setting independent. In 2012-13 we will continue to collect separately costs and activity for admitted patient care and non-admitted patient care (covering outpatients, day care and community), as well as for initial assessments (Table 53). Trusts should take care to ensure that the quantum is equal to the total of the cluster day costs and the initial assessments.

411. In order to avoid confusion, cluster episodes will be referred to as review periods.

Table 53: Care cluster worksheets

Field	Comments
Cluster costs (worksheet MHCC)	
Unit cost per day per cluster	Average/weighted cost per day per service user per cluster
Number of cluster days within the financial year	Total number of patient days within each cluster within the financial year
Memorandum information	
Unit cost per occupied bed day	This covers admitted patient care on an occupied bed day basis covering ordinary elective and non-elective activity. It is unlikely that service users in clusters 01 to 03 would have admitted patient days.
Number of cluster days in admitted patient care	
Unit cost per non-admitted cluster day	This is the cost per day based on the number of days between the start and finish (or year end) of the cluster review periods, when the service user was not in admitted patient care. It is not the number of contacts.
Number of cluster days in other settings	
Total number of cluster review periods	Total number of review periods in each cluster. If a service user has been allocated to a cluster more than once during the year, each separate time should be counted. A reassessment resulting in the service user remaining in the same cluster does result in a new review period. Only completed review periods should be included, part review periods at the beginning and end of the year should not

[68] http://www.cppconsortium.nhs.uk/

Field	Comments
	be counted.
Average review period (days)	Average length of a cluster review period. This is the average interval between review periods for each service user expressed in days. Only completed review periods should be included in the average calculation, part review periods at the beginning and end of the year should not be counted.
Initial assessments (worksheet MHCCIA)	
Unit cost per initial assessment	This covers the costs and activity associated with initial assessments of service users which helps clinicians to allocate them to clusters. Initial assessment and clustering of service users can require significant professional resource, and are therefore identified separately rather than included as an overhead for service users who are clustered.
Number of initial assessments	

412. The initial assessment period begins when the mental health trust receives a new referral from a GP or elsewhere. Where the assessment is to determine whether someone will be clustered or not, experience to date suggests that this should be limited to two contacts in a community setting or two days in an admitted patient setting. This can be used as a proxy if actual data is not available. The assessment is completed when the individual is either allocated to a cluster or not allocated (cluster 00).

413. The number of cluster days a service user spends in initial assessment should be deducted from the total number of cluster days. For example, if a service user is referred for treatment on 1 July, discharged on 30 July, and the initial assessment period was the 3 and 5 July, the total number of cluster days would be 28, i.e. 30 days in total less 2 assessment days.

414. The clusters should only include costs and activity incurred for a service user who has been assigned a cluster. Costs incurred prior to clustering will be allocated to the cluster after initial assessment (paragraph 415). The worksheet includes separate lines for:

    (a) unable to assign mental health care cluster code (cluster 00) – record costs for a service user who has been assessed but has not been allocated a cluster, including the cost of their initial assessment on the initial assessment worksheet, and pre-assessment costs on the cluster worksheet. Service users discharged after initial assessment would be recorded in cluster 00
    (b) patients not clustered or assessed (cluster 99) - record costs incurred for treatment before a service user has been fully assessed and allocated to a cluster. This will include service user costs close to the year end where the initial assessment costs fall into both years and the cluster is allocated after the year end. We do not want to include part year costs in initial assessments, so initial assessment costs before and after the year end will remain in cluster 99. For 2011-12 only any service user not clustered before the December 2011 deadline could remain in cluster 99, therefore we expect that most trusts will see a reduction in cluster 99 for 2012-13.

415. Once a service user has been assessed and placed into a cluster, the cost of the initial assessment is coded to the correct cluster, and any pre-treatment should now be recorded against the appropriate cluster. This will enable separate costs for these assessments to be identified. Cost of initial assessment must not be included on the MHCC worksheet.

416. The cost of re-assessment should be included in the cluster the user is assigned to at the time of the re-assessment, rather than the new cluster if the cluster changes. In a change from 2011-12, re-assessment that does not result in a change of cluster will be recorded as a new review period (Table 55).

417. Patients who did not attend (DNA) are not collected separately and the costs, but not activity, should be included as an overhead within the relevant cluster pathway. The same approach to DNAs applies to the non-cluster currencies.

418. The number of complete review periods and the average length of these will be collected. Where a review period is part completed during the year it is not included in this memo field. The intention is not to remove work in progress from the cluster cost and organisations must provide costs for the full period of care in the financial year. A review period is for 12 months (clusters 07 to 13) is likely to cross two financial years, and should be reported as one review of 365 days.

419. In our first example, we consider a service user who changes cluster (Table 54). Here, the service user is assessed and spends 30 days in cluster 14 at a cost of £1,000. They are reviewed and re-clustered to cluster 15, spending 20 days there at a cost of £2,000. They are re-reviewed and returned to cluster 14, where after being reviewed at 30 day intervals, spend the remaining 70 days until the end of the year at a cost of £4,000. Note the 10 days to the year end are not counted as a review period or in the average review calculation.

Table 54: Service user change of cluster

Cluster	Total cost	Number of cluster days within the costing period	Unit cost per day per cluster	Total number of unique service users	Total number of complete review periods	Average completed review period (days)
14	£5,000	30 + 70 = 100	£50	1	3	30
15	£2,000	20	£100	1	1	20

420. In our second example we consider a service user who is assessed multiple times in-year within a cluster. Here, the service user is assessed as cluster 15 at a cost of £9,000 to the first review after four weeks and are confirmed to remain in cluster 15, where they spend 26 more days at a cost of £5,500. They are re-reviewed and stay in cluster 15, where they spend the remaining eight days until the end of the year at a cost of £1,000 of cost. There are two review periods, with an average review period of 27 days (26 + 28 / 2). The part review period to the year end is ignored for the average calculation and the number of review periods.

Table 55: Multiple assessment of service user

Cluster	Total cost	Number of cluster days within the costing period	Unit cost per day per cluster	Total number of unique service users	Total number of service review periods	Average review period (days)
15	£15,500	28+26+8=62	£250	1	2	27

Child and adolescent mental health services

421. CAMHS should be reported in the following settings:

(a) ordinary elective and non-elective admissions on an occupied bed day basis
(b) day care facilities on a patient day basis
(c) outpatient attendances
(d) community contacts.

422. Child and adolescent drug and alcohol, eating disorder and secure services are reported separately.

Drug and alcohol services

423. This relates to service users who do not have a significant mental health need but who are treated by substance misuse services, which have different commissioning routes and information systems from mainstream mental health services. Drug and alcohol services therefore continue to be reported separately, split by adult and child and adolescent services, in the following settings:

(a) ordinary elective and non-elective admissions on an occupied bed day basis
(b) outpatient attendances
(c) community contacts.

Specialist mental health services

424. The following specialist mental health services should be reported separately:

(a) autistic spectrum disorder
(b) children and adolescents eating disorder services
(c) adult specialist eating disorder services - highly specialised inpatient service for patients with very severe eating disorders, including some outpatient and community liaison services
(d) perinatal mental health services - perinatal mental health inpatient units, or mother and baby units (MBUs), provide in-patient assessment and treatment for mothers with serious mental illness and their babies. The service also includes outpatient follow-up and community outreach
(e) other.

425. These services should be reported in the following settings:

(a) ordinary elective and non-elective admissions on an occupied bed day basis
(b) outpatient attendances
(c) community contacts.

Secure mental health services

426. Providers of secure mental health services should submit unit costs and activity based on occupied bed days for the following services:

(a) low secure services
(b) medium secure services
(c) high dependency secure provision
    (i) women's services
    (ii) mental health or psychosis

(iii) learning disabilities
(iv) personality disorder

(d) high secure units
(i) women's services
(ii) mental health or psychosis
(iii) learning disabilities
(iv) personality disorder
(v) dangerous and severe personality disorder

(e) child and adolescent low secure services
(f) child and adolescent medium secure services
(g) child and adolescent high secure services.

427. Only the designated trusts in Table 56 should submit data for high secure units.

Table 56: High secure units

Code	Name
RW4	Ashworth, Mersey Care NHS Trust
RKL	Broadmoor, West London Mental Health NHS Trust
RHA	Rampton, Nottinghamshire Healthcare NHS Trust

428. Only the designated trusts in Table 57 should submit data for child and adolescent secure services.

Table 57: Child and adolescent secure services

Code	Name
RXT	Birmingham and Solihull Mental Health NHS Foundation Trust
RXV	Greater Manchester West Mental Health NHS Foundation Trust
RV5	South London and Maudsley NHS Foundation Trust
RW1	Southern Health NHS Foundation Trust
RX4	Northumberland, Tyne and Wear NHS Foundation Trust

Settings for non-cluster activity

Ordinary elective and non-elective admissions

429. Costs and activity should be submitted on an occupied bed day basis. Some admitted patient care within mental health services includes trial periods of time where patients are on home leave. They are not discharged but sent on leave to return as an admitted patient at a future date. This sometimes creates an anomaly where their beds may be used for other admitted patients, resulting in bed occupancy levels of over 100%.

430. Organisations should ensure that the reported total number of occupied bed days for a ward does not include any leave day activity unless the bed is held open for that patient to return to, i.e. that no other patient uses the bed in their absence. This rule also applies to patients transferred temporarily to an acute provider for treatment.

431. Where the PAS does not record home leave, the activity levels will need to be adjusted manually. The key rule is to ensure that multiple occupancy above 100% is not reported, as this would have the artificial effect of diluting the unit costs.

Day care facilities

432. Costs and activity for mental health services in day care facilities[69] should be submitted on the same basis as for other patients using these facilities. Therefore, the guidance in paragraphs 196 to 199 applies here.

433. Centres catering primarily for patients with long term physical disability or learning disability are excluded (as are all services for these patients).

434. There has sometimes been uncertainty as to whether a regular contact with a client constitutes day care facility attendance or a community mental health team (paragraph 439) group contact. It is usually considered that day care facilities have consultant input and undertake patient assessments, whereas a community mental health team group contact would not necessarily involve a consultant and may not involve patient assessments.

Outpatient attendances

435. Costs and activity should be reported for attendances and non face to face contacts. Where consultants have a clinical caseload within a specialist team, e.g. criminal justice liaison team, the costs and activity should be reported against the specialist team currencies (paragraph 443). Where consultants do not have a clinical caseload within a specialist team, costs and activity should be reported in an outpatient or community (paragraph 439) setting.

436. The key to determining whether activity should be reported in an outpatient or community setting is as follows:

    (a) if the appointment is booked into a clinic list for a specific clinic session, including clinics in a residential home, where a consultant sees more than one patient in that clinic and location, then report in an outpatient setting
    (b) otherwise it should be reported in a community setting, e.g. a home or domiciliary visit or a visit to a single client in a residential home.

437. Primary consultations, e.g. telephone or informal contact, before the patient attends for a traditional first appointment (including mental health services such as CAMHS and community mental health teams) should not be recorded as an attendance. Rather, the cost of such contacts should form part of the unit costs of contacts with clients once accepted for treatment by the relevant service.

438. Domiciliary visit payments are now only paid in limited circumstances, or to those consultants who have chosen to retain the old consultant contract (section 12(2) 2003). The distinction to be made for reference costs is between:

    (a) costs of seeing a client in a consultant clinic, which should be categorised as an outpatient attendance
    (b) costs of a consultant seeing a client at home, which should be categorised as a

69 http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/d/day_care_facility_de.asp?shownav=1

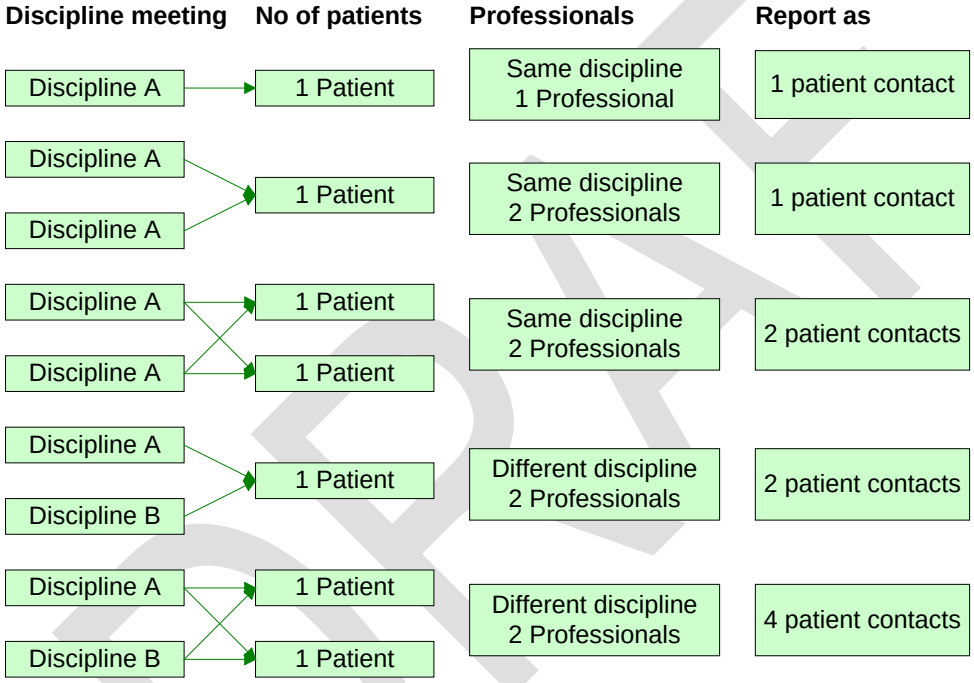
community contact.

Community contacts

439. Costs and activity should be reported for face to face and non face to face patient contacts with consultant led community services or community mental health teams (CMHT). CMHTs are teams of variable sizes, comprising a combination of staff from qualified and unqualified disciplines including social workers, community mental health nurses, occupational therapists, psychiatrists, psychologists, counsellors and community support workers (e.g. home helps).

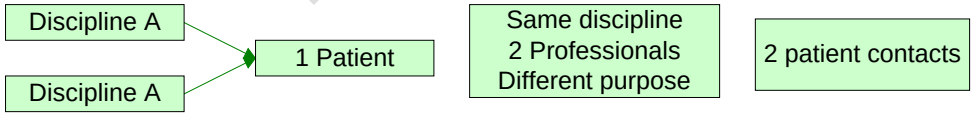
440. Although it is rare for patients to meet more than one discipline (i.e. qualified professional staff group within each CMHT) at a single time, when this does occur the reason is for very different purposes and therefore should be recorded for reference costs. Table 58 describes this process.

Table 58: Reporting patient contacts with multi-disciplinary community mental health teams



441. The exception to this general principle is when two or more professionals from the same discipline meet a single patient, at the same time, but for a different purpose (Table 59).

Table 59: Reporting patient contacts with two or more professionals from the same discipline



442. Where CMHTs include social workers funded by social services, in addition to NHS funded staff, only the cost and activity of the NHS funded staff should be included in the reference cost return.

Mental health specialist teams

443. Most cost and activity data for services undertaken by mental health specialist teams

(MHST), using currencies based on the annual national survey of investment in adult mental health services[70], should now be included in the care clusters. Remaining costs and activity should be reported on a patient contacts basis for:

(a) A&E mental health liaison services
(b) CAMHS
(c) criminal justice liaison
(d) drug and alcohol services
(e) eating disorder services
(f) forensic community
(g) IAPT
(h) prison health
(i) other.

444. Where consultants have a clinical caseload within a MHST, their costs and activity should be reported with the team.

70 http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_117488

Section 10: Community services

Introduction

445. This section covers:

(a) specialist nursing
(b) district nursing
(c) nursing services for children
(d) school based children's health services
(e) health visiting
(f) community dentistry
(g) community dietetics
(h) community paediatric services
(i) community podiatry
(j) community rehabilitation teams
(k) community therapy (physiotherapy, occupational therapy, and speech and language therapy)
(l) hospital at home and early discharge schemes.

446. One of the challenges for reference costs for community services has been the lack of a standard minimum data set and detailed service descriptions for the majority of services commonly classified as community services. The introduction of the Community Information Data Set (CIDS)[71] for local use from April 2012 therefore marks a significant step forward.

447. Due to the anticipated volume of data involved, and the paucity of automated recording systems for the majority of community services, organisations may use appropriate and reflective sample data to ascertain annual activity when reporting information in this section. There is no minimum sample time stipulated within reference costs but the sample should be reflective of annual activity in a service area. Where this is not feasible, organisations may use informed clinical estimates, retaining evidence of the data source.

448. This guidance also applies to outreach services. These services reflect changes in the way health services are being delivered with less clearly defined boundaries around service delivery. For a number of services, this can result in the same staff delivering services in ward settings in acute hospitals and outside such settings to provide continuity of care to patients.

449. As these services are delivered in a range of settings, input from other health professionals, including practice nurses will occur. All relevant costs have to be included to ensure comparability and the key issue is the cost of services and not the funding stream. Services that are categorised as primary medical services are excluded however.

450. Some of the services described in this section – dentistry, dietetics, podiatry and therapy - can be provided in a number of settings. Where they are provided as part of

[71] http://www.ic.nhs.uk/services/in-development/community-information-programme/community-information-data-set-cids

an admitted patient care or outpatient attendance, the costs should be reported within the composite cost of the admitted patient care or outpatient attendance HRG. Otherwise, activity and costs for these services when provided in a community setting, including when directly accessed, should be reported in this section.

451. Definitions for face to face and non face to face community contacts are aligned with those for outpatient attendances in paragraphs 209 to 213.

452. Where group sessions are reported in this section, the activity count is the number of sessions irrespective of the size of the group involved or the number of health professionals running the session, e.g. two therapists running a session for 20 people has an activity count of one.

453. Evening or twilight services offered as an extension to a community nursing service should be reported under the appropriate category (e.g. district or specialist nursing) thus forming part of the composite costs and activity of that service.

Specialist nursing services

454. Specialist nursing services are reported using community contacts as the activity currency, disaggregated by the bands in Table 60, split further by adult or child and face to face or non face to face.

Table 60: Specialist nursing service bands

National code	Description	Comment
N06	Active Case Management (Community Matrons)	
N07	Arthritis Nursing/Liaison	
N08	Asthma and Respiratory Nursing/Liaison	
N09	Breast Care Nursing/Liaison	
N10	Cancer Related	
N11	Cardiac Nursing/Liaison	
N12	Children's Services	See paragraphs 456 to 458
N14	Continence Services	Exclude costs relating to patients in regular receipt of supplies (e.g. continence pads, stoma bags) which should be reported against home delivery of drugs and supplies (paragraph 555) in the reconciliation statement workbook
N15	Diabetic Nursing/Liaison	
N16	Enteral Feeding Nursing Services	
N17	Haemophilia Nursing Services	
N18	HIV/AIDS Nursing Services	Includes follow up of HIV care, psychosocial support, treatment support for individuals starting or switching therapy etc
N19	Infectious Diseases	
N20	Intensive Care Nursing	
N21	Palliative/Respite Care	
N22	Parkinson's and Alzheimers Nursing/Liaison	
N23	Rehabilitation Nursing	
N24	Stoma Care Services	See comment under Continence Services
N25	Tissue Viability Nursing/Liaison	

National code	Description	Comment
N26	Transplantation Patients Nursing Service	Includes patients on pre and post transplantation programmes
N27	Treatment Room Nursing Services	To be used for nursing staff based in GP surgeries
N28	Tuberculosis Specialist Nursing	
N29	Other Specialist Nursing	e.g. sickle cell

455. Specialist Nursing – Community Cystic Fibrosis should be included in the year of care currencies for cystic fibrosis (Section 13).

Nursing services for children

456. In addition to specialist nursing services, the NHS provides a range of other nursing services for children including:

(a) vulnerable children support, including child protection and family therapy
(b) development services for children, including psychology
(c) paediatric liaison
(d) other child nursing services not included in specialist nursing and school based child health services, including looked after children nurses.

457. These services should be reported as one composite group using total community contacts in the financial year as the activity measure.

458. The following should be noted for child protection services, where separate to services performed by community paediatricians (paragraph 209):

(a) in general, the cost of child protection is an oncost of nursing services for children. Activity included should relate to the number of total face to face contacts in a given financial year, not the number of children on the register
(b) funding received from non-NHS sources should be netted off expenditure incurred in line with the matching principle
(c) where the service is advisory to other elements of health care, and there is no contact with children, costs should be apportioned between the service areas that receive advice
(d) where the service offers advice to non-NHS bodies, e.g. social services, the police etc, these costs should be excluded
(e) for consistency with other reference cost definitions, the activity relating to meetings about the patient are not counted for reference costs. The costs of these meetings should be included as an overhead and apportioned as appropriate
(f) the above advice is applicable to all child protection teams, including those that consist of a team of consultants and nurses.

District nursing services

459. Organisations should make every effort to map district nursing services to the specialist nursing bands. Only if this is not possible should organisations report against district nursing, split by face to face and non face to face.

School based children's health services

460. A number of health services and checks are performed through educational facilities. School based children's health services include all services provided in the school setting, and not just nurses that are school based and providing health services. While having a significant levels of nursing input, they also have input from community paediatricians. For reference costs, they have been divided into:

    (a) core services, including school entry review and year 6 obesity monitoring, further sub-divided into
        (i) one to one
        (ii) group single professional
        (iii) group multi professional (using the same definition of multi professional in paragraph 215)
    (b) other services, including routine medical checks, sexual and reproductive health advice, family planning, smoking cessation, substance misuse advice and support, obesity and behaviour management (sleep, diet, healthy lifestyles, relationships etc), further sub-divided into
        (i) one to one
        (ii) group single professional
        (iii) group multi professional
    (c) vaccination programmes.

461. The activities suggested for each category above are not exhaustive, may not all be undertaken by providers and may be known by a slightly different name. Core and other services should be reported using total community contacts in the financial year. In costing all school based services, the full cost of delivering these services, not just associated nursing costs, should be included.

462. In addition, there is a requirement to report activity for school based vaccination programmes (including MMR, tuberculosis and meningitis) using the number of vaccinations given as the currency, and unit cost per child. The activity measure will be based on the number of individual vaccinations given in a year. For example, if two vaccinations from a course of three are given in the year, this will count as two. This will allow for uncompleted courses as it is the individual number of vaccinations and immunisations that are the activity unit. For reference costs, vaccinations may be equated with number of injections given. The unit cost should include all costs (including administration, nursing and medical costs) where these are part of the service costs, as well as the cost of vaccines. Any income in the form of fees from patients should be matched to expenditure.

463. Vaccination programmes jointly funded by GPs or non-NHS providers are excluded from reference costs. Similarly, where a GP provides the vaccination, but it is administered by a school based nurse, activity and associated costs incurred by the NHS provider for this element of service should be excluded.

Health visiting services

464. Health visiting services have been divided, with the same caveats as in paragraph 461, into:

    (a) core visiting services, including between six to eight weeks contact, one year

contact, and two to three years contact, further sub-divided into
(i) face to face group
(ii) face to face one to one
(iii) non face to face

(b) other health visiting services, excluding parentcraft and post-natal visits, but including, antenatal contact, child in need, clinics, family health partnership programme, looked after children, parental health, parenting of child, prison health visiting, safeguarding and telephone triage, further sub-divided into
(i) face to face group
(ii) face to face one to one
(iii) non face to face

(c) parentcraft, which should be reported as group sessions as per paragraph 452

(d) post-natal visits.

465. Post-natal visits are separately identified for community midwives (paragraph 520), and post-natal visits carried out by health visitors are reported for consistency. As with vaccinations, the full cost of this element of service should be identified.

466. When counting activity for post natal visits, the following should be noted:

(a) post-natal visits are visits undertaken up to 28 days after the birth

(b) the activity measure is the visit itself, irrespective of whether the health visitor sees the mother, baby or both

(c) visits should only be counted where the mother, baby or both were seen. Costs, but not activity, for DNAs should be included as an overhead

(d) post natal visits that occur more than 28 days after the birth should be included in other health visiting services.

467. Vaccinations and immunisations should be separately reported at full cost (including travel costs), on the same basis as school based children's services (paragraph 463).

Community dietetics

468. Community dietetic services should be reported here, using number of attendances as the activity measure.

Community dentistry

469. Community dentistry should be reported using number of attendances as the activity measure. It should include the costs and activity of face to face dental officer activity in clinics, and screening contacts that these officers carry out in schools (where each child screened constitutes a contact, since each requires one-to-one activity).

470. Primary dental services are excluded from reference costs. Some patients choose to access primary dental services provided by undergraduate dental students in secondary care settings. As these services are substitutes for primary care provision, they should also be excluded from reference costs. Consultant led oral surgery and orthodontic treatment (including post-graduate student activity) which takes place in secondary care should, however, be included.

Community paediatric services

471. As noted in paragraph 227, neuro-disability work conducted by community paediatricians should be reported under paediatric neuro-disability (TFC 291) and not in this section. All other costs and activity for community paediatric services (TFC 290) should be reported here, with number of attendances as the activity measure and using the currencies in Table 61 split by face to face and non face to face.

Table 61: Community paediatric service currencies

Currency	Face to face	Non face to face
Safeguarding	Include all child protection medical examinations for suspected physical, sexual or emotional abuse or neglect, and attendance at child protection conferences where the child or parent is present	Include all telephone contacts with child or parent on safeguarding. Contacts about patients, with the exception of cancer MDT meetings about a patient, should not be counted as valid activity (this exclusion also applies to the other currencies below)
Other statutory work for social services	Include all adoption medicals, initial and review looked after children (LAC) medicals, medicals specifically conducted for children in need	Include all telephone contacts with child or parent. The role of adoption adviser, panel preparation and attendance and designated LAC doctor should be included as oncosts for the service
Statutory work for education	Include all medical assessments as part of statutory assessment, where the child or young person has been seen specifically to provide the report. Do not include reports written from the notes for the child or young person already known to the service, i.e. where the child is not seen to prepare the report. Also include here annual reviews or MDT meetings on children with identified special educational needs (SEN) where child or parent is present	Include all telephone contacts with child or parent. The role of Designated Medical Officer for SEN, panel preparation and attendance should be included as oncosts for the service
Child public health	Include medical assessments done as part of the child health promotion programmes and vaccinations given by community paediatricians, where these are not provided by GPs. Also include any face to face consultations with parents for immunisation advice, where these can be identified, e.g. immunisation advice clinics	Include all telephone contacts with child or parents regarding immunisations. The role of Immunisation Coordinator and Child Health Promotion Coordinator, including telephone advice line for professionals, should be included as oncosts for the service
Other (default if it is not possible to split costs and activity into the categories above)	Include any other face to face clinical activity not included above or under TFC 291	Include all telephone contacts with child or parent

472. Although most of this activity may be driven by social services and education, it is generally funded by the NHS. If it is funded by a local authority, or as part of a pooled budget arrangement, then it should generally be excluded (paragraph 555).

Community podiatry

473. Podiatry services can be delivered in a number of settings, e.g. the patient's home or

GP surgery. Services provided in a community setting should be reported here, using number of attendances as the activity measure.

Community rehabilitation teams

474. Community rehabilitation teams are usually comprised of a number of health care professionals providing ongoing care to patients in a community setting. The range of services provided will vary on a patient by patient basis, although the care usually includes nursing and a range of therapy services. These services may be provided by teams operating from both hospital and community bases. For reference costs, the location of the team has no relevance, although care should be taken not to double count any activity reported using the unbundled rehabilitation HRGs.

475. The activity measure is the number of team contacts in a financial year, e.g. one patient seen by a nurse for three days, twice by a physiotherapist, and twice by a speech and language therapist represents seven team contacts. This example assumes that team members do not see patients on anything other than a team basis, i.e. that total clinical caseload for that professional relates solely to team activity. Where members of a clinical team also see patients in another capacity, e.g. as a speech and language therapist, costs and activity should not be reported as part of the community rehabilitation team activity but elsewhere in the collection using the relevant currency, e.g. community speech and language therapy.

476. Some teams provide rehabilitation services for patients with specific diagnoses or conditions, e.g. neurological community rehabilitation teams. There is no requirement to separately identify the types of rehabilitation services provided.

Community therapy services

477. Therapy services may be provided as part of an admitted patient care stay or outpatient attendance, in which case the costs should be included in the composite costs of the relevant HRG. Therapy services may also be provided in the community and may be accessed directly (see paragraph 382) by a patient. They may be delivered by community based therapy staff or on an outreach basis. The services may be follow-on treatments from earlier events, or relate to continuing care in community settings, and should be reported using the number of community contacts in a financial year as the activity measure.

478. This section covers the following services undertaken in the community:

    (a) physiotherapy
    (b) occupational therapy
    (c) speech and language therapy.

479. These services are further sub-divided into:

    (a) adult one-to-one services
    (b) adult group services
    (c) children one-to-one services
    (d) children group services.

Hospital at home and early discharge schemes

480. These schemes allow the early discharge of patients from hospital in order for them to receive ongoing healthcare from healthcare professionals at home. The range of services provided by these teams varies patient by patient, although the care usually includes nursing and a range of therapy services. The teams may operate from hospital or community bases. For reference costs, the location of the team has no relevance. There are currently no information standards to cover these schemes, but an indicator may be added to the admitted CDS types in future.

481. Data should be reported using three currencies:

    (a) hospital at home – COPD
    (b) hospital at home – fractured neck of femur
    (c) hospital at home – other.

482. The activity measure is the number of team contacts in a financial year, and the guidance in paragraph 475 applies here. There is also a requirement to report the number of complete packages of care, i.e. one complete package might contain five contacts.

483. These schemes are different from intermediate care and step down beds. They have a projected end date for the care plan following a patient's early release from an acute admission, whereas intermediate care and step down beds usually have a longer care path, can be delivered in hospital and community beds, and are excluded from reference costs.

Section 11: Ambulance services

Introduction

484. This section covers emergency and urgent services provided by the 11 ambulance service trusts and the Isle of Wight NHS Trust.

Currencies

485. The currencies were developed and agreed with ambulance trusts and commissioners to support the contracting and payment of emergency and urgent ambulance services from April 2012. We plan to align their definitions with the Ambulance Quality Indicators[72]. The four currencies are:

(a) calls
(b) hear and treat or refer
(c) see and treat or refer
(d) see and treat and convey.

Calls

486. The activity measure is the number of emergency and urgent calls presented to switchboard and answered.

487. Include 999 calls, calls from other healthcare professionals requesting urgent transport for patients, calls transferred or referred from other services (such as other emergency services, 111, NHS Direct, other third parties). Amend 111 calls are excluded from reference costs.

488. Include hoax calls, duplicate or multiple calls about the same incident, hang-ups before coding complete, caller not with patient and unable to give details, caller refusing to give details, response cancelled before coding complete.

489. Exclude calls abandoned before answered, patient transport service (PTS) requests, calls under any private or non-NHS contract.

490. The unit cost is the cost per call.

Hear and treat or refer

491. The activity measure is the number of patients, following emergency or urgent calls, whose issue was resolved by providing clinical advice by telephone or referral to a third party.

492. Include patients whose call is resolved without despatching a vehicle, or where a vehicle is despatched but is called off from attending the scene before arrival – either by providing advice through a clinical decision support system or by a healthcare professional providing clinical advice or by transferring the call to a third party

72 http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/Performancedataandstatistics/AmbulanceQualityIndicators/index.htm

healthcare provider.

493. An ambulance trust healthcare professional does not arrive on scene.

494. The unit cost is the cost per patient.

See and treat or refer

495. The activity measure is the number of incidents, following emergency or urgent calls, resolved with the patient being treated and discharged from ambulance responsibility on scene. There is no conveyance of any patient.

496. Include incidents where ambulance trust healthcare professionals on scene refer (but do not convey) the patient to any alternative care pathway or provider.

497. Include incidents where, upon arrival at scene, ambulance trust professionals are unable to locate a patient or incident.

498. Include incidents despatched by third parties (such as 111, NHS Direct or other emergency services) directly accessing the ambulance control despatch system.

499. The unit cost is the cost per incident.

See and treat and convey

500. The activity measure is the number of incidents, following emergency or urgent calls, where at least one patient is conveyed by ambulance to an alternative healthcare provider.

501. Alternative healthcare provider includes any other provider who can accept ambulance patients, such as A&E, MIU, walk-in centre, major trauma centre, independent provider etc.

502. Include incidents despatched by third parties (such as 111, NHS Direct or other emergency services) directly accessing the ambulance control despatch system.

503. Exclude PTS and other private or non-NHS contracts.

504. The unit cost is the cost per incident.

Costing ambulance services

505. In addition to costs and activity described in the preceding paragraphs, the currencies should include costs and activity relating to primary care practitioners, medical incident officers, emergency care practitioner costs, hospital ambulance liaison officers (HALO), and falls cars. Services that should be excluded by ambulance trusts are listed in Table 62.

506. Income from sources other than NHS commissioners, including commercial income, should be netted off the reference costs quantum. For example, where an emergency service is provided on standby at football matches, the commercial income received should be netted off emergency service provision. Other examples include police

custody or airport response units. In activity terms, any resulting emergency activity generated from these contracts should be deducted from total emergency responses.

507. When attributing or allocating staff and vehicle costs, the cost of PTS vehicles and crews used to support emergency services in given situations should be included in the costs for these services.

508. Annex E provides a minimum classification of costs for use by ambulance trusts, which differs in some areas from the standard classification for NHS providers. It includes a non-mandatory framework, developed by the ambulance costing working group that we encourage trusts to use as a baseline for allocating costs to the relevant currencies. In addition, it suggests allocation methods for a range of indirect and overhead costs that reflect consistent practice across the NHS.

Section 12: Obstetric and maternity services

Introduction

509. This section covers:

(a) obstetrics and maternity admitted patient episodes
(b) maternity outpatients
(c) scans, screens and tests
(d) community midwifery.

Obstetrics and maternity admitted patient episodes

510. All obstetrics and maternity admitted patient episodes should be reported as non-elective under obstetrics (TFC 501) or midwife episodes (TFC 560). This activity should not be reported as elective.

