Monitor

Making the health sector
work for patients

Approved costing guidance

Updated February 2016

About Monitor

As the sector regulator for health services in England, our job is to make the health sector work better for patients. As well as making sure that independent NHS foundation trusts are well led so that they can deliver quality care on a sustainable basis, we make sure: essential services are maintained if a provider gets into serious difficulties; the NHS payment system promotes quality and efficiency; and patients do not lose out through restrictions on their rights to make choices, through poor purchasing on their behalf, or through inappropriate anti-competitive behaviour by providers or commissioners.

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Foreword

Understanding the real cost of patient care can improve decision-making. Clinical teams can use benchmarking at a local level to identify opportunities to develop their practice. Trust boards can use reliable cost data to make better decisions about service development. And at a national level we can use good cost data to develop our approach to supporting efficiency improvement (as in the process being led by Lord Carter), as well as to set reliable prices.

This *Approved costing guidance* sets out the costing approach that Monitor encourages providers of NHS services to adopt. It sets out the requirements for collections of 2015/16 data. It combines description of the costing principles for NHS care with:

- guidance for this year's voluntary collection of patient-level information and costing systems (PLICS) data

- Reference costs guidance for 2015/16

- Acute clinical costing standards 2016/17, developed with the Healthcare Financial Management Association (HFMA)

- Mental health clinical costing standards 2016/17, developed with the HFMA.

We very much appreciate the voluntary participation of 68 trusts in the 2015 PLICS collection exercise. Over time we intend to move the basis of our core cost collection from reference costs to patient-level cost data, and we are using the PLICS data to develop standards and approaches to make that possible. As a direct output of this work, we can give participating trusts access to a benchmarking tool that allows them to analyse their costs and compare these with those of other participating trusts.

We encourage all providers of acute services that have implemented PLICS to take part in the voluntary PLICS acute collection between July and October 2016.

We will continue to work closely with trusts, HFMA, NHS England, the Department of Health and other stakeholders to further improve the usefulness and reliability of the cost information used by the NHS. Better cost data can help efforts over the period of the Five Year Forward View to improve efficiency and to make good decisions on investing in new care models.

Our overall approach to developing costing was set out in late 2014 in *Improving the costing of NHS services: proposals 2015-2021*. We very much welcome your involvement during 2016 in further developing our costing guidance.

Adrian Masters

Managing Director of Sector Development, Monitor

Introduction

Accurate and comparable cost data are fundamental to supporting Monitor's role in pricing NHS services in England. They are also essential if trusts are to identify how to make improvements. In December 2014, we published the policy document *Improving the costing of NHS services: proposals for 2015-2021*,[1] setting out our intentions on costing and cost collections, and aims for future years to support our responsibility for price setting.

Patient-level information and costing systems (PLICS) are used increasingly by NHS healthcare providers for internal management and benchmarking. The data collected by providers using these systems provide valuable information for pricing purposes. Currently, not all providers have patient-level systems in place, but our long-term aim is to collect patient-level data from all providers. Also, further work is required to understand how such data can be best used to inform prices. Therefore, in the short to medium term, we need to continue collecting average cost data or 'reference costs' (a mandatory requirement for NHS providers), while expanding the collection of patient-level costs.

Why we are publishing this guidance

This *Approved costing guidance* aims to support the process of producing and collecting patient-level costs. Its structure is set out in Table 1 below.

The guidance is reviewed and updated every year. It:

- sets out the costing principles and standards, and guidance for both reference costs and PLICS collections for the year

- explains the approach to costing and cost collection that we are encouraging providers of NHS services to adopt

- tells providers how to comply with the pricing conditions of Monitor's provider licence that relate to the recording of costs

- supports the continuous improvement of costing processes in the NHS.

We publish this guidance in advance of the collections as we believe costing should be a year-long process rather than an annual event to produce information for a collection.

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[1] Available at:
www.gov.uk/government/uploads/system/uploads/attachment_data/file/381990/Improving_the_costing_of_NHS_services_-_final.pdf

Table 1: Structure and intended users of the *Approved costing guidance*

Chapter	Title	Contents	Types of services provided				
			Acute	Mental health	Community	Ambulance	Independent
1	Principles of costing (Monitor)	Principles underpinning any NHS costing exercise and six costing steps to help costing accountants apply these principles, developed by Monitor. The costing principles apply to all providers, both those with and without PLICS. They can also be used by other organisations with an interest in NHS costing	✓	✓	✓	✓	✓
2	HFMA clinical costing standards 2016/17	Clinical costing standards for acute and mental health providers prepared by HFMA on behalf of Monitor for use by providers of NHS services during 2016/17. Guidance papers have also been prepared for acute and community providers	✓	✓	✓		
3	Reference costs guidance for 2015/16 (DH)	Annual update of the reference costs guidance, prepared by DH and adopted by Monitor. It sets out the mandatory requirements for collection of cost information and applies to the collection of 2015/16 data	✓	✓	✓	✓	
4	PLICS acute collection guidance for 2015/16 (Monitor)	Updated guidance for submitting patient-level costing data. The 2016 collection of 2015/16 patient-level information will continue to be open to all acute providers on a voluntary basis	✓				

We recommend that you review and update your costing processes and costing systems in line with this current guidance, the Healthcare Financial Management Association (HFMA) acute and mental health clinical costing standards 2016/17, and HFMA guidance papers *Understanding the general ledger for costing* and *Improving the quality of source information for costing in acute and community services*.[2]

Integration of education and training and reference costs collections

The Department of Health (DH), Monitor, NHS Trust Development Authority, Health Education England (HEE) and NHS England have committed to the integration of the education and training cost collection into the annual reference costs collection as soon as possible.

We believe this integrated collection will improve our understanding of the level of cross-subsidisation between education and training and service provision, and inform decisions about future funding. Integration will ease the implementation of Monitor's costing transformation programme. The aim is to move away from netting off education and training income from the reference costs quantum, and to one rather than two national costs collections. This move will be carefully managed so the quality of the current reference costs collection is not undermined and any cross-subsidisation is fully understood.

As a first step to understand the effects of integration, and to mitigate any adverse impact on reference costs and the national tariff, the 2015/16 reference costs will be collected twice. The first collection will be net of education and training income, and the second net of education and training costs. There will be no requirement for a separate education and training collection.

The two collections will allow us to understand the impact of the change from using education and training income to using costs. We will use the data from this second collection in deciding how to move to a single, integrated collection in future years.

The success of this second collection depends on cost calculations that are underpinned by robust activity information. This can only be achieved by involving finance, education and informatics teams. We advise providers that have not already established these internal links to do so at the earliest opportunity.

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[2] All available at: www.hfma.org.uk/costing/standards

Supporting documents

Alongside this guidance, we are publishing:

1. our PLICS collection template for the 2015/16 collection

2. a materiality and quality score (MAQS) template developed jointly by HFMA and Monitor for the acute sector[3]

3. an updated MAQS template developed jointly by HFMA and Monitor for the mental health sector.[3]

Compliance with the guidance

The compliance status of each chapter of this guidance is given in Table 2.

Table 2: Compliance status of guidance documents

Chapter	Title	Compliance status
1	Principles of costing	Recommended practice for all providers of NHS services
2	HFMA clinical costing standards 2016/17	Recommended clinical costing standards for acute and mental health providers. Although these are designed for PLICS users, we recommend the principles outlined are followed by providers without PLICS. The guidance papers describe recommended best practice for acute and community providers; again, the principles are of value to all providers of NHS services
3	Reference costs guidance for 2015/16	Mandatory cost collection guidance for all NHS trusts and foundation trusts
4	PLICS acute collection guidance for 2015/16	Cost collection guidance for acute providers that choose to participate in the collection of PLICS data

Chapters 1 and 2 contain guidance and recommended best practice – but see the section below on applying the costing principles and standards.

Chapter 3 is mandatory for foundation trusts and NHS trusts, and failure to comply may constitute a breach of the provider licence (for foundation trusts) or accountability conditions (NHS trusts).

The PLICS acute collection under Chapter 4 is voluntary.

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[3] Available at: www.gov.uk/government/publications/approved-costing-guidance

Applying the costing principles and standards

We recommend all providers of NHS services apply all the guidance to their costing systems and costing processes. With the development of the HFMA clinical costing standards for acute and mental health services, and the continued implementation of PLICS by acute, mental health and community providers, we have an increased expectation that providers use the HFMA clinical costing standards and the costing principles in their costing systems and costing processes.

We acknowledge that some providers of NHS services have not yet implemented PLICS for a variety of reasons, but we still expect them to use costing processes in line with the principles of the HFMA clinical costing standards (Chapter 2 of this guidance) and the principles and costing steps set out in Chapter 1 of this guidance, and maintain clear documentation to demonstrate this.

A new requirement in this year's reference costs survey is for providers to answer questions relating to their use of the standards. Providers will be required to report against which costing standards they have used and to briefly explain why the costing standards have not been applied in certain cases.

These new requirements will be part of the reference costs survey, and are imposed under pricing condition 2 of the standard terms and conditions of Monitor's provider licence, which allows us to require licensed providers (and in practice NHS trusts) to provide such information and reports as we may require to fulfil our pricing functions. The costing standards will remain recommended rather than binding standards.

The questions ensure that providers properly consider the standards, and identify the rationale for not using them in particular cases. They also help us understand the consistency and comparability of the costing information we use in calculating the tariff.

In addition to the new requirements for reference costs, the voluntary PLICS submission template will ask providers to confirm that they have followed the standards and explained any cases where they have not applied them.

Applying the guidance in full has local and national benefits. The document *2013/14 Patient level cost collection: review and lessons for the future*[4] identified the inconsistent approaches to applying Chapter 1 of this guidance and the HFMA 2014/15 acute clinical costing standards.

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[4] Available at: www.gov.uk/government/publications/patient-level-cost-collection-201314-review-and-lessons-for-the-future

The impact of these inconsistencies is:

- reduced benefits from benchmarking PLICS data as cost variations relate to differences in costing methodology rather than clinical practice

- wide range between the lowest and highest average costs in the costing information used to inform price setting.

To properly inform price setting and to realise the benefits of benchmarking, you need to consistently apply the costing principles and steps set out in Chapter 1 of this guidance, as well as the HFMA acute and mental health clinical costing standards 2016/17 and the guidance in *Understanding the general ledger for costing* and *Improving the quality of source information for costing in acute and community services* (referred to in Chapter 2 of this guidance). This consistency should represent a huge step forward in achieving the long-term purpose of the costing transformation programme – improving the quality of cost information for NHS services.

If you have any questions about the approach to applying aspects of Chapter 1 of this guidance or the HFMA clinical costing standards, contact: costing@monitor.gov.uk.

Monitor's provider licence

Our provider licence[5] is the main tool with which we regulate providers of NHS services. Both NHS foundation trusts and many independent providers of NHS services must hold a licence. The licence includes a set of standard licence conditions, including those that enable us to fulfil our duties in partnership with NHS England to set prices for NHS care. The obligations include the collection of cost information that is prepared and assured to certain standards.

Three licence conditions relate to costing:

1. **Pricing condition 1: Recording of information**. Under this licence condition, we can require licence holders to record information, including cost information, in line with our published guidance. Such information must be recorded using our 'approved reporting currencies' and in accordance with our *Approved costