NHS Costing Manual 2010-11

April 2011

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NHS Costing Manual 2010-11

April 2011

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Payment by Results team

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Contents

Foreword

The NHS Costing Manual was first published in November 1999 to bring a greater degree of consistency to the production of cost information. The increasing emphasis on benchmarking performance reinforces the need for a comprehensive and consistent approach to costing.

This revised version of the Costing Manual takes on board the developmental needs for the national tariff, as well as incorporating all lessons learnt from reference costs over the last 10 years and has produced a more detailed and increasingly prescriptive treatment of NHS costs. This is key if there is to be sufficient consistency to allow robust comparison and decision making using this data. This move to greater prescription will continue.

The Healthcare Financial Management Association (HFMA) Costing Special Interest Group has recently taken over development of the Clinical Costing Standards for Acute and Mental Health (previously published by the Department in 2009). These standards provide recommended best practice for the production of patient level costs and build on and enhance the principles outlined in this manual. The Costing Standards support a more consistent implementation of Patient Level Information and Costing Systems (PLICS) within the NHS.

The Department of Health has not mandated the implementation of PLICS for NHS organisations, however we support the implementation of PLICS and recognise the benefits of PLICS for NHS organisations, including the greater understanding of financial drivers, the provision of evidence-based analysis in discussions with clinicians and commissioners and provision of information to enable improved HRG classification.

The Acute Clinical Costing Standards have been developed to set out and promote best practice in clinical costing and to provide a standardised method of PLICS costing which will aid meaningful benchmarking and improve the quality of costing within the NHS. The Standards are not mandatory but it is hoped that PLICS organisations will adopt them to improve their costing.

The Acute & Mental Health Clinical Costing Standards are now published by the HFMA and a link to them can be found on the NHS Costing website adjacent to the NHS Costing Manual and Reference Cost Guidance. NHS Costing

Please note that the adoption of PLICS and use of the Clinical Costing Standards for PLICS organisations does **not** mean that the mandatory requirements set out in the Reference Cost Guidance and NHS Costing Manual become non-mandatory. PLICS organisations must continue to submit Reference Costs in line with the latest Reference Costs Guidance.

This update to the Costing Manual has been produced in line with the 2010-11 Reference Costs Guidance.

As highlighted in last year's Costing Manual, last year we have now included some of the reference cost specific guidance previously contained within the Costing Manual into the Reference Cost Collection Guidance for the collection in 2010-11. The aim, being that the Reference Cost Guidance is now more user friendly, including relevant costing information and the NHS Costing Manual is more concise and contains costing principles.

Many thanks to all those who have contributed to this guidance and development.

Executive Summary

This Manual sets out the principles and practice of costing to be applied in the NHS. It is not just designed to support the production of the National Schedule of Reference Costs (NSRC), and through this, the national tariff, but should also be used in developing and monitoring service and financial frameworks, as well as developments in and the monitoring and implementation of National Service Frameworks.

Costing must be undertaken on a full absorption basis. Costs should be matched to the services that generate them and should reflect the full cost of the service delivered. This will be best achieved by maximising the proportion of costs charged directly to services and adopting a standardised approach to the apportionment of overheads and indirect costs (Chapter 3). **For Reference Costs purposes this approach is mandatory**.

The approach to costing is based on a continuum with total costs being broken down into high level cost totals which in turn become disaggregated to reflect the more detailed costs of the care delivered as it moves down the continuum. All NHS providers are expected to move along the continuum to establish high level control totals. More detailed costing beyond this high level applies to the majority of health services including services covered by HRGs. The mandatory requirements also apply to a more comprehensive range of service providers.

Since the original version of this Manual was introduced, a number of reference cost collections have been undertaken. This Manual has therefore been updated to reflect the changes implemented as part of these processes, and also for lessons learned.

NHS costing and costing guidance are part of an iterative process that will continue while clinical practice and service delivery change and develop.

Through the sharing of unit cost information across the NHS and wider health arena, the NSRC seeks to facilitate meaningful discussions to support the modernisation agenda. The benefits of the NSRC have grown with the coverage of services and although the rollout programme will continue, the emphasis has now shifted to the integral and proactive use of this information rather than just transparency and peripheral analysis.

The development and implementation of a national tariff underpin the need for robust, reliable costing information. In addition, as this data is being used more proactively by all parts of the NHS, the Department of Health and other associated bodies such as the Audit Commission, H.M Treasury, Office for National Statistics, private and voluntary organisations etc., then the need for comparable, high quality data is reinforced. In turn, this reinforces the need for the full adoption of and compliance with the key underlying principles of the production and development of NHS costing generally and reference costs in particular.

NHS Costing Manual

Section 1 - Introduction and Principles

Chapter 1 – Introduction

1.1 The need for accurate information on the full cost of NHS services has taken on more importance over recent years as new approaches to commissioning and the provision of services continue to be developed. However, the introduction of payment by results means that the production of accurate cost information is now of vital importance under this new financial regime, not only because reference costs feed into the production of the national tariff but also because NHS organisations will need to have detailed understanding of their cost base. This updated NHS Costing Manual is designed to reinforce these changes, as well as establishing clear principles for the costing of all NHS services. The data, when consolidated, provides a source of detailed financial information, relevant to commissioners as well as providers of NHS services. It can be, and is, used to support: -

- Development of the national tariff;
- Monitoring of performance and service delivery;
- Efficiency targets;
- Benchmarking of services across all sectors;
- Consideration of investment decisions;
- Commissioning to meet health need;
- Negotiation of revised levels of funding.

1.2 To provide cost information that is accurate and relevant to clinicians, nurses and managers at all levels, a balance must be struck between prescription to allow robust comparisons to be made between providers, and flexibility to respond to local variations. The key to this is the development of costing below specialty/treatment function level and the identification of major “blocks of costs” for services. These “blocks” can then be assembled in a variety of ways to meet the various needs for cost information of NHS clinicians and managers, and form the building blocks for the development of Care Pathways.

1.3 This Manual is **mandatory** and should be followed by all NHS providers including Primary Care Trusts and PMS Plus pilot schemes providing Hospital and Community Health Services, unless otherwise stated. The Manual covers:

Chapter Two: the principles and key concepts that govern costing in the NHS. Where the Manual does not prescribe in detail the approach to be adopted, NHS providers must ensure that their chosen approach is consistent with the principles set out in this Chapter.

Chapter Three: the application of the principles and key concepts along the continuum of costing from the breaking down of total costs to high level control totals for each treatment function, service or programme through to the establishment of resource profiles and excess bed days. This includes specific reference to the use of Healthcare Resource Groups (HRGs) for resource profiling.

Chapter Four: the specific treatment of areas of Inpatient (Elective and Non Elective) and Day Case activity and costs.

Chapter Five: guidance on costing other areas of clinical activity.

Chapter 6: guidance on the reconciliation process for reference costs, including the analysis statements and details of the Statement of Compliance that form part of the mandatory submission. There is also a requirement to detail services excluded from reference costs to aid reconciliation to final accounts and to inform future plans for inclusion.

Chapter 2 – Principles and Key Concepts

2.1 Principles

2.1.1 The costing of all services delivered by NHS providers should be governed by the following principles, costs (and income) should be:

a. calculated on a full absorption basis to identify the full cost of services delivered;

b. allocated and apportioned accurately by maximising direct charging and where this is not possible using standard methods of apportionment;

c. matched to the services that generate them to avoid cross subsidisation.

The costing process should also be transparent with a clear audit trail.

2.1.2 It is acknowledged that configurations of cost centres differ across NHS providers. To address this apparent tension, NHS providers should identify cost centres which best reflect their service delivery for internal management purposes. These cost centres should however be able to clearly map to the treatment function/programme/service definitions required in the current Reference Costs Collection Guidance.

2.2 Key Concepts

2.2.1 ***Direct, Indirect and Overhead Costs***

2.2.1.1 Direct costs are those which relate directly to the delivery of patient care and are driven by patient type and throughput of patients and can be directly attributed to the patient. For example, the cost of drugs identified as being directly attributable to a patient.

2.2.1.2 Indirect costs are those costs which are indirectly related to patient care, they are not directly determined by the number of patients but costs can be allocated on an activity basis. For example, there may be no method of directly allocating laundry costs to a particular cost centre and therefore laundry costs are an indirect cost to a number of cost centres, an activity based allocation methodology can be used to allocate costs to a direct cost centre.

2.2.1.3 Overhead costs are the costs of support services that contribute to the effective running of a health care provider. They are costs not driven by the level of patient activity and have to be apportioned to service costs as there are no clear patient activity-based allocation method. Overhead costs may include the costs of business planning, human

resources and finance. They need to be apportioned on a consistent and logical basis. Where such services are shared with other parts of the NHS, care should be taken to ensure the relevant proportions are identified to the relevant services. These proportions **must be reviewed annually** as utilisation of these services will vary.

2.2.2 ***Minimum Standard Categorisation of Costs***

2.2.2.1 To ensure consistency a minimum standard categorisation of costs has been established for the NHS. This is included at Appendix 1 and analyses costs between direct, indirect and overheads. These are **minimum** standards and where information systems allow costs that are categorised in the appendix as indirect to be allocated directly to treatment function, this should be done. In no circumstances should costs included in the appendix as direct be allocated indirectly or apportioned as overheads, although reducing levels of overheads and a move to indirect or even direct cost classification is actively encouraged.

2.2.3 ***Fixed, Semi – fixed and Variable costs***

2.2.3.1 Costs should be classed as either:

- fixed. Where they are not affected by in-year changes in activity. For example costs such as rent, rates and depreciation.

- semi-fixed. Where costs are fixed for a given level of activity but change in steps, when activity levels exceed or fall below these given levels. For example costs such as nursing staff.

- variable. Where costs vary proportionately with changes in activity. For example costs such as drugs and consumables.

2.2.3.2 NHS providers should make available the classification used in compiling their quantum of costs. These should reflect local circumstances and be justifiable to both commissioners and auditors. As the reference costs data underpins tariff, there is an increasing level of audit interest in this data.