511. All activity relating to HRG PB03Z (healthy baby) or TFC 424 (well babies) should be excluded. Associated costs should be reported as part of the total costs of the maternity delivery episode against the relevant HRG. Note that the Data Dictionary defines TFC 424 as “care given by the mother or substitute with medical and neonatal nursing advice if needed”. TFCs describe the carer, in this case the mother or substitute. We would expect trusts to use the TFC of the appropriate care professional (obstetrician, paediatrician or consultant midwife) rather than TFC 424 for babies with a minor or major diagnosis (HRGs PB01Z or PB02Z) or receiving a procedure driven HRG.

512. Babies who are unwell (i.e. any babies that are not defined as well babies, e.g. neonatal level of care 1, 2 or 3) will generate their own admission record. Costs should be reported against the relevant HRG and, where applicable, the unbundled neonatal critical care HRGs.

513. The Grouper includes HRGs that cover ante-natal and post-natal care, scans and other procedures that occur outside the delivery episode. Providers should take care to differentiate accurately and consistently between the costs of this activity.

514. HRGs NZ30* to NZ51* cover delivery episodes, and are designed to reflect the costs associated with different types of delivery.

Maternity outpatients

515. These specifically include midwifery antenatal care undertaken by the NHS provider in GP and community based surgeries, which should be included as part of antenatal outpatients where the provider is able to code and electronically flow data. The setting of the outpatient clinic is irrelevant, as long as it fits with Data Dictionary definitions.

Scans, screens and tests

516. A number of routine scans, screens and tests are offered to mothers as an integral part of the maternity pathway. Such tests (sexual health, glucose tolerance, ultrasound etc) are often carried out in obstetrics outpatients or antenatal clinics, but

also in admitted patient episodes (particularly amniocentesis, chorionic villus sampling etc).

517. Where a woman attends the hospital for an ultrasound, scan or screen as part of a non-admitted attendance, this activity should be reported as an outpatient attendance with the appropriate OPCS-4 code for any procedures or interventions carried out, which may result in a procedure driven HRG.

518. Where a woman is admitted to hospital and part of her care includes an ultrasound, scan or screen, this activity should be recorded as part of that admitted patient episode.

519. The costs of carrying out the tests should be treated as an indirect cost to the relevant maternity HRG or attendance. Pathology costs from analysing routine tests should also be treated as an indirect cost to the relevant maternity HRG or attendance. The costs of analysing samples that are undertaken under a separate commissioner contract (such as genetics, DNA, RNA, biochemistry analysis for downs syndrome, specialist diagnostic laboratories etc) should not be included in the obstetrics or maternity reference costs.

Community midwifery

520. Home deliveries form part of the collection, and are shown separately from hospital based deliveries. Steps should be taken to ensure that this information is routinely collected and accessible within comprehensive midwifery records and systems.

521. Antenatal and postnatal visits in the home also form part of the collection and should be costed separately as community services.

Section 13: Cystic fibrosis

Introduction

522. This section covers the cystic fibrosis year of care currency that adult and paediatric cystic fibrosis centres[73], and other providers where network care arrangements are in place, should be use to report reference costs.

523. The Grouper generates HRGs for cystic fibrosis (DZ13*, PA13*) that we will remove from the reference costs workbook – their costs should be included in the year of care currencies.

Year of care currencies

524. Under the year of care currency model, each patient is allocated to one of seven bands derived from clinical information including cystic fibrosis complications and drug requirements, each of which describes an increasingly complex year of care. The bands are described in the SSNDS Definition No. 10 Cystic Fibrosis Services (all ages) (3rd Edition)[74], although the NHS Commissioning Board is currently consulting on draft service specifications for specialised services[75].

525. The Cystic Fibrosis Trust produces the bandings based on data returned by both specialist centres and network care providers to its national database, the UK Cystic Fibrosis Registry[76]. Trusts should access their banding data from the Registry through their lead clinician.

526. Allocations to bands are based on data from the calendar year before the next financial year and are issued each February. The bands issued in February 2013 by the Cystic Fibrosis Trusts will be the final bands for all patients for 2013-14 and should be used for costing.

527. Because cystic fibrosis is a long term condition there is relatively little movement between bands from one year to another, rather there is a steady progression of disease severity over several years. There will be no movement of patients between bands during any one financial year.

528. The currencies themselves make no distinction between adults and children. However, in order to understand the cost differentials between adults and children we have retained a split in reference costs between adults (defined here as patients aged 17 and over) and children (defined as patients aged 16 and under).

Part year of care

529. There are likely to be increases and decreases in the numbers of patients in each band in any one centre during the financial year. This will be due to births, newly diagnosed patients, transition from children's to adult services, natural patient movement from one location to another, transplantation and deaths. Because costing

[73] http://www.cftrust.org.uk/aboutcf/cfcare/ukcfcentres/
[74] http://www.specialisedservices.nhs.uk/doc/cystic-fibrosis-services-all-ages
[75] http://www.commissioningboard.nhs.uk/2012/12/12/ssc-consult/
[76] http://www.cftrust.org.uk/aboutcf/publications/cfregistryreports/

will be done on the basis of bands issued in February, we expect that this will have minimal impact. However, to ensure the bands only show full year of care costs, and to maintain the principle of full absorption costing, we have provided separate reporting lines for part year of care patients.

530. Newly diagnosed patients and new births will be banded as 2A, which recognises the additional costs associated with diagnosis and treatment of a new patient. These patients will be revised by the Cystic Fibrosis Trust when the bandings are reissued for the following year.

531. Clinical transition from a children's to an adult service or transfer to another centre may take place over a period of time. For the purposes of payment the two centres must agree a date at which responsibility for care will transfer, and this will inform the reporting of part year costs.

532. In some cases, such as where young people are away at university or patients need care whilst on holiday, there may not be a formal transfer of care as an individual may not wish or need to have their care transferred to a new centre. Should treatment be required away from the centre responsible for their care, the responsible centre will be expected to cost this under a provider-to-provider agreement (paragraph 596).

Network care

533. Network care is a recognised model for paediatric care, where children may not receive all their care at a specialist centre and may receive some care at other local hospitals or clinics under network care arrangements. We have therefore split the currencies for children between specialist centres and network care providers.

534. Specialist centres with network care arrangements with other providers should:

(a) return costs and activity for children for whom they provide 100% of cystic fibrosis care on the 'Cystic fibrosis band [1/1A/2/2A/3/4/5] children 16 years and under specialist provider' lines of the reference costs workbook
(b) return costs and activity for children for whom they provide less than 100% of cystic fibrosis care, because a proportion of the care is undertaken by another provider under a shared care arrangement, on the 'Cystic fibrosis band [1/1A/2/2A/3/4/5] children 16 years and under shared care provider' lines of the reference costs workbook
(c) list the relevant shared care providers in the reconciliation statement workbook.

535. Network care providers with network care arrangements with specialist centres should:

(a) return costs and activity for children for whom they have provided a proportion of the care on the 'Cystic fibrosis band [1/1A/2/2A/3/4/5] children 16 years and under shared care provider' lines of the reference costs workbook
(b) list the relevant specialist centres in the reconciliation statement workbook.

536. Specialist centres will be those from which the NHS Commissioning Board commissions cystic fibrosis services.

Costing cystic fibrosis

537. The bandings cover all cystic fibrosis related care for a patient during the financial year. This includes:

(a) any admitted patient care episode or outpatient attendance that is for the purpose of cystic fibrosis, regardless of whether it is one of the DZ13* or PZ13* HRGs or not, whether delivered at a specialist centre or network care provider. Examples include patients admitted for treatment of exacerbation of chest infection, admitted for medical treatment of cystic fibrosis distal intestinal obstruction syndrome, or admitted with a new diagnosis of cystic fibrosis related diabetes to establish a new insulin regimen. To help identify activity, TFCs for adult cystic fibrosis (TFC 343) and paediatric cystic fibrosis (TFC 264) should be used as described in the Data Dictionary[77]. A primary diagnosis of cystic fibrosis may also be a useful way to identify cystic fibrosis specific care
(b) home care support, including home intravenous antibiotics supervised by the cystic fibrosis service, home visits by the multidisciplinary team to monitor a patient's condition (e.g. management of totally implantable venous access devices (TIVADs)), collection of mid-course aminoglycoside blood levels, and general support for patient and carers
(c) intravenous antibiotics provided during admitted patient care
(d) annual review investigations.

538. The following costs should not be included in the bands:

(a) the high cost, cystic fibrosis specific, inhaled or nebulised drugs Aztreonam lysine, Colistimethate sodium, Dornase alfa, Mannitol and Tobramycin. The total cost of these drugs for all full year of care and part year of care patients should be reported in the excluded services worksheet in the reconciliation statement workbook (paragraph 555). The cost of each of these drugs in each band for full year of care patients, but excluding part year of care patients, should also be separately noted in the outpatient (regardless of setting) columns of the drugs and devices worksheet (paragraph 612). Note that this exclusion differs from the usual treatment of high cost drugs without unbundled HRGs described in paragraph 163)
(b) unrelated care which will be assigned to the relevant HRG or TFC, e.g. obstetric care for a pregnant woman with cystic fibrosis, ENT outpatient review for nasal ploys. Cystic fibrosis ICD-10 codes are included in HRG complication and comorbidity lists and recognised in HRG output
(c) insertion of gastrostomy devices and insertion of TIVADs are not included in the annual banded tariff. The associated surgical costs should be covered by the relevant separate codes
(d) costs associated with long-term nutritional supplementation via gastrostomy or nasogastric tube feeding, which remain within primary medical services
(e) costs associated with all other chronic non cystic fibrosis specific medication prescribed by GPs and funded from primary medical services, e.g., long-term oral antibiotics, pancreatic enzyme replacement therapy, salt tablets, and vitamin supplements

77 http://www.datadictionary.nhs.uk/web_site_content/supporting_information/main_specialty_and_treatment_function_codes.asp?shownav=1

(f) costs associated with high cost antifungal drugs that generate an unbundled high cost drug HRG
(g) neonates admitted with meconium ileus should be costed against the relevant HRG. Annual banding should not include the period they spent as an admitted patient receiving their initial surgical management
(h) patient transport services.

539. Funding of the named high cost drugs above will be governed by national commissioning policies. Prescription of these drugs will be initiated by the specialist centre. However, should long term usage be required (as in bands 2A to 5), it may be to the greater benefit of the patient if the responsible GP is prepared to continue prescribing. Under these circumstances, and where the prescribing GP has recharged the specialist centre for the actual cost of drugs received, the specialist centre should exclude these in the excluded services worksheet and report them separately in the drugs and devices worksheet as described above.

540. We are aware that there are very small numbers of severely ill band 5 patients with highly variable costs. Some may require continuous intravenous antibiotics but can manage their care at home with the support of the specialist team. Others may require prolonged and continuous intravenous antibiotics and hospitalisation over a period of six months or more. Such costs should nevertheless be included.

Section 14: Audiology services

541. This section covers services delivered within discrete audiology departments, and is aligned to the non-mandatory pathway prices for direct access adult hearing services (paragraph 186 of the Payment by Results guidance for 2009-10). It covers the following aspects:

    (a) assessment
    (b) fitting
    (c) cost of the actual hearing aid
    (d) first follow up
    (e) repairs
    (f) neonatal screening.

542. This includes ongoing outpatient attendances and hearing tests conducted by audiologists and audiological technicians following referral from an ear, nose and throat (ENT) outpatient clinic, and services accessed directly.

543. As well as hearing tests, a range of other services are provided through audiology departments, e.g. communication groups, environmental aids sessions, lip reading, obscure auditory dysfunction (OADS) follow up, relaxation classes and vestibular rehabilitation. These services should be excluded from reference costs if they do not meet the requirements in this section.

544. Some audiology clinics are held in the community rather than in hospitals. They should be included in reference costs regardless of location when an NHS provider has contractual responsibility for the provision of the service.

545. Cost and activity should not be reported in this section when:

    (a) the activity is carried out as part of an ENT outpatient clinic. Instead, report against the ENT outpatient attendance
    (b) the activity is via a referral from a GP but does not take place in a discrete audiology department. Instead, report as an outpatient attendance under paediatric audiological medicine (TFC 254), audiological medicine (TFC 310) or audiology (TFC 840)
    (c) it relates to the fitting of bone anchored hearing aids. Instead, report against HRGs CZ28Z (paragraph 85).

546. The activity measure for the initial hearing test or assessment, the fitting of a hearing aid, and the first follow up attendance is the number of attendances. The unit cost is the cost per attendance.

547. The non-mandatory pathway prices only include the first follow up attendance, and organisations should only report the costs and activity of these. Patterns of subsequent follow ups, which should be treated as an excluded service, vary considerably and can distort the cost.

548. The activity measure for the counselling and issue of aids for tinnitus is the number of attendances. The unit cost is the cost per attendance.

549. The activity measure for the actual hearing aid is the number of aids issued. The unit

cost is the cost per aid. The collection distinguishes between the following types of aid:

(a) analogue standard aid
(b) analogue superior aids (including directional control)
(c) digital aids.

550. Costs of other repairs, moulds, tubes etc. should be included as an integral cost driver of the fitting or repair services rather than against the actual hearing aid.

551. We recognise that new hearing aids are not issued solely to new patients and that stronger aids may be required as a patient's hearing deteriorates, or a fault occurs which requires a new aid.

552. The full cost of the digital hearing aid, regardless of whether it is capitalised, should be included, including any capital charges. The purchase of digital hearing aids recorded as capital for funding will in effect mean that capital charges are payable and depreciation is built into the accounts. When performing local reconciliations, an adjustment may be needed to take account of this, taking out the depreciation charge and putting in the full costs. A note should be retained to cover that this adjustment has been made.

553. The activity measure for repair services is the number of repairs, including postal, patient attendance and drop off. The unit cost is the cost per repair.

554. The activity measure for neonatal screening is the number of screening attendances. The unit cost is the cost per attendance. Follow up treatments or interventions should be treated as admitted patient or outpatient services, and standard costing guidelines apply.

Section 15: Services excluded from reference costs

555. Table 62 lists services excluded from reference costs. Such services have, by default, been excluded from the national tariff, and have therefore been reviewed against the following criteria:

    (a) no national requirement to know costs (e.g. services provided by NHS trusts under a primary medical services contract, which have separate funding arrangements, or the healthcare travel costs scheme)
    (b) lack of clarity as to the unit that could be costed (e.g. health promotion)
    (c) no clear national definitions of a service (e.g. admission prevention schemes)
    (d) no clearly identifiable national classification or currency
    (e) overlaps with social care funding (e.g. pooled or unified budgets).

556. At a recent RCAG meeting, it was suggested that it would be possible and desirable to include intermediate care in future reference cost collections. We would welcome feedback on any other service in this list that could be included in future collections.

Question 13: Are there any services listed as exclusions that could be included in future reference cost collections? Please provide as much detail as possible.

Question 14: Do you provide a service that you want us to consider for the exclusions list? Please provide as much detail as possible.

557. As a rule, services not on this list form part of the reference costs collection. **Trusts should submit written applications to exclude any other service not on this list to pbrdatacollection@dh.gsi.gov.uk by 18 January 2013, providing as much detail as possible about:**

    (a) total costs
    (b) volumes
    (c) primary and secondary classification codes
    (d) other trusts known to provide the service.

558. The total costs of services excluded should be calculated using total absorption costing, should reflect their entire cost rather than just direct cost, and should be noted on the services excluded worksheet in the reconciliation statement workbook (paragraph 611).

559. We will provide a small number of additional lines to capture other services which, in exceptional circumstances, we grant permission to exclude after 18 January 2013. **Trusts must only use these lines to record agreed exceptional items, and not to clarify existing exclusions which should always be recorded against the standard lines**.

560. Where trusts provide services to a patient that is not theirs, the associated costs will be netted off by income received, and should be recorded on the reconciliation worksheet (paragraph 574) and not the services excluded worksheet (611). This also applies to expenditure paid on behalf of another organisation, for example administration expenses.

