Monitor
Making the health sector work for patients

NHS England

2016/17 national tariff proposals: Currency design and relative prices

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Background to proposals for the 2016/17 national tariff

Monitor and NHS England use the national tariff to set national prices and to establish the rules that commissioners and providers must use to agree locally determined prices. Last December, in *Reforming the payment system for NHS services: Supporting the Five Year Forward View*[1] we set out how we intend to encourage:

> **Continuous quality improvement.** The payment system needs to promote the long-term, sustainable well-being of the whole person by reimbursing providers for delivering specified quality outcomes for patients rather than particular treatments or inputs.
>
> **Sustainable service delivery.** The payment system needs to incentivise best practice efficient and accessible delivery of care, to make sure that NHS funding goes as far as it can for patients.
>
> **Appropriate allocation and management of risk.** The payment system can help to make sure that financial risks in the NHS, caused by demand pressures or operational performance, sit with those organisations, whether commissioners or providers, that are best able to influence or absorb them in the context in which they arise.

Our proposals for 2016/17 support these objectives. In setting the national tariff, we also aim to improve the payment system to make it more transparent, to reflect latest information and to improve the method by which prices are set.

We have already engaged with many stakeholders in developing our proposals for 2016/17. We are also changing the way we engage with the sector on the 2016/17 tariff. Specifically, we are engaging separately with the sector on issues surrounding reimbursement for specialised services. We are also waiting on the outcome of the forthcoming Government Spending Review before finalising proposals on the efficiency factor, cost base and service development, which will help us to set final price levels. We therefore do not intend to engage on these elements over the summer.

About this document

This document is the first of a number of written documents seeking feedback from the sector on our proposals for the 2016/17 National Tariff Payment System. In it we set out most of our proposals to change the method for setting national prices. The method includes both the ways we determine how prices compare to one another – price relativities – as well as how we set the final price levels. This document focuses on price relativities for national prices.

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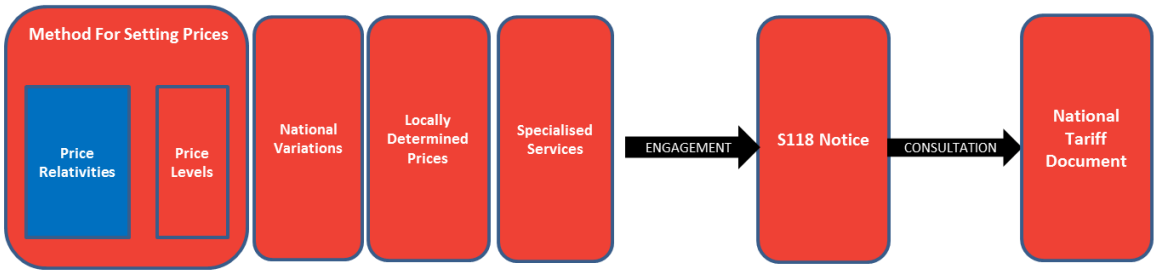
[1] Available from: www.england.nhs.uk/wp-content/uploads/2014/12/reforming-payment-system.pdf



We are required to start from the tariff currently in force, the 2014/15 national tariff. While some of the proposals for the 2015/16 national tariff met with objection, many were favourably received and hence we propose them again for 2016/17. These include modelling national prices using an updated Payment by Results approach: new prices for transcatheter aortic valve implementation, cochlear implants and dialysis for acute kidney injury, a new best practice tariff and some changes to existing best practice tariffs.

Our most significant proposal for 2016/17 is to adopt a new currency design for admitted patient care, HRG4+. Further changes to currency design include the addition of one new best practice tariff and adjustments to improve the incentive effects of a number of others. We propose to simplify the models that have previously been used to set best practice tariffs. We also propose to manage the impact of the new currency design, and other changes that affect prices, by smoothing the introduction of certain price changes.

We have listened to your feedback on our previous consultations and changed this document to make the language, and the logic behind our proposals, clearer. Along with this document there are seven supporting documents:

- the impact assessment for our proposals
- a spreadsheet with draft price relativities
- a spreadsheet to respond to draft price relativities
- the proposed high cost drugs and devices lists
- a spreadsheet with best practice tariff compliance rates
- a spreadsheet with our proposed new structure for the national tariff workbook
- an annex made up of eight tariff calculation models.

You can comment on our proposals via an online survey. Feedback on price relativities can be made directly in the relevant spreadsheet and returned to us by email.

Contents

1. Introduction

1. This document outlines Monitor and NHS England's proposed changes to the approach to setting price relativities in the 2016/17 National Tariff Payment System (NTPS). The starting point for our proposals is the 2014/15 NTPS as this is the last tariff that we published. Unless otherwise stated, we propose to adopt the same approach as that set out in the 2014/15 NTPS.

2. In addition to this document, we are seeking views on other policies that we propose to change from the 2014/15 NTPS. These are explained in the guidance[2] that we published on 6 August 2015.

3. The structure of this document reflects feedback that we received from the sector about previous national tariff engagement documents. This document has five main chapters:

   a. Context

   b. Scope

   c. Currency design for national prices

   d. Approach to modelling national prices

   e. Responding to this consultation.

4. We begin by outlining the context and scope of this document. Subsequent chapters are dedicated to specific proposals. We provide an overview of each proposal and the evidence supporting the proposal.

5. We have prepared a set of questions related to each proposed policy change. More detail can be found at the end of this consultation document.

6. Along with this document we have published an annex with price relativities. The prices contained within this document are not final proposals and do not include adjustments that will be made once the relevant adjustment indices (eg inflation) become available. The purpose of this document is to allow the sector to identify any issues that we may need to address in relation to the 2016/17 NTPS.

7. We have also published an impact assessment of our proposals, an annex on best practice tariffs (BPTs), and the models we have used to prepare the proposed price relativities.

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[2] Available at: www.gov.uk/government/publications/engagement-on-201617-national-tariff-proposals/201617-national-tariff-proposals-what-are-we-seeking-feedback-on

8. We have provided information on how you can respond to this engagement at the end of the document. Please respond using our online survey.[3] Comments on price relativities can be included in the excel spreadsheet in the marked boxes and sent by email to pricing@monitor.gov.uk

[3] Available at: www.research.net/r/BWVF6CH

2. Context

Summary

The NHS faces significant financial challenges and the way that healthcare is provided must change. The payment system can help support this change by reimbursing efficiently incurred costs, incentivising behaviour change and aligning payment to new models of care. This document contains proposals to define how we calculate relative prices, and to make sure that the relative values of prices reflect clinical practice. This is the first step in setting prices that appropriately reimburse providers.

9. The national tariff covers £72 billion of healthcare spend, through national prices – which account for £31 billion – and rules governing locally determined prices. It seeks to reimburse providers of healthcare services for efficiently incurred costs and to incentivise desired behaviour (such as adoption of clinical best practice). It also provides crucial information on the efficient costs of providing services that can be used to improve commissioning choices and service delivery.

10. To address the financial challenges facing the NHS, the way that healthcare is provided must change and the payment system must support this. Monitor and NHS England, along with our national partners, outlined new models of care in the Five Year Forward View[4] to discuss how care might be provided in the future. We followed this up with a document discussing implications for payments: *Reforming the payment system for NHS services: supporting the Five Year Forward View*.[5]

11. We continue to improve the processes and methods by which prices are set for the current pattern of care. This includes measures to improve:

    a. the design of the currencies used to set prices

    b. participation from the sector in price setting

    c. the information currently used

    d. the simplification of the tariff setting process and models

    e. the transparency of the method by which prices are set

    f. the clarity and consistency of policies built into the tariff

[4] Available at: www.england.nhs.uk/ourwork/futurenhs/
[5] Available at: www.england.nhs.uk/wp-content/uploads/2014/12/reforming-payment-system.pdf

g. our understanding of the effect of existing and new tariff proposals.

12. A majority of providers, by share of supply, objected to our proposals for the 2015/16 NTPS. We were therefore unable to publish this tariff. We are considering how best to address this position and will inform the sector in due course. In the meantime, we would like to engage with the sector on our proposals for the 2016/17 NTPS.

13. Until the 2015/16 NTPS is finalised, the 2014/15 tariff remains in force. Monitor and NHS England wrote to providers in February 2015 to make an 'Enhanced Tariff Offer' (ETO),[6] which 88% of NHS providers accepted. These providers agreed to vary their prices in response to the ETO. This means that the sector is currently operating under two sets of pricing arrangements. A small proportion of providers use prices as determined nationally under the 2014/15 national tariff, while the majority of providers are using the prices set out in the ETO.

14. This document explains some of our proposed changes to the method for setting national prices.[7] This can be considered in two parts. At this stage, we consider how prices for healthcare services should relate to one another. At a later stage, we will consider the level of prices.

15. We have modelled draft relative prices using an updated version of the Department of Health's 2013/14 Payment by Results (PbR) model, based on our currency proposals. We have engaged with clinical experts on the resulting draft price relativities. Much of their feedback has been used to inform the proposed price relativities accompanying this document.

16. A number of policies that formed part of our proposals for 2015/16 have been included in this document with updates to reflect feedback from the sector. This document also includes a number of proposals that have been planned for some time, including a move to HRG4+ currency design. Further proposals are new and aim to support the alignment of the payment system with the move to new models of care.

17. In addition to setting relative prices, we need to set the final level of those prices. The final level of prices should, in aggregate, allow providers to recover (and commissioners to pay) an amount that reflects the total efficient cost of providing nationally priced services, amended for any incentives or other appropriate adjustments. To do so, we consider, among other things, the appropriate cost base, indexation, cost uplifts and the efficiency factor. These price level factors are not discussed in this paper.

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[6] Available at: www.england.nhs.uk/resources/pay-syst/tariff-guide/
[7] Our proposals for the rules on locally determined prices are discussed in a separate document.

3. Scope

Summary

This document contains proposals relating to changes to the currency design and to a modelling approach for setting national prices.

18. This consultation document contains proposals on changes to currencies and to the modelling approach used to set national prices. In particular, it sets out proposed changes to the policies and processes from the 2014/15 NTPS. In setting the scope we have considered:

    a. feedback on the 2015/16 statutory consultation notice

    b. policies and processes set out in the 2014/15 NTPS

    c. feedback from the sector about the complexity of pricing policy

    d. changes that we propose to make, including

        i. changes that were proposed for 2015/16 but were not implemented

        ii. further changes that we wish to include in 2016/17.

19. This document does not cover:

    a. Content and policies from the 2014/15 NTPS that we do not currently propose to change.

    b. Proposals to change:

        i. the approach to setting price levels

        ii. national variations

        iii. rules for locally determined prices

        iv. policy that specifically relates to provision and payment of specialised services.

    c. Changes that are proposed to supporting guidance for the 2016/17 NTPS. We will engage on these during their development and consult on any changes in due course.

4. Changes to currency design

Summary

We propose to move from HRG4 currency design to the HRG4+ design. HRG4+ would allow the payment system to better identify the resources needed to treat patients of different levels of complexity. We also propose other changes to currency design such as new BPTs to encourage providers to adopt best clinical practice.

20. A currency is a unit of healthcare for which a payment is made. The currencies used for admitted patient care (APC), outpatient procedures (OPROC) and A&E attendances are Healthcare Resource Groups (HRGs). HRGs are clinically meaningful groups of diagnoses and treatments that may typically occur during a spell of care, and use similar levels of resources.

21. We propose to adopt a number changes to HRG design to better reflect the mix of care and treatment provided to patients. Other changes we propose are designed to encourage providers to deliver care in a way that clinical experts have described as best practice.

22. For 2016/17 we propose to adopt the following changes to national currencies:

    a. Move from HRG4 currency design to HRG4+ for APC. This better reflects the resource use of patients with high complexity needs.

    b. Introduce national prices for cochlear implant procedures, transcatheter aortic valve implantation, dialysis for acute kidney injury, complex computerised tomography scans and complex therapeutic endoscopic gastrointestinal tract procedures.

    c. Update the maternity pathway to better allocate patients to the right pathway for payment and reflect more accurate assumptions regarding antenatal casemix.

    d. Make additions and removals to the high cost drugs and devices list to reflect changes in the market, clinical practice and HRG design.

    e. Introduce new BPTs for heart failure and non-ST segment elevation myocardial infarction.

    f. Update existing BPTs for day case, outpatients, hip and knee replacement, endoscopy and stroke and remove the BPT for interventional radiology.

4.1. Moving to HRG4+ currency design

Summary

We propose to use phase two of the HRG4+ currency design.

HRG4+ is an improvement on the current HRG design used for payment because it better reflects clinical practice and more systematically accounts for case complexity. As recent reference cost collections have been designed to support HRG4+, this would also allow us to update the relative costs on which relative prices will be based.

4.1.1. Context

23. In order to set prices for healthcare services, we must first classify activity in a clinically meaningful way. This classification, known as a currency, is then used for setting national prices.

24. Changes to currency design are required to reflect changes in clinical practice and the changing needs of patients.

25. There are over 1,300 national prices contained in the current tariff design based on HRG4. This design was introduced for payment in April 2009. It provided significantly greater granularity than that of previous years but had some limitations in the way that it accounts for complexity and comorbidities. To address these issues, the Health and Social Care Information Centre (HSCIC), with advice from their clinical expert working groups, developed HRG4+.[8] This aims to take better account of the conditions and treatments that influence patient costs by considering the additional cost of complications and comorbidities, and the additional cost of multiple procedures carried out in the same operation.

26. The currency is dependent on being able to identify relevant patient activity and attribute costs to this care. Costs for the new HRG4+ design have been collected in three phases. The first phase was implemented in 2012/13 reference costs and the final phase forms the basis for the 2014/15 reference cost collection that is currently underway.

27. The 2014/15 national tariff is based on costs reported in the 2010/11 reference cost collection. The prices in the ETO were based on 2011/12 reference costs and the HRG4 currency design.

[8] More information on the development of HRG4+ can be found on the HSCIC's website at: www.hscic.gov.uk/media/11602/HRG4-Companion/pdf/HRG4_Companion_v1.0.pdf

28. For the 2015/16 national tariff, Monitor and NHS England proposed to delay the use of HRG4+ to calculate prices because we only had one year of reference cost data available at that stage. Some responses to the 2015/16 tariff engagement document expressed disappointment that HRG4+ had not been adopted, although there was acceptance of the rationale provided.

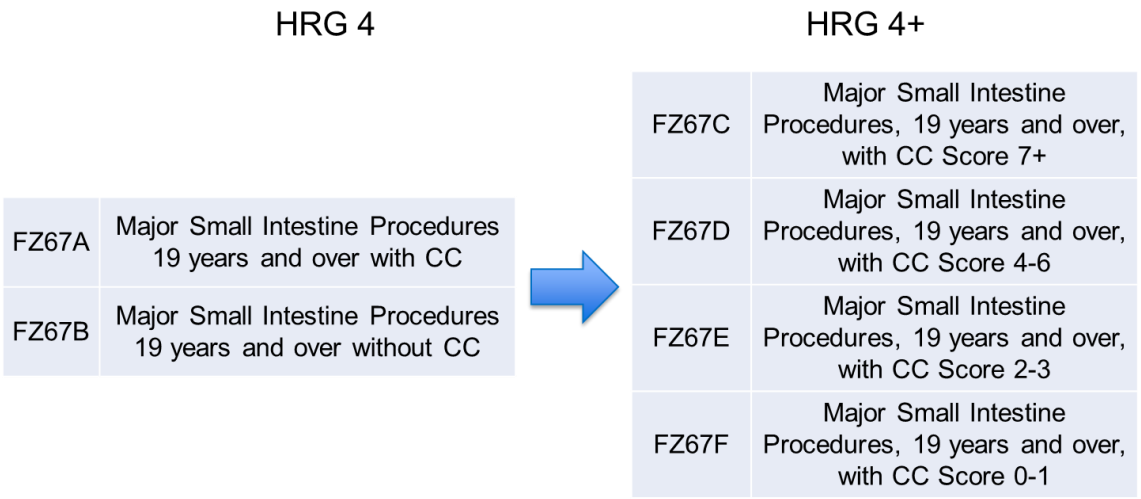
4.1.2. Proposal

29. We propose to adopt the second phase of HRG4+ design as the currency for setting prices in 2016/17. This would correspond to the use of 2013/14 reference cost design as the basis for calculating these prices.

30. In this design, we can better identify patients with different costs. For most national prices HRG4+ introduces a complexity and comorbidity (CC) score, which allows payment to better reflect the costs incurred in treating patients of different levels of complexity. Figure 1 gives an example of the way in which national prices would change following the application of HRG4+.

31. For some prices, such as in some orthopaedic surgery, we are not proposing to introduce a CC score this year. This is because the supporting cost data will not be available. This data is planned to be collected as part of phase three.

Figure 1: Taking account of complexity and comorbidities in HRG4+



32. Moving to HRG4+ would affect the structure of the maternity pathway and existing BPTs.

33. The payment made for the delivery phase of the maternity pathway is based on the HRG design in chapter NZ of the classification manual. A move to HRG4+ would mean the HRGs will change to further distinguish the scale of complications and comorbidities women may have. Payment for the delivery phase is broken down into two prices: a payment for women with complications and comorbidities or a payment for women without complications and

comorbidities. For 2016/17, we propose to map the HRGs under HRG4+ to these two categories.

34. Changes in HRGs will affect the identification of eligible activity for BPTs. We have used the following principles in deciding how to carry forward existing BPTs:

    a. the HRG should not increase the target population of the BPT

    b. where the BPT may lead to a perverse incentive by moving the wrong activity into the wrong setting, we have reduced the target population. For example, we have excluded activity with a higher CC score that should be seen as an inpatient from the day case BPT.

35. Moving to HRG4+ would also remove the need for some BPTs. We therefore propose to retire such BPTs.

4.1.3. Rationale

36. We considered a number of factors in choosing HRG4+ as the most appropriate currency design for our 2016/17 proposals. One of the advantages of this design is that it better reflects patient complexity associated with different costs. This means that providers would receive more appropriate reimbursement for the care they give. HRG4+ also recognises multiple procedures within a single spell of care. This will help the system to more fairly reimburse care that appropriately minimises multiple interventions.

37. Currency design should reflect and support improvements in clinical practice. Clinical practice evolves over time and it is important that HRG design is updated to reflect these changes where possible. Moving to HRG4+ will allow us to reflect changes in clinical practice since the last version of HRG4.

38. Finally, HRG4+ is based on the latest cost information. The underlying cost data used to set prices against HRG4 currencies is becoming less relevant over time because the annual cost collection stopped collecting data against HRG4 currencies after 2011/12. The current tariff is based on 2010/11 reference costs, national prices adopted under the ETO by the majority of the sector are based on 2011/12 reference costs. From 2012/13 the annual reference cost collection moved to using HRG4+ currency design. Moving to HRG4+ would allow us to use the most recent reference costs available, the 2013/14 collection, in setting prices relatively.

39. Change always brings at least some disruption to the way services are currently remunerated. However, we have proposed changes where it is clear that the benefits to the sector as a whole and to patients justify any associated costs or disruptions. Moving to HRG4+ is intended to be neutral in terms of the overall

costs of care reimbursed, and should enable more sophisticated relative pricing between types of care provided.

4.1.4. Options considered

40. Alternatives to moving to the second phase of HRG4+ would be to maintain the existing HRG4 currency design, or use phase one of HRG4+. Maintaining the existing HRG4 currency design would provide stability to providers and commissioners, and using the first phase of HRG4+ could lead to a more gradual change in remuneration.

41. We do not consider the alternative options to be appropriate as they would not take advantage of the most recent cost information collected. Substantial benefits to patients and the sector as a whole are available from making full use of the improvements in design in HRG4+.

4.2. Changing the scope of national prices

Summary

We propose to expand the scope of national prices to include seven new HRGs and additional outpatient prices. We are also considering whether it would be appropriate to remove national prices for the six nuclear medicine HRGs and replace them with 68 HRGs without national prices.

The benefit of introducing new prices is to develop a shared and consistent understanding of clinical practice. A national price allows providers to benchmark how much it costs them to deliver defined units of care against the national average.

4.2.1. Context

42. National prices in the national tariff do not cover all services commissioned by NHS commissioners. We have considered the scope of services that should be subject to national pricing. Our starting point is the range of services in scope in the 2014/15 NTPS. The main considerations in determining the scope of national prices are whether there is a clinically supported currency and if there is appropriate information on which to set prices. The proposals we have made to change the scope of national prices have been influenced by changes in the design of HRGs, newly collected reference costs and clinical feedback.

4.2.2. Proposal

43. We propose to introduce national prices for the following HRGs and outpatient attendances:

    a. CA41Z: Cochlear Implants, with the cost of the device excluded from national prices and reimbursed on the basis of locally agreed prices

    b. EA58Z and EA59Z: Transcatheter aortic valve implantation (TAVI), with the cost of the device excluded from national prices and reimbursed on the basis of locally agreed prices

    c. FZ89Z: Complex therapeutic endoscopic upper or lower gastrointestinal Tract Procedures

    d. LE01A and LE02A: Dialysis for acute kidney injury for adults

    e. RA69Z: Complex computerised tomography scan

    f. Outpatient attendances: neurosurgery and neurology for both children and adults.

44. We are considering whether to remove the mandatory prices for six nuclear medicine HRGs: RA35Z, RA36Z, RA37Z, RA38Z, RA39Z and RA40Z. These would be replaced by 68 HRGs with no national price (ie these prices would be subject to local price setting).

4.2.3. Rationale

Introducing new national prices

45. The rationale for introducing new currencies is to develop a shared and consistent understanding of clinical practice and specify what is included and excluded in the provision of a service or procedure.

46. The aim of introducing a national price for a currency is to reimburse all providers for the efficient cost incurred in the provision of care. A national price allows providers to benchmark how much it costs them to deliver a defined unit of care against the national average. This financial signal is likely to reduce variation in care provided and costs incurred, as well as develop a process to monitor and reflect current best practice.

47. We believe that the activity and cost data available to us is sufficient to develop robust prices for the HRGs and outpatient services set out above. The tariffs for cochlear implants, complex therapeutic endoscopy and dialysis for acute kidney injury were included in the 2015/16 tariff engagement document and the inclusion of each one as a new tariff received over 90% support from respondents. On the other hand, support for introducing TAVI as a national price was conditional on having clear information on whether the cost of the device was included in the price.

48. The cost information available for neurology and neurosurgery outpatient attendances has been updated. These services cover large amounts of activity. Introducing mandatory prices will improve consistency in the agreements between providers and commissioners, and also reduce the burden on commissioners and providers of negotiating local prices.

National prices for nuclear medicine

49. We have received clinical feedback for a number of years that the current HRG design for nuclear medicine does not appropriately recognise the range of different scans carried out. This was addressed in the reference cost design for HRG4+ (phase three) in 2014/15.

50. The revised design has additional granularity to better identify specific scans. However, the 2016/17 tariff is based on the 2013/14 reference cost design which uses the existing design for nuclear medicine.

51. We are therefore considering whether it would be appropriate to introduce the HRG4+ phase three design for nuclear medicine (albeit without setting national prices) or whether it would be more appropriate to retain the existing design for one more year (and to continue to set national prices).[9]

52. If we move to HRG4+ (phase three), the design will be available to commissioners and providers to adopt by mutual agreement through local variations.

4.2.4. Options considered

53. The scope of national prices could remain the same from previous years. This option would not respond to more recent information and improvements to the ways of classifying activity.

4.2.5. Questions

54. For nuclear medicine, do you think that it would be appropriate to introduce phase two of HRG4+ with national prices or introduce phase three of HRG4+ without setting national prices?

[9] The engagement grouper released with this document includes the HRG4+ phase three design for nuclear medicine.

4.3. Changes to the maternity pathway payment

Summary

We propose to improve the maternity pathway payment currencies by:

- adding six clinical factors to help better assign the correct level of complexity to the woman's antenatal phase
- updating the casemix assumptions for the antenatal phase to more accurately calculate price relativities.

These changes would mean that the maternity pathway allocation would more closely reflect the experience of clinicians, and improve the way providers are reimbursed for the care they provide.

4.3.1. Context

56. The maternity pathway payment system was introduced in April 2013 to:

    a. reduce variance in the way organisations describe and record antenatal and postnatal care

    b. encourage more proactive care, delivered closer to home

    c. encourage a more patient-focused approach to maternity care.

57. Feedback from the sector over the last two years suggests that the payment does not obviously reflect the experience of clinicians, and that clinicians find it difficult to assign women to the right pathway for the complexity of care.

58. In order to assign women to the right pathway, clinicians need to identify complexities and comorbidities a woman may develop prior to or during pregnancy, and that will affect the care she needs. The National Maternity Fund Review group were asked to consider these clinical factors and the corresponding costs incurred by the provider. The group has recommended six additional factors to help allocate women to the correct antenatal pathway currencies.

59. When the maternity pathway was introduced, we used Hospital Episode Statistics (HES) data collected by the HSCIC and sample information from providers to estimate how many women would be allocated to each level of complexity (standard, intermediate and intensive) in the antenatal and postnatal phases. This allowed us to better reimburse providers for the complexity of the conditions of women using their services by using three levels of payment.

60. Earlier this year, we collected updated casemix information for women on the antenatal pathway from a sample of providers. This information is used to

develop the price relativities between the three levels of payment on the antenatal pathway (standard, intermediate and intensive). The information shows that a higher proportion of cases are allocated to the intermediate and intensive pathway than we had initially assumed. This means that under current assumptions, standard prices are higher than they should be and intermediate and intensive prices lower than they should be. This means that we are not correctly reimbursing providers for the services provided on the antenatal pathways.

4.3.2. Proposal

61. We propose, as recommended by the working group, to add six factors to the antenatal pathway to better match women to the care that they will need. This was a proposal included within the 2015/16 consultation and was included in the ETO variation.

Table 1: Additional complexity factors to the antenatal pathway

Factor present	Proposed level of complexity
Cystic fibrosis	Intensive pathway
Previous organ transplant	Intensive pathway
Serious neurological conditions (excluding epilepsy)	Intensive pathway
Serious gastroenterological conditions	Intermediate pathway
Body mass index (BMI) >49	Intensive pathway
Women with a low PAPP-A reading	Intermediate pathway

62. We propose to update casemix allocations for the antenatal pathway based on the addition of these six factors, and on the latest information we have received from providers earlier this year. This will increase the payment for more complex pathways.

Table 2: Update to casemix on the antenatal pathway

Pathway	Current allocations	Allocations based on proposed changes
Standard	65.5%	50.0%
Intermediate	27.3%	38.7%
Intensive	7.1%	11.3%

4.3.3. Rationale

63. The National Maternity Fund Review group was set up to review feedback on the maternity payment system and consider possible improvements. The group reviewed the potential clinical complexities and comorbidities a mother may have, or may develop, during pregnancy and whether providers were correctly

reimbursed for treating women with such complications. Based on the group's recommendation we have identified six additional factors to add to the antenatal pathway where providers were likely to incur higher costs than the standard antenatal pathway price in the care of these women. This was included in the 2015/16 tariff engagement document and, of those that responded, 79% supported this proposal.

64. Each year we update our assumptions based on the latest available evidence. We therefore believe that it is right to update the casemix assumptions and calculate prices on the most recent data.

65. Adding the new clinical factors and updating the casemix assumptions would improve the allocation of women to the correct maternity pathways. It would also help to reimburse providers appropriately for the care that they provide.

4.3.4. Options considered

66. We considered keeping the same assumptions and using information collected in 2010. We would prefer to use the most up-to-date information available, to make sure that the prices providers receive continue to accurately reflect the care they give.

4.4. Changes to high cost drugs and devices lists

Summary

We are updating the list of high cost drugs and devices that are not subject to national prices, as shown in Annex 7B of the 2014/15 NTPS. We propose to:

- add 2 high cost devices and remove 5 device categories, and to partially remove a further category
- add the 30 new drugs proposed in 2015/16
- add a further 33 new drugs, remove 10 drugs and partially remove blood products.

The update reflects changes in clinical practice, the availability of drugs and devices in the NHS and changes in HRG design.

4.4.1. Context

67. The high cost drugs and devices lists[10] specify products that are not subject to national prices. Instead, these drugs and devices are reimbursed locally in line with the rules on locally determined prices set out at Section 7 of the 2014/15 NTPS. These drugs and devices are not consistently used across all providers and if they were included in prices their high cost would create prices that systematically underpaid some providers and overpaid others. The prices for drugs and devices on this list are agreed locally.

68. There are currently 26 categories of devices and 312 drugs on the high cost lists. The criteria used to determine the drugs and devices that should be on the lists can be found on NHS England's website.[11] Advice is sought from the High Cost Drugs Steering Group and the High Cost Devices Steering Group. These groups use the criteria to assess proposed additions and consider if there are drugs or devices that could be removed from the lists. Membership of these groups include providers, representatives from the medical devices industry, pharmacists, clinicians, commissioners, NICE and innovation leads.

4.4.2. Proposal

High cost devices

69. We propose to add two devices:

    a. lengthening nails

[10] The draft 2016/17 high cost drugs and devices lists are in Annex C.
[11] Available at: www.england.nhs.uk/resources/pay-syst/drugs-and-devices

b. a new category of rib fixation frames.

70. We propose to remove 5 of the existing 26 categories and remove another category when used in one specialty. These changes are listed below, along with the changes to relevant national price.

71. For implantable cardioverter-defibrillator (ICDs) and ICD with cardiac resynchronisation therapy (CRT) capability the removal of the device has led to a change in the price relativities in Annex A.[12] The price relativities for the other four devices in the list below are not considered in this engagement. This is because the list changes were not received in time to be included in modelling. They will be included in the next stage of consultation on prices.

72. The prices for procedures involving lengthening nails and the new category of rib fixation frames still include costs associated with these devices. We will propose to remove these in the next stage of consultation on prices.

Table 3: Devices removed from the high cost device list

Removed Device	Main HRG(s) affected	Change in price
3 dimensional mapping and linear ablation catheters used for complex cardiac ablation procedures	EA29A, EA29B and EA29C - Percutaneous Complex Ablation, including for Atrial Fibrillation and Ventricular Tachycardia	£18.5m reported in reference costs, indicating an average additional £1,700 per HRG price
Consumables for robotic surgery	LB69Z - Major Robotic, Prostate or Bladder Neck Procedures (Male)	£7.3m reported in reference costs, indicating an average additional £2,300 per HRG price
ICDs	EA12A, EA12B, EA12C, EA12D - Implantation of Cardioverter; Defibrillator only	Pricing calculation – already incorporated into draft prices increasing price to £10,600-£16,200
ICD with CRT capability	EA56A, EA56B, EA56C, EA56D - Implantation of Cardiac Resynchronization Therapy Defibrillator (CRT-D)	Pricing calculation– already incorporated into draft prices increasing price to £11,600-£15,600
Peripheral vascular stents	EA11A and EA11B – Percutaneous Interventions: Other including Septostomy, Embolisation, Non-Coronary Stents and Energy Moderated Perforation	£11.9m reported in reference costs, indicating an average additional £1,200 per HRG price

[12] Available at: www.gov.uk/government/publications/201617-national-tariff-proposal-annexes

Removed Device	Main HRG(s) affected	Change in price
	YR12Z, YR13Z, YR14A, YR14B, YR15A, YR15B Percutaneous Transluminal Angioplasty	
Radiofrequency, cryotherapy and microwave ablation probes and catheters – for cardiac only.	EA29A, EA29B, EA29C - Percutaneous Complex Ablation, including for Atrial Fibrillation and Ventricular Tachycardia	£9.3m reported in reference costs, indicating an average additional £1,000 per patient

High cost drugs

73. We propose to make the changes we outlined in the statutory consultation notice for the 2015/16 NTPS. This would add 30 drugs to the high cost list. These are a mixture of new drugs available to the NHS but which are not subject to national prices, drugs similar to those already excluded from national prices and new types of high cost drugs. The feedback we received on this proposal in 2015/16 was largely positive, with 85% of respondents in favour of the changes.

74. We have reviewed the evidence and propose the following additional changes:

    a. addition of 4 drugs in three new categories (lipid regulating drugs, fibrinolytic drugs and other endocrine drugs)

    b. addition of 15 drugs similar to those already excluded from national prices

    c. removal of 9 drugs that are no longer available for sale to the NHS

    d. removal of alteplase, which is already included as an adjustment in a best practice tariff

    e. removal of fibrin sealants (a type of blood product)

    f. addition of 14 drugs that already fit into categories of drugs already excluded from national prices.

75. In light of the recommendations of the Carter Review,[13] NHS England is exploring moving to either a series of shared procurements for some high cost items and/or moving to a system of reimbursing efficient 'reference prices' within categories of high cost drugs and devices, and will be seeking views on how we can best do this.

[13] Available at: www.gov.uk/government/publications/productivity-in-nhs-hospitals

4.4.3. Rationale

76. The availability and cost of drugs and devices change over time. This reflects changes in clinical practice and the development of new treatments and procedures. If we do not update the lists, they would not reflect current clinical practice or treatments.

77. Another reason to update the list of high cost drugs and devices is to reflect the proposed move to HRG4+ currency design. HRG4+ is more granular then HRG4 and allows for some high cost drugs and devices to be included in national prices without distorting prices.

High cost devices

78. The High Cost Devices Steering Group reviewed 18 requests for additions to the high cost list. It also reviewed the current list for potential removals. Based on the criteria and the proposed changes in currency design, it recommended including devices where the HRG design appropriately identifies the activity. Monitor and NHS England received further clinical advice on high cost devices through our engagement on proposals for the 2015/16 national tariff.

High cost drugs

79. The High Cost Drugs Steering Group considered 620 drugs and recommended 33 to be added to the list. They also reviewed the 312 drugs currently on the list and recommended removing nine drugs and one type of blood product. These recommendations are in line with the criteria and the proposed changes to currency design.

4.4.4. Options considered

80. We considered the changes proposed in the 2015/16 statutory consultation notice, and felt that the rationale for adding these drugs to the high cost list still applies.

81. In addition, the steering groups reviewed submissions relating to 18 devices and 620 drugs. These were received from the high cost portals and horizon scanning information on drugs provided by UK Medicines Information. The groups advised that the proposed changes were in line with the criteria set out on NHS England’s website.

4.5. Best practice tariffs

Summary

Best practice tariffs (BPTs) are national prices that are designed to incentivise high quality, cost effective care. We are proposing to introduce two new BPTs and adjust five. We also propose to remove one existing BPT because the introduction of HRG4+ achieves the same incentive.

4.5.1. Introduction

82. A BPT is a national price that is designed to incentivise high quality and cost-effective care. The aim is to reduce unexplained variation in clinical quality and to encourage best practice. A BPT may replace the description of an HRG, by describing more closely the activities that correspond to the delivery of outcomes for a patient. The price differential between best practice and usual care is calculated to ensure that the expected costs of undertaking best practice are reimbursed and to create an incentive for providers to shift from usual care to best practice.

83. Stakeholders have suggested a number of areas where they felt the development of a BPT would be beneficial to patients. In reviewing these suggestions we have considered the following criteria:

    a. clinical area and target population

    b. activity levels

    c. area for quality improvement

    d. evidence base (eg NICE accredited guidelines)

    e. variation in current practice

    f. data source to support measurement of the BPT (eg clinical audit)

    g. affordability and cost impact

    h. impact on health inequalities

    i. implementation timelines

    j. risk of unintended consequences.

84. For 2016/17 we propose to introduce two new BPTs, for emergency admissions for heart failure and non-ST elevated myocardial infarction (NSTEMI).

85. We have identified some BPTs that may require changes to ensure that they continue to encourage quality improvement. We propose amendments to the following BPTs:

    a. day case procedures

    b. endoscopy procedures

    c. stroke

    d. primary hip and knee replacements

    e. outpatient procedures.

86. We propose to remove the BPT for interventional radiology.

87. The proposals for heart failure, primary hip and knee replacement and outpatient procedure BPTs are unchanged from those we made in 2015/16. The 2015/16 statutory consultation also included planned changes to the day case and endoscopy procedure BPTs. In this document we set out proposals which we believe go further to encourage improvements in patient care for these two BPTs in 2016/17.

88. We do not propose to change the remaining BPTs included in the 2014/15 NTPS, with the exception of updates for HRG4+ and changes set out in Section 5.4 of this document on setting prices for best practice tariffs.

89. In addition to the proposals above, we believe there are other areas where a BPT could be developed in future, for example, to ensure timely specialist input for emergency chronic obstructive pulmonary disease admissions and to promote access to home therapies for renal dialysis. It has not been possible to develop these proposals sufficiently for this consultation. Where subsequent work suggests there is a strong case for introducing a BPT, we will look to introduce non-mandatory prices that providers and commissioners may agree to use for the reimbursement of services in 2016/17.

90. Beyond proposals for the 2016/17 national tariff, NHS England will consider the feasibility for further developing new and existing BPTs, in particular in support of the recently published Cancer Strategy, which includes supporting capacity growth in endoscopy services.[14]

[14] NHS England plans to seek bids for a small number of networks to take on the new payment model for cancer services suggested in the Cancer Strategy. For more details see: www.england.nhs.uk/2015/07/19/57176/

4.6. Introduction of a best practice tariff for heart failure

Summary

We propose to introduce a new BPT for people admitted to secondary care as an emergency for heart failure. The objective of this BPT is to encourage providers to increase submission of data to the National Heart Failure Audit (NHFA) and to increase the percentage of patients that receive specialist input as reported by the NHFA.

We proposed this in the 2015/16 statutory consultation notice. The levels required to demonstrate best practice are unchanged from last year's proposals at 70% data submission and 60% specialist input.

Specialist input is shown to improve outcomes for heart failure patients. Better data allows outcomes to be tracked and improves evidence on the link between interventions and outcomes, allowing healthcare professionals to adopt best practice.

4.6.1. Context

91. Heart failure is a complex clinical syndrome of symptoms and signs that suggest the efficiency of the heart as a pump is impaired. It is caused by structural or functional abnormalities of the heart.

92. Around 900,000 people in the UK have heart failure. Both the incidence and prevalence of heart failure increase steeply with age, with the average age at first diagnosis being 76 years. The prevalence of heart failure is expected to rise in future as a result of an ageing population, improved survival of people with ischaemic heart disease and more effective treatments for heart failure.

93. Heart failure is currently one of the most common reasons for emergency admissions and accounts for more than a million bed days per year in the UK. There is evidence of poor outcomes for people with heart failure and variation in care patients receive.

4.6.2. Proposal

94. As proposed in 2015/16, we would like to introduce a new BPT for non-elective heart failure admissions. The aim of this BPT is to support best practice in the care of patients with heart failure as outlined in the NICE clinical guidelines 108 Chronic heart failure: Management of chronic heart failure in adults in primary and secondary care[15] and guideline 187 Acute heart failure: diagnosing and managing

[15] Available at: www.nice.org.uk/guidance/cg108

acute heart failure in adults[16] and the chronic heart failure quality standard (QS9).[17]

95. The proposed BPT would require providers to meet the following criteria. These are unchanged from the 2015/16 proposal.

    a. Data submission to the NHFA with a target rate of 70%. This means that at least 70% of all eligible records, as measured through HES, need to be submitted to the NHFA.

    b. Specialist input with a target rate of 60%. This means that at least 60% of all patients recorded in the heart failure audit have received specialist input as defined by the NHFA.

96. We propose to increase the BPT price compared to standard HRG price to reflect higher costs that providers may incur in achieving best practice. Providers that do not meet both of these criteria will receive a price 10% below the BPT level. The BPT will be applicable to the following HRGs:

    a. EB03A: Heart failure or shock, with CC score 14+

    b. EB03B: Heart failure or shock, with CC score 11-13

    c. EB03C: Heart failure or shock, with CC score 8-10

    d. EB03D: Heart failure or shock, with CC score 4-7

    e. EB03E: Heart failure or shock, with CC score 0-3.

4.6.3. Rationale

97. This BPT aims to improve care for heart failure patients through increased access to specialist care. NHFA noted several areas in which specialist input leads to higher quality care.[18] For example, patients that see specialists are more likely to receive a timely echocardiogram, drug treatment and appropriate discharge arrangements, all of which improve patient survival rates. Higher quality care also means that there are likely to be fewer readmissions for heart failure patients.

98. We have engaged with stakeholder groups in order to set target rates based on current achievement rates.

99. Better data collection and reporting will have a positive impact for patients. We expect that this BPT will generate better information about patient care,

[16] Available at: www.nice.org.uk/guidance/cg187
[17] Available at: https://www.nice.org.uk/guidance/qs9
[18] www.ucl.ac.uk/nicor/audits/heartfailure/documents/annualreports/hfannual12-13.pdf

including links between inputs and outcomes. It will also help to make providers accountable for the processes and decisions that affect heart failure patients.

100. The introduction of this BPT should also promote awareness of best practice for heart failure. This alone might address some of the concerns raised by the NHFA about variation in mortality rates and care provided to heart failure patients across the country.

101. Analysis of reference costs from 2011/12 suggests that trusts that provide specialist input for 60% or more of their patients may incur higher costs on heart failure services. Improving heart failure services to meet the BPT requirement for specialist input may involve investments and other upfront costs for some providers. Stakeholder engagements have indicated providers may need to recruit additional specialist staff. However, the NICE cost impact report for the NICE guideline 187 on acute heart failure states that the national cost impact of providing specialist input is not likely to be significant.

102. There is a risk that our proposed requirements turn out to be too onerous, or the price differential too severe, in which case some providers will not be able to recover their efficient costs. This would increase financial pressure on those providers, which could make patients worse off.

103. Overall, we think that these risks can be managed by providers, because clinicians will be able to make local decisions that are in the best interests of patients. Furthermore, the BPT has been designed with significant engagement from the sector including heart failure specialists, NHFA, providers, commissioners and patients. We have received positive feedback and very strong support for the introduction of this incentive in tariff.

104. We believe that any risks will be outweighed by the benefits to patients, including improved quality of care and outcomes. We propose to monitor the implementation of this BPT.

4.7. Introduction of a best practice tariff for non-ST segment elevation myocardial infarction

Summary

We propose to introduce a new BPT to encourage timely delivery of coronary angiography for people with non-ST segment elevation myocardial infarction (NSTEMI). This is a new proposal that we have made for 2016/17.

We are asking the sector to consider the appropriate BPT threshold for the proportion of NSTEMI patients undergoing coronary angiography within 72 hours of admission. The options we have proposed are 60%, 70% or 80%.

Timely angioplasty, followed by percutaneous coronary intervention (PCI) if required, is associated with improved outcomes. However, only 55% of people with NSTEMI undergoing coronary angiography do so within 72 hours from admission as recommended by NICE.

4.7.1. Context

105. Myocardial infarction (MI) is usually caused by blockage of a coronary artery producing tissue death and consequently the typical features of a heart attack: severe chest pain, changes on the electrocardiogram and raised concentrations of proteins released from the dying heart tissue into the blood. There are two types of MIs:

    a. ST segment elevation myocardial infarction (STEMI), which is generally caused by complete and persisting blockage of the coronary artery

    b. non-ST segment elevation myocardial infarction (NSTEMI), reflecting partial or intermittent blockage of the coronary artery.

106. According to the Myocardial Ischaemia National Audit Project (MINAP) database, there were 80,724 admissions for MI in 2013/14. Of these, 39% were STEMIs and 61% were NSTEMIs.

4.7.2. Proposal

107. We propose to introduce a BPT to improve the time from admission to coronary angiography for those people with NSTEMI.

108. Compliance against the BPT would be measured through the MINAP database which collects data on time from admission to coronary angioplasty for people with NSTEMI and STEMI.

109. Best practice will be considered achieved where a specific percentage of NSTEMI patients undergoing coronary angiography do so within 72 hours of

admission to the hospital carrying out the procedure. Nationally, the current achievement rate for this is 55%.

110. We would welcome views on the appropriate BPT threshold for 2016/17. The target rates under consideration are:

    a. 60% of NSTEMI patients undergoing coronary angiography doing so within 72 hours of admission

    b. 70% of NSTEMI patients undergoing coronary angiography doing so within 72 hours of admission

    c. 80% of NSTEMI patients undergoing coronary angiography doing so within 72 hours of admission.

111. We propose to apply the BPT price and base price to a group of HRGs where the primary diagnosis on admission is ICD10 code I214 ‘acute subendocardial myocardial infarction’. This is because the group of HRGs, as they are designed, will cover other ICD10 codes representing a larger group of patients than that intended by the BPT.

HRGs covered by the NSTEMI BPT
EA31A: Percutaneous coronary intervention, 0 to 2 stents, with CC score 11+
EA31B: Percutaneous coronary intervention, 0 to 2 stents, with CC score 7-10
EA31C: Percutaneous coronary intervention, 0 to 2 stents, with CC score 3-6
EA31D: Percutaneous coronary intervention, 0 to 2 stents, with CC score 0-2
EA36C: Catheter with CC score 13+
EA36D: Catheter with CC score 10-12
EA36E: Catheter with CC score 7-9
EA36F: Catheter with CC score 4-6
EA36G: Catheter with CC score 2-3
EA36H: Catheter with CC score 0-1

112. The engagement grouper has a wider set of ICD10 codes to those proposed here. The HSCIC will amend subsequent grouper products to be consistent with the proposed design set out above.

113. Under the proposal, the BPT price will be increased by 10% compared to the conventional HRG prices to reflect any increases in cost providers may incur in achieving best practice criteria.

4.7.3. Rationale

114. The economic analysis conducted to support NICE clinical guideline 94 on unstable angina and NSTEMI states that timely access to angioplasty, followed

by PCI where required, is clinically effective and cost effective. Patients who receive earlier angiography are likely to be discharged sooner, therefore avoiding prolonged hospitalisation.

115. The NICE costing statement for NSTEMI states that a reduced time from admission to angiography will have a national cost impact of under £1 million.

4.7.4. Options considered

116. We considered other options such as including other care processes in the BPT. However, our stakeholder engagement to date suggests that time to coronary angiography was the main priority for quality improvement.

117. We recognise that introducing this BPT could lead to unintended consequences. For example, providers may face additional implementation costs in achieving BPT targets. We would therefore continue to work with stakeholders to develop this BPT and to identify and mitigate any risks. We would particularly welcome feedback that highlights any advantages, concerns and risks associated with introducing this BPT.

4.7.5. Questions

118. What do you consider to be an appropriate BPT threshold for the proportion of NSTEMI patients undergoing coronary angiography within 72 hours of admission: 60%, 70% or 80%?

4.8. Expanding the day case best practice tariff

Summary

We propose to expand the number of procedures covered by the day case BPT. This would set a percentage target for providers to move activity into a day case setting for 22 additional procedures. We also propose to change the current target for two procedures already covered by the BPT. This is based on the British Association of Day Surgery directory of procedures.

The benefits of moving care into a day case setting, when clinically appropriate, are that it is safer for patients, more convenient and improves the use of resources.

4.8.1. Context

119. The day case procedure BPT aims to increase the proportion of elective activity performed as a day case, where clinically appropriate. Day case procedures offer advantages to both patients and providers. For many patients it is safer and more convenient to be treated in a day case setting, while the local health economy benefits from reduced pressure on admitted patient beds.

120. The British Association of Day Surgery (BADS) publishes a directory of procedures that are suitable for day case admissions along with proportions that it believes are achievable in most instances. We have used this information to develop our proposals.

121. The BPT is made up of two prices for each procedure: one applied to day case admissions and one applied to ordinary elective admissions. By paying a relatively higher price for day case admissions, the BPT creates an incentive for providers to treat patients as day case patients.

122. 16 procedures are covered by the BPT under the 2014/15 NTPS. The procedures selected for this BPT were chosen as they are high volume and have day case proportions that currently vary significantly between providers.

4.8.2. Proposal

123. We propose to expand the number of procedures covered by this existing BPT. Table 4 sets out the additional areas for inclusion in the day case BPT with BADS recommended rates and our proposed rates.

124. The price relativities annex[19] published alongside this document does not reflect the rates set out below. The BPT models will be updated following this

[19] Available at: www.gov.uk/government/publications/201617-national-tariff-proposal-annexes

engagement exercise to ensure that prices are consistent with the 2016/17 proposals.

Table 4: Proposed areas for day case BPT development

Clinical Area	BADS rate	Current observed rate	Proposed calculation rate
Anterior colporrhaphy	40%	7%	20%
Autograft anterior cruciate ligament reconstruction	40%	26%	40%
Biopsy / sampling of cervical lymph nodes	80%	71%	80%
Bone marrow biopsy	95%	63%	75%
Creation of arteriovenous fistula for dialysis	80%	60%	70%
Dacryocysto-rhinostomy including insertion of tube	90%	64%	75%
Diagnostic laparoscopy	85%	71%	85%
Endoscopic insertion of prosthesis into ureter	90%	47%	60%
Endoscopic resection / destruction of lesion of bladder	50%	9%	20%
Excision biopsy of lymph node for diagnosis (cervical, inguinal, axillary)	80%	64%	80%
Excision of lesion of parathyroids	30%	10%	20%
Implantation of cardiac pacemaker	90%	34%	45%
Laparoscopy and therapeutic procedures including laser, diathermy and destruction	70%	55%	70%
Liver Biopsy	90%	70%	80%
Laparascopic Oophorectomy and salpingectomy (including bilateral)	70%	17%	30%
Optical Urethrotomy	90%	42%	55%
Polypectomy of internal nose	90%	54%	65%
Posterior Colporrhaphy	40%	6%	20%
Renal Biopsy	95%	57%	65%
Repair of other abdominal hernia	85%	67%	85%
Transluminal operations procedures on femoral artery	70%	43%	55%
Ureteroscopic extraction of calculus of ureter	50%	28%	40%

Source: BADS directory and HES

125. In addition to expanding the day case BPT to cover new clinical areas, we propose to increase the target rates for two clinical areas as outlined in Table 5 below. These changes were also proposed in the 2015/16 statutory consultation notice.

Table 5: Proposed changes to target rates

Clinical Area	BADS rate	2014/15 transition rate	Current observed rate	Proposed calculation rate
Operations to manage female incontinence	60%	45%	45%	60%
Tympanoplasty	80%	50%	45%	65%

Source: BADS directory and HES

4.8.3. Rationale

126. An evaluation of the BPT programme by the University of Manchester and the University of Nottingham found this BPT had been successful in increasing the proportion of activity seen on a day case basis.[20] Adding to the scope of this BPT will create an incentive for providers to move more activity into day cases.

127. For some of the new procedures, the target proportion used to calculate price relativities is set below the recommended BADS proportion as the latter are likely to be too ambitious for providers to achieve immediately. Transitional targets for these new proposed BPT day case areas have been calculated by adding a 10 percentage point increase from current baseline (rounded to the nearest 5). We believe this reflects the degree of change we may reasonably expect in one year following introduction of the BPT.

128. Where this calculation has placed the day case rate within 5 percentage points of the BADS threshold, the BADS threshold has been adopted as the day case target.

129. We propose to raise the target rates on two existing BPTs, for operations to manage female incontinence and tympanoplasty. Providers have improved their performance for these procedures and we would like to set more challenging targets. For operations to manage female incontinence we feel the improvements have been sufficient to propose a move to the BADS rate, while for tympanoplasty we are proposing to reduce the gap between the target rate and that contained in the BADS directory.

130. Our proposals to increase the target rates for these procedures were included in the 2015/16 statutory consultation notice. We received feedback that showed support for increasing the target rates to clinically acceptable levels as a routine feature of BPTs to promote continuous improvement.

[20] Available at: www.population-health.manchester.ac.uk/healtheconomics/research/reports/bpt-dh-report-21nov2012.pdf

4.9. Changes to the stroke best practice tariff

Summary

We propose to change the stroke BPT to make one of the criteria, on brain imaging, consistent with guidelines from the Royal College of Physicians. The latest guidelines state that brain imaging should always be completed within 12 hours of admission whereas the current BPT criterion is 24 hours.

4.9.1. Context

131. In 2014/15, the acute stroke BPT consisted of a base payment with three conditional payments for each of the three criteria of best practice. These criteria are shown below.

    a. Patients are admitted directly to an acute stroke unit either by the ambulance service, from A&E or via brain imaging. Patients must not be directly admitted to a Medical Assessment Unit. Patients must then also spend the majority of their stay in the acute stroke unit.

    b. Initial brain imaging is delivered in accordance with best practice guidelines as set out in *Implementing the National Stroke Strategy – an imaging guide*.[21] The scan must be done within specific timescales and a suitably experienced physician or radiologist must immediately interpret the results and take action.

    c. Patients are assessed for thrombolysis and receive alteplase, if clinically required, in accordance with the NICE technology appraisal guidance on this drug.

132. The Royal College of Physicians (RCP) have published a new national clinical guideline for stroke.[22] This means that the timescales for initial brain imaging (one of the best practice criteria) must be amended to make sure they remain consistent with clinical guidelines.

133. Recommendation 2.2.1b of the RCP's stroke guidance states: "imaging of all patients in the next slot or within 1 hour if required to plan urgent treatment (eg thrombolysis), and always within 12 hours". This has changed from previous guidance of 1 hour where urgent imaging is required, and 24 hours for all other patients.

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[21] Available at: http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_085146

[22] www.rcplondon.ac.uk/sites/default/files/national-clinical-guidelines-for-stroke-fourth-edition.pdf

4.9.2. Proposal

134. We propose to amend criterion b in paragraph 131 so that the payment is only made where initial brain imaging is within 12 hours of admission. Patients requiring urgent imaging should continue to receive imaging in the stated timescales but due to the availability of data this will not form part of the BPT.

135. All other BPT criteria remain unchanged from previous years. Secondary Uses Service (SUS) PbR will continue to apply the base price to spells coded to the relevant HRGs. Of the three best practice characteristics, SUS PbR will only apply the additional payment for alteplase when appropriately coded.

136. The Sentinel Stroke National Audit Programme (SSNAP)[23] provides data to measure the other two best practice characteristics, including the amended timescales for brain imaging.

4.9.3. Rationale

137. We are proposing this change to ensure the incentive presented in the best practice tariff is aligned with the revised guidelines and standards for patient care as well as data collected by the audit.

4.9.4. Options considered

138. The current BPT criteria are based on clinical guidelines that have been superseded by the RCP's latest guidelines. Therefore, we did not consider it appropriate to keep the BPT unchanged.

[23] www.strokeaudit.org/

4.10. Changes to the outpatient procedures best practice tariff

Summary

As in the 2015/16 statutory consultation notice, we propose to increase the target rate of diagnostic hysteroscopies provided in outpatient settings to 70%.

Evidence shows that the appropriate provision of this in an outpatient setting leads to quicker recoveries and a faster return to daily life. It also improves the use of resources for providers.

4.10.1. Context

139. The outpatient procedure BPT aims to increase the proportion of elective activity performed on an outpatient basis, where clinically appropriate. We have used expert clinical advice to inform the proportion of procedures that may safely be performed in an outpatient setting.

140. For one of the procedures covered by the outpatient BPT (diagnostic hysteroscopy), the target proportion used to calculate price relativities differs from those thought ultimately to be achievable. Clinical feedback at the time of introduction suggested the achievable proportion may be too ambitious for providers to achieve immediately, so the BPT was introduced with a transitional target rate.

4.10.2. Proposal

141. The latest activity data is shown in the table below. As national performance has caught up with the transitional target, we propose to increase the target rate used to calculate the BPT price.

Table 6: Proposed changes to target rates

	Achievable proportion	2014/15 transition rate	Current observed rate	Proposed target rate
Diagnostic hysteroscopy	80%	60%	59%	70%

142. All other procedures covered by the outpatient BPT remain unchanged by this proposal.

4.10.3. Rationale

143. Performing procedures in an outpatient setting offers advantages to both patients and providers. Expert clinical advice indicates that outpatient

procedures allow patients to make a quicker recovery, while also allowing them to recuperate at home.[24] There are also wider benefits of performing an outpatient procedure, as patients are able to return to work and daily life sooner. Providers benefit from reduced operating theatre and anaesthetic time.

144. We made the same proposal to increase the target rate for this BPT to 70% in the 2015/16 statutory consultation notice. Respondents were generally supportive.

4.10.4. Options considered

145. In 2015/16, we asked for feedback on moving the target rate for this BPT. The majority of respondents supported increasing transitional rates, but some questioned whether an increase of that scale was possible in a single year. We have looked at the rate of improvement since the introduction of the BPT and consider an incremental change to be preferable. If implemented, we would continue to review the target rate used to calculate the BPT price in future, with a view to completing the transition to the rate that clinical experts have told us is ultimately achievable.

[24] Gulumser C, Narvekar N, Pathak M, Palmer E, Parker S, Saridogan E (2010) See-and-treat outpatient hysteroscopy: an analysis of 1109 examinations. *Reprod Biomed Online* 20(3): 423-9.

4.11. Changes to the endoscopy best practice tariff

Summary

We propose to change the structure of the existing BPT to provide additional incentives for endoscopy units to meet Joint Advisory Group (JAG) standards on gastrointestinal endoscopy.[25] This includes changing from a two tier payment to a three tier payment and changing the price differential applied between the tiers.

The standards are designed to improve quality across endoscopy services and reduce the risk of harm to patients. The BPT is designed to encourage providers to achieve accreditation against the standards.

4.11.1. Context

146. The endoscopy procedure BPT was introduced in 2013/14 to encourage endoscopy units to achieve and maintain the required quality levels to meet the JAG's accreditation standard for endoscopy services. JAG accreditation provides formal recognition that an endoscopy service meets required competence and delivers against measures in the global endoscopy rating scheme.

147. When the BPT was introduced, payment of the best practice price was made both to those units fully accredited and those assessed to be working towards accreditation. These arrangements were put in place for 2013/14 in recognition of the lead-in time required to gain full accreditation, with the intention of reviewing the arrangements in future years. For those units not engaged in the accreditation process, or those which are judged to have failed, a price 5% below the best practice price applied. These arrangements were retained for the 2014/15 national tariff.

148. Although the proportion of endoscopy units achieving full accreditation has improved since the introduction of the BPT, there remain units that have not met the necessary standard, or that have not engaged in the accreditation process.

4.11.2. Proposal

149. We propose two amendments to the stroke BPT for 2016/17 to create additional incentives for endoscopy units to meet necessary standards. These relate to:

    a. changing the rules for payment of the BPT from a two-tier to a three-tier payment structure

    b. changing the price differentials applied to the BPT at each tier.

[25] www.thejag.org.uk

150. JAG provides three levels of site accreditation, as set out in the table below.

Table 7: JAG accreditation levels

Level	Description
Level 1	Units have met the necessary standard for full JAG accreditation, or are in a period of accreditation award deferral
Level 2	Units have been assessed as not meeting all of the JAG criteria. However, they have provided evidence to JAG of progress in addressing issues and will be reassessed within a specified timeframe
Level 3	Units have been assessed as not meeting the minimum standard, or are not participating in the JAG accreditation scheme

Source: The Joint Advisory Group

151. Under the new proposal, only providers achieving level 1 accreditation will be reimbursed at the full BPT rate. Providers at levels 2 and 3 would receive a price 4% and 8% below the BPT level respectively.

4.11.3. Rationale

152. Accreditation acts as a signal that an endoscopy unit is doing the right things in terms of patient health and safety and doing them well. An accredited unit is meeting standards that significantly reduce the risk of error in the delivery of services to patients.[26]

153. The change we have proposed for 2016/17 is consistent with the planned phased approach to the BPT set out in guidance when it was first introduced. By moving to a three tiered system with amended price differentials we are increasing the incentive for providers to achieve the standard for JAG accreditation and improvements to patients care.

154. We proposed moving to a three tiered approach in the 2015/16 statutory consultation notice. The majority of respondents supported this move, but we heard that some trusts required longer to gain the necessary accreditation levels. Therefore, the price differentials proposed last year were lower than what we are proposing for 2016/17. We believe that endoscopy units have now had sufficient notice of these changes and should be able to achieve full accreditation to the JAG.

4.11.4. Options considered

155. We considered feedback from last year, as well as a range of price differentials in discussions with the JAG and other stakeholders. We consider that the proposed levels of 4% and 8% are most likely to lead to the desired response.

[26] www.jagaccreditation.org

4.12. Changes to the primary hip and knee replacement best practice tariff

Summary

As in the 2015/16 statutory consultation notice, we propose to change the existing BPT to increase the minimum threshold for submission of data to the National Joint Registry (NJR) to 85% from 75% and reduce the unknown compliance consent rate to below 15% from 25%.

This data is used to inform clinical guidelines and practice. Increasing the coverage improves the quality of the dataset used to develop guidelines and change practice.

4.12.1. Context

156. In 2014/15 we introduced a new BPT for primary hip and knee replacements linked to data collected in both Patient Reported Outcome Measures (PROMs)[27] and the NJR.[28]

157. The criteria for payment of the BPT are:

    a. the provider not having an average health gain significantly below the national average

    b. the provider adhering to the following data submission standards:

        i. a minimum PROMS participation rate of 50%

        ii. a minimum NJR compliance rate of 75%

        iii. an NJR unknown consent rate below 25%.

158. At the time of introduction, we intentionally set lower target rates for data submissions than the achievement rates that providers should aspire to. This was to allow providers time to adopt mechanisms needed to improve submission rates. We signalled in the 2014/15 NTPS that the target rates were likely to increase in future years.

4.12.2. Proposal

159. As set out in the 2015/16 statutory consultation notice, we propose to amend the criteria around NJR data submissions such that providers will only qualify for the BPT if they meet:

[27] www.hscic.gov.uk/proms
[28] www.njrcentre.org.uk

a. a minimum NJR compliance rate of 85%

b. an NJR unknown consent rate below 15%.

160. We will give further consideration, prior to the statutory consultation on these proposals, to whether it would be appropriate to make changes to other aspects of this BPT, namely PROMS outlier identification and submission rates. We would welcome feedback on this.

4.12.3. Rationale

161. Increased data submission improves the quality of information held by the NJR and allows a more accurate assessment of clinical practice. This informs future recommendations made by the NJR, and benefits patients through improved clinical effectiveness and guidance.

162. This proposal was included in the 2015/16 statutory consultation notice. Feedback from that and earlier engagements showed support for increasing BPT target rates over time.

4.12.4. Options considered

163. Providers should aspire to full participation in clinical audits and we will look to increase target rates further in future years. Some responses to the 2015/16 engagement suggested that this proposal did not go far enough. However, we recognise that increasing rates too quickly could make the BPT unachievable for some providers and have adverse implications for provider income. In setting these proposals, we considered latest audit data under a number of different target rates.

4.13. Removal of the interventional radiology best practice tariff

Summary

We propose to remove the BPT for interventional radiology. This was originally introduced to ensure adequate reimbursement for a set of interventional radiology procedures. With the proposed introduction of HRG4+ this is now unnecessary as these are identified by new HRGs.

4.13.1. Context

164. The interventional radiology (IR) BPTs were introduced to raise the visibility of the procedures within the payment system and ensure adequate reimbursement. The BPT programme currently covers seven IR procedures as set out in the table below.

Table 8: Interventional Radiology BPTs

Condition	Procedure
Peripheral artery disease (PAD)	Angioplasty and stenting of the superficial femoral artery (SFA) or iliac artery
Diabetic foot disease	Angioplasty and stenting
Thoracic aneurysm	Thoracic endovascular aortic repair (EVAR)
Portal hypertension	Transjugular intrahepatic portosystemic shunt (TIPS)
Benign breast lesions	Vacuum assisted percutaneous excision of benign breast lesions
Abdominal aortic aneurysms	Abdominal endovascular aortic repair (EVAR)
Uterine fibroids (benign tumours of the uterus)	Uterine Fibroid Embolisation (UFE)

165. If implemented, our proposal to set prices on the basis of HRG4+ in 2016/17 means that IR procedures would be identified through a new HRG chapter (chapter Y). These new HRGs should ensure visibility and appropriate reimbursement for a wide range of IR procedures. This means that we no longer need a BPT for interventional radiology.

4.13.2. Proposal

166. We propose to remove the seven IR BPTs listed above from the scope of the 2016/17 BPT programme. Instead, we propose that prices for these procedures are set on the basis of the modelling approach set in out Chapter 5.

4.13.3. Rationale

167. Changes to HRG design will now include visibility of IR procedures within the payment system. Continuing with this BPT is unnecessary and would add to the complexity of the national tariff.

4.13.4. Options considered

168. Our engagement on this proposal suggests that continuing with these BPTs adds unnecessary complexity to the payment system, and offers little or no benefit above that gained by the proposed move to HRG4+ currency design.

5. Overview of the 2016/17 method for determining national prices

Summary

In this chapter we explain how we would like to model prices for the proposed currencies. This represents a change from the 2014/15 NTPS, in which we rolled over prices from the previous year, and builds on the modelled approach that we proposed for 2015/16.

This section does not cover our approach to setting final price levels. The price relativities that accompany this document should be read as indicating the relative differences between prices within each subchapter, not as an indication of the level of final prices.

169. The proposed method for determining 2016/17 prices can be separated into two stages:

    a. setting relative prices

    b. setting the level of prices.

170. Prices for healthcare services differ from one another for a number of reasons. For example, provision of various healthcare services requires different types of resources to be used, and different levels of use of those resources. Therefore the cost of provision of these services is different. In addition, we may wish to apply varying incentives to improve the provision of individual services.

171. As a consequence, before we consider final price levels, as part of this engagement we have set out draft relative prices (Annex A), which describe how prices for various services relate to one another. This section sets out our proposals for the method for determining these draft relative prices.

172. Importantly, when considering draft relative prices, we ensured that the levels of those prices would overall result in the same revenue to the sector as in the current tariff. This is so that these draft relative prices are comparable to the current tariff, and so that the sector can understand and comment on proposed changes.

173. The second part of the method for setting prices is to determine how we will set the final level of prices. Once relative prices are determined, as a group they need to be adjusted so that, in combination with activity levels, they are expected to result in appropriate revenue for providers, and payment for commissioners. These price levels must reflect efficient cost of providing services and any sector-wide incentives.

174. This second part of the method is not considered in this paper, and relates to, among other things, methods for determining the appropriate cost base for setting prices, cost uplifts and the efficiency factor.

175. This section includes our proposal to set prices using a modelled approach, rather than rolling over prices, as in the 2014/15 national tariff.

176. To model draft relative prices we:

    a. take the defined units of healthcare (eg currencies) that we intend to price

    b. apply a modelling approach that generates prices that reflect the relative cost of providing the defined units of healthcare, but also provide incentives to deliver desired outcomes (for example incentives for providers to improve the quality of care or to lower healthcare costs). These prices are adjusted to reflect current tariff levels in the aggregate

    c. engage with clinical experts to review modelled prices, and manually adjust them where appropriate.

177. Further steps in our modelling are to adjust prices to 2016/17 levels by applying the appropriate cost base, cost uplifts and the efficiency factor.

178. To allow a systematic assessment of the effects of changes, we propose to continue to set prices in the 2016/17 NTPS by closely following the methodology used by the DH PbR team for the 2013/14 national tariff,[29] but make a number of adjustments and revisions (for example to address changes in currencies and to improve simplicity and transparency).

[29] Available at: www.gov.uk/government/publications/payment-by-results-pbr-operational-guidance-and-tariffs

5.1. Modelling Approach

Summary

We propose to model prices using the modelling approach previously used by DH. We propose to make some adjustments to the modelling approach to allow for up-to-date inputs, new calculation models and the simplification of other models.

This approach reflects the proposed introduction of HRG4+ and other changes to currencies. Simplification and improvements in the way we model prices will also allow us to align the payment system to support new models of care.

5.1.1. Context

179. Monitor published the national tariff for the first time in 2014/15. Following consultation with the sector, and because of concerns about stability and the time available, in the 2014/15 NTPS we used 2013/14 prices as a base and only made a small number of adjustments, ie we adjusted prices generally for cost pressures on providers and expectations for improved efficiency.

180. In the 2015/16 statutory consultation notice, we proposed to model prices using the 2013/14 DH PbR model (PbR method) as a base, with a number of adjustments, rather than rolling over the previous year's prices or adopting an entirely new model. This approach was generally supported by stakeholders.

181. Our proposals for 2016/17 follow the same principle. We propose that national prices are modelled using updated inputs: currencies, relevant activity and cost data, alongside our assumptions on cost pressures and the levels of efficiency that providers are expected to achieve.

182. The PbR method for setting prices was different for different care settings (or points of delivery). This was mainly due to differences in the type of input data used and differences in assumptions and incentives. We have therefore developed a number of different models for different care settings (or procedures). This means that the tariff model is in practice a suite of tariff models (for example, we have separate models to generate APC and outpatient attendance (OPATT) prices).

5.1.2. Proposal

183. Our proposed approach for setting 2016/17 national prices is to:

    a. use the currencies proposed in the currency section of this document and those that we do not propose to change from the 2014/15 NTPS

    b. model national prices using the following process:

Figure 2: Stages in our method for setting national prices

184. Under this modelling approach we:

a. **Determine price relativities (based on average unit costs)**. Use cleansed reference costs and HES data as inputs to set average costs per HRG.

b. **Adjust average unit costs to an appropriate price base**. Adjust the price relativities from the base year to the current year. This allows us to separately consider changes in relative prices between years, and changes in price levels between the years.

c. **Apply manual adjustments to prices**. Adjust modelled prices to offset problems of data quality which can lead to price relativities that are implausible, illogical or distortive[30] (see Section 5.3)

d. **Apply a cost base adjustment factor to prices**. Adjust the cost base to reflect those things that are in the scope of the tariff, for example we could adjust the cost base to account for non-tariff payments that recover the same costs as the tariff (eg some CQUIN payments), or recognise any changes in our estimates of costs previously incurred by the sector. We will set out our proposals of how to calculate the cost base later in the year.

e. **Adjust prices to 2016/17 levels**. We adjust prices for our expectations of unavoidable cost increases that providers would face during 2016/17,[31] and also include an estimation of the level of efficiency that we expect that they

[30] An example of an illogical relativity could be where the price for a more complex treatment is lower than the price for a less complex treatment without good reason.
[31] This includes adjustment for inflation and Clinical Negligence Scheme for Trusts (CNST) costs.

can achieve in 2016/17. These proposals are also not part of this engagement and will be set out later in the year.

185. To **determine price relativities**, we apply the 2013/14 DH PbR price setting method, including a number of changes that are set out below. However we calculate prices using the most up-to-date inputs available, for example using 2013/14 reference costs, and 2013/14 HES activity data, grouped to the appropriate HRG design.

186. Our proposed changes to the 2013/14 DH PbR method include:

    a. reconciliation to ensure that we base our price relativities, between tariff models, on the cost relativities in the reference costs dataset

    b. reconciliation at chapter level to ensure that the manual adjustments made to modelled prices do not change the total amount reimbursed for each chapter

    c. minor adjustments to streamline the calculation process and improve its transparency, for example, removing some calculation steps in the 2013/14 DH PbR model which do not have any clearly identifiable policy intention (such as adjustments that appear to be historic manual adjustments)

    d. completing the tariff model suite for those elements that are not available from the PbR teams

    e. amending the BPT model in line with HRG4+ changes and to make the calculation of BPT prices simpler and more transparent (see Section 5.4)

    f. reducing volatility in prices that cannot be explained by changes in healthcare practice by smoothing between years (see Section 5.5)

    g. changing the way we identify the cost base used to set final prices. We will engage on this later in the year.

187. Where the 2013/14 DH PbR price-setting method was not available we propose to either:

        i. calculate 2016/17 prices using the 2014/15 tariff prices as a base and apply efficiency and cost uplift factors[32] to derive the 2016/17 prices.[33]

[32] The cost uplift factor includes an adjustment for inflation, efficiency and where applicable an adjustment for CNST.

ii. develop new price-setting models that follow, as closely as possible, the principles of the 2013/14 DH PbR method. For example, to generate the short stay emergency tariff[34] and the maternity pathway prices.

5.1.3. Rationale

188. We consider that a modelled approach for national prices is most suitable for the 2016/17 NTPS. It allows us to use up-to-date cost data in setting national prices. It also allows us to set prices for the proposed new currency design, HRG4+.

189. We propose to use the 2013/14 DH PbR method as the basis for the 2016/17 NTPS, with a number of changes. This is because we would like to start aligning the payment system to the longer term system redesign intentions. We propose to make changes that will achieve at least one of the following objectives:

    a. improve the transparency, simplicity and flexibility of the price setting methodology

    b. ensure that national prices more closely reflect efficient costs and as a result provide more appropriate signals for commissioners, providers and other stakeholders in their decision making

    c. improve the quality of cost data used in price-setting, and reduce unexplained price volatility.

190. This means that for 2016/17, we do not propose to completely redesign all the policies and incentives set in the 2013/14 PbR tariff. Taking this approach allows time to develop proposals for more substantial model redesign, and gives us the opportunity to engage more extensively with the sector and to trial new payment designs (for example through the vanguard programme).

5.1.4. Options considered

191. Prior to deciding on our proposals above, we considered the following options:

    a. replicate the PbR method in full

    b. replicate the PbR method with modifications

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[33] Section 5.2 of the '2014/15 National Tariff Payment System' states:
'2014/15 national prices (for currencies that are unchanged) are calculated by using 2013/14 prices as the base and adjusting those prices generally for:

- cost pressures on providers; offset by
- our expectations for improved efficiency on the part of providers.

We refer to the above approach as a 'rollover' approach, to reflect the fact that we have adjusted most prices by a common factor (rather than use updated reference costs at the currency level).'

[34] See 'Reduced Short Stay Emergency Tariff' in Annex A on draft price relativities.

c. rollover the 2014/15 prices

d. implement a new modelling method to set prices.

192. Our proposal for 2016/17, as set out above, is to implement the 2013/14 PbR method with a number of modifications.

193. This approach was generally supported by stakeholders in their responses to our engagement on the 2015/16 tariff.

194. An alternative approach we considered was to roll over prices for another year. This may provide stability for the sector, as it did in 2014/15, and would be simpler to implement. However, it would mean that relative prices are based on cost data that is six years old. Prices can still reflect current service costs under a rollover approach, but the link becomes weaker as more time passes between cost collection and setting prices. We would also have faced substantial limitations in our ability to price the proposed HRG4+ currency design for 2016/17 if we were to use a rollover approach.

195. We do not think that implementing a new modelling method to set prices is feasible for 2016/17. This is because the 2013/14 PbR method has been developed over a considerable period of time and includes a number of specific incentive mechanisms. A new model would require significant development lead time and stakeholder engagement. This would not be possible to complete in the time available for the 2016/17 tariff cycle.

5.2. Managing model inputs

Summary

We propose to use 2013/14 reference costs and 2013/14 activity data to model prices. To prepare them for inclusion within the pricing models we propose to use statistical approaches, as well as some basic tests, to clean reference cost data.

5.2.1. Context

196. The two main data inputs used to generate prices are costs (obtained from the annual reference cost collection) and activity, which is captured in the HES dataset as well as the annual reference cost collection.

197. The reference costs dataset contains cost and activity data for a large number of, but not all, healthcare services. They are collected from all NHS trusts and NHS foundation trusts and therefore cover the majority of healthcare costs.

198. The HES activity dataset contains the number of treatments or procedures that have been performed by providers. It is mainly needed for the APC tariff calculation because the APC currencies are reimbursed on a spell basis, while the activity data contained in the reference cost dataset is based on finished consultant episodes.

5.2.2. Proposal

Reference costs

199. We intend to make changes to the reference cost data-cleaning processes that were previously used in the 2013/14 PbR method. The new reference cost data-cleaning rules are based on recommendations in the report *Reference Cost Data Quality* commissioned by Monitor from Deloitte.[35] If implemented, they would reduce unexplained tariff price volatility from year to year. We previously proposed these for the 2015/16 NTPS. The new data-cleaning rules we are proposing to use would exclude:

    a. outliers from the raw reference cost dataset detected using a statistical outlier test known as the Grubbs test (also known as the 'maximum normed residual test')

    b. providers who submitted reference costs more than 50% below the national average for more than 25% of HRGs and who at the same time also

[35] Available at: www.gov.uk/government/uploads/system/uploads/attachment_data/file/317571/Supporting_document_B_-_Deloitte_Reference_Cost_Data_Quality_for_publication8e14.pdf

submitted reference costs 50% higher than the national average for more than 25% of HRGs

c. providers who submitted reference costs containing more than 75% duplicate costs across HRGs and departments.

200. These rules are based on the Deloitte report, which contained additional proposals. We do not propose to follow the recommendations in full. In particular, we have:

a. Not followed the recommendation to exclude providers with at least five unit cost submissions below £5 and at least ten unit cost submissions above £50,000, subject to an average unit cost check. This was because this rule would exclude a number of significant providers in their entirety. We would like to carry out further analysis before excluding such providers.

b. Not followed the recommendation to exclude providers who submitted reference costs containing more than 15% of unit costs that exhibited illogical relativities. This was because we encountered technical difficulties in implementing this rule.

201. For the 2016/17 tariff we propose to clean only reference cost data for the APC model.

202. Applying these rules to the reference costs dataset we use to set national prices for APC would lead to a small percentage of reference cost data records being removed to improve the quality of the dataset. The most significant effect would be to remove all APC reference cost data submitted by a small number of providers.

HES data

203. We intend to use 2013/14 HES data grouped by Monitor using the 2013/14 (HRG4+) reference cost grouper.

5.2.3. Rationale

204. As we are proposing to implement the second phase of HRG4+ we need to use an appropriate set of costs. The 2013/14 reference cost collection is designed to do this. Using the most recent available data also reflects the costs of changing clinical practice in the sector.

205. There are issues with reference cost collection and one of the simple steps that we can take is to clean this data. We engaged on our cleaning approach in the 2015/16 tariff engagement document and made some adjustments in light of feedback from the sector.

206. Using Monitor grouping is a deviation from the 2013/14 PbR method which used HES data grouped by the HSCIC. However we are proposing this change because:

    a. It allows us more flexibility in the timing of grouping the data.

    b. the HSCIC use patient identifiable data for grouping, which cannot be shared with third parties (to protect patient confidentiality). Monitor's method does not use patient identifiable data, which makes it easier for third parties to replicate our method. We believe this change makes the tariff more transparent and will enable stakeholders to better review and engage with our proposed tariff calculation method.

    c. The Monitor grouping method aims to follow as closely as possible the casemix grouping method.

5.2.4. Options considered

207. We did not consider other options. It was not possible to use the approach that had been used in 2014/15 as the tariff for that year was calculated using a rollover approach. As we have proposed to move to the second phase of HRG4+ currency design, the options that we have for model inputs are limited.

5.3. Manual Adjustments

Summary

We propose to adjust price relativities that have been produced via the model by expert clinical review. This is because there are problems with the quality of data that leads to some inappropriate prices for procedures relative to other similar procedures. We propose to use expert working groups as well as wider sector engagement to identify issues with price relativities and to propose steps that can be taken to adjust relativities.

This is done to more appropriately allocate resources within subchapters to reflect the different levels of resource intensity of particular procedures.

5.3.1. Context:

209. Our proposed modelling approach would produce a series of initial prices (or more precisely, price relativities).

210. However, despite our data cleaning steps, some limitations in data quality and volatility in datasets remain. These can affect price relativities and sometimes lead to price relativities that are implausible, illogical or distortive. For example, prices may:

    a. be illogical relative to each other where a higher price is obtained for an HRG without complications and comorbidities, than for the corresponding HRG with complications and comorbidities

    b. be implausible where a national price is lower than the cost of the device involved in the procedure

    c. be volatile with a significant rise or fall in price from one tariff year to the next, but where this price volatility is not explained by changes in clinical practice.

211. This means that modelled price relativities need to be tested in the real world with stakeholders (for example the clinicians that perform the procedures) and if necessary modelled price relativities need to be adjusted manually. The 2013/14 DH PbR method involved making a number of manual adjustments to the modelled tariff to minimise the risk of setting implausible tariffs.

212. However, we also need to be mindful that there is a risk that manual adjustments can change the overall funding for providers (eg where the majority of manual adjustments are to increase, or decrease, a price).

5.3.2. Proposal

213. We propose to broadly follow the 2013/14 PbR approach to manual adjustments for the 2016/17 national tariff, except that we are proposing to include a further adjustment to prices to ensure that our estimate of the total funding implied by the tariff is not changed by manual adjustments made to price relativities.

214. We had proposed a similar approach in 2015/16 although we have taken steps to improve engagement with clinical working groups for the 2016/17 NTPS.

215. After having modelled draft national prices on the basis described earlier, we are proposing the following process for determining manual adjustments in the 2016/17 national tariff:

    a. Make a first set of manual adjustments before the publication of this document but following:

        i. a review of draft modelled prices by clinical experts (eg HSCIC's expert working groups of clinicians and NHSE's clinical leads). To aid this process we also held a number of roundtables with clinical experts.

        ii. In a small number of cases we made manual adjustments where this seemed to be appropriate due to obvious problems with the data, for example illogical price relativities.

    b. Make revisions to the set of manual adjustments proposed in this engagement document based on:

        i. stakeholder feedback received to this document (see Annex B[36] for a template to provide feedback)

        ii. further engagement with clinical experts

        iii. adjustments where this seems to be appropriate (for example where we came across an obvious illogical price relativity).

    c. We propose to adjust prices so that the estimated total amount reimbursed under the tariff is not changed as a result of the manual adjustment process. In other words, we want to ensure that providers receive (and commissioners pay) the same total amounts under the tariff before and after the manual adjustment process. For the APC and OPROC tariffs we propose to do this adjustment on a chapter by chapter basis (ie we attempt to reimburse the same total amounts in each chapter before and after the manual adjustments have been made), for the unbundled tariff on a

[36] Available at: www.gov.uk/government/publications/201617-national-tariff-proposal-annexes

subchapter basis and for the outpatient attendance (OPATT) tariffs we propose to do this on the basis of all prices (ie the entire model).

216. We reviewed all requests for manual adjustments that we received before the publication of this document. Where a request was supported by sufficient evidence we made an appropriate manual adjustment to price relativities.

217. We have published details of all the manual adjustment requests we received, our assessment of those requests and our proposed implementation of these manual adjustment requests in Annex F (i).[37]

218. We will continue to engage with experts and the sector to ensure price relativities for 2016/17 are appropriate. Where further evidence is provided we will consider making further manual adjustments.

5.3.3. Rationale

219. We need to ensure, as far as practicable, that price signals to the sector are appropriate at an individual price level. However, despite our data cleaning steps, some limitations in data quality and volatility in datasets remain. These can affect price relativities and sometimes lead to price relativities that are implausible, illogical or distortive.

220. We therefore propose to continue to use a manual adjustment process in setting the 2016/17 tariff prices.

221. We need to ensure that any corrective adjustments we make to prices do not introduce further unintended distortions.

222. We therefore propose to include an explicit reconciliation step after implementing the manual adjustments, to ensure that the total funding implied by the tariff is not changed by manual adjustments made to price relativities.

5.3.4. Options considered

223. The alternative approaches considered for correcting price relativities were to:

    a. make no manual adjustments

    b. reduce the need for manual adjustments by using an average of a number of years of reference cost data and/or new data cleaning rules for APC prices to reduce outliers.

224. Our initial review of modelled draft prices demonstrated that illogical relativities remained. We therefore think that not making any manual adjustments would be

[37] Available at: www.gov.uk/government/publications/201617-national-tariff-proposal-annexes

inappropriate as this would be contrary to our pricing principle that prices should reflect efficient costs.

225. We considered basing the tariff on average reference cost data, which could have reduced the need for manual adjustments. However, we concluded that this approach has a number of limitations:

    - using data from years other than the most recent would mean that improvements in reference cost quality would not be fully reflected in prices
    - similarly, any changes in clinical practice, innovation and efficiency might not be fully reflected in national prices
    - considerable judgment would be required in deciding how much weight to give to the data from each year
    - it would be difficult to create averages for each HRG as the HRG design changes from year to year.

226. As explained in Section 5.2 (Managing model inputs) we have applied updated data cleaning rules in our pricing method.

227. However, we found that the updated data cleaning rules did not sufficiently reduce the amount of inappropriate price signals in the modelled tariff prices and concluded that a manual adjustment process was still required as a result.

5.4. Setting prices for best practice tariffs

Summary

We propose to simplify the approach to modelling BPTs by setting a fixed differential based on an assumed compliance rate. The purpose of this is to make the BPT cost neutral at a HRG level. The advantage to this is that it is more transparent for the sector, reduces the possibility of the sector being asked to deliver an additional efficiency requirement and is simpler to calculate.

5.4.1. Context

228. The 2013/14 PbR method contained 17 BPTs. Each of these BPTs had their own associated pricing method (BPT price calculation model).

229. The 2013/14 PbR BPT calculation models were in many cases different to each other and in some cases complex.

230. We think that continuing with these models in this form will make it more difficult for stakeholders to understand our proposals for BPTs and to effectively engage with them. It also limits our flexibility to adapt the BPTs to changes in the currency design with the proposed introduction of HRG4+.

5.4.2. Proposal

231. We propose to simplify many of the BPT methods in the 2016/17 NTPS. As part of this simplification we are also proposing a small number of amendments to the overall method to set BPT prices. These amendments, will in some cases, mean that the calculation method for setting the BPT prices is significantly different to the 2013/14 PbR method, although there is no intention that the revised calculation method should change the overall policy intention of the BPTs (ie to incentivise best practice as defined in the NTPS).

232. We are proposing to make the following changes to the BPT method compared to the 2013/14 PbR method:

    a. to apply a standard method of pricing BPTs where feasible. This standard method includes:

        i. using the modelled APC/OPROC or OPATT price (without BPT adjustments – base price or standard price) as the starting point

        ii. setting a fixed differential between the BPT and non-BPT price. This differential can take the form of a percentage of the APC or OPATT base price or can be an absolute value

iii. setting the level of the BPT and non-BPT prices so that the BPTs are cost neutral at HRG level.

233. The most significant change we are proposing is to ensure that BPTs are cost neutral at HRG level.

234. The introduction of a BPT, depending on its design, can create an additional efficiency challenge on providers (or additional costs on commissioners). This is the case where, for example, the BPT is the same as the standard tariff, but the standard tariff price is set at a discount to the BPT price (in which case the overall amount of cost reimbursed under the tariff including the BPT would reduce unless BPT compliance is 100%).