2.3 General Approach

2.3.1 There are three key elements in the costing methodology which are required as NHS providers move along the costing continuum:

a. a “high level control total” based on actual costs by services identifying direct, indirect and overhead costs in line with the national minimum standards. The national high level control totals should be able to be mapped to the national classification found in the current reference costs guidance.

b. a continuous reconciliation process at all stages of the costing process is required to ensure all costs are recovered, and that costs can be matched to relevant services and final accounts.

c. a “resource profile” analysis of the key conditions which represent a minimum of 80% of the high level control total in both activity and cost terms. Specific reference should be made to clinicians’ and nurses’ knowledge of the:

- conditions they treat
- frequency with which they are performed
- resources used to perform them.

These profiles or pathways allow clinical audit and financial monitoring to be undertaken as part of the ongoing internal performance monitoring. Effort should be focused on the smallest number of procedures and activities within each treatment function/service/programme which together represent a high proportion of the total cost.

2.3.2 Although the minimum requirement is for 80% of the high level control total in both activity and cost terms, organisations should aim to cost 100% of activity and costs wherever possible and most organisations now do this.

This Costing Manual should be used to produce retrospective baseline cost information that is used for Health Improvement Programmes, Service and Financial Frameworks and NHS service agreements, and in each of these situations, assumptions will need to be made about changes in activity and cost. These assumptions should be clearly identified and shared with all parties. This transparency will assist all parties in understanding the nature and behaviour of costs when linked to activity.

2.3.4 The involvement of clinicians, nurses and other professionals, including operational managers, is essential for the full understanding of the patient activities that are being costed. Use of their knowledge and experience will improve the accuracy of the results and produce a better understanding of cost behaviour and costing and monitoring processes amongst non-finance staff. Their knowledge can also be used to supplement formal information systems and fill in any gaps that may exist.

2.3.5 No meaningful cost and activity information will be produced if this is undertaken as a purely financial exercise. This professional involvement will be more concentrated when costing activities for the first time and should not be underestimated. This input should be planned and completed prior to the year-end costing exercise for reference costs, to allow sufficient time for the process. In some cases

this input may be found in clinical audit studies, training aids for junior doctors, etc., and these can provide a starting point for the process.

NHS Costing Manual

Section 2 - Application of Costing Principles and Key Concepts

Chapter 3 – The Application of NHS Costing Principles and Key Concepts

3.1 Overview

3.1.1 This chapter explains how the general principles and key concepts should be applied in order to move from Level 1 to Level 4 of NHS costing. A flow chart showing the process can be found on page 21 of this Manual. For organisations who have implemented Patient Level Information and Costing Systems (PLICS) these principles still apply, however costs are likely to be produced from the bottom up with more focus on direct costs..

3.1.2 When using a PLICS system, the discrete levels identified in this chapter may not be visible given the sophistication of the system, however the general principles do still apply

3.1.3 The total quantum of cost in accounting terms is the full cost of the provision of all services. This includes staff, non-pay and the costs associated with capital [both interest and principal]. The total quantum will be the same as the costs shown in the final accounts.

3.1.4 Not all services are currently included in reference costs. This total quantum therefore needs to be split between the services that are included and those that are excluded. Examples of services currently excluded are NHS Direct and Learning Disabilities Services. A full list of these services can be found in the 2010-11 Reference Costs Guidance (Section 16). Trusts have to provide cost / activity data for services identified in the 'Excluded' column of the expenditure analysis statement, with a detailed breakdown identifying such services in the "services excluded" analysis statement.

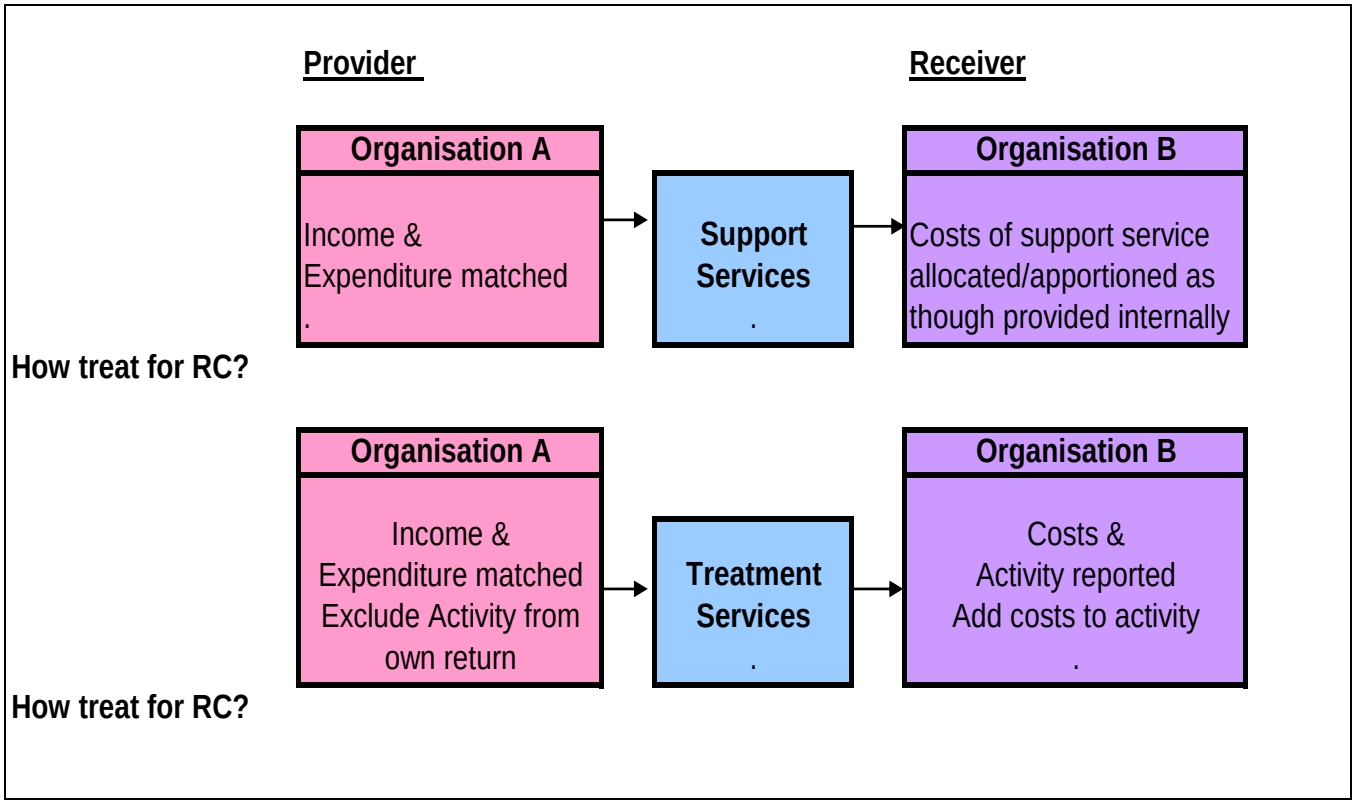
3.1.5 As a guide, the sum of multiplying the individual unit costs by the individual activity in all categories included for reference costs, will be equal to the quantum of costs included in reference costs, as shown on the Reconciliation Statement.

LEVEL 1 – Establish Control Totals for Costing

3.2 General Ledger Reconciliation

3.2.1 The costing process begins with the general ledger. At the first level, the purpose is that a control total for costing should be established. This should be the full cost of providing services for NHS patients.

3.2.2 Where there are provider/provider agreements for support or treatment services, the costs and associated income should be treated as follows:-



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For support services (in line with the principles outlined in Chapter 2):

- the **providing** NHS organisation (A) should record **both** expenditure and income and these should be **matched** in line with the costing principles;

- the **receiving** NHS organisation (B) should include the service costs in their total quantum of costs, and these costs should be treated for service costing purposes, as though the service had been provided internally and should therefore be allocated and apportioned if necessary on a consistent basis.

For treatment services:

- the **receiving** NHS organisation (B) should record **both** the costs and activity. Such costs should be added to the cost of the Finished Consultant Episode/Spell/attendance/client if necessary;

- the **providing** NHS organisation (A) should match the income and expenditure as with support services, but any resultant **activity (FCEs/ Spells/attendances etc) should be excluded** and reconciled through the appropriate statement detailed in Chapter 11. 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.

3.2.3 For costing purposes only the net cost/income of teaching, research and development, and private patients should be included in the control total. All the associated income (grants, levies, donations, including all central levies such as SIFT, NMET etc) should be attributed to the corresponding services, to "match" the expenditure in line with the matching principle. This should be done even where inaccuracies or anomalies in the costing of these activities have occurred. Thus, baseline costs used for reference costs will include only the ***net*** effect of the costs or income associated with these activities and their relevant income streams.

LEVEL 2 – Production of High Level Control Totals

3.3 Attribute Costs to Specialties/Services/Programmes/Patients

3.3.1 Costs should first be analysed between direct, indirect and overhead using the minimum standard analysis given in Appendix 1. Normally costs will need assigning to a general ledger account code comprising a mixture of direct, indirect and overhead costs.

3.3.2 Equally a similar assignment of fixed, semi-fixed and variable cost types should be applied to cost code structures to develop a full understanding of cost behaviour.

3.3.3 The objective is to attribute all costs to the services which generate them. To meet this objective, as many costs as possible should be allocated directly to the treatment function/service/programme/patient to which they relate.

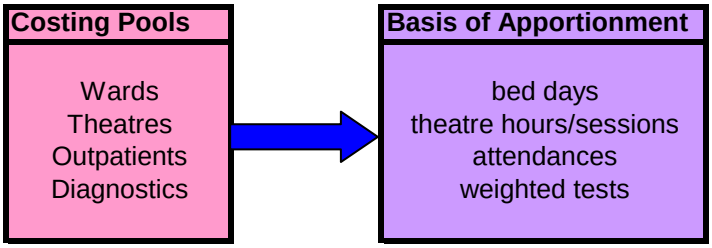
3.3.4 Costs that cannot be attributed directly, will need to be allocated and apportioned using appropriate work or other measures. Indirect and overhead costs may be pooled to aid their allocation or apportionment to services. Cost pooling brings together costs into identifiable groups e.g. wards, and allows them to be allocated or apportioned to relevant services. For a number of indirect and overhead costs, the measures which must be used are detailed in Appendix 2. In order to ensure consistency, no other measures should be used, in place of those specified.

3.4 Identification of Costing Pools

3.4.1 Where costs have not been directly attributed to the Patient, costing pools should be constructed so that the costs included can be allocated or apportioned using the same method. Costing pools can be constructed in different ways dependent on the nature of the costs included in them.

3.4.2 *Fixed and Semi-fixed Costing Pools*

Costing pools can be identified as fixed, semi-fixed and variable. The main fixed and semi-fixed costing pools are likely to be:



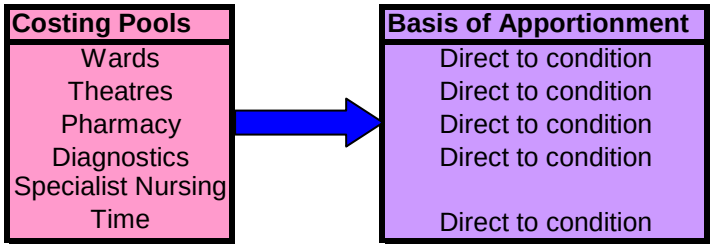
Costs by this point include not only direct nursing and medical staff but also the appropriate share of overheads and support services.

The absorption rate is calculated by dividing the combined fixed and semi-fixed costing pools for wards, theatres and outpatients by the appropriate activity units i.e. bed-days, theatre-hours or attendances. The units are obtained from the high-level activity control totals.

3.4.3 *Variable Costing Pools*

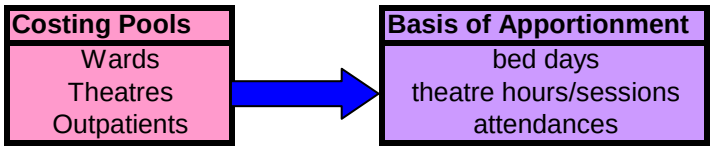
The main variable costing pools are likely to be:

Condition based



direct or condition-based. These are costs where the type, quantity and quality used depend on the condition, for example, drugs and dressings. These costs are assigned directly to a condition and are pooled only to provide a control total.

Time based



indirect or time-based. These relate to the time spent on ward, in theatre, in outpatients or with a client. These costs include catering provisions and linen where the quantity used depends on the time spent, for example, on a ward and is not dependent on the condition. The pooling of costs allows the calculation of a unit cost of time for allocating the pool. The unit cost is calculated by dividing the total of the pool by the expected usage of time i.e. the appropriate control total activity level. For example, if ward time-based costs total £180,000 and the expected occupied time is 1,000 bed-days then the unit cost is £180 per bed-day.

Variable costs which may be condition based but are not material should normally be allocated to condition on a time basis (e.g. length of stay on bed day basis for ward drug stocks, or number of clients for minor dressings) through variable costing pools.

The sum of the pools created should provide a control total which can be reconciled to the totals at the previous stage.

3.4.4 Figure 1 shows the way in which cost centres are allocated or apportioned to specialties/services/ programmes. In line with the general principles, where a suitable work measure is available, these should be attributed directly to the treatment function/service/ programme. Where this is not possible, for support services, costing pools and cost centres, a two stage allocation process will be needed.

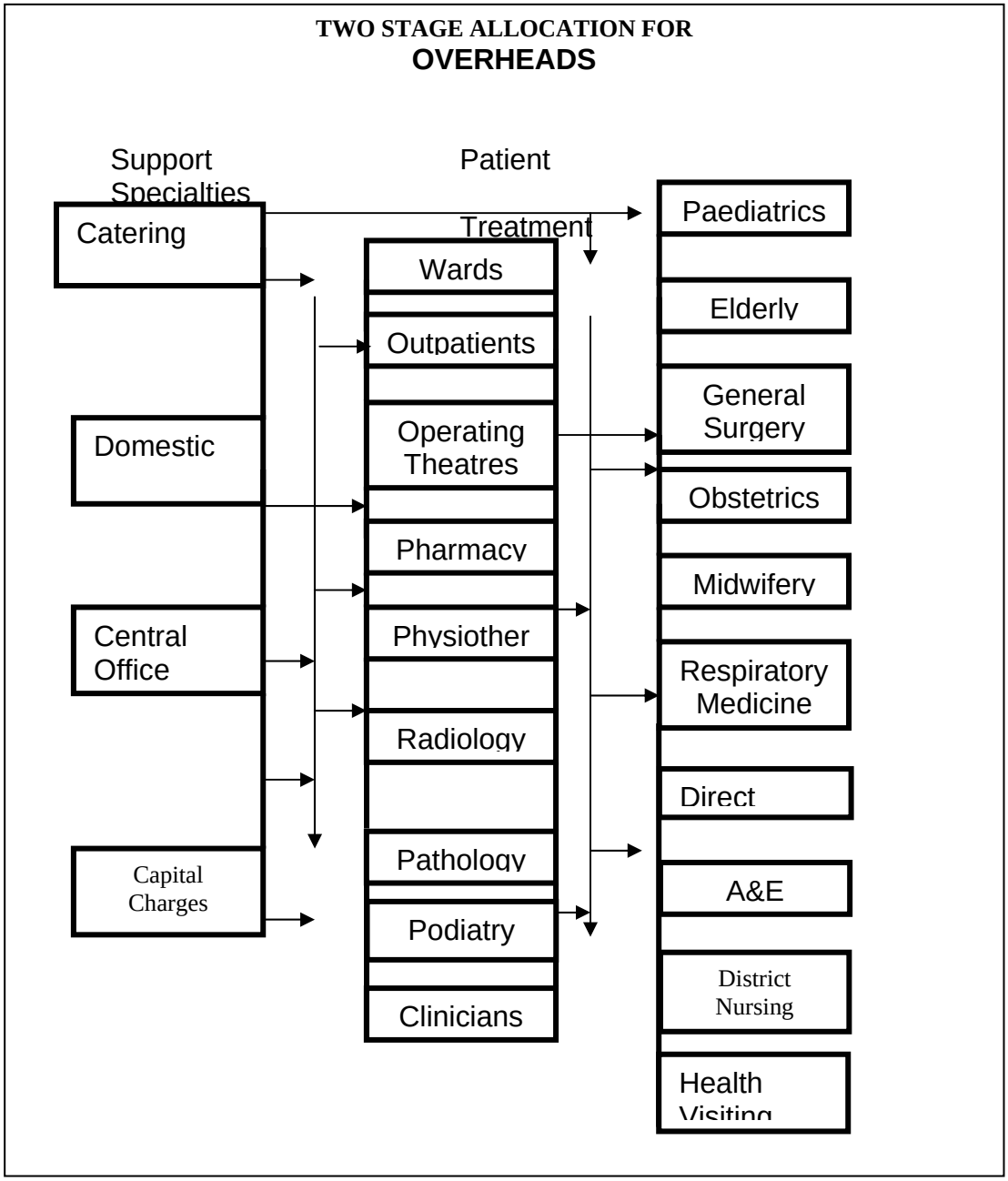
3.4.5 This Manual mandates a more standardised approach to methods of apportionment. These may be improved upon locally depending on local circumstances, PLICS organisations are likely to have more sophisticated apportionment methods and software, but the key principle is relevance to the costs being apportioned. Full details are given in Appendix 2.

3.4.6 The results of the pooling and attribution process will be used to produce fully absorbed costs which may be used in the establishment of cost drivers. At this stage, some cost centres may be treatment function dependent. Others such as medical records will be directed to treatment function/service/programme through the cost drivers. Direct access services will retain costs that will not be allocated to other areas e.g. pathology and these are reported separately.

3.4.7 A full audit trail is important to understand the effects of pooling, the allocation process, and the basis of activity control totals. Wherever possible, the details which support the absorbed cost centres should be summarised. The basis of the costing pools and the basis of allocation should be reviewed regularly. As much of the allocation methodologies will be hidden in costing software packages, it is important to identify and review the methods.

3.4.8 This analysis can be particularly useful in explaining the true and comprehensive cost structure of the services being provided for discussions with clinicians and business managers.

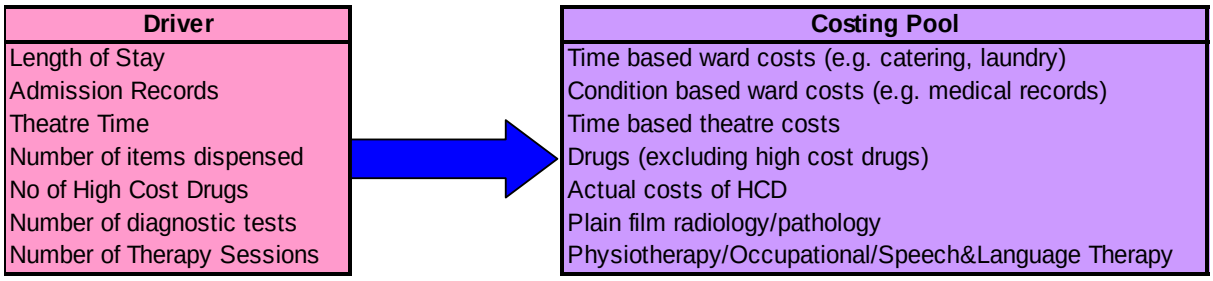
Figure 1 – Apportionment Framework



3.5 Identification of Key Cost Drivers

3.5.1 Each costing pool needs a set of statistics that form the basis of apportionment. For each identified 'costing pool', a cost driver will need to be established.

3.5.2 For inpatients for example:



3.5.3 Using the identified cost drivers, the costs within a costing pool can be allocated to the relevant services. This allows all costs to be allocated as appropriately as possible to the services that generate them.

3.5.4 At this point Level 2 is complete and high level control totals will have been established to reflect the local configuration of service/treatment function/programmes.

LEVEL 3 – Establish Control Totals at Point of Delivery

3.6 Disaggregation of High- Level Control Totals

3.6.1 For all services not attributed directly to Patients, the high-level control totals established at Level 2 should now be analysed between the points of delivery e.g. day cases, outpatients, direct access. This may involve some further disaggregation of costs e.g. the fully absorbed costs of a support department will be distributed as an element in the cost of a range of surgical and medical interventions, outpatient attendances, but also as a direct access service. The amount of work involved at this stage will be determined by the approach taken to the allocation and apportionment of costs through costing pools at Level 2. This stage is now mandatory for all services.

3.6.2 The point of delivery control totals must reconcile to the high-level control totals and provide the basis of resource profiles which will be established in Level 4 for a range of services. The control totals may include:

- Costs which will be allocated to condition on the basis of:
  * bed days for ward based costs
  * theatre hours/sessions for theatre – based costs
  * outpatient attendances for outpatient costs
  * number of visits for direct access
  * number of clients for community nursing services
- Costs which are specific to a condition, such as drugs, dressings, surgical implants.

3.6.3 They should also include activity data both as a check that all relevant activity is included in the process and to provide the basis of an absorption cost per unit.

3.7 Identifying Relevant Activity Data

3.7.1 Care should be taken that the data are accurate. Inaccurate coding can seriously distort the resultant cost and activity data which has a knock on effect on evaluating overall performance. Much greater attention is being given to the quality of data. Relevant activity data may come from a variety of sources such as:

Patient Records	Nursing Hand Held Records
General Ledger	Pharmacy Records
Theatre Records	Patient Administration System
Medical Records	Pathology & Radiology Systems
Oncology Records	Radiotherapy Systems

3.7.2 Activity data should be analysed across the points of delivery identified in section 3.6. In doing this, NHS providers should conform with the standard definitions of inpatient, day case etc. as detailed in this Manual and within the relevant Data Set Change Notices. In most cases these are consistent with the data dictionary. At the end of the process all those involved should have a clear understanding of the various sources of data and the quality of that data.

3.7.3 After following these two steps, Level 3 is complete and provides the basis for the development of Resource Profiles or proxies at Level 4. **All NHS providers are required to cost their service provision using the approach outlined in this manual up to and including at least Level 3. It is expected that most organisations will reach level 4 and beyond and many will cost at a patient level and build costs back up to level 1 with the increased use of PLICS systems within the NHS.**

Level 4
Level 3
Level 2
Level 1
Average Weighted HRG Costs
Proc 1
Proc 2
Proc 3
HRG Costs
Excess Bed Days
HRGs
Costing Pools
Direct Costs
STD Costs
Inpatient Elective
Inpatient Non-elective
Day Case
Outpatient
Average Weighted Band Costs
Band 1
Band 2
Band 3
Band Costs
Bands
Direct Access
Average Weighted Client Costs
Svce 1
Svce 2
Svce 3
Client Costs
Client
Community Services
Average Weighted Bed Day Costs
Svce
Bed Day Costs
Bed Days
Other e.g. Critical Care
High Level Control Totals
Specialty/ Programme/ Service
Cost Drivers
Time
Event
Costing Pools
Cost Centres
Apportion
Allocate
Establish Quantum of Costs
Attribute
Direct to Specialty/Programme/Service
Re: Chapter 9 Reconciliation Statement
Analysis: Direct/Indirect/Overhead
Classification: Fixed/Semi-fixed/Variable
General Ledger Cost Codes

3.8 Capital Charges

3.8.1 Capital charges for assets, including a building or part of a building must be charged directly to the relevant cost centres if they are used by only one treatment function or allocated indirectly by appropriate methods if they are shared between specialties/treatment function.

3.9 Road Traffic Accidents

3.9.1 Patients treated as a result of a **Road Traffic Accident** (RTA) should be treated as Category A (Patient related income from PCTs), as the funding is received from a central government agency. The activity and costs associated with the treatment of these patients should therefore be included within Reference Costs.

3.9.2 RTA income is a reimbursement via a central government agency. It should therefore be treated in the same way as any other block contract (Category A) income, i.e. no adjustment should be made to costs for reference costs and no activity adjustment is required.

3.10 Provisions

3.10.1 All provisions should be treated consistently. The changes in provisions i.e. the costs and income that are reflected in the Income and Expenditure account that forms part of the Final Accounts need to be taken into account for reference cost purposes. This therefore becomes included as part of the reference costs quantum in any given year.

3.10.2 Where Trusts have made an increase / decrease in their provisions, this cost / income is part of the quantum of costs / expenditure for a given year. This is the basis of reference costs and should be included in the reference costs submission. The inclusion of such expenditure would have an overall increase in the total quantum of costs [see below], whilst the inclusion of income [from a reduction in provisions] would result in a decrease in the quantum of costs submitted, on an annual basis.

An example of such provisions might be Clinical Negligence, or Bad Debt.

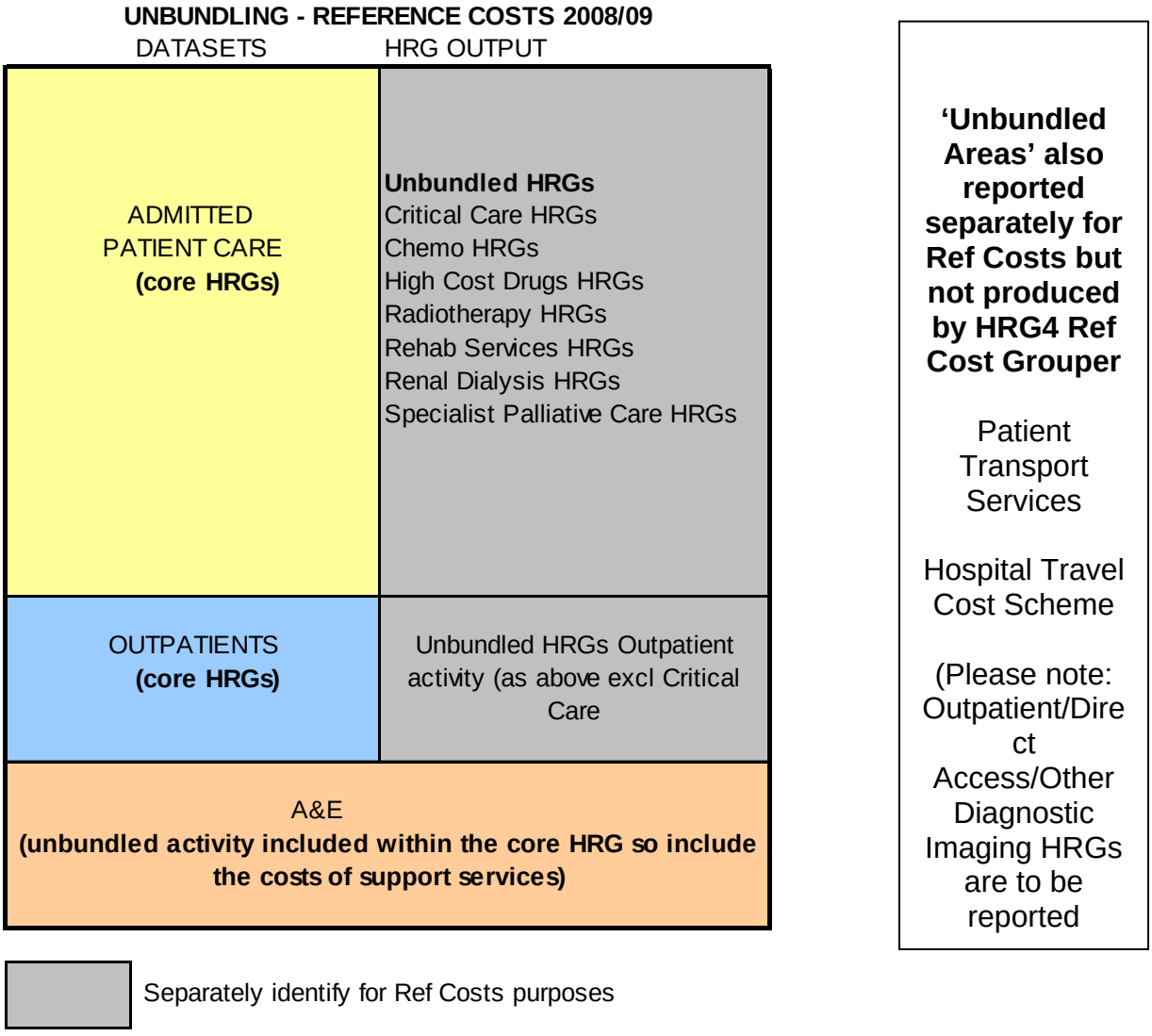
3.11 Category C Income

3.11.1 The categorisation of income in the reference costs submission is very important. For this reason, further guidance has been issued detailing the income streams that are allowable as Category C income for

reference cost purposes. This guidance is provided in the 2010-11 Reference Cost Collection Guidance at Appendix 4.

3.12 Unbundling for Reference Costs 2010/11

The following diagram provides a holistic view of how unbundling works for the 4 datasets supporting the 2010-11 Reference Cost Collection.



Chapter 4 – Costing Inpatient and Day Case Activity

LEVEL 4 – Identification and Costing of Resource Profiles/ Client Groups

4.1 Introduction

4.1.1 Many services are now defined and costed at level 4 and/or at a patient level. The currency used to produce information at this level is relevant to the services involved. For some services, refinements to the analysis at this stage will continue as it is an iterative process.

4.1.2 The list of steps 1-5 relate to the provision of inpatient, day case and to a lesser degree outpatient services. The trend is for an increasing number of outpatient treatment functions to be costed at a more detailed level rather than by simple attendance. This recognises the move to undertake treatments and procedures in ambulatory rather than inpatient settings.

4.2 Identification of Casemix Measure (for inpatients and day cases)

4.2.1 The purpose of this stage is to identify the activity to be costed. To ensure that comparative data is available in a nationally agreed format, the end product of this analysis is a cost for the key HRGs within each point of delivery. HRGs are developed by clinical working groups from national data and are designed to group together episodes that are clinically coherent and consume similar amounts of resource.

4.2.2. NHS providers are expected to cost 100% of cost and activity wherever possible, however as a minimum they are required to select the HRGs that cover at least 80% of cost and activity at each point of delivery. Variations may result in the HRGs which are covered across those points of delivery. Nevertheless, by adopting this approach, the HRGs which are selected and costed will better reflect a minimum of 80% of activity and cost rather than an aggregated approach for the treatment function which can be defined differently dependent on the organisational structure.