Table 62: Services excluded from reference costs

Exclusion	Comments
Acquired brain injury	Delivered by mental health trusts
Admission prevention schemes	Where not covered by the specialist nursing services band 15 (active case management) at paragraph 454
Air ambulance service	NHS ambulance trusts only
Amyloidosis diagnosis[78]	Nationally commissioned service
Artificial eye fitting	The specialist artificial eye fitting service provided by an ocularist, including making, fitting and aftercare checks are excluded. But any preparatory surgery etc are included within admitted patient care costs and activity.
Audiology services	See paragraphs 543 and 547.
Bone anchored hearing aids (BAHAs) – maintenance and programming	Only the costs and activity associated with maintenance and reprogramming after implementation are excluded. The costs and activity associated with fixtures for and fitting of BAHAs form part of the admitted patient care and outpatient returns.
Chemical biological radiological and nuclear (CBRN) costs	NHS ambulance trusts only
Chronic pulmonary aspergillosis service[79]	Nationally commissioned service
Clinical trials	If the impact of income for clinical trials is such that to net it off would produce unrealistically low, zero or negative costs (i.e. surplus income), the costs and activity relating to such trials must be excluded. Clinical trial costs and activity should only be included in reference costs where the costs incurred are an accurate indication of what the actual costs of that treatment would be, outside the clinical trial setting.
Cochlear implants – maintenance and programming	Only the costs and activity associated with maintenance and reprogramming after implementation are excluded. The costs and activity associated with implanting forms part of the admitted patient care return.
Community veterans mental health pilots[80]	These were pilots, supported by MoD funding and currently being evaluated, at: - Camden and Islington NHS Foundation Trust, London - Cornwall Partnership NHS Foundation Trust - South Staffordshire and Shropshire Healthcare NHS Foundation Trust - Tees, Esk and Wear Valleys NHS Foundation Trust
Complementary or alternative medicine	Discrete services provided by these practitioners, e.g. acupuncture or aromatherapy massage are excluded. Where these services form part of a further activity spell they should be included. Therefore, where therapists and practitioners such as acupuncturists or chiropractors form part of a team providing services such as pain management or orthopaedics, their costs, including related on-costs, and associated activity, should be included in the respective cost pool. This approach is consistent with

[78] http://www.specialisedservices.nhs.uk/service/amyloidosis/search:true
[79] http://www.specialisedservices.nhs.uk/service/chronic-pulmonary-aspergillosis/search:true
[80] http://www.nhsconfed.org/Publications/Documents/mhn_briefing_210.pdf

Exclusion	Comments
	the principles of full absorption costing and matching costs to the services that generate them.
Complex or treatment resistant disorders in tertiary settings	Delivered by mental health trusts
Cystic fibrosis drugs	The high cost, cystic fibrosis specific, inhaled or nebulised drugs Aztreonam lysine, Colistimethate sodium, Dornase alfa, Mannitol and Tobramycin are excluded. The cost of these drugs should also be separately reported by cystic fibrosis banding in the drugs and devices worksheet (paragraph 538).
Decontamination units	NHS ambulance trusts only
Discrete external aids and appliances services	For example, artificial limb or eye services, orthoses, shoes and wigs. Covers both the costs of the services and of the appliances.
Domiciliary visits	Only those that attract a fee for the additional service (apart from mental health domiciliary visits that are included in community activity) are excluded. Normal domiciliary visits undertaken by community or other nurses or therapists for which they are not paid an additional fee are included.
Drugs used in assisted reproduction medicine	Existing HRGs for assisted reproduction medicine (MC06Z to MC15Z) are not designed to capture the cost of the following drug regimens for in vitro fertilisation (IVF) or the high cost gonadotropins used in intra-uterine insemination (IUI): IVF Regimen 1 (Ultra Short Protocol) - Low dose IVF Regimen 1 (Ultra Short Protocol) - High Dose IVF Regimen 2 (Short Protocol) - Low Dose IVF Regimen 2 (Short Protocol) - High Dose IVF Regimen 3 (Long Protocol) - Low Dose IVF Regimen 3 (Long Protocol) - High Dose IVF Regimen 4 (Ultra Long Protocol) - Low Dose IVF Regimen 4 (Ultra Long Protocol) - High Dose IVF Regimen 5 (Antagonist Protocol) - Low Dose IVF Regimen 5 (Antagonist Protocol) - High Dose
Emergency bed service (EBS)	NHS ambulance trusts only
Emergency dental services	Mainly out of hours dental services
Emergency planning	NHS ambulance trusts only
Fixated threat assessment centre	Barnet, Enfield and Haringey Mental Health NHS Trust
Gait analysis	A diagnostic used to measure abnormalities in walking patterns, assist clinical decisions about treatment (e.g. surgery, therapy and orthotics), and evaluate the outcome of treatment
Gender identity disorder services	This exclusion covers the mental health and surgical services that may be required during the treatment programme for patients with gender dysphoria, as well as treatments post-surgery such as speech therapy or electrolysis.
Genetic laboratory services	Laboratory services that are nationally commissioned and members of the United Kingdom Genetic Testing Network (UKGTN)[81]
GP open access	Where patients access open access services provided by GPs. But not open access services whereby GPs refer patients to Trusts.

[81] http://www.ukgtn.nhs.uk/gtn/Home

Exclusion	Comments
GP out of hours services	Including where an NHS ambulance provider has taken over the responsibility of providing this service from GPs
Hazardous area response teams (HART)	NHS ambulance trusts only
Health promotion programmes	Defined in the Data Dictionary[82] with examples (stop smoking services, alcohol or drug addiction clinics etc)[83]. Excludes parentcraft, which should be reported under health visiting services (paragraph 464).
Healthy start[84]	Previously known as welfare foods
Helicopter emergency medical services (HEMS)	
High secure infectious disease units	Located at the Royal Free London NHS Foundation Trust and The Newcastle upon Tyne Hospitals NHS Foundation Trust
Home delivery of drugs and supplies: administration and associated costs	Trusts incur costs in delivering drugs, oxygen, blood products or supplies directly to patient's homes, without any associated clinical activity at the time of delivery. Homecare medicine is an important area and, with around 200,000 patients receiving this service and £1billion expenditure nationally[85], by far the largest exclusion in reference costs. We are therefore seeking some additional information for this exclusion. On this reporting line, trusts should include the administration and associated costs relating to home delivery of drugs and supplies, including: • costs of enrolling patients and the managing of the home care service • costs of contracting, ordering, invoice matching and payment • nurse support of a non-clinical nature • any other associated administrative costs. Trusts should also provide information (on the memorandum worksheet) relating to: • the number of patients enrolled on the service • the number of deliveries.
Home delivery of drugs and supplies: drugs, supplies and associated costs	On this reporting line, trusts should include the costs of the: • drugs, including oxygen or blood products • supplies, e.g. continence pads or enteral feeding • delivery of drugs or supplies • any other associated drug or supply costs.
Hospital travel costs scheme	Scheme offering financial help with the cost of travel to and from hospitals and other NHS centres[86].

82 http://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/h/health_promotion_programme_de.asp?shownav=1

83 http://www.datadictionary.nhs.uk/data_dictionary/attributes/h/health_promotion_programme_aim_de.asp?query=Health%20Promotion&rank=75&shownav=

84 http://www.dh.gov.uk/en/Publichealth/HealthyStart/index.htm

85 Homecare Medicines, Towards a Vision for the Future, http://www.dh.gov.uk/health/2012/11/high-cost-drugs-savings/

86 http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_116383

Exclusion	Comments
	Note that overnight stays are not part of the HTCS. However, the HTCS guidance states: " Where an overnight stay away from home is unavoidable, either because of the time of the appointment or length of travel required, and the patient is unable to meet the cost of this stay, the expense should be treated as part of treatment costs or met through non-Exchequer funds. This should be discussed with the relevant PCT before the overnight stay occurs." Providers should therefore include overnight stays as on cost in their reference costs.
Independent or charitable hospices	
Intensive care bed information services	Services hosted in one organisation and provided for the benefit of multiple organisations in a region.
Intermediate and continuing care	Intermediate care is a term used to describe a range of time-limited, residential and/or community based services designed to help people with old age related needs make a faster and more complete recovery from illness. These costs are included in mental health care clusters but excluded from non-cluster mental health and all other service areas.
Learning disability services	Including all charities, e.g. SCOPE. But excluding secure mental health services (paragraph 426)
Local improvement finance trust (LIFT) set up costs	See paragraph 562
Logistics or courier transport service e.g. collecting clinical waste	NHS ambulance trusts only
Low energy proton therapy for ocular oncology	Clatterbridge Centre for Oncology NHS Foundation Trust
Malignant hyperthermia unit	Leeds Teaching Hospitals NHS Trust
Medical equipment loans	e.g. CPAP/BiPAP machines, dehumidifiers
Methadone swallow and depot injection clinics	
Multi-professional triage teams	
Needle exchange schemes	
Neonatal transfers	NHS ambulance trusts only. NHS ambulance trusts should note these costs on the excluded services worksheet in the reconciliation statement workbook. Other trusts should continue to report the costs of neonatal critical care transportation under HRG XA06Z.
Neuropsychiatry	Delivered by mental health trusts
Nursing and residential care homes	
One stop shops and rapid diagnostic packages	Excluded because of disproportionate cost compared to normal single attendances.
Patient education	NHS ambulance trusts only. Other trusts should include it as an overhead.
Patient transport services (PTS)	NHS ambulance trusts and other providers of PTS
Photopheresis	Rotherham NHS Foundation Trust and Guy's and St Thomas' NHS Foundation Trust
Physically disabled services	Including charities
Poisons information service and clinical toxicology service	Guy's and St Thomas' NHS Foundation Trust
Pooled or unified budgets	As a general principle, costs and activity are excluded for any and all services jointly provided under pooled or unified budget arrangements, including Section 28a or Section 31 agreements, with

Exclusion	Comments
	agencies outside the NHS such as social services, housing, employment, education (e.g. Sure Start), home equipment loans or community equipment stores (e.g. walking aids, grab rails, commodes). This also includes costs relating to advice to non-NHS bodies (e.g. paragraph 458). Where organisations are confident that they can • separately identify a discrete element of the service that is funded by the NHS and • identify the total costs incurred by that service • have accurate and reflective activity data then they can choose to include that service. Such decisions should be defendable to auditors.
Pregnancy advisory service	Discrete counselling
Primary dental services	All services provided under an NHS dental contract
Primary medical services	All services provided under a GP contract (APMS, GMS, PCTMS, PMS)
Prison health services	Except prison mental health specialist teams (paragraph 443) and prison health visiting (paragraph 464)
Private finance initiative (PFI) set up costs	See paragraph 562
Pseudomyxoma peritonei services[87]	Nationally commissioned service
Rare mitochondrial disorder[88]	Nationally commissioned service
Rare neuromuscular disease[89]	Nationally commissioned service
Resettlement programmes	Adult and elderly
Retinoblastoma - treatment for eye cancer in children[90]	Nationally commissioned service
School exclusion services	
Screening programmes	Treatment varies – some national screening programmes are excluded and some are included. See paragraph 561.
Severe intestinal failure treatment[91]	Nationally commissioned service
Single point of access telephony services (e.g. 111, NHS direct)	NHS ambulance trusts only
Specialist mental health services for deaf people	Nationally commissioned service
Spinal care packages in the community	
Step down beds in residential facilities	
Vaccination programmes part-funded by GPs or non-NHS providers	
Wheelchair services	

561. The inclusion or exclusion in reference costs of national screening programmes[92] varies. Table 63 clarifies the treatment of each programme.

[87] http://www.specialisedservices.nhs.uk/service/pseudomyxoma-peritonei/search:true
[88] http://www.specialisedservices.nhs.uk/service/rare-mitochondrial-disorders/search:true
[89] http://www.specialisedservices.nhs.uk/service/rare-neuromuscular-disorders/search:true
[90] http://www.specialisedservices.nhs.uk/service/retinoblastoma/search:true
[91] http://www.specialisedservices.nhs.uk/service/severe-intestinal-failure/search:true
[92] http://www.screening.nhs.uk/index.php

Table 63: UK national screening committee programmes

Programme	Included or excluded
Antenatal and newborn	
NHS Fetal Anomaly Screening Programme	Included in relevant maternity outpatient and admitted patient costs
NHS Infectious Diseases in Pregnancy Screening Programme	Included in relevant maternity outpatient and admitted patient costs
NHS Linked Antenatal and Newborn Sickle Cell and Thalassaemia Screening Programme	Included in relevant maternity outpatient and admitted patient costs. Exception is for the small number of genetic tests that occur, which are excluded and should be funded directly by PCTs[93]
NHS Newborn and Infant Physical Examination Screening Programme	Included in the cost of maternity delivery HRGs or postnatal visits
NHS Newborn Blood Spot Screening Programme	The taking of the sample is included in the cost of maternity delivery HRGs or postnatal visits. Its analysis by regional newborn screening services is excluded from reference costs
NHS Newborn Hearing Screening Programme	Included in audiological services neonatal screening (paragraph 554)
Young person and adult	
NHS Abdominal Aortic Aneurysm Screening Programme	Excluded
National Screening Programme for Diabetic Retinopathy	Included in diabetic retinal screening
NHS Breast Screening Programme	Excluded
NHS Cervical Screening Programme	Excluded
NHS Bowel Cancer Screening Programme	Excluded
Related programmes[94]	
Health check (vascular risk)	Excluded
Chlamydia screening	Excluded
Prostrate cancer	Excluded

562. Table 64 clarifies the treatment of PFI or LIFT expenditure. As a general principle, PFI or LIFT set up costs include one off revenue costs incurred in setting up a PFI or LIFT scheme from the initial business case stage to financial close. This includes fees (consultancy, legal, financial etc) and other costs such as planning applications. These set up costs should be excluded from reference costs.

Table 64: PFI and LIFT expenditure

Heading	Comment	Treatment of costs in reference costs
Cost of services		Include
Depreciation charges		Include
Dual running costs	For services transferring	Include. Double running costs for all other service reconfigurations etc. are included.
Interest expense		Include. This includes the indexed elements of PFI payments that do not relate to services.
Interim services (including pass through costs)	Facilities management costs transferred early	Include
Subleasing income		Include. Income generated from any subleased areas should be deducted from overall PFI costs.
Accelerated depreciation		Exclude. Accelerated depreciation should be excluded.

[93] http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_104835
[94] Not approved by the UK national screening committee

Heading	Comment	Treatment of costs in reference costs
Advisor fees	External advice provided to the Trust	Exclude. Set up costs (principally fees) incurred by the trust in the development of a PFI scheme can be excluded.
Annual capital expenditure	Such as lifecycle costs	Exclude. The costs of capital items are picked up through depreciation in the same way as all other capital assets.
Demolition costs	These are works undertaken and paid for by the trust outside of the PFI contract	Exclude. If the scheme were to be funded through public capital this is likely to be capital expenditure.
Impairment charge		Exclude. This is consistent with the principle that reference costs reflect ordinary ongoing revenue costs and exclude extraordinary one off costs unless otherwise stated.
Project team	Trust project team	Exclude. Set up costs (principally fees) incurred by the trust in the development of a PFI scheme can be excluded. Please ensure that you can satisfy the auditors that the costs of the project team relate solely to the time spent working on the PFI scheme.
Profit on sale of surplus land		Exclude.
Repayment of finance lease		Exclude.
Other costs	Other payments not made to PFI provider	Other costs incurred by the trust that are a result of the PFI development but are not payments made to the PFI provider should be treated in the same way as other similar trust costs as directed in this guidance.

Section 16: Reconciliation

Introduction

563. The completion of the reconciliation statement workbook is a fundamental part of the reference cost process. The workbook provides assurance that all costs have been correctly included, services excluded identified and allowable income netted off the reference cost quantum. It also provides other memorandum information useful for price setting, and our annual survey.

564. The reconciliation statement workbook includes the following worksheets:

(a) **reconciliation** – this reconciles the data recorded in the audited financial statements to the total reference cost quantum
(b) **services excluded** – records all services excluded from reference costs
(c) **drugs and devices** - a memorandum of high cost drugs and devices, the costs of which must be included against the appropriate HRGs in the reference costs workbook, and separately identified here for further analysis and investigation by the Department
(d) **memorandum** – other memorandum information to inform the development of reference costs and the national tariff
(e) **survey** – a mandatory survey about uptake of PLICS and other questions about the costing process including clinical engagement.

565. It is essential to complete the workbook at the start of the reference costing process. Identifying excluded services, excluded costs and allowable non-contractual income, and agreeing totals to final accounts will provide confidence that the correct reference cost quantum has been established before costing services.

566. Although each trust will have their own system, the following steps are likely to apply to all:

(a) ensure the financial accounts are closed and the final version of the general ledger is available

(b) obtain the final trial balance or drawdown the general ledger, or both, and ensure they agree, at detailed account code level

(c) allocate the lines on the trial balance/download to the lines on the reconciliation worksheet. At this stage, it may be possible to extract data for the drugs and devices and non-contractual income worksheets

(d) check the figures obtained in the step above agree to the final audited accounts spreadsheets (TRUs for NHS trusts, FTCs for NHS foundation trusts). It may be necessary to ask colleagues in financial accounts for this information

(e) complete the reconciliation worksheet to the Total costs line 28 and ensure this agrees to the trial balance/download

(f) check the data against last years to identify any material or unexpected variations, and investigate if needed

(g) import this quantum into the costing system

(h) identify the excluded services from the outputs of the costing system and complete the excluded services worksheet, which will link to line 29 in the reconciliation worksheet

(i) ensure the total reference cost quantum in the completed reference costs workbook agrees to the Total reference cost submission quantum line 30 on the reconciliation worksheet

(j) complete the non-contractual income and drugs and devices worksheets

(k) final check of the reconciliation statement workbook against last years to identify any material or unexpected variations, and investigate if needed.

Non-NHS patient care activities

567. Education and training, research and development (R&D), income from private patients and a range of other non-NHS patient care activities funded from sources other than contracts with NHS commissioners are not reimbursed through the national tariff and therefore should be excluded from reference costs.

568. To date, our approach has been to require trusts to net off income associated with these funding streams from their operating expenses before calculating reference costs. This assumes that income exactly matches the costs.

569. However, as Monitor has observed, if income is more than costs, this has the impact of lowering reference costs (and tariff) below the real cost of providing patient care. Similarly, if income is less than costs, this has the impact of raising reference costs (and tariff) above the real cost of providing patient care.

570. We are therefore working with Monitor and the HFMA to move towards a position where the cost of providing the service, rather than the income from the service, is excluded. This may take some time for education, training and R&D funding streams.