235. In order to avoid the BPTs having an effect on the overall amount of cost reimbursed under the tariff we are proposing a BPT design that is explicitly cost neutral at an HRG level. In the 2013/14 PbR method, any additional efficiency challenge imposed by BPTs was offset by an adjustment to the overall tariff deflator.

236. We propose to make the adjustment at HRG level as we believe this is a simpler approach (it will avoid having to adjust the tariff deflator in a separate calculation step) and allows more flexibility in introducing new BPTs or removing existing BPTs (as there is no follow on impact on the tariff deflator, which would have an impact on a large number of tariff prices).

237. A consequence of this approach is that the BPT price will always be at least at the level of the standard price (eg the APC or OPATT price if no BPT applied) and that the standard national price will be always at or below the level of the BPT price.

238. We are required to make an assumption as to what the expected actual compliance rate, at an aggregate national level, is for each HRG that is associated with a BPT (as this directly affects whether the BPT imposes an implicit efficiency challenge). Where target compliance rates were previously set, we assume that they will be achieved. These are consistent with the published models[38] but they may change for the statutory consultation. For target rates see Annex D.[39]

239. There are a number of BPTs where we are not fully able to implement the approach set out above. In those cases we have developed bespoke solutions that either:

[38] See Annex F (ii) on published model BPTs
[39] Available at: www.gov.uk/government/publications/201617-national-tariff-proposal-annexes

a. Follow a rollover approach. We did this generally where we were not able to update either the 2013/14 PbR method and/or inputs to the 2013/14 PbR method. This affects:

   i. early inflammatory arthritis

   ii. major trauma

   iii. paediatric diabetes year of care

   iv. Parkinson's disease.

b. Streamlined as far as possible the 2013/14 PbR method in line with the principles set out above, with necessary adjustments. In particular:

   i. Renal dialysis. We propose to maintain the 2013/14 PbR method, except that we propose to simplify the calculation of the peritoneal dialysis prices by basing them directly on reference costs.

   ii. Paediatric epilepsy. We propose to set the standard national price as per the 2013/14 PbR method, but to set the BPT based on the principles set out above.

   iii. Pleural effusion. We propose to retain the 2013/14 price relativities for this BPT from the 2013/14 PbR method, but otherwise update this BPT in line with the principles set out above.

   iv. Transient ischaemic attack. We propose to retain the additional payment as per the 2013/14 PbR method, but otherwise update this BPT in line with the principles set out above.

5.4.3. Rationale

240. Changing the method by which we calculate BPTs would:

a. be more transparent and will make it easier for stakeholders and the sector to understand the policy intentions and calculations of BPT prices

b. reduce the risk of errors in the tariff model and potential delays in delivering the 2016/17 tariff model

c. ensure, as far as it is practicable, that BPTs are not creating an additional efficiency challenge on providers (or additional costs to commissioners) by making the BPT cost neutral.

5.5. Smoothing

Summary

We propose to mitigate significant changes in relative prices following changes to currency design, the method for setting prices and updated cost data. We can do this in three ways:

1. by applying smoothing adjustments to average prices at HRG-chapter or subchapter level to reduce changes in average prices by specialty
2. by applying provider specific smoothing adjustments to reduce changes in income by provider
3. where it is not technically feasible to smooth at HRG level, by making adjustments through the manual adjustments process described in Section 5.3.

The purpose of these adjustments is to make it easier for health economies to respond positively to changes in price relativities. The adjustments would give them more time to update their plans in a way that maintains or improves the quality of services.

5.5.1. Context

241. Monitor and NHS England are proposing to move to HRG4+ (phase two) currency design in 2016/17. This represents a change from the existing design and involves using up-to-date cost data to set price relativities.

242. Our impact assessment of draft price relativities shows that these changes may increase average prices for some services and decrease average prices for others. Monitor's impact assessment report[40] provides more information on the potential effects.

243. Changes to price relativities could result in significant changes to income for some providers, even when total expenditure is held constant. The changes would also affect spending by commissioners. We recognise that it may take time for providers and commissioners to respond to these changes.

244. When evaluating the appropriateness of smoothing adjustments to price relativities, it is important to consider the underlying reasons for these changes. In some cases, a significant change to relative prices may be justified. For example, if clinical practice has changed to reflect new approaches to treatment

[40] Available at: www.gov.uk/government/publications/201617-national-tariff-proposals-currency-design-and-relative-prices

or changes to staffing ratios. These changes should be reflected in national prices because they better represent the cost of providing services and the practice adopted by the sector.

245. However, some changes to price relativities may arise from changes to the currency design or methodology used to calculate these relativities. It may be appropriate for the effects of these changes to be phased in over time to allow providers and commissioners to adapt. Without smoothing, sudden reductions in price relativities could affect how providers plan and run their organisations, while sudden increases in price relativities could put pressure on commissioner budgets. Both of these outcomes are likely to affect the care offered to patients.

246. Internationally, these issues are handled in a number of ways including:

    a. Purchasing approaches, where providers who lose income under the revised currencies and prices are allocated additional resources to treat more patients (thereby maintaining their budgets). Examples of this approach are the introduction of diagnosis related groups in Germany and the healthcare pricing system in Australia.[41, 42]

    b. Pricing solutions, where providers are given a slightly higher or lower price designed to reduce income shocks. Over time these adjustments are removed. This is often referred to as “smoothing”. In Victoria, Australia, shifts in cost of greater than 5% from one year to the next are reviewed and can be reduced by up to 80% to smooth the impact.[43]

247. There are also examples from the NHS, such as moving CCG budget allocations towards target allocation over multiple years,[44] introducing revisions to MFF over time[45] and the phasing in of education and training tariffs.[46]

248. In the 2015/16 statutory consultation notice, Monitor and NHS England proposed to smooth prices by applying HRG-chapter level adjustments to reduce changes in expenditure for individual chapters. These adjustments were introduced in response to feedback from the sector on the draft prices that were released with the 2015/16 tariff engagement document. The adjustments were

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[41] Source: www.euro.who.int/__data/assets/pdf_file/0008/255932/HiT-Germany.pdf?ua=1
[42] Source: www.health.vic.gov.au/archive/archive2011/pfg0910/tech_guidelines3.pdf pp7
[43] Source: www.health.vic.gov.au/archive/archive2011/pfg0910/tech_guidelines3.pdf pp7
[44] Source: http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Managingyourorganisation/Financeandplanning/Allocations/DH_076547
[45] Source: www.gov.uk/government/uploads/system/uploads/attachment_data/file/214906/PbR-and-the-MFF-in-2013-14.pdf
[46] Source: www.gov.uk/government/uploads/system/uploads/attachment_data/file/217031/Impact-Assessment-FINAL-FINAL.pdf

adopted in the ETO, which was based on the 2015/16 statutory consultation notice.

5.5.2. Proposal

249. We propose that smoothing would be appropriate when it would be detrimental to patients not to apply smoothing adjustments because of potential impacts on providers or commissioners. Smoothing could be considered appropriate when three criteria are met:

    a. Where price changes would result in a significant change to provider income or commissioner spending, up or down.

    b. Where the income or spending change is shown by a robust impact assessment.

    c. Where, following investigation, we are confident that the price change is not explained by a genuine change in underlying costs.

250. An example of this could be if we found an unexplained, significant fall in prices for the orthopaedic chapter, smoothing may be appropriate.

251. Monitor and NHS England are considering options for smoothing adjustments for the 2016/17 national tariff. We have three options for implementing adjustments, holding total expenditure constant:

    a. Smooth price relativities at HRG-chapter or subchapter. For example, price relativities could be inflated or deflated so that expected expenditure is within an agreed proportion of the expenditure under the last tariff for each HRG-chapter or subchapter. This method was used for the proposed 2015/16 prices.

    b. Smooth changes in income at a provider level. This would reduce the impact of large price swings on individual providers and could be achieved through a time limited adjustment similar in structure to the market forces factor. This would represent a new approach and would require modelling development and further engagement.

    c. Smoothing adjustments at individual HRG level. We are concerned that this would not be technically feasible in a systematic way. There is however, the option to adjust prices through the manual adjustment process where there are concerns over the accuracy of cost inputs (see Section 5.3).

252. To implement any of these approaches we would need to work out the expected effect of changes to price relativities. This would be based on Monitor's impact

assessment and the findings of our 'enhanced impact assessment' engagement[47] with a representative group of providers and commissioners.

253. We would also need to determine a threshold for year-to-year variation in prices, income or expenditure. For example, under a price smoothing approach a maximum change in relative prices of between 5%, 10%, 15% or 20% could be introduced. Under an income or expenditure approach, a maximum change in operating income or expenditure of 1%, 2%, 3%, 4% or 5% could be introduced.

254. Smoothing adjustments would be temporary and would only be repeated in future if the year-on-year threshold was met again. The adjustments would also need to be introduced so that total expenditure is held constant. This means that any increases in price in one area would need to be offset by an overall decrease in prices in other areas.

5.5.3. Rationale

255. Monitor and NHS England's price setting principles say that prices should be cost reflective and that they should provide appropriate signals. These principles mean that when implementing updates to price relativities that are intended to make prices more cost reflective (such as introducing new currency design or using updated cost data), we also need to consider whether the changes will provide appropriate signals to commissioners and providers.

256. For example, significant or unforeseen changes in price relativities could affect:[48]

    a. the ability of organisations to plan

    b. the strength of the signals in prices

    c. the sustainability of adversely affected organisations.

257. We are considering options for smoothing adjustments to mitigate these potential issues and we would welcome feedback on this. We would also welcome feedback on implementation.

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[47] Monitor and NHS England are working with a number of providers and commissioners to undertake an in depth assessment of the impact of the draft 2016/17 prices using more up-to-date activity data held locally.

[48] See: www.gov.uk/government/uploads/system/uploads/attachment_data/file/285988/Evaluation_Report_-_Full_Report_FINAL.pdf

5.5.4. Questions

258. Do you think we should apply smoothing adjustments? Are the conditions set out in paragraph 249 appropriate?

259. Should smoothing adjustments be applied at any or all of chapter, subchapter, individual HRG prices or provider level? Does this depend on the situation? (Please give examples).

260. What should the threshold be? (see paragraph 253) How should we decide it?

261. If we smooth prices, should we publish shadow prices of where prices would be without smoothing, and are likely to be in the future, to enable planning?

6. Responding to this consultation

Summary

We welcome your responses to the following areas of this consultation:

- The policies proposed in this document. We have developed an online questionnaire that can be found at www.research.net/r/BWVF6CH.
- The draft price relativities. This can be found in Annex A.

262. Thank you for taking the time to read our proposals. If you want to provide feedback to any of the proposals contained within this document, we have set up an online questionnaire which can be found at here.[49]

263. We have set standard questions across each proposal to allow for comparability. These are summarised as:

    a. Do you feel that you have been provided with enough information to make an informed response?

    b. Do you believe that the advantages of this proposal outweigh the disadvantages?

    c. What advantages and disadvantages have we not considered in our proposal?

    d. What changes could we make to this policy to better achieve our objectives?

    e. Do you have any other comments to make regarding our proposals?

264. There are four questions that are not covered by these generic questions.

    a. The proposed removal of mandatory national prices for nuclear medicine (Section 4.2)

    b. The new best practice tariff for NSTEMI (Section 4.7). We are presenting a set of options and asking for your views.

    c. Smoothing (Section 5.5). We are presenting our proposed options for smoothing price volatility and asking for feedback.

    d. Draft price relativities. This is contained in a separate excel spreadsheet, Annex A.[50] Respondents are asked to comment, using their knowledge and experience, about whether or not the prices look reasonable relative to other

[49] Available at: www.research.net/r/BWVF6CH
[50] Available at: www.gov.uk/government/publications/201617-national-tariff-proposal-annexes

prices within the chapter and subchapter. These are not final prices and are likely to change significantly in level but, without evidence from the sector, not relative to each other.

265. We will hold a number of workshops around these proposals over coming months. You can find out more about them at here.[51]

266. The deadline for responding to this consultation is 14 September 2015.

267. If you have any queries on this document, please contact us at pricing@monitor.gov.uk. Please send your responses on our proposed draft price relativities to the same address.

[51] Available at: www.gov.uk/government/publications/engagement-on-201617-national-tariff-proposals/201617-national-tariff-proposals-how-you-can-get-involved

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