4.2.3 The focus of the costing method is on the relatively small number of HRGs which represent a high proportion of cost. These key HRGs will be identified by:

- running the HRG4 Reference Costs Grouper (provided by the NHS Information Centre for Health and Social Care [NHS IC]) against providers' actual activity data. The HRG grouper will assign an HRG to each FCE/Spell, the link to the grouper can be found here:

  http://www.ic.nhs.uk/casemix

- discussion with clinicians and nurse managers.

4.3 Trimming and Truncation

4.3.1 For each HRG there are a small number of cases which have an abnormally high length of stay. If these episodes were excluded from the calculation of the HRG cost, the actual mean length of stay for that HRG would be skewed.

4.3.2 All episodes should have the relevant upper trimpoint applied. Instead of excluding outlier cases, **only the excess bed days beyond the upper trimpoint should be excluded.** 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 trimpoint should be costed separately and a cost per bed day reported. This eliminates outlier finished consultant episodes and introduces a standard treatment for truncated episodes and excess bed days. The cost and activity of the excess bed days should be reported separately within reference costs, and should be reported separately for elective and non-elective activity.

What FCE's/Spells should I include in the analysis?

4.3.3 A spell is valid for inclusion if the discharge (last) FCE ends in the reporting period. All FCEs in that spell (irrespective of whether they took place in the reporting year) should be included. Where a spell continues into the next reporting period, all associated FCEs should be excluded.

4.17 Regular Day/Night Admissions

Regular Day Admissions (also known erroneously as Regular Day Attendances)

4.17.1 This activity should be treated as day case for costing and reporting for central returns purposes. These patients are admitted with the intention of same-day discharge. As an on-going regime can extend over several months, the costing of regimes is inappropriate for central reporting purposes, although it may be appropriate for clinical and internal management requirements.

Chapter 5 – Costing Other Ares of Patient Activity

This section covers other key areas of costing patient care activity.

Rehabilitation Services

5.1.1 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. The costs and activity associated with “Intermediate” or “Continuing Care”, (effectively long-term care with little or no medical treatment), with no expected health/independence improvement **remain excluded** from rehabilitation services.

5.1.2 Rehabilitation Services for patients with mental health problems should be costed and reported as part of Mental Health Service Inpatients, and not under rehabilitation services as defined here

Renal Dialysis

5.1.3 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. Section 8 of the Reference Costs Guidance (Services Separately Identified) details the HRGs that renal dialysis activity and costs need to be grouped by.

5.1.4 In costing CAPD and APD, the cost of the bags (i.e. per session) is a major cost driver. Following feedback from NHS colleagues it has come to light that these bags can differ in size, so using number of bags as a proxy for number of sessions meant that the costs per session were not very comparable. Therefore, 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, should be included.

5.1.5 In a number of cases drugs related to associated conditions are required, e.g. anaemia. 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 as a high cost drug in 2010-11.

Kidney (Renal) Transplantation

5.1.6 Kidney (Renal) Transplants can be performed when donor organs are received from both live and deceased donors. The impact in cost terms when the replacement organ comes from a live donor can be significantly different. There is a need for after care costs for both the donor and recipient for example, and this has an impact on hospital resources.

5.1.7 Post transplantation drugs, particularly anti-rejection drugs are a significant cost driver and these have a significant distorting effect on outpatient costs after a patient is discharged as an inpatient. In many cases these costs are treated as an overhead across a wider category of patients. To address the concerns of NHS commissioners and providers about the costs of these services, post transplantation outpatients are separately identified within the outpatient classification. This applies across all transplantation services and not just kidney transplantation.

Spinal Cord Injuries

5.1.8 When these patients undergo surgery, the hierarchy has grouped episodes with long lengths of stay to the minor surgical procedures, e.g. fitting of catheter. This has led to distortion. For spinal injury patients within the above units, patients should be recorded and costed on **an occupied bed day** basis as length of stay is a more powerful cost driver in these circumstances than the majority of surgical procedures.

5.1.9 Where surgery is undertaken, the costs of surgery should be costed and recovered through the occupied bed day cost, i.e. all costs associated with the surgery should be treated as an oncost on the inpatient stay. It should be noted that this costing treatment is in direct opposition to the treatment of all other forms of inpatient / day case care. Treating surgery as an oncost and reporting costs on an occupied bed day basis is only applicable to the specialist spinal injuries units in those organisations listed above.

5.1.10 This approach is consistent with that adopted within the Specialist Commissioning Definition for Spinal Injuries

5.2 Accident and Emergency Medicine (Emergency & Urgent Care)

5.2.1 For other forms of Accident and Emergency services which do not provide a fully manned 24-hour service, the introduction of HRG4 means that the same casemix measures are to be applied as for 24 hour manned units.

5.2.2 The costs of these units need to be available and treated in a consistent and transparent way. As a first step, therefore the activity base for all other Accident and Emergency units is client-based attendances.

5.3 Mental Health

For 2010-11 the additional costing guidance in support of cluster based costing will be incorporated into the supplementary Mental Health Reference Cost Guidance which will be published late spring 2011.

Chapter 6 - Reconciliation to Accounts and Activity Sources

6.1.1 When costing services it is important to ensure that the total costs included in the relevant accounts can be reconciled to the quantum of costs used in the activity costing analysis as a check to ensure all appropriate costs have been fully included.

6.1.2 In addition activity levels used should be reconciled to available activity data sources e.g. HES/SUS.

6.1.3 In producing costs for inclusion in the National Schedule of Reference Costs, the main purpose is to include **all** costs that relate to the delivery of health services for NHS patients from NHS resources.

6.1.4 The full absorption cost principle is therefore applied. The direct, indirect and overhead costs of the services should be included. In addition, NHS providers should ensure that the costs of services should be included even when the service is not directly provided i.e. provider to provider contracts. These contracts can cover clinical services e.g. pathology analysis services, as well as support services. Details of this treatment are found in Chapter 3. The related activity should also be adjusted.

6.1.5 The reconciliation analysis statement for expenditure levels used in reference costs analysis can be found in Appendices 2 and 3 of the Reference Costs Collection Guidance.

NHS Costing Manual

Section 3 - Appendices

Appendix 1 – Cost Analysis

The following classification has been included in this manual, as a guide to the minimum analysis of costs and as part of the process of applying standards to ensure a consistent framework for costing.

The purpose of this analysis is to enable the providers and commissioners of healthcare to have a degree of confidence in the analysis of costs and cost behaviour changes in response to fluctuating activity levels.

This appendix should be read and used in line with the principles outlined in the main text.

General Notes

The analysis detailed follows a broad subjective analysis, which oversimplifies the position in many areas. For some of the elements in this analysis, two categories are given. The first is the preferred analysis but where current information systems prevent the achievement of analysing costs in this way, the alternative should be adopted. All NHS providers should seek to attain the transfer to the target analysis as opportunities present themselves.

Where these analysis suggestions have not been used, organisations should record their interpretation for future and audit use.

Description	Analysis
GENERAL/SENIOR MANAGERS	
Chief Executive	Indirect/Overhead
Senior Managers' Pay - Board Level	Direct/Indirect
Senior Managers' Pay – Other	Direct/Indirect
MEDICAL (See Note 1)	
Consultants	Direct
SHMOs, Medical Assistants	Direct
Associate Specialists	Direct
Staff Grade Practitioners	Direct
Senior Registrars	Direct
Registrars	Direct
Senior House Officers	Direct
House Officers	Direct
Hospital Practitioners	Direct
Clinical Assistants and sessions in BTS	Direct
Staff Fund Payments	Direct
Senior Clinical Medical Officers	Direct
Clinical Medical Officers	Direct
Sessional CHS Appointments	Direct
Clinical Representatives on Management Teams	Overhead
DENTAL	
Hospital Consultants	Direct
SHDOs, Assistant Dental Surgeons	Direct
Associate Specialists	Direct
Staff Grade Practitioners	Direct
Senior Registrars	Direct
Registrars	Direct
Senior Dental House Officers	Direct
Dental House Officers	Direct
Dental Practitioners	Direct
Community Health SDOs and Dos	Direct
Trainees in Community Dentistry	Direct

Description	Analysis
NURSES AND MIDWIVES (See Note 1)	
Senior Nursing Staff (District Nursing Officer and Directors of Nursing Services) (please note that this table does not reflect AfC bands)	Indirect
Senior Nurses 1 to 5 (including Senior Tutors)	Indirect
Senior Nurses 6 plus Grades H and I	Direct
Grades F and G	Direct
Grades D and E	Direct
Grade C	Direct
Grade B	Direct
Grade A	Direct
Student/Pupil Nurses	Direct
PROFESSIONS ALLIED TO MEDICINE	
Professions allied to medicine (excluding Speech Therapists)	Direct/Indirect

Note 1: In some units certain medical and nursing staff may be shared between specialties in which case they will be allocated as an indirect cost to those specialties.

PROFESSIONAL AND SCIENTIFIC STAFF	
Therapists	Direct/Indirect
Biochemists	Direct/Indirect
Physicists	Direct/Indirect
Clinical Psychologists	Direct
Other Scientists	Indirect
Chaplains	Overhead
PROFESSIONAL AND TECHNICAL STAFF	
Medical Laboratory Scientific Officers	Indirect
Restorative Maxillo Facial/Orthodontic Technicians	Direct
Pharmacy Technicians	Direct
Dental Hygienists, Dental Surgery Assistants, Dental Therapists	Direct
All other Technicians	Indirect
District/Trust Work Staff	Indirect

Description	Analysis
OPTICIANS	
Opticians	Direct
PHARMACISTS	
Pharmacists	Indirect
ADMINISTRATIVE AND CLERICAL	
Other Administrative and Clerical Staff	Direct/Indirect
NHS staff on protected Salary Scale	Direct/Indirect
ANCILLARY STAFF	
Ancillary Staff negotiated by Whitley	Direct/Indirect
Ancillary Staff not negotiated by Whitley	Direct/Indirect
Orthopaedic Appliance Grades	Direct/Indirect
MAINTENANCE STAFF	
Building Trade Operatives	Indirect
Maintenance Technicians	Indirect
Maintenance Craftsmen	Indirect
Maintenance Assistants	Indirect
Planner Estimators	Indirect
Upholsterers	Indirect
HEALTH CARE ASSISTANTS	
Health Care Assistants	Direct
NON-NHS STAFF (Note 1)	
Medical	Direct
Dental	Direct
Nursing	Direct
Professions Allied to Medicine	Indirect
Professional and Scientific	Indirect
Professional and Technical – PTB	Indirect
Opticians	Direct
Pharmacists	Indirect

Description	Analysis
NON-NHS STAFF (Continued)	
Administrative and Clerical - Typing and Secretarial Skills	Indirect
Administrative and Clerical - Other	Indirect
Ancillary Staff	Indirect
Maintenance Staff	Indirect
Ambulance Staff	Direct
CHAIRMAN'S AND NON-EXECUTIVE MEMBERS' REMUNERATION	
Remuneration	Overhead
SUPPLIES AND SERVICES - CLINICAL	
Occupational and industrial therapy equipment & materials	Indirect
Drugs	Direct/Indirect
Medical gases	Indirect
Dressings	Direct
Medical and surgical equipment	
- Purchases	Direct
- Maintenance Contracts	Indirect
- X-ray film	Indirect
- X-ray equipment and chemicals	Indirect
- X-ray equipment - maintenance contracts	Indirect
- Patients' appliances	Direct
- Artificial limb and wheelchair hardware	Direct
Laboratory equipment	
- instruments and materials	Indirect
- maintenance contracts	Indirect
SUPPLIES AND SERVICES - GENERAL	
Provisions – purchases	Indirect
Contract catering	Indirect
Staff uniforms and clothing including contracts for making up, etc	Indirect
Patients' clothing	Indirect
Laundry - equipment and materials	Indirect
Laundry - external contracts	Indirect
Hardware and crockery	Indirect
Bedding and linen – Disposable	Indirect
Bedding and linen – Non Disposable	Indirect

Description	Analysis
ESTABLISHMENT EXPENSES	
Printing and Stationery	Indirect/Overhead
Postage	Indirect/Overhead
Telephone – rental	Indirect/Overhead
Telephone - other, including calls	Indirect
Advertising	Indirect
Travelling and subsistence expenses	Indirect
Removal expenses	Indirect
Leased and contract hire charges (staff cars)	Indirect
TRANSPORT AND MOVEABLE PLANT	
Fuel and Oil	Indirect
Maintenance – equipment and materials	Indirect
Maintenance - external contracts	Indirect
Hire of transport	Indirect
Hospital car service	Indirect
Miscellaneous Transport Expenses	Indirect
PREMISES AND FIXED PLANT	
Coal	Overhead
Oil	Overhead
Electricity	Overhead
Gas	Overhead
Other Fuel	Overhead
Water and Sewerage	Overhead
Cleaning - equipment and materials	Indirect
External general service contracts not identified elsewhere	Indirect
Office equipment	Indirect
Purchase of computer hardware and software including licence fees	Indirect
External contracts for data processing services	Indirect
Maintenance of computer hardware and software including licence fees	Indirect
Services	Indirect
Rates	Overhead
Rents	Overhead
Engineering maintenance	
- equipment and materials	Overhead
- external contracts	Overhead

Description	Analysis
PREMISES AND FIXED PLANT (Continued)	
Building maintenance	
- equipment and materials	Overhead
- external contracts	Overhead
Gardening and farming	
- equipment and materials	Overhead
- external contracts	Overhead
CAPITAL (Note 2)	
Capital Charges	Overhead
Adjustment on disposal of fixed assets	Overhead
Depreciation on donated assets	Overhead
EXTERNAL CONTRACT STAFFING AND CONSULTANCY SERVICES	
External contract staffing and consultancy services	Overhead
MISCELLANEOUS EXPENDITURE	
Students' bursaries	Overhead
Patients' allowances	Indirect
Auditors' Remuneration	Overhead
Gross redundancy payments	Overhead
Net Bank Charges	Overhead
Patients' travelling expenses	Overhead
All other expenditure	Indirect/Overhead

Note 2: Capital charges for assets, including a building or part of a building, must be charged directly to a treatment function if they are used by only one treatment function or allocated indirectly by appropriate methods if they are shared between specialties.

Appendix 2 – Minimum Standard Method for Allocation and Apportionment of Costs

1. Objective.
2. Underlying Principles.
3. Overall Approach.
4. Cost Allocation Methods by Department.
5. Notes on Specific Costs and Work Measures.

1. Objective

The objective of the minimum standard on cost allocation is to avoid differences in reported costs for the same patient treatment caused by unnecessary differences in cost allocation and apportionment methods between different NHS providers.

The standard therefore provides a minimum level of sophistication in cost allocation which it is expected that all NHS providers will achieve. More sophistication in particular patient level costing is encouraged but only where the principles conform to the underlying principles of NHS costing as outlined in this manual.

2. Underlying Principles

The principles which underlie the standard are that:

- costs should be allocated **directly** to specialties, cost centres/cost pools/cost pool groups or Patients wherever possible;

- work measures for use in allocating and apportioning material indirect and overhead costs should:

  - be readily available and accurately measurable. Ideally their accurate measurement should already be required for other purposes;

  - relate as closely as possible to the cost of the activity. For example, if diagnostic tests vary significantly in cost, the number of tests requires weighting appropriately before use as a tool for apportionment.

  It is expected that these will be met for the majority of eventualities.

  If no work measure is available which fulfils both these requirements, e.g. in a change over year for services, alternative approaches should be sought, including taking advantage of the judgement of experienced clinicians, nurse managers, or other appropriate professionals, until adequate data can be produced. NHS providers should be able to achieve the requirements outlined above within one year of any transitional arrangements. Advantage should also be taken of data available from tender specifications for support services;

- a two stage apportionment of support services, via patient treatment services, to treatment function/service/programme is recommended where appropriate. This is outlined in the main text. In this way patient treatment services which require relatively high levels of

support services will channel their costs through to the specialties they serve.

It is possible to conceive and justify a more complex multi-stage apportionment in which, for example, part of the cost of one support service is apportioned to another, and vice versa. Again, the principles of full absorption costing must be applied in more sophisticated methodologies. In accordance with the objectives set out above these more complex approaches are not rejected and no NHS provider is precluded from using them and presenting them for audit, although multi-stage apportionment restricts the level of transparency in the costing process and should be avoided wherever possible.

- the structure of the (objective) analysis of costs by department (whether patient treatment services, e.g. Accident & Emergency, or support services, such as catering) used for management and budgetary control by providers will vary according to each individual provider's management structure. Similarly the (subjective) analysis of cost by type (e.g. nurse grade A, electricity) within department will vary from provider to provider. It remains the intention at this point of the Department of Health not to dictate the cost structure used by NHS providers for management purposes but to set down principles which can be used flexibly within standard parameters for comparability.

3. Overall Approach

3.1 Specification of Costs

In order to specify costs in a way which will be readily understood nationally these guidelines refer to:

- **departmental analysis of costs**. This forms the basis of the recommended methods of allocation of indirect and overhead costs;

- **analysis of costs by type**. This is used to identify which cost types should be treated as direct, indirect and overhead.

- advice on which cost types should be treated as fixed, semi-fixed and variable.

The use of these formats is not intended to prescribe their use for internal management information and budgetary control purposes, but to improve external benchmarking through greater consistency.

3.2 Definition of Specialties

Specialties are defined on the same basis as in the Data Dictionary for the purposes of cost allocation and apportionment. For further information on treatment function definitions please refer to the current Reference Costs Collection Guidance.

3.3 Two Stage Cost Allocation

Overview

A two stage apportionment method is used where Support Services are generally apportioned first to Patient Treatment Services. Patient Treatment Services, including their apportionment of Support Services, are then apportioned to treatment function. Where Support Services, for example catering, are directly attributable to patients they would be attributed directly to treatment function, for example in proportion to patient days.

If an organisation is using a computerised costing system or PLICS system, the apportionment method is likely to be more sophisticated and less visible than the process outlined in this section.

Separate Sites

If a NHS provider contains more than one site it is likely that elements of this two stage allocation to treatment function will be dealt with separately for each site. Corporate costs (e.g. Trust HQ's) will be allocated to each site, prior to any site costs being allocated to treatment function. In reporting costs, however, organisation wide costs are required as this allows comparisons of the effective use of fixed assets including NHS estates.

Overhead Apportionment

In the case of some elements of overhead cost (for example Chairman's Office Support Services) some NHS providers will have little available in the way of work measures for allocation of these costs. Apportionment in proportion to gross expenditure is a simple and consistent process for cost apportionment, and is still acceptable as a last resort.

If any of the elements of cost are significant (usually greater than 5 percent of total costs) attempts should be made to improve the basis of allocation of these costs.

4. Cost Allocation Methods by Department

4.1 Stages

Sections 4.2 and 4.3 which follow set out the minimum standard for allocation in:

- the first stage, from Support Services, indicating which departments should be allocated directly to treatment function and which via Patient Treatment Services and with which unit of work measurement;
- the second stage, from Patient Treatment Services to treatment function, indicating the recommended unit of work measurement.

These apportionment methods should only be used once all the possibilities for allocating costs DIRECTLY to treatment function have been exhausted. Appendix 1 gives guidance as to which cost types should be allocated directly for reference costs.

4.2 First Stage Allocation of Support Services

Department Reference		Allocated to	By Work Measure	Reference to Notes in Section 5
a	Domestic	PTS	Usage by area	1
b	Catering	PTS or T	Number of Meals Provided	1,2,3
c	Laundry/Linen	PTS or T	Usage/patient day	1,2,4
d	Portering/ Transport	PTS or T	Weighted Patient Days	1,2,5
e	Engineering Maintenance	PTS	Building Volume	1
f	Building Maintenance	PTS	Building Volume	1
g	Energy/Water etc	PTS	Heated Volume	1
h	Site Overheads (exc. Capital charges, below)	PTS	Building Volume/Floor area	1
a	Chief Executive	PTS	Gross Cost PTS	1
b	Central Office Support	PTS	Gross Cost of PTS	1

Department Reference		Allocated to	By Work Measure	Reference to Notes in Section 5
c	Employee Services	PTS	Staff Numbers	
d	Procurement	PTS	Number of Orders Raised	
e	Medical Records	T	OP Attendances plus IP & DC Episodes	6
	Training, Education	PTS	Weighted number of persons employed	7
	Miscellaneous	PTS	Gross Cost of PTS	1
	Purchase of tertiary referrals	T	Actual Cost of Referrals	
	Capital Charges, - Equipment	PTS	Specific Equipment	8
	Capital Charges, - Other	PTS	Floor Area	9

PTS = Patient Treatment Services
T = Treatment Function

4.3 Second Stage Allocation of Patient Treatment Services to Specialties

It is assumed that where possible costs have been allocated directly and these methods of allocation and apportionment apply to residual costs.

Department Reference		Method of Apportionment	Reference to Notes in Section 5
a	Wards	Direct Allocation or pro-rata Bed Days	10
b	Out Patient Clinics	Direct Allocation or pro-rata Attendances	10
c	Day Care Facilities	Direct Allocation or pro-rata Attendances	10
d	Accident and Emergency Department	Direct Allocation	10

Department Reference		Method of Apportionment	Reference to Notes in Section 5
e	Community Medical Services	Direct Allocation to relevant Community service	
f	Community Nursing and Midwifery	Direct Allocation to relevant Community service	
g	Community Dental Services	Direct Allocation to relevant Community service	
	Clinicians	Direct Allocation	10
a	Artificial Limb and Wheelchair	Item Issued, or to Non-Acute	
b	Audiology	Direct to ENT or Audiological Services	
c	Podiatry	Attendances	
d	Dietetics	Attendances	
e	ECG	Weighted Requests	
f	EEG	Requests as per guidance on Radiology Services	11
g	Health Promotion	To Commissioner	
h	Industrial Therapy	To Community or Occupational Therapy	
i	Lithotripsy	Attendances	
j	Medical Illustration and Photography	Number of Requests	11
k	Medical Physics	Weighted Number of Requests	11
l	Miscellaneous Patient Treatment Services	Gross Expenditure of Specialties	
m	Nuclear Medicine	Weighted Requests	12
n	Occupational Therapy	Contacts	13

Department Reference		Method of Apportionment	Reference to Notes in Section 5
o	Operating Theatres	Operating Time / Sessions	14
p	Optical Services	Direct to Ophthalmology	
q	Pathology	Test Bandings	15
r	Patient Transport Services [specifically **does not** relate to Ambulance Service providers]	Patient Journeys	
s	Pharmacy	Number of issues	16
t	Physiotherapy	Contacts	17
u	Psychology	To relevant service/ appointments	
v	Radiology	Bandings	18
w	Radiotherapy	Direct to HRG, based on no. of treatments / fractions	
x	Speech Therapy	Contacts	

5. Detailed Notes on Specific Costs and Work Measures

The notes which follow refer to the numbers shown in the right hand column of the tables in Section 4.

1. All Support Services should be allocated to PTS before Overheads so that the former will be included in the gross cost of PTS for apportionment of relevant overhead costs. Where support services have been subject to a tender exercise, advantage should be taken where possible of recent tender specifications to analyse service requirements and costs by department.

2 The choice between apportionment directly to treatment function/service or via PTS will depend on whether the work measure data is available most accurately by Treatment function/Service or by PTS. The former should be used if in doubt.

3 For **catering**, the number of meals provided should be used as it is a more realistic basis for the allocation of catering costs as these can be provided to areas other than wards.

4 For **laundry and linen,** in-patient days and day care should have the same weight unless better information is available.

5 **Portering and Transport** Costs should be apportioned by patient days only as a last resort after grouping staff by theatre, ward and treatment function where appropriate in order to weight patient days appropriately for each treatment function's use of portering and transport. Advantage should be taken of any service requirement and cost analysis by department available from recent tender specifications.

6 **Medical Records.** In the absence of better information outpatient attendance and inpatient and day case episode should be given equal weight since the work in Medical Records depends largely on the number of records updated and extracted.

7 **Training and Education**. It is not acceptable to apportion these costs by staff numbers only. Appropriate weight, determined locally, must be given to those departments whose skill base requires more extensive and frequent training.

8 **Capital Charges for Equipment** of material value must be allocated directly to PTS and shared between treatment function based on a realistic measure of use.

9 **Other Capital Charges** are likely to be predominately buildings and fixtures. Where capital charges are available by building block, the charge for each block should be apportioned to the PTS's occupying the block in proportion to their floor area. Corridors and common

areas should be shared equally between those occupying the block, pro-rata to floor area. If support space is redundant and it would be inequitable to share its costs between the outposts of the block its cost should be spread throughout the unit as an overhead in a similar way to Unit Office Support.

10 Refer to Appendix 1 for treatment of clinicians and nursing staff.

11 If this department is likely to have a material effect on cost apportionment, requests should be weighted by reference to sampling and to the judgement of the departmental head if better methods are not available. However, for many providers this department will be of small cost and unweighted requests are an acceptable basis of allocation.

12 **Nuclear Medicine**. Note 11 may apply, or weight as Manual of Accounts.

13 **Occupational Therapy**. Contacts should be used.

14 **Operating Theatre**. If computerised systems are not available to assess operating time by treatment function, approximations should be made based on manual records including theatre sessions.

15 **Pathology.** The costs should be identified and calculated in line with the groupings listed in the current reference costs guidance. These costs can be used for internal as well as external charging.

16 **Pharmacy**. It is assumed that the variable drugs cost will be identifiable to wards, consultant or treatment function directly. Other costs should be apportioned on this basis in the absence of other information.

17 **Physiotherapy, Occupational Therapy and Speech & Language Therapy.** Contacts should be used, as this is consistent with the approach for direct access.

18 **Radiology.** The costs should be identified and calculated in line with the groupings listed in the current Reference Costs Collection Guidance. These costs can be used for internal as well as external charging.

Appendix 3 - Ambulance NHS Trusts – Guidance Notes and Definitions

- Calls
  - This relates to the total number of calls received, including hoax, nuisance calls, etc., and calls transferred from police control systems.
  - Calls may result in a response, be transferred for advice, e.g. to NHS Direct, other NHS Services, etc., or result in no further action being taken.
  - Multiple calls may be recorded for one incident, e.g. Road Traffic Accidents.
  - Please note that calls are not required for reference costs returns. This definition is included here as an information item only.

- Incidents
  - An incident is an event that results in one or more calls being made to the emergency ambulance service provider. **For example, five calls re: the same event equals one incident.**
  - An incident may result in a response **by an ambulance resource**, or may result in a transfer to other NHS Services, **e.g. NHS Direct**, etc.
  - The number of incidents will be equal to or less than the number of calls received, but may be greater or less than the number of responses. For example, the number of incidents will be more than the number of responses where an incident does not result in a response. The number of incidents will be less than the number of responses where more than one type of response is issued.
  - Incident activity data is collected as part of reference costs to enable further analysis to be undertaken, e.g. the calculation of a responses to incident ratio, in order to better understand the services provided. There is no requirement for a unit cost per incident to be calculated or submitted.
  - **With regard to 'Major Incidents', where resources are solely dedicated to providing cover for major incidents, these should continue to be reported separately in the Reference Costs collection, using the appropriate category. Where resources are not dedicated to major incidents, they should be included in the composite Category A and B&C combined, return, as appropriate.**

- Responses
  - For information, the following relates to responses.
  - These are the number of responses activated, including abortive responses.
  - Where more than one type of response is issued, e.g. Rapid Response and Ambulance, these will count as two responses.
  - Responses include those by Rapid Response Vehicles, Fast Response Vehicles, Paramedic Response Units, Ambulances, Motorbikes, Pushbikes, etc.
  - The exception to the above treatment relates to potential or actual **major incidents**. In these cases, the 'standard' response may be the dispatch of a pre-determined number of personnel and vehicles. For these incidents only, this counts as **a single response.** If subsequently, additional crews, vehicles, etc., are required, this should be counted as a second, third, etc. response as required.
  - Please note, that some ambulance service providers may use the term 'activation' for this type of activity.
  - **Please note responses are not required for reference costs returns. This definition is included here as an information item only.**

Costs and activity data should be reported under the category used by the individual NHS provider. E.g. where an organisation has re-categorised certain calls from amber to

red, the organisation should report these calls under the 'red' category. In this instance, the organisation provides a 'red' response and so incurs 'red' response costs, irrespective of whether nationally the response is deemed to warrant a 'red' classification. This is consistent with other Reference Costs Collection Guidance, where NHS providers report actuals.

Approach to Costing

The approach outlined below is the minimum level of guidance.

Prior to undertaking the costing analysis, it is important to apply the Matching Principle to ensure that the costs submitted are those that relate solely to NHS expenditure. Costs should therefore be net of Category C income, and activity relating to such income should not be included as part of the returns. E.g. Where a 999 service is specifically provided at football matches, the commercial income received should be netted off from total expenditure, and the emergency activity relating to the football matches should be deducted from the total emergency activity.

From a costing perspective, the first stage is to identify the total costs of the different elements of service provision as applicable : -

- Emergencies
- Urgents
- Emergency / Urgent Transfers (usually between providers)
- Patient Transport Services
- NHS Direct
- Out of Hours.

This involves determining the number of staff, vehicles, etc. used to deliver the service elements. If designated PTS vehicles are used to support emergency crews in given situations, these costs need to be attributed to Emergency **and not** PTS Services.

The actual costs in all cases are unlikely to reconcile to contractual income. This is not an issue for reference costs purposes, as the key is actual costs incurred by an NHS provider for the delivery of a given service.

To assist in the costing process, which is based on full absorption costing, a minimum classification of costs is attached at Annex 1 to this guidance. In addition, guidance on allocation methods to be used for a range of indirect and overhead costs is also attached at Annex 2. This reflects consistent practice across the NHS, where possible.

"Downtime"

One of the main issues for Ambulance NHS Trusts is the costing of waiting / down time, particularly for emergency crews. In this respect, these services are no different from other NHS services such as theatres and Accident & Emergency departments.

In costing these services, it is important that all costs are included in the relevant cost pools. These may be an amalgam of different cost centres, and may cut across cost centre costs. All staff and associated costs need to be attributed and allocated to the activity as defined above.

To allow consistency in the costing process, downtime should not be costed as a separate element. The costs of providing a service will inevitably include elements of waiting, etc., but all such costs are relevant to the service itself. In calculating a charge

for different staff categories, therefore, the costs should be fully inclusive of all staff time, including oncosts, and this should be seen as a direct actual cost to the service activity. This will ensure that all costs from the various staff costing pools are fully recovered.

ANNEX I : SUBJECTIVE ANALYSIS & COST CLASSIFICATION : *FOR AMBULANCE NHS TRUSTS ONLY*

DESCRIPTION	CLASSIFICATION	ANALYSIS
PAY		
General & Senior Management		
- Chairman & Non Executive Directors	Fixed	Indirect
- Chief Executive	Fixed	Indirect
- Non-Operational Directors	Fixed	Indirect
- Director of Accident & Emergency Services	Semi - Fixed	Direct
- Director of Patient Transport Services	Semi - Fixed	Direct
Administrative & Clerical		
- Finance	Semi - Fixed	Indirect
- Personnel	Semi - Fixed	Indirect
- Stores	Semi - Fixed	Indirect
- Secretarial Support	Semi - Fixed	Indirect
- Information	Semi - Fixed	Indirect
- Communications & 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	Direct
- PTS Control	Semi - Fixed	Direct
- Shared Control	Semi - Fixed	Indirect
- Ambulance Liaison Staff	Semi - Fixed	Direct
Ambulance Personnel		
- Training Officers	Semi - Fixed	Indirect
- District Managers	Semi - Fixed	Indirect
- Station Officers	Semi - Fixed	Indirect
- PTS Staff	Variable	Direct
- HCS Drivers	Variable	Direct
- Paramedics	Variable	Direct
- Technicians	Variable	Direct
- Other Accident & Emergency Staff	Variable	Direct
Ancillary Staff		
- Catering Staff	Fixed / Semi - Fixed	Indirect
- Domestics	Fixed / Semi - Fixed	Indirect
- Workshop Staff	Semi - Fixed	Indirect

DESCRIPTION	CLASSIFICATION	ANALYSIS
NON – PAY		
Supplies & Services - Clinical		
- Drugs	Variable	Direct / Indirect
- Medical Gases	Variable	Direct / Indirect
- Medical Equipment	Semi - Fixed	Direct / Indirect
- Equipment Maintenance	Semi - Fixed	Direct / Indirect
- Protective Clothing	Semi - Fixed	Direct / Indirect
Supplies & Services - General		
- Provisions	Semi - Fixed	Indirect
- Uniforms	Semi - Fixed	Indirect
- Contract Laundry	Semi - Fixed	Indirect
- Hardware & Crockery	Fixed	Indirect
- Linen : Disposable	Variable	Indirect
- Linen : Non - Disposable	Semi - Fixed	Indirect
Establishment Expenses		
- Printing & Stationery	Semi - Fixed	Indirect / Overhead
- Postage	Semi - Fixed	Indirect / Overhead
- Books & Magazines	Semi - Fixed	Indirect / Overhead
- Telephone Rental	Semi - Fixed	Indirect / Overhead
- Telephone Calls	Semi - Fixed	Indirect / Overhead
- Travelling & Subsistence Expenses	Semi - Fixed	Indirect
- Control Equipment	Semi - Fixed	Indirect
- Course Fees	Semi - Fixed	Indirect
- Training Costs	Semi - Fixed	Indirect
- Advertising & Promotional Expenses	Semi - Fixed	Indirect
- Removal Expenses	Semi - Fixed	Indirect
Transport & Moveable Plant		
- Fuel & Oil	Variable	Direct
- Fuel Pump Maintenance	Semi - Fixed	Indirect
- MOT Tests	Semi - Fixed	Indirect
- Spares & Parts	Semi - Fixed	Indirect
- Workshop Equipment	Semi - Fixed	Indirect
- Accident Repairs	Semi - Fixed	Indirect
- Hire of Vehicles	Semi - Fixed	Indirect
- Rail Services	Variable	Direct
- Vehicle Insurance	Semi - Fixed	Indirect
- Ambulance Car Service	Variable	Direct
- Vehicle Inspection	Semi - Fixed	Indirect
- RAC Costs	Semi - Fixed	Indirect
- Tail - Lift Maintenance	Semi - Fixed	Indirect

- Petrol Licences	Semi - Fixed	Indirect

DESCRIPTION	CLASSIFICATION	ANALYSIS
Premises & Fixed Plant		
- Fuel Oil	Semi - Fixed	Overhead
- Electricity	Semi - Fixed	Overhead
- Gas	Fixed	Overhead
- Water & Sewerage	Fixed	Overhead
- Refuse Collection	Fixed	Overhead
- Cleaning Materials	Semi - Fixed	Indirect
- Cleaning Contracts	Fixed	Overhead
- Furniture & Fittings	Fixed	Indirect
- Office Equipment	Fixed	Indirect
- Photocopier Rentals / Copies	Fixed	Overhead
- Computer Hardware & Software	Semi - Fixed	Indirect
- Air Conditioning	Fixed	Overhead
- Computer Licence Fees	Semi - Fixed	Indirect
- Radio Licence Fees	Semi - Fixed	Indirect
- Control Equipment & Consumables	Semi - Fixed	Indirect
- Rates	Fixed	Overhead
- Rents	Fixed	Overhead
- Building & 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	Overhead
- 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
- Depreciation on Donated Assets	Fixed	Overhead

ANNEX II : SUBJECTIVE ANALYSIS & COST CLASSIFICATION : *FOR AMBULANCE NHS TRUSTS ONLY*

DESCRIPTION	ALLOCATED TO	BY WORK MEASURE
OVERHEAD DEPARTMENTS		
Chairman & 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 [WTEs]
Finance	SS or D	Gross Cost of Services Provided
Catering	SS	No. of Meals Provided
Estates	SS or D	Building Volume
Linen	D	Weighted No. of Vehicles
Laundry	D	Weighted Staff Numbers [WTEs]
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 & 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	Weighted Time Spent
Workshops	D	Weighted No. of Vehicles
Non-Patient Transport	D	Weighted Time Spent
District Managers	D	Weighted Time Spent
Information Department	D	Weighted Time Spent
Computers & Communications	D	Weighted Time Spent
Customer Care	D	Weighted Time Spent
Medical Equipment	D	Weighted No. of Vehicles
Capital Charges; Vehicles	D	Actuals
DIRECT SERVICES		
A & E Service		
PTS Service		

Appendix 4 - Glossary of Terms

Costing Blocks	Basic key cost elements which, when aggregated together, can be used to describe the overall costs of a service or activity e.g. cost per bed day, cost per theatre minute, cost per outpatient consultation, District Nursing visit, speech therapy appointment.
Service/ Programme/ Treatment function	These terms tend to be used interchangeably. In costing, they are a separately identifiable group of patient related activities that can be quantified. These may be a treatment function, sub treatment function, department or function depending on local management arrangements and styles of service delivery.
Direct	Costs related directly to a service e.g. salaries, drugs incurred in the provision of the paediatric service as identified by the pharmacy system.
Indirect	Costs related to more than one service but which can be allocated to those services on the basis of reliable activity-related statistics e.g. Pharmacists costs allocated to services on the basis of the number of items dispensed.
Overhead	Costs relating to more than one service, typically not involved in face-to-face patient contact, whose costs are apportioned on a 'fair share' basis not related to an activity statistic e.g. building maintenance apportioned on the basis of building volumes.
Costing Pool	Aggregation of costs from more than one cost centre separately identified in the general ledger e.g. employee services costing pool may aggregate the costs of personnel, crèche, staff restaurant, welfare services etc.
Cost Driver	Basic key activity which influences the cost of a service or condition e.g. length of stay, time in theatre, prosthesis usage, high cost drugs etc.
Truncation	This process removes the days beyond the national upper trimpoint to leave a truncated episode.
Excess Bed Days	These are the days that are beyond the upper trimpoint.

Other standard definitions can be found in the Data Dictionary produced by NHS CfH.

Appendix 5 - Summary of Key Changes to Costing Manual 2010/11

Please note that the process of updating the 2010-11 guidance has been one of refinement and improvement in line with the Reference Cost Collection Guidance.

The detailed changes in activity can be found in the Reference Cost Collection Guidance, appendix 6.

The key change for the NHS Costing Manual in 2010-11 has been the removal of the majority of the activity and collection requirements relating to reference costs, leaving the key costing principles within the NHS Costing Manual.

Appendix 6 - Contact Information

Useful websites / contact addresses:

http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Financeanddplanning/NHScostingmanual/index.htm - Published data from previous reference costs collections : 1997-98 – 2009-10 inclusive.

http://194.200.241.107/fd/refcostsdisc.nsf/main?readform - Reference Costs Discussion Forum

http://www.dh.gov.uk/PolicyAndGuidance/OrganisationPolicy/FinanceAndPlanning/NHSCostingManual/fs/en - Costing Manual

For SHAs & FTs only: pbrdatacollection@dh.gsi.gov.uk – mailbox for reference costs queries about and during the current reference cost collection exercise.

For SHAs & FTs only: pbrcomms@dh.gsi.gov.uk – mailbox for tariff related queries

For non SHAs/FTs then please contact your local SHA lead in the first instance

http://www.mhcombinedmap.org/Support.aspx - Mental Health Service mapping exercise definitions.

http://www.connectingforhealth.nhs.uk/dscn - Data Set Change Notices (DSCNs)

http://www.datadictionary.nhs.uk/ - NHS Data Dictionary

http://www.connectingforhealth.nhs.uk/ - NHS CfH website

Queries regarding PLICS and Clinical Costing Standards: mailto:plics@dh.gsi.gov.uk