571. The simplest of non-contractual income streams to cost is non-NHS patients, (private patients, overseas visitors who are not charge exempt, patients from the devolved administrations, and Ministry of Defence funded armed forces personnel). From 2012-13, trusts should exclude the costs, rather than net off the income, for these patients, and we have renamed **Lines 2 to 4** of the reconciliation worksheets accordingly.

572. All remaining allowable non-contractual income, by which we mean income not relating to patient care activity from sources other than contracts with NHS commissioners, should continue to be netted off in 2012-13. All the associated income should be attributed to the corresponding services, to match the expenditure in line with the matching principle.

573. Trusts receive income for services from organisations other than other trusts, for example PCTs or local authorities. This income may be for rental of property, payroll services, or provision of specialist services were the recipient of the service is not a patient of the trust. If the income is recorded as non-contractual income, it should be

netted off, as noted above, on **Line 5e** of the reconciliation worksheet. If, in exceptional circumstances, the income has been included in patient care income, as may be the case when income from PCTs has not been analysed and has been coded to contractual income, then it should be deducted on the user defined **Lines 14 to 19** of the reconciliation worksheet. Care must be taken to ensure that income is correctly coded and it may be necessary to discuss this with financial accounting colleagues. It should not be treated as an excluded service.

Reconciliation worksheet

574. There is a separate reconciliation worksheet for NHS trusts and NHS foundation trusts. Note that it must be completed in £ not in £ thousands.

575. This worksheet reconciles the data recorded in the audited financial statements to the total reference cost quantum. References to lines in the TRUs/FTCs are included where applicable.

576. Trusts obtaining foundation trust status part way through a financial year should complete the reconciliation worksheet for foundation trusts. They must include the total of their TRUs and FTCs on this worksheet in order to balance back to their total reference cost quantum. **Line 23 Other gains and losses** has been added to the FTC statement so part year foundation trusts do not need to recalculate the TRU figures to fit the FTC layout. Where there are other presentational differences, e.g. finance costs unwinding of discount, there is no need to restate the TRUs to fit the FTC description, but all costs must be included.

577. The worksheet starts with the total operating expenses reported in the financial statements. There are then a number of adjustments to remove expenditure that is not included in the calculation of reference costs, or to deduct income that should be netted off. Trusts must ensure there is no double counting or double netting off.

578. **Line 1 Operating expenses** is the starting point to ensure all costs are included in quantum.

579. **Line 2 Less cost of non-NHS private patients** - reference costs are calculated for the treatment of NHS patients registered or resident in England. Private patients are the first of three categories of non-NHS patients. As noted in paragraph 571, from 2012-13 we are asking trusts to deduct the cost, not net off the income, for these services.

580. **Line 3 Less cost of non-NHS overseas patients (non-reciprocal)** – deduct the costs of overseas visitors to the UK who are not exempt from charge under the NHS (Charges to Overseas Visitors) Regulations 2011. This includes most irregular migrants, visitors from a country that the UK does not have a reciprocal agreement with, and some UK citizens residing overseas.

581. **Line 4 Less cost of other non-NHS patients** – deduct the costs of other non-NHS patients, including:

    (a) armed forces personnel - funded by the Ministry of Defence (MoD) where the requirement varies from the standard NHS pathways in either the treatment requested or management requirements (e.g. fast-track care or non-standard

treatment), and identified by the code XMD rather than the PCT code for data submission purposes. Non-standard care arrangements are normally the subject of specific MoD contracts or by prior agreement with the MoD referrer[95]

(b) patients from the devolved administrations (Scotland, Wales and Northern Ireland) - parliament votes the budget for the NHS in based on the requirements of NHS patients in England i.e. those residing in England and legally entitled to NHS care.

582. **Line 5 Less other operating income** – excluding costs rather than netting off income for other funding streams such as education, training and research will take time. Therefore, deduct income for the following funding streams, the sum of which must equal other operating income in relevant line of the financial statements for NHS trusts (TRU01) or NHS foundation trusts (6. Op Inc (type)):

(a) **Line 5a medical and dental education levy (MADEL)**

(b) **Line 5b non-medical education and training (NMET)**

(c) **Line 5c service increment for teaching (SIFT)**

(d) **Line 5d R&D**, which comprises several funding streams. For reference costs, only R&D income relating to costs that end when the research ends should be deducted here. The following funding streams are allowable non-contractual income:

(i) research- research grant funding, to pay for the costs of the R&D itself (e.g. writing the research paper), received from DH (including the National Institute for Health Research (NIHR)), other government departments, charities, and the Medical Research Council (MRC) which includes funding for Biomedical Research Centres, Biomedical Research Units and Collaborations for Leadership in Applied Health Research and Care (CLARHC)
(ii) NHS support - funding from DH (NIHR) to cover additional patient care costs associated with the research (e.g. extra blood tests, extra nursing time) that end when the research ends
(iii) flexibility and sustainability funding - funding from DH mainly to support NIHR faculty and associated workforce.

Other R&D funding streams relate to patient care costs that continue after the research ends. These are not allowable non-contractual income and must not be deducted from quantum:

(iv) treatment costs including excess treatment costs – funding from normal commissioning arrangements to cover patient care costs associated with the research that continue to be incurred after the research ends if the service in question were to continue
(v) subventions - exceptional funding from DH to contribute to the cost of very expensive excess treatment costs.

[95] http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_124230

The Department and other stakeholders are in the early stages of reviewing how excess treatment costs might be funded differently in the future. This could have implications for the future reporting of research costs in reference costs similar to education and training (paragraph 52)

(e) **Line 5e other income**. Table 65 lists other income received that should be classed as allowable non-contractual income and netted off costs. Note that income should not be netted off simply because it is targeted or specific funding. Where allowable non-contractual income relates to services excluded from reference costs, care must be taken to ensure it is not netted off. There are no costs in the submission to which this income can be matched.

Table 65: Other allowable non-contractual income

Item	Notes
Adoption medical fees	
Administration charges	
Advertising	
Beverages and meals	
Cancer network	
Car parking	
Catering	
Charitable contributions to non-pay expenditure	
Charitable income	
Clinical excellence awards	
Clinical trials	But see exclusions list. Associated activity must be excluded from reference costs, similar to private patients
Conferences	
Copy x-ray income for legal cases	
Continuing professional development (CPD)	
Copying	
Court order administration fees	
Court work	If this work is undertaken during NHS time, the employer is entitled to retain the fee, unless the disruption to the NHS is minimal and the employer agrees otherwise. In these circumstances, treat as per paragraph 562 of the guidance (i.e. include costs, net off income, exclude activity). If the work is undertaken in the consultant's own time including during annual or unpaid leave, there is no cost to the NHS provider.
Drugs income for drugs supplied to other NHS trusts and pharmacists	
Educational courses	
External research income	
GP co-operatives	
Hospital shop leases	
Hospitality	
Income generation schemes	
Interest received on cash deposits	
Investments	
Lease cars	
Lecture fees	

Item	Notes
Lifting	
Lodging charges	
Miscellaneous income	
Mortuary fees	
Moving and handling	
NHS learning accounts	
National vocational qualifications (NVQs)	
Occupational therapy sales	
Operating theatre and pre-operative assessment programme	
Paycare Commission	
Photography	
Provider to provider (PTP) handling charges	
Prescription income	
PTP income	
PTP VAT to pay	
Receipts in advance	
Reclaims and rebates	
Rent and rate deductions	
Rent of land and premises	
Research and development	
Restroom hospitality and takings	
Safer cities	
Salary recharges	To charities, universities (e.g. for staffing university sessions on an MRI scanner) and other non-NHS bodies (e.g. clinical pathology accreditation)
Sale of baby scan photos	
Sale of inventory items	
Sale of scrap	
Silver recovery	
Staff meal deductions	
Telephones	
Training income	
Unclaimed patients property	
Vending machines sales	
World Health Organisation (WHO) income	

583. **Line 6 Add not allowable non-contractual income**. Income included in **Line 5e** that cannot be netted off when calculating reference costs must be added back. Table 66 lists examples.

Table 66: Not allowable non-contractual income

Item	Notes
A&E patient experience fund	
Access, booking and choice funding	
Cancer service collaborative	
Capital to revenue transfers	
Coronary heart disease (CHD) collaborative	
Clinical audit funding	
Department of Health funding for specific projects	Not allowable unless targeted income specified in the

Item	Notes
e.g. disability equipment assessment	allowable list above
Emergency services collaborative	
Income and expenditure surplus from a previous year	
Improvement partnership for hospitals	
Information for health	
Information for health modernisation fund	
Injury cost recovery (ICR) scheme	This is a reimbursement via a central government agency and should not be treated any differently to contractual income from PCTs, i.e. it is included in reference costs.
Maternity liaison committee	
Recharges to PCTs as contributions to expenditure for NHS direct	
Reimbursements from manufacturers for device recalls	This only applies where the income is treated as non-NHS income. If it is treated as NHS income, no adjustment is required
Social service income staff	If pooled budget arrangement, services should be excluded
Transitional relief	Transition relief is sometimes provided to offset exceptional costs, e.g. PFI schemes.

584. **Line 7 Less cost of centrally funded awards under the clinical excellence awards scheme**. Only centrally funded awards, via the NHS bundle, under the clinical excellence awards scheme (levels 9 to 12, or distinction award levels B, A and A+ under the old scheme) should be netted off. Internally funded awards (levels 1 to 9, or discretionary points levels 1 to 8 under the old scheme) should not be netted off. Where centrally funded and locally funded awards are included in **Line 5 Other operating income** the amount must be added back there in order to be deducted here, to avoid double netting off.

585. **Line 8 Less funds received for foundation trust application**. Where these are included in **Line 5 Other operating income** the amount must be added back there in order to be deducted here.

586. **Line 9 Less PFI or LIFT exclusions**. The set up costs of PFI or LIFT schemes (Table 64) must be deducted.

587. Any profit/loss from the sale of non-current assets in a PFI or LIFT deal should also be included here to net off the gain or loss. This would be recorded in income/ expenditure for foundation trusts or other gains and losses in NHS trusts.

588. **Line 10 Less impairments**. Impairments charged through the Statement of Comprehensive Income are not included in reference costs and must be removed. These should be split between:

    (a) **Line 10a New build**
    (b) **Line 10b Other**.

589. **Line 11 Add reversal of impairments**. Conversely, the reversal of an impairment must be added back. These should be split between:

    (a) **Line 11a New build**

(b) **Line 11b Other**.

590. **Line 12 Less capital cost of donated/government granted assets and Line 13 Add donations/government grants received to fund non current assets**. Costs and income associated with donated/government granted non-current assets must be removed. Income received in year is added back (as this will have been deducted on line 5), and any charges to expenditure such as depreciation are deducted (these will be included in line 1). Take care not to remove impairments, which will have already been deducted in **Line 10 Less impairments**. The income may be actual cash donated to purchase an asset or the asset value where an asset has been donated; the treatment here will be the same.

591. Following a change to the interpretation of accounting standards, the treatment of the credit entry relating to donated assets will no longer be held in reserves and used to offset charges to expenditure. The funding element is now recognised as income in year as required by IAS 20 as interpreted by the HM Treasury Financial Reporting Manual.

592. In the year when the asset is received, the trust will have income equal to the value of the asset and a much smaller depreciation charge to expenditure. To prevent any instability in reference costs quantum caused by this large net income in the year of receipt, followed by years of increased costs (i.e. the depreciation charge etc), all income and expenditure relating to donated assets must be excluded from reference costs.

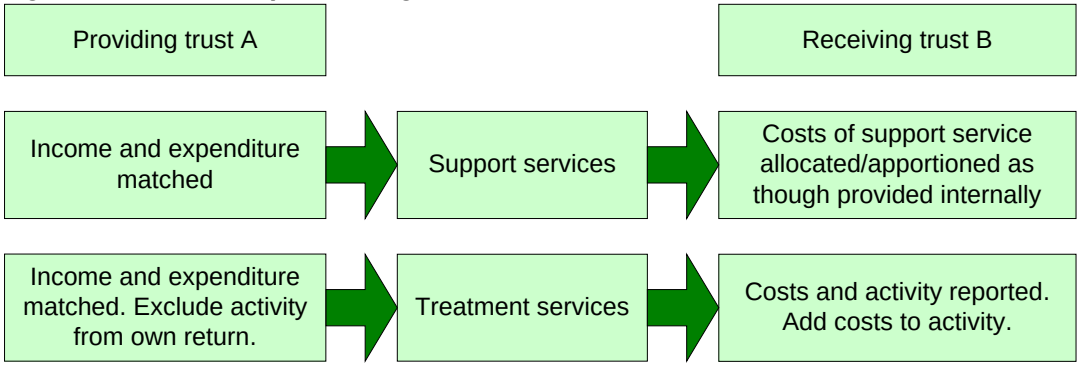
593. This will bring the treatment in line with previous years were the income released from reserves would be equal to the depreciation etc charged and so have a nil effect on reference costs. Impairments will not be an issue as these are not included in reference costs. This change relates equally to government granted assets.

594. **Lines 14 to 20** are blank rows that have been left for trusts to add adjustments that have not been included in the reconciliation. Full details of the adjustment must be provided.

595. **Line 21 Total net operating expenditure** is the sum of lines 1 to 19.

596. **Line 22 Less adjustment for provider-to-provider agreements.** Where there are provider-to-provider agreements for support services (e.g. an administration service, or a service where a trust pays for expenditure on behalf of another trust and is then reimbursed) or treatment services, the costs and associated income should be treated as in Figure 2.

Figure 2: Provider to provider agreements



597. The providing trust (A in Figure 2) in these agreements should:

    (a) for support services - record both expenditure and income, which should be matched in line with the costing principles, resulting in a nil net cost. The income from providing the service would be posted to other operating income and so will already have been netted off expenditure in **Line 5e**
    (b) for treatment services – follow the same approach as for support services. Where treatment has been provided to a non-NHS patient, no adjustment will be needed here because the income will already have been deducted in **Lines 2 to 4.** Where the treatment is provided to another NHS body then the income will need to be deducted on **Line 22**. Any activity should be excluded from the reference costs workbook. Thus, the matching principle of activity and cost is maintained as the costs are offset by the income and the activity is not double counted across the NHS as a whole.

598. The receiving trust (B) should:

    (a) for support services - include the cost paid to the providing trust in its own reference costs, allocated and apportioned on a consistent basis, as if it had provided the service itself. There should be no need for an adjustment in **Line 22**
    (b) for treatment services – follow the same approach as for support services, recording both the costs and activity in its reference costs return.

599. **Line 23 Subtotal** is the sum of **Lines 21 and 22**.

600. The net operating cost is then adjusted for the non-operating costs/income lines as reported in the financial accounts.

601. **Line 24 Other gains and losses**, for NHS trusts only or foundation trusts obtaining foundation trust status in year, for the part of the year they were an NHS trust. This will be mainly profit/loss on disposal of non current assets, which is included in expenditure or other income in foundation trust accounts and therefore does not need to be adjusted. Profit/loss on disposal of non current assets must be included in the reference cost quantum.

602. **Line 25 Less investment revenue or finance income** is interest received.

603. **Line 26 Add finance costs or finance expenses** is interest payable and other costs associated with financing. In NHS trusts, it will also include unwinding of discount on provisions.

604. **Line 27 Add PDC dividends payable** is the PDC payables figure from the Statement of Comprehensive Income, not the cash flow figure.

605. **Line 28 Add finance expenses - unwinding of discount** applies to NHS foundation trusts only and is the cost of the unwinding of discounts on provisions. In NHS trusts it is included in **Line 26**.

606. **Line 29 Total cost** is the sum of **Lines 23 to 28**.

607. **Line 30 Total cost of services excluded from reference costs collection** must equal the figure recorded on the **Services excluded** worksheet.

608. **Line 31 Less total cost of services sub-contracted out to non-NHS bodies**. The total cost to the trust of sub-contracting out services to the independent sector, reported as unit costs against supplier type OUT in previous reference cost collections. Include the fully absorbed cost wherever possible. For example, a trust might have an arrangement with their consultants to carry out private work on-site, paid for at a proportion of the tariff price. The cost should include not only the agreed price, but also the overhead costs of the consultants using NHS theatres, consumables etc. in the course of their private work.

609. **Line 32 Add cost of services sub-contracted out to NHS bodies included within reference costs**. Applies only to mental health care clusters and ambulance trusts.

610. **Line 33 Total reference cost submission quantum** is the sum of **Lines 28 and 29** and must agree to within 1% of the main reference cost submission. This will be validated in Unify2.

Services excluded

611. This statement records all services excluded from reference costs (listed in Section 15) and will agree to the figure reported in the reconciliation worksheet.

Drugs and devices

612. This worksheet provides a memorandum of high cost drugs and devices, the costs of which should have been included against the appropriate currencies in reference costs workbook (with the exception of cystic fibrosis specific drugs, which should have been excluded, and total costs noted on the services excluded worksheet), and separately identified here for further analysis and investigation.

613. The data can be used to adjust tariffs to reflect the exclusion of some high cost drugs and devices. It is necessary to make these adjustments outside reference costs as the drugs and devices that are unbundled and/or included in tariff may change between reference cost collection and tariff calculation three years later.

614. There is the facility to add additional lines, e.g. for other high cost renal drugs in addition to those named.

615. The HSCIC also uses the data when assessing HRG design.

Memorandum

616. This worksheet provides other memorandum information to inform the development of reference costs and the national tariff.

Survey

617. This is a mandatory survey to collect information about PLICS implementation and use, levels of clinical and financial engagement, and other information to inform national policy making. The draft survey is at Annex A.

Section 17: PLICS and reference costs best practice

618. This section supports trusts using patient level information and costing systems (PLICS) to produce reference costs by:

    (a) identifying differences between PLICS data and reference costs which PLICS users need to be aware of when producing reference costs
    (b) providing suggestions of best practice and workarounds.

619. This guidance was first published in April 2011 following consultation with the HFMA Costing Special Interest Group. Quotations are predominantly from members of this group.

620. Due to the different information and costing systems in use across the NHS we are not able to offer a prescriptive methodology. However, we have attempted to identify key areas for consideration and highlight common adjustments which may need to be made to PLICS outputs in order to produce reference costs.

Compatibility issues

621. The key to producing reference costs using PLICS data is to identify and document:

    (a) different treatment of costs and activity. Trusts may treat some costs and activity differently within their PLICS in order to meet internal reporting requirements
    (b) adjustments required to income, expenditure and activity in order to bring reported costs and activity back into line with reference cost reporting requirements.

622. PLICS users should ensure any adjustments are identified and applied within the correct cost pool groups to avoid skewing activity costs. Similar adjustments are necessary for service level reporting (SLR), although this guidance does not cover SLR requirements.

623. Trusts already successfully producing reference costs from their PLICS report that using a simple checklist setting out all of these adjustments is helpful and ensures a consistent approach year on year. This can be drawn up well in advance of the production of reference costs and can be used in discussions with software suppliers and updated each year. The list will also enable costing professionals and auditors to understand the process and assumptions used in the current and previous years.

624. The rest of this section describes a number of adjustments that may be required in order to produce reference costs.

Non-contractual income

625. Reference costs require non-contractual income to be netted off whereas it will be included in most PLICS as gross income. As a result, this income needs to identified and then credited within PLICS. It is also important to ensure the credit is allocated appropriately, e.g. medical and dental education levy (MADEL) is credited against junior doctor costs.

626. A judgement may be needed in reconciling between the different treatments in PLICS and reference costs. For instance, reference costs are not concerned with whether the netting down produces a surplus or a loss, but PLICS and SLR may calculate whether an individual or service has benefitted financially from the non-contractual income. It is crucially important therefore that the varying approaches are checked and validated.

Exclusions

627. Trusts should ensure that the list of exclusion in section 15 is reviewed each year and highlight services to be excluded. PLICS users should track costs through the system to the correct area and set up within the PLICS model as separate products so costs as well as activity can be excluded. The exclusions for reference costs may be different to those used in the production of SLR reports.

Sub-contracted services

628. Ensure that the PLICS identifies the patients that are sub-contracted and does not amalgamate them when producing reference costs. One organisation's approach is to:

    "identify patients within the PLICS system and send them to a separate product to allow recharge and identification for reference costs."

Separating out bed days from inlier bed days and using trim points

629. Using critical care and rehabilitation as an example, this should be done automatically by the Grouper. However, as critical care periods and rehabilitation episodes are included within PLICS costs and activity, checks should be done against a sample of patients to ensure that the critical care and rehabilitation activity has been removed from the episode before the excess bed day calculation. Trim points should be applied after all critical care and rehabilitation adjustments have been made.

630. Some PLICS users may be able to show critical care either as part of the patient episode or separately for internal SLR, but should follow reference costs rules for their annual return.

Adjustments to fixed internal corporate trading accounts

631. This is used for SLR reporting. An organisation may use a contribution to overheads approach to allocate costs to a specialty, as the direct and indirect costs are more controllable by the clinical service teams. This is appropriate for internal reporting, but all costs have to be absorbed into the relevant unit costs for reference costs. Care should be taken to make the correct approach for reference costs.

Adjustments to costing hierarchy

632. The hierarchy within an internal system may differ to the reference cost hierarchy (and output for the reference costs workbook). For example, an internal hierarchy may be directorate or division at the highest level, with drill down to specialty, then point of delivery, then HRG and maybe beyond. Whereas the reference cost

workbooks requires point of delivery to be established between day cases, inpatients, regular day and night attenders and outpatients (as per the separate worksheets), disaggregated by TFC on the worksheets themselves.

633. This may mean, for example, that, when any costs are apportioned top down to a whole specialty in PLICS, the methodology may need amending when the specialty is already split for the relevant worksheets.

Private patients

634. PLICS users may wish to identify the profitability of private patients at a detailed level, to inform pricing and decision making. For reference costs, the activity for private patients should be excluded, with the expenditure and income offset against the service area that provided the activity.

Unbundled HRGs

635. As a general rule, the requirement to report unbundled services separately in reference costs necessitates adjustments to PLICS. It is essential to consider the general guidance and adjustments needed, which include:

(a) reviewing each section to consider the data available for each area
(b) deciding which data source contains the most accurate data quality
(c) setting up the calculation for reference costs (and PLICS if appropriate) to use that data
(d) identifying and apportioning appropriate costs to it using appropriate weightings and information from the clinical team. It may be useful to retain the unbundled section in a service line (or sub-service line) of its own, or cost pool, or cost pool group
(e) document the methodology and assumptions.

636. A solution to separately identify unbundled activity is to set up a service line or specialty within PLICS, which will aid the production of activity data such as critical care, chemotherapy, etc.

Work in progress

637. Whilst identification and associated treatment of work in progress is not a PLICS only consideration, it is important whilst using PLICS that the correct treatment of work in progress for reference costs is used. The PLICS will match activity to cost based on an episode end or even part completed episodes, following the accounting matching principle and will create a work in progress report. However, for reference costs, adjustments are required to reflect spells completed in year (bringing forward activity and costs for prior years), or to exclude incomplete spells from the current financial year. It is important that the associated costs are adjusted and PLICS set up to do this. Be aware though that the approach for the costing of mental health care cluster is in line with that used within PLICS rather than the approach outlined above.

Question 15: Have you identified any other compatibility issues between PLICS and reference costs?

Workarounds

638. The issues and workarounds identified in this section are from feedback from PLICS users and may not be applicable to all organisations. However, they are included as they may be relevant and require action. This list is not exhaustive, and both additional issues and alternative workarounds may exist. Some of the adjustments have been categorised as either cost or activity workarounds.

639. The key message for any manual activity and cost workarounds outside of the PLICS is to ensure that there is no double counting of activity and that costs are correctly calculated using full absorption costing principles.

Admitted patients

640. **Issue** – admitted patients are costed at spell level within some PLICS systems, whilst reference costs have historically required an FCE approach.

641. **Possible solution** – ordinary electives and non-electives can be costed at HRG level using the PLICS model. Systems can be set up to cost at FCE level, rather than at spell level which would mean that the stay would not have to be disaggregated to FCE level for reference costs.

642. Similarly, day case activity can be costed at HRG level using a combination of the PLICS and PAS. By setting systems up that can cost at FCE and spell level, this facilitates various methods of reporting to be produced, when income is attached for both PLICS and SLR. By the nature of day cases being single days, there is unlikely to be any spell adjustments, but unbundled areas may present a similar challenge.

Outpatient attendances

643. **Issue** – recording and allocating correct activity outside of PLICS.

644. **Possible solution** - this is an area which may necessitate some manual adjustments, but the necessary action will be dependant upon information data flows. One organisation had the following costing workaround:

"Cancer MDTs, allied health professionals (AHP) and obstetric ultrasounds are not costed separately within the PLICS/SLR system. Cancer MDTs are included within the job plans for the consultants. The total costs of each specialist MDT are then identified and repointed into the cancer MDT driver; they are then apportioned to speciality or HRG on a top down basis. AHPs are subcontracted; the value of the contract is apportioned to the activity on a top down basis."

645. The corresponding activity workaround for the same organisation highlights the range of information sources and thinking around data flows which needs to be co-ordinated:

"Cancer MDT, AHP and obstetric ultrasounds require manual interventions to identify the activity for reference costs. CMDT data is obtained from the co-ordinator, which is

held locally and in the correct currency. AHP activity is recorded locally as referrals, but is required as attendances and contacts in reference costs. An average multiplier is used to convert the referrals to contacts. All workarounds are manually imported to the system as service totals and are therefore not at patient level."

646. Note that the recording of cancer MDTs will not necessarily be recorded as an outpatient. However, for reference costs, the classification of the activity is as an outpatient, so adjustments to PLICS reporting outputs will need to be made.

647. Issues regarding the treatment of activity within a PLICS may relate to the appropriate use of TFCs, separating out and recording multi-professional attendances, and the inclusion of AHP or technical services such as physiotherapy, orthoptists, orthotics and so forth, and also group sessions rather than individual contact, again for therapists and midwives. A weighting calculation can be used to split costs from either the number of professional or attender numbers.

Emergency medicine

648. **Issue** - the main difficulty with A&E activity is identifying which patients are admitted or not admitted.

649. **Possible solution** - An additional field/flag to show whether a patient was admitted or not could be added to the PLICS system to aid the collation of activity and costs for reference costs.

Chemotherapy

650. **Issue** – identifying activity and costs for chemotherapy.

651. **Possible solution** - several adjustments may need to take place to produce chemotherapy costs and activity. How easy this is will depend on whether chemotherapy is recorded within the PLICS. The key element to chemotherapy is to understand how activity and costs across different departments are linked and what manual adjustments need to be made to produce reference costs.

652. Some organisations may record procurement HRGs information via the pharmacy system rather than by regimen, which means that no costs or patient activity levels are recorded at HRG level. The regimens followed could be identified by mapping the drugs used in chemotherapy to the regimen drugs. For example, if the pharmacy system records the issue of Carboplatin, Epirubicin and Vincristine to the same patient on the same day, the regimen will be CEV, but if the drugs are Bleomycin, Cisplatin and Vincristine, the regimen will be BOP.

653. Trusts may need to make adjustments to ensure costs and activity are allocated to the correct service setting and patient, for example, ensuring that for chemotherapy delivery that ward costs are reported under the relevant reference cost workbook sheet. Dependant on the information systems and patient records, trusts might choose to use a manual check to trace activity to the patient; this could use minutes on the ward and number, type or time of pathology tests.

Critical care

654. **Issue** - This guidance has already discussed the need to extract bed days for critical care from the total admitted patient episode. There may also be difficulty in extracting the activity data when using the grouped data.

655. **Possible solution** - One trust suggests:

"Firstly users should ensure that the ITU/HDU episode is deducted from the overall length of stay and therefore adjust spell length of stay and ensure excess bed days are not erroneously produced".

656. Trusts may have difficulty in collating the activity data due to the complexity of the HRG currencies and data systems, therefore potential approaches may include costs not being weighted based on HRG. One trust commented:

"The grouper only recognises one HRG per patient, the Grouper (PAS information) does not include all patient activity, and the grouper data is used as the basis of the calculation. The activity data from the ward is mapped to the grouped activity data. Additional patient lines are included where there are more than one HRG per patient. Where no HRG has been allocated to the patient, a HRG is mapped according to the average HRG from the ward/number of days. The amended patient level data is re-imported to the system."

657. The impact of contact with outreach teams needs to be unbundled for PLICS, but not for the service cost in reference costs. A solution could be similar to that outlined for specialist palliative care below.

Diagnostic imaging

658. **Issue** – extracting the information to produce reference costs (this is not a PLICS only issue).

659. **Possible solution** – this is one area where activity will need to be extracted from the PLICS system and different approaches may need to be used. Below are some examples which illustrate the different ways in which organisations resolve this issue:

"Reference costs unbundle diagnostic imaging at a different currency (i.e. HRGs) to the internal PLICS bundled and matched diagnostic imaging (i.e. modality, examination code, Korners) so cost weightings for both currencies were used but may not be comparable."

660. One trust reported the following workaround:

" we had to exclude outpatient diagnostic imaging from the matching process, we still allocated radiology cost and activity to admitted patient care activity using patient number and dates to match, but outpatient unbundled radiology activity was worked up manually from the source data of the radiology system. This required interpretation of which scan codes fell into which HRGs, This left no connection between the original patient attendance and the diagnostic imaging".

High cost drugs

661. **Issue** - Extracting and reconciling information from PLICS and pharmacy systems to produce reference costs.

662. **Possible solution** – this is one area where manual adjustments may need to be made if the pharmacy and other systems are not linked in fully to the PLICS system. Flagging the drugs which are high cost within the system so automatically identified is one option. One trust suggests the following workaround:

"patient level information is available locally for non–Payment by Results (PbR) drugs in the currency of patient months on treatment. Additional activity information is sought from pharmacy for the high cost drugs that are not PbR exclusions. The activity identified is manually input into the system via a dummy activity line at HRG and point of delivery level, not at a patient level."

663. Another organisation described their planned approach:

"We should be able to map high cost drugs names to a HRG and remove the drug cost at the end of the costing process from everything except A&E. The issue is with the recording of activity as to whether we use coded information or the pharmacy system."

Radiotherapy

664. **Issue** – identifying activity and costs for radiotherapy.

665. **Possible solution** – Utilising data collated for the radiotherapy data set, which is required as a monthly, mandatory submission to the National Cancer Services Analysis Team. This data set is coded directly by the radiographers on the machines delivering treatment and has to be entered correctly to allow treatment to commence.

666. Using this data source ensures the output is accurate and eliminates the need to reconcile local oncology systems with PAS which could, dependant upon local systems use different patient numbering systems and result in additional local manual reconciliations.

Rehabilitation

667. **Issue** – Extracting the rehabilitation days from within the admitted patient spell.

668. **Possible solution** - Where PLICS is not yet established, in areas such as rehabiliation, it may be necessary to use a top down cost apportionment. However, it is important to ensure that elements of overheads are built into this correctly. In addition, manual checks should be made to ensure rehabilitation attendances are not replicated as WF01* or WF02* HRGs.

669. Collecting the correct activity is important on areas produced outside of the PLICS system, for example:

"As with ITU and HDU, when calculating rehabilitation as a bed day, it is important to ensure that rehabilitation only starts from the date of transfer from acute care."

Specialist palliative care

670. **Issue** - Ensuring the costs and activity are extracted from PLICS correctly, potentially using manual approaches to activity.

671. **Possible Solution** – Specialist palliative care costs should be identifiable from PLICS. However, activity information may have to be calculated. For example, activity may be provided by the specialist palliative care team including number of minutes multiplied by weighting of time spent on bereavement, which would then allow accurate costing.

672. Often the key to collecting the correct activity is liaising with the palliative team or specialist nurse. There will also be a crossover with the recording of MDTs, as palliative care team members will be an integral part of the MDT.

Direct access pathology services

673. **Issue** – Extracting the split in activity as defined within reference costs.

674. **Possible Solution** - Additional information may be needed to facilitate costing within the PLICS in some trusts. Contact with the service may be needed to obtain activity information. Checks on the PLICS as to whether the model splits out a proportion of costs for each pathology discipline based on the volume of work that is direct access compared to trust work is key to accurately costing the different activity.

Community visits and midwifery

675. **Issue** – reconciling information flows to produce data.

676. **Possible solution** - not all PLICS trusts will have information flows linked to the PLICS or, in some trusts, only part of the community data may be available in PLICS. If patient level data is not available, (whether in a PLICS or not), normal reference costs rules apply. One trust reported

    “Costs from the community birthing centre are discrete and apportioned on a top down basis in lieu of PLICS information”.

677. Identifying and linking activity data in this area may also require manual adjustments, in particular where activity is completed and compiled by other trusts. The same trust reported that:

    “There was a need to split out the community element of the activity as the activity is provided by community sources regarding the number of community visits made from antenatal and postnatal visits. The activity is added to the system as a total for the service not at the patient level”.

    “It may also be necessary to treat the community midwifery element in a similar fashion to AHPs in the example above, using an average multiplier for ante and post natal visits per birth in order to allocate costs. There may be an activity adjustment needed for ante natal visits for babies born at other units. It may be possible to use planned community clinic numbers as an indicator.”

678. An updated workaround detailed by one trust to correctly identify community midwifery activity is detailed as follows:

"we have had the time to explore where and when sessions are planned for; which midwives will be at which GP surgeries, on what dates and used a sample of attendances at those services. To this we added a weighting for the higher risk pregnancies such as hypertension, obesity etc, resulting in more accurate patient costs".

679. The longer term objective should be to collect more community (and other) information at patient level, both for internal reporting, reference costs, and indeed to improve the quality of clinical information held.

Question 16: Do you have any other examples of best practice or workarounds for producing reference costs from PLICS data?

Glossary

Admitted patient care	An overarching term covering the following classifications of patients admitted to a hospital: ordinary elective admissions, ordinary non-elective admissions, day cases, regular day admissions and regular night admissions.
Allocation	The process of assigning costs from a high-level pool of costs to a cost object or activity, based on a predetermined methodology.
Complications and comorbidities	Many HRGs differentiate between care provided to patients with and without complications and comorbidities. Comorbidities are conditions that exist in conjunction with another disease, e.g. diabetes or asthma. Complications may arise during a period of healthcare delivery.
Core HRG	Represents a care event (e.g. finished consultant episode, outpatient attendance or A&E attendance).
Cost driver	A factor that causes activities and costs to vary, such as length of stay or theatre minutes.
Cost pools	Accumulated costs in logical groupings (e.g. medical staff, wards, operating theatres), which are subsequently used to support cost allocation, and for reporting.
Currency	A unit of healthcare activity such as spell, episode or attendance.
Data quality	The degree of completeness, consistency, timeliness and accuracy that makes the data appropriate for a specific use.
Department code	Costs are organised in Unify2 according to the following hierarchy: department code (e.g. day cases, outpatient attendances or mental health), service code (e.g. TFC) and currency code (e.g. HRG).
Direct costs	Costs that directly relate to the delivery of patient care. Examples include medical and nursing staff costs.
Discrete service	The definition of discrete in this context in the guidance is where a patient has attended solely for this service and it is not part of an ongoing package of care.
Excess bed days	Days that are beyond the trim point for a given HRG.
Finished consultant episode (FCE)	An episode of patient treatment under one consultant that has finished.
Fixed costs	Fixed costs are not affected by in-year changes in activity, for example rent and rates.
Healthcare resource group (HRG)	Standard groupings of clinically similar diagnosis and procedure codes that use similar levels of resources.
ICD-10	A list of diagnosis codes maintained by the World Health Organisation (WHO).
Impairments	Impairments arise when there is a loss in value of an asset compared with its balance sheet value. They typically arise when an asset becomes obsolete or is to be sold, but can also be identified in a regular revaluation of assets. Any loss in value is recorded in the

	organisation's income and expenditure account
Indirect costs	Costs that are indirectly related to the delivery of patient care. They are not directly determined by the number of patients or patient mix but costs can be allocated on an activity basis to service costs.
Multi-professional education and training (MPET)	Funding from the Department to NHS trusts and NHS foundation trusts to compensate for the costs of undergraduate and postgraduate medical training, and training for non-medical and other clinical staff.
OPCS-4	Classification of interventions and procedures, used for the admitted patient care commissioning data sets and maintained by the NHS Classifications Service.
Overhead costs	Costs that are not driven by the level of patient activity and which have to be apportioned to service costs as there is no clear activity-based allocation method. An example would be the chief executive's salary.
Patient level costing and information systems (PLICS)	IT systems which combine activity, financial and operational data to cost individual episodes of patient care.
Patient level costs	Costs which are calculated by tracing the actual resource use of individual patients.
Payment by results	The payment system in England under which commissioners pay healthcare providers for each patient seen or treated, taking into account the complexity of the patient's healthcare needs. The Department's *A simple guide to Payment by Results*[96] provides a useful introduction.
Quantum	The total costs measured and allocated for the costing exercise.
Reference costs advisory group (RCAG)[97]	An advisory group of NHS trusts and other stakeholders providing technical and practical advice on proposed changes and improvements to the annual reference costs collection.
Semi fixed costs	Semi-fixed costs are fixed for a given level of activity but change in steps, when activity levels exceed or fall below these given levels. Nursing costs are an example.
Service code	Costs are organised in Unify2 according to the following hierarchy: department code (e.g. day cases, outpatient attendances or mental health), service code (e.g. TFC) and currency code (e.g. HRG).
Service line reporting (SLR)	A method for reporting cost and income by service lines to improve management's understanding of the contribution of each service line to performance.
Spell	The period from date of admission to date of discharge for one patient in one hospital. A spell may consist of more than one FCE.
Tariff	The fixed prices for units of healthcare activity.

96 http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_128862

97 http://www.dh.gov.uk/health/about-us/public-bodies-2/advisory-bodies/pbr-governance-arrangements/rcag/

Trim point	A defined length of stay for each HRG. Technically defined as the upper quartile length of stay for the HRG plus 1.5 times the inter-quartile range of length of stay.
Unbundled HRG	An unbundled HRG represents an additional element of care. An unbundled HRG will always be associated with a core HRG that represents the care event, and will always be produced in addition to a core HRG.
Unify2	The Department of Health's corporate collection system.
Variable costs	Costs that vary with changes in activity, for example drugs.

Annex A: Reference costs survey

	All organisations	
Q1	What is the current status of patient level information and costing systems (PLICS) in your organisation?	• Implemented[98] • Implementing[99] • Planning • Not planning
Q2	How many whole-time equivalent (WTE) staff are engaged in running your costing system and producing cost information:	
Q2a	• Finance staff?	[number of WTEs]
Q2b	• Information staff?	[number of WTEs]
Q2c	• Other staff?	[number of WTEs]
Q3	What is the resource commitment of collating and submitting the annual reference costs return by the following occupational groups:	
Q3a	• Finance staff?	[insert number of days]
	• Information staff?	[insert number of days]
Q3b	• Clinicians?	[insert number of days]
Q3c	• Senior managers?	[insert number of days]
Q4	What is the level of clinical and financial engagement in your organisation? (defined in paragraph 104 of the reference costs guidance)	• Level 1 • Level 2 • Level 3 • Level 4

	Implemented: organisations which have implemented PLICS only	
Q5	How often are you producing and reporting patient level cost information?	• Monthly • Bimonthly • Quarterly • Annually • Not reporting • Other – please specify in Q26
Q6	Did you use PLICS to underpin your reference costs return?	• Yes/No
Q7	If you answered yes to Q5, which service areas were underpinned by PLICS?	
Q7a	All services	• Yes/No
Q7b	Admitted patient care and day care facilities	• Yes/No
Q7c	Outpatient services	• Yes/No
Q7d	Emergency medicine	• Yes/No
Q7e	Chemotherapy	• Yes/No
Q7f	Critical care	• Yes/No
Q7g	Diagnostic imaging	• Yes/No
Q7h	High cost drugs	• Yes/No
Q7i	Radiotherapy	• Yes/No
Q7j	Rehabilitation	• Yes/No
Q7k	Specialist palliative care	• Yes/No
Q7l	Renal dialysis	• Yes/No
Q7m	Services accessed directly	• Yes/No

[98] IT system purchased, installed and being used to cost at least some services.
[99] IT system is in the process of being purchased and installed.

Q7n	Mental health services	• Yes/No
Q7o	Community services	• Yes/No
Q7p	Ambulance services	• Yes/No
Q7r	Cystic fibrosis	• Yes/No
Q7s	Audiology services	• Yes/No
Q8	If you answered no to Q7, is there a particular reason for this?	• System not fully developed and tested • Differences in reference costs and PLICS methodology • Data quality issues • Other - please specify in Q27
Q9	Did you use the HFMA clinical costing standards as part of your PLICS implementation?	• Fully • Partially • Not at all
Q10	If you did not use the HFMA clinical costing standards as part of your implementation, have you subsequently reviewed your system against the standards?	• Yes/No
Q11	Did you use the HFMA clinical costing standards when producing your reference costs?	• Yes/No
Q12	If you answered no to Q12, why are you not using the HFMA clinical costing standards?	• Our PLICS does not support them • We were not aware of them • Other - please specify in Q27
Q13	Have you used the materiality and quality score (MAQS) as detailed in the HFMA clinical costing standards?	• Yes/No
Q14	If you answered yes to Q14, what is your current MAQS score?	[Enter score between 0.00 and 1.00]
Q15	When was your PLICS implemented?	• Before 2006 • 2006 • 2007 • 2008 • 2009 • 2010 • 2011 • 2012 • 2013
Q16	Who is the supplier of your PLICS?	• Allocate • Ardentia • Belvan • Bellis-Jones Hill / Prodacapo • CACI/BPlan • Civica • Costflex • Healthcost • Internally provided • Powerhealth • Other - please specify in Q27

	Implementing: organisations which are currently implementing PLICS only	
Q17	What stage of implementation are you at?	• Completed and improving accuracy • Dual running with existing costing system • Supplier chosen
Q18	What is your timescale for completing PLICS implementation?	• Within 1 year • 1-2 years • 2-3 years • 3 years +

Q19	How involved have clinicians been in implementing PLICS?	• Level 1 • Level 2 • Level 3 • Level 4
Q20	Are you using the HFMA clinical costing standards as part of your PLICS implementation?	• Fully • Partially • Not at all
Q21	If you are not using the HFMA clinical costing standards why is this?	• Our PLICS does not support them • We were not aware of them • Other - please specify in Q27
Q22	Who is the supplier of your PLICS system?	• Allocate • Ardentia • Belvan • Bellis-Jones Hill / Prodacapo • CACI/BPlan • Civica • Costflex • Healthcost • Internally provided • Powerhealth • Other - please specify in Q27

	Planning: organisations which are planning to implement PLICS only	
Q23	What is your timescale for completing PLICS implementation?	• Within 1 year • 1-2 years • 2-3 years • 3 years +
Q24	Who is the supplier of your PLICS system?	• Allocate • Ardentia • Belvan • Bellis-Jones Hill / Prodacapo • CACI/BPlan • Civica • Costflex • Healthcost • Internally provided • Powerhealth • Other - please specify in Q27 • Not yet chosen

	No plans: organisations which are not planning to implement PLICS only	
Q25	If you not planning to implement PLICS, what are the main reasons why not?	• Financial cost of system • Lack of staff resource • Focusing on SLR • Not convinced of benefits to our organisation • Other - please specify in Q27

	All organisations	
Q26	Do you have any other comments?	

Annex B: Spell costs

Spell costs will be reported in the reference costs workbook alongside FCE costs. The following tables illustrate how spell costs might be worked up before they are transferred to the workbook.

Table 67: Sample data

EPIKEY	PROCODE	ADMISSION	FCE HRG	EPI LOS	EPI TRIM	EPI EBD	INLIER UNIT COST	EBD UNIT COST	Spell ID	SPELL HRG	SPELL_LOS	SPELL TRIM	SPELL EBD	SPELL FLAG
(unique episode identifier)	(provider code)	(admission descriptor)	(HRG of episode)	(episode length of stay)	(episode trimpoint)	(episode excess bed days)	(episode inlier unit cost)	(episode excess bed day unit cost)	(unique spell identifier)	(HRG of spell)	(spell length of stay)[100]	(spell trimpoint)	(spell excess bed day)	(flags final episode in each spell)
000019	RZZ	NE	AA22Z	15	34	0	2,796	0	0000016	AA22Z	19	58	0	1
000021	RZZ	NE	AA22Z	19	34	0	2,996	0	0000017	AA22Z	27	58	0	1
000020	RZZ	NE	AA25Z	8	19	0	2,165	0	0000017					0
000004	RZZ	DC	AB04Z	1	32000	0	649	0	0000004	AB04Z	1	8	0	1
000001	RZZ	DC	BZ02Z	1	32000	0	802	0	0000001	BZ02Z	1	3	0	1
000002	RZZ	DC	BZ02Z	1	32000	0	711	0	0000002	BZ02Z	1	3	0	1
000023	RZZ	NE	DZ19B	6	5	1	963	206	0000018					0
000022	RZZ	NE	EB03H	2	31	0	750	0	0000018					0
000024	RZZ	NE	EB03H	10	31	0	2,741	0	0000018	EB03I	18	22	0	1
000025	RZZ	NE	EB03I	13	16	0	1,798	0	0000019	EB03I	13	22	0	1
000017	RZZ	NE	EB08I	1	5	0	900	0	0000015	EB08I	1	5	0	1
000013	RZZ	EL	FZ12C	8	14	0	3,008	0	0000013	FZ12C	8	14	0	1
000018	RZZ	NE	FZ25A	4	32000	0	2,613	0	0000016					0
000029	RZZ	NE	FZ48C	1	32000	0	314	0	0000023	FZ48C	1	32000	0	1
000030	RZZ	NE	FZ48C	1	32000	0	317	0	0000024	FZ48C	1	32000	0	1
000005	RZZ	EL	GA10B	6	4	2	2,066	231	0000005	GA10B	6	4	2	1
000006	RZZ	EL	GA10B	2	4	0	2,234	0	0000006	GA10B	2	4	0	1
000014	RZZ	EL	HB12B	6	14	0	4,017	0	0000014					0
000016	RZZ	EL	HB12B	16	14	2	60,198	221	0000014	UZ01Z	25	0	25	1
000007	RZZ	EL	JA07C	3	6	0	2,687	0	0000007	JA07C	3	6	0	1
000008	RZZ	EL	JA07C	5	6	0	2,198	0	0000008	JA07C	5	6	0	1
000026	RZZ	NE	NZ01F	2	4	0	1,460	0	0000020	NZ01F	2	4	0	1
000027	RZZ	NE	NZ01F	2	4	0	1,251	0	0000021	NZ01F	2	4	0	1
000028	RZZ	NE	NZ01F	6	4	2	1,888	387	0000022	NZ01F	6	4	2	1
000015	RZZ	EL	UZ01Z	3	0	3	0	158	0000014					0

[100] The length of a spell is the total length of the FCEs in the spell. Where the spell is made up of several 0 length episodes the length of the spell will be 1.

EPIKEY	PROCODE	ADMISSION	FCE HRG	EPI LOS	EPI TRIM	EPI EBD	INLIER UNIT COST	EBD UNIT COST	Spell ID	SPELL HRG	SPELL_LOS	SPELL TRIM	SPELL EBD	SPELL FLAG
(unique episode identifier)	(provider code)	(admission descriptor)	(HRG of episode)	(episode length of stay)	(episode trimpoint)	(episode excess bed days)	(episode inlier unit cost)	(episode excess bed day unit cost)	(unique spell identifier)	(HRG of spell)	(spell length of stay)[100]	(spell trimpoint)	(spell excess bed day)	(flags final episode in each spell)
000003	RZZ	DC	WA14Z	1	32000	0	402	0	0000003	WA14Z	1	3	0	1
Totals				143		10	101,925	2,356			143		29	20

In Table 68, each row relates to each FCE HRG, spell HRG, and admission combination.

Table 68: FCE and spell costs

FCE HRG	Spell HRG	Admission	FCE Counts	Spell Counts	FCE (Inlier) Unit Cost	FCE Excess Bed Day Unit Cost	FCE Inlier Bed Days	FCE Excess Bed Days	Total FCE Bed Days	Spell Inlier Bed Days	Spell Excess Bed Days	Total Spell Bed Days
AA22Z	AA22Z	NE	2	2	2,896	0	34	0	34	46	0	46
AA25Z	AA22Z	NE	1	0	2,165	0	8	0	8	0	0	0
FZ25A	AA22Z	NE	1	0	2,613	0	4	0	4	0	0	0
AB04Z	AB04Z	DC	1	1	649	0	1	0	1	1	0	1
BZ02Z	BZ02Z	DC	2	2	756	0	2	0	2	2	0	2
DZ19B	EB03I	NE	1	0	963	206	5	1	6	0	0	0
EB03H	EB03I	NE	2	1	1,745	0	12	0	12	18	0	18
EB03I	EB03I	NE	1	1	1,798	0	13	0	13	13	0	13
EB08I	EB08I	NE	1	1	900	0	1	0	1	1	0	1
FZ12C	FZ12C	EL	1	1	3,008	0	8	0	8	8	0	8
FZ48C	FZ48C	NE	2	2	315	0	2	0	2	2	0	2
GA10B	GA10B	EL	2	2	2,150	231	6	2	8	6	2	8
JA07C	JA07C	EL	2	2	2,442	0	8	0	8	8	0	8
NZ01F	NZ01F	NE	3	3	1,533	387	8	2	10	8	2	10
HB12B	UZ01Z	EL	2	1	32,107	221	20	2	22	0	25	25
UZ01Z	UZ01Z	EL	1	0	0	158	0	3	3	0	0	0
WA14Z	WA14Z	DC	1	1	402	0	1	0	1	1	0	1

			* total cost	** total cost*						
TOTALS	**26**	**20**	**101,925**	**2,356**	**133**	**10**	**143**	**114**	**29**	**143**

The relationship between table Table 68 and the sample data in Table 67 is as follows.

Column	Description
FCE HRG	The HRG for each episode
Spell HRG	The HRG for each spell
Admission	Spell admission method. Note: all FCEs in the spell must have the same admission method or the spell will be invalid for grouping.
FCE Counts	Total count of FCEs for the FCE HRG/spell HRG/admission combination.
Spell Counts	The total count of spells per FCE HRG/spell HRG/admission method combination. Providers should use the SpellReportFlag from the groupers spell-level output to help populate this. The total should be consistent with the sum of the SD Spell Flag column
FCE (Inlier) Unit Cost	The average FCE unit cost per FCE HRG/spell HRG/admission method combination. Calculated as the total inlier costs for each FCE divided by the total cost.
FCE Excess Bed Day Cost	EBD unit cost for each FCE HRG/spell HRG/admission combination. Calculated as the sum of the episode EBD in each FCE divided by the total FCE EBD
FCE Inlier Bed Days	The sum of SD EPI LOS minus the sum of SD EPI EBD
FCE Excess Bed Days	The sum of SD EPI EBD in the sample data
Total FCE Bed Days	The sum of SD EPI LOS
Spell Inlier Bed Days	The sum of SD Spell_LOS minus the sum of SD Spell EBD
Spell Excess Bed Days	The sum of SD Spell EBD in the sample data
Total Spell Bed Days	The sum of SD Spell_LOS

Table 69 shows the information from Table 68 aggregated to spell level and should be transferred to the reference costs workbook.

Table 69: Spell costs

Spell HRG	Admission	Spell Counts	Untrimmed Unit Cost	Spell Inlier Bed Days	Spell Excess Bed Days	Total Spell Bed Days
AA22Z	NE	2	5,285	46	0	46
AB04Z	DC	1	649	1	0	1
BZ02Z	DC	2	756	2	0	2
EB03I	NE	2	3,229	31	0	31
EB08I	NE	1	900	1	0	1
FZ12C	EL	1	3,008	8	0	8
FZ48C	NE	2	315	2	0	2
GA10B	EL	2	2,382	6	2	8
JA07C	EL	2	2,442	8	0	8
NZ01F	NE	3	1,791	8	2	10
UZ01Z	EL	1	65,130	0	25	25
WA14Z	DC	1	402	1	0	1
			** total cost*			
TOTALS		**20**	**104,281**	**114**	**29**	**143**

The relationship between Table 69 and the data in Table 68 is as follows:

Column	Description
Spell HRG	As per Table 68
Admission	As per Table 68
Spell Count	Total count for each spell HRG/admission combination i.e. the sum of spell counts from Table 68
Untrimmed Unit Cost	The sum product of Table 68 FCE Counts multiplied by Table 68 FCE (inlier unit cost) plus the sum product of Table 68 FCE Excess Bed Day cost multiplied by Table 68 FCE Excess Bed Days, this is then divided by Spell Count.
Spell Inlier Bed Days	As per Table 68
Spell Excess Bed Days	The sum of Table 68 Spell Excess Bed Days

Annex C: Costing mental health care clusters and CPPP

The CPPP approach is based on a calculation of direct costs of interventions, which are used to determine the relative resource intensity of care provided across the clusters. It seeks to utilise patient user level costing methodologies.

A cost per day is first calculated, and this is applied to the duration of care between reviews to give a cost per cluster period.

For admitted patient care, it is assumed that there is no difference in relative resource intensity across admitted patient activity. Therefore existing reference costs are used to calculate a cost per day.

The process for costing clusters for community or non-admitted patient activity can be summarised in four stages:

Stage 1: Collate the cost of clinical time at a cluster level.

From the data collected through the community mental health teams (CMHT) run a report at a patient level for the given reporting period providing:

- the length of time of the appointment
- cluster allocated
- band of staff (individual staff details if available)

Calculate a cost of the staffing resource utilised across these patients (Table 70).

Table 70: Cost of clinical time per cluster

A	B	C	D	E	F = C*E
Patient	Cluster	Appointment time	Band	Staff rate per hour	Cost per appointment
X	01	30 mins	Band 6	£18.55	£9.28
Y	02	60 mins	Band 8a	£27.72	£27.72
Z	03	60 mins	Consultant	£65.40	£65.40

Consolidate this patient level costing for the patients identified at a cluster level to obtain a total cost per cluster for this period (Table 71).

Table 71: Total cost per cluster

G	H	I	J = H/I	K=J/MIN(J)
Cluster	Total of cluster (sum of appointments in column F above)	Patient days	Cost per patient day	Weightings
01	115,895	25,134	4.61	1.00
02	177,565	32,368	5.49	1.19
03	94,228	18,017	5.23	1.13
04	226,998	34,864	6.51	1.41
05	158,458	21,085	7.52	1.63
06-21	1,322,744	150,062	8.81	1.91
Total	2,095,888	281,531		

The cost of clinical staff time is the cost driver used to identify the relative resource intensity between the clusters. Column K above shows a relative value unit for each cluster. The relative value provides an indication of the relative resource utilisation of the

clusters. From column K in the table, we can see cluster 05 is shown to require 1.63 more resources than cluster 1. This stage is completed utilising 12 months of data from the MHCT.

The calculation can be applied at an organisation, directorate and or team level to develop benchmarking. As data volumes increase and data quality improves, this will lead to team level costing to allow a more detailed understanding of costs.

Stage 2: Calculate a fully absorbed cost per day.

Each organisation has a fully absorbed cost at a patient service level from their existing costing model that has been previously calculated to support the reference costs return. Using stage 1 for each patient service area the fully absorbed cost can be apportioned out across the clusters using the weighted patient days.

The data collected through the CMHT provides the number of patient days patients have spent within each cluster. Run a report to provide the total number of patient days by cluster for the period. The fully absorbed cost by cluster can be divided by the patient days for that cluster to obtain a cost per day per cluster

L	M=H	N=I	O=K	P=N*O	Q=P/SUM(P)*SUM(Q)[1]	R	S=Q/R
Cluster	Costed patient level data £	Patient days	Weighting	Weighted patient days	Apportioned full cost £	Total days in the cluster	Cost per day per cluster £
01	115,895	25,134	1.00	25,134	215,878	34,223	6.30
02	177,565	32,368	1.19	38,518	330,834	40,598	8.15
03	94,228	18,017	1.13	20,359	174,865	22,424	7.79
04	226,998	34,864	1.41	49,158	422,222	45,007	9.38
05	158,458	21,085	1.63	34,369	295,198	25,638	11.51
06-21	1,322,744	150,062	1.91	286,618	2,461,786	184,024	13.38
Total	2,095,888	281,530		454,156	3,900,783	351,914	

[1]Where the sum of Q is the full cost of the service from costing model.

Through costing based on primary data collected at a patient level, organisations are better placed to develop full patient level costing across all services.

Columns R and S should be inserted into the reference cost workbook under the section on community/non-in-patient.

While this reference costs collection is only concerned with collecting a cost per day per cluster, the CPPP methodology has two further stages as described briefly below.

Stage 3: Period of care durations

Use cost per day per cluster to determine the total cost of the cluster period duration of care. CPPP are currently collecting durations within clusters as part of the data set to review against the care transition protocols.

Stage 4: Create a tariff

Development of a tariff will be informed by stages 1 to 3. The focus on continually improving data quality and iterative benchmarking will inform the production of local tariffs.

Annex D: Costing mental health care clusters and West Midlands

The West Midlands project utilised existing reference cost activity categories and costs, in combination with care cluster activity, to calculate a cost by cluster. This approach is likely to be achievable for most organisations.

Initially care cluster activity is grouped using an aggregated template.

Table 72: West Midlands approach (1)

Cluster 01, Service user A				
Activity type	Currency description	Activity volume	Average unit cost	Total cost
Contact	Community mental health team: adult services	1	£51	£51
Outpatient	Adult: other services	2	£253	£506
Occupied bed day	Adult: acute care	21	£288	£6,058
				£6,615

A template similar to the following one is also used to record service user's interventions and associated costs. For submission of reference costs, local costs should be used for this calculation.

Table 73: West Midlands approach (2)

Cluster	01		02		03	
Service type	Activity	Activity/ client	Activity	Activity/ client	Activity	Activity/client
Outpatients:						
Adult outpatient new						
Adult outpatient other						
SMS alcohol outpatient new						

By utilising a combination of service user information, patient level costing and top down allocation methodologies, costs by service user by cluster can be calculated. A template similar to the reference costs cluster based collection can be used to record and summarise service user costs. Outpatient activity is shown here as an example, but this template would be expanded and the columns repeated for admitted patient bed days, day care attendances, community contacts etc.

Table 74: West Midlands approach (3)

Outpatient						
	Service user ref no	Attendance no of	Unit cost £	Value £	SLR ref	Total cost
Cluster 1 Cluster costs	1 2 3					
Cluster 21	29 30 31					
Total						

Annex E: Costing standards for ambulance service trusts

Table 75: Costing standards for ambulance service trusts

Description	Class.	Analysis	Currency			
			Calls (1)	Hear and treat (2)	See and treat (3)	See and treat and convey (4)
PAY						
General and senior management						
Chairman and non executive directors	Fixed	Indirect				
Chief executive	Fixed	Indirect				
Non-operational directors	Fixed	Indirect				
Director of A&E Services	Semi-fixed	Direct	%	%	%	%
Director of Patient Transport Services	Semi-fixed	Direct				
Administrative and clerical						
Finance	Semi-fixed	Indirect				
Personnel	Semi-fixed	Indirect				
Stores	Semi-fixed	Indirect				
Secretarial support	Semi-fixed	Indirect				
Information	Semi-fixed	Indirect				
Communications and computing	Semi-fixed	Indirect				
Reception staff	Fixed	Indirect				
Customer care / complaints officer	Semi-fixed	Indirect				
Transport / vehicles support officer	Semi-fixed	Indirect				
Control staff						
A&E control	Semi-fixed					
- *AMPDS audit*		Direct	100%			
- *Call assessors*		Direct	100%			
- *Call taker supervisors*		Direct	100%			
- *Rota management scheduler*		Direct	100%			
- *Cat C FCP*		Direct		100%		
- *CSD and alternative pathways manager*		Direct		100%		
- *Telemed*		Direct		100%		
- *Urgent care desk*		Direct		100%		
- *Call performance manager*		WTE of 1&2	%	%		
- *Air desk staff*		Incidents			%	%
- *Controllers*		Incidents			%	%
- *EMD despatchers*		Incidents			%	%
- *Incident command desk*		Incidents			%	%
- *Hospital desk assistants*		Direct				100%
- *Administrative assistant*		WTE of 1-4	%	%	%	%
- *CAD administrator*		WTE of 1-4	%	%	%	%
- *CAD loggist*		WTE of 1-4	%	%	%	%
- *Divisional manager EOC*		WTE of 1-4	%	%	%	%
- *Duty manager*		WTE of 1-4	%	%	%	%
- *EOC commander*		WTE of 1-4	%	%	%	%
- *EOC trainers*		WTE of 1-4	%	%	%	%
- *Regional EOC training co-ordinator*		WTE of 1-4	%	%	%	%
- *Regional head of EOC*		WTE of 1-4	%	%	%	%
PTS control	Semi-fixed	Direct				
Shared control	Semi-fixed	Indirect				
Ambulance liaison staff	Semi-fixed	Direct				
Ambulance personnel						
Training officers	Semi-fixed	Indirect				

Description	Class.	Analysis	Currency			
			Calls (1)	Hear and treat (2)	See and treat (3)	See and treat and convey (4)
District managers	Semi-fixed	Indirect				
Station officers	Semi-fixed	Indirect				
Pts staff	Variable	Direct				
Hcs drivers	Variable	Direct				
Paramedics	Variable	Time per 3&4			%	%
Technicians	Variable	Time per 3&4			%	%
- *Hospital ambulance liaison officer*	Variable	Direct				100%
- *Emergency care practitioner*	Variable	Time per 3&4			%	%
- *Ambulance support officer*	Variable	Time per 3&4			%	%
- *Emergency care assistant*	Variable	Time per 3&4			%	%
- *Health care referral team*	Variable	Time per 3&4			%	%
- *All other A&E grades*	Variable	Time per 3&4			%	%
Ancillary staff						
Catering staff	Fixed / semi-fixed	Indirect				
Domestics	Fixed / semi-fixed	Indirect				
Workshop staff	Semi-fixed	Indirect				
NON PAY						
Supplies and services clinical						
Drugs	Variable	Time per 3&4				
Medical gases	Variable	Time per 3&4				
Medical equipment	Semi-fixed	Time per 3&4				
Equipment maintenance	Semi-fixed	Time per 3&4				
Protective clothing	Semi-fixed	Time per 3&4				
Supplies and services general						
Provisions	Semi-fixed	Indirect				
Uniforms	Semi-fixed	Indirect				
Contract laundry	Semi-fixed	Indirect				
Hardware and crockery	Fixed	Indirect				
Linen: disposable	Variable	Indirect				
Linen: non-disposable	Semi-fixed	Indirect				
Establishment expenses						
Printing and stationery	Semi-fixed	Indirect/overhead				
Postage	Semi-fixed	Indirect/overhead				
Books and magazines	Semi-fixed	Indirect/overhead				
Telephone rental	Semi-fixed	Indirect/overhead				
Telephone calls	Semi-fixed	Indirect/overhead				
Travelling and subsistence expenses	Semi-fixed	Indirect				
Control equipment	Semi-fixed	Indirect				
Course fees	Semi-fixed	Indirect				
Training costs	Semi-fixed	Indirect				
Advertising and promotional expenses	Semi-fixed	Indirect				
Removal expenses	Semi-fixed	Indirect				
Transport and moveable plant						
- *Ambulance*		Time per 3&4			%	%
- *Rapid response vehicle*		Time per 3&4			%	%
- *Personal lease response vehicle*		Time per 3&4			%	%
- *Health care referral team vehicle*		Time per 3&4			%	%
- *HALO vehicle*		Time per 3&4			%	%
- *4x4 ambulance*		Time per 3&4			%	%
- *Alternate response vehicle*		Time per 3&4			%	%

Description	Class.	Analysis	Currency			
			Calls (1)	Hear and treat (2)	See and treat (3)	See and treat and convey (4)
- *Major incident unit*		Direct				%
- *Motor cycle*		Direct			%	
Fuel and oil	Variable	Time per 3&4				
Fuel pump maintenance	Semi-fixed	Time per 3&4				
Mot tests	Semi-fixed	Time per 3&4				
Spares and parts	Semi-fixed	Time per 3&4				
Workshop equipment	Semi-fixed	Time per 3&4				
Accident repairs	Semi-fixed	Time per 3&4				
Hire of Vehicles	Semi-fixed	Time per 3&4				
Rail services	Variable	Direct				
Vehicle insurance	Semi-fixed	Time per 3&4				
Ambulance car service	Variable	Direct				
Vehicle inspection	Semi-fixed	Time per 3&4				
RAC costs	Semi-fixed	Time per 3&4				
Tail lift maintenance	Semi-fixed	Time per 3&4				
Petrol licences	Semi-fixed	Time per 3&4				
Premises and fixed plant						
Fuel oil	Semi-fixed	Overhead				
Electricity	Semi-fixed	Overhead				
Gas	Fixed	Overhead				
Water and sewerage	Fixed	Overhead				
Refuse collection	Fixed	Overhead				
Cleaning materials	Semi-fixed	Indirect				
Cleaning contracts	Fixed	Overhead				
Furniture and fittings	Fixed	Indirect				
Office equipment	Fixed	Indirect				
Photocopier rentals / copies	Fixed	Overhead				
Computer hardware and software	Semi-fixed	Indirect				
Air conditioning	Fixed	Overhead				
Computer licence fees	Semi-fixed	Indirect				
Radio licence fees	Semi-fixed	Indirect				
Control equipment and consumables	Semi-fixed	Indirect				
Rates	Fixed	Overhead				
Rents	Fixed	Overhead				
Building and engineering	Fixed	Overhead				
Garden maintenance	Fixed	Overhead				
Brokers fees	Fixed	Overhead				
Building insurance	Fixed	Overhead				
Engineering plant insurance	Fixed	Overhead				
Miscellaneous expenses						
Medical malpractice insurance	Fixed	Overhead				
Medical reports	Fixed	Time per 3&4				
Employer liability insurance	Fixed	Overhead				
Net bank charges	Fixed	Overhead				
Management consultancy fees	Semi-fixed	Overhead				
Central services received	Semi-fixed	Overhead				
Occupational health	Semi-fixed	Overhead				
Audit fees	Fixed	Overhead				
All other expenditure	Semi-fixed	Indirect/overhead				
Capital						
Capital charges	Semi-fixed	Overhead				
Profit / loss on disposal	Semi-fixed	Overhead				

Key to table

SS	Support service
D	Direct service
	An emergency and urgent share is due here
	No emergency and urgent allocation
%	All costs split to identified currencies
100%	All costs to this currency

Table 76: Suggested allocation methods for some indirect or overhead costs

Description	To	By work measure	Currency			
			Calls (1)	Hear and treat (2)	See and treat (3)	See, treat and convey (4)
Overhead departments						
Chairman and chief executive	SS or D	Gross cost of services provided				
Administration	SS or D	Gross cost of Services Provided				
Personnel	SS or D	Staff numbers or WTEs				
Finance	SS or D	Gross cost of services provided				
Catering	SS	No. of meals provided				
Estates	SS or D	Building volume				
Linen	D	Time per 3&4				
Laundry	D	Time per 3&4				
Domestic	SS or D	Floor area				
Miscellaneous	SS or D	Gross cost of services provided				
Business development	SS or D	Gross cost of services provided				
Capital charges land and buildings	SS or D	Floor area				
Support service departments						
Training	D	Weighted no. of persons employed				
Quality	D	Gross cost of services provided				
Control rooms	D	WTE				
Workshops	D	Time per 3&4				
Non-patient transport	D	Weighted time spent				
District managers	D	Time per 3&4				
Information department	D	Weighted time spent				
Computers and communications	D	Weighted time spent				
Customer care	D	Weighted time spent				
Medical equipment	D	Time per 3&4				
Capital charges vehicles	D	Actuals				
Direct services						
A&E service		Time per 3&4				
PTS service						

Key to table

SS	Support service
D	Direct service
	An emergency and urgent share is due here
	No emergency and urgent allocation
%	All costs split to identified currencies
100%	All costs to this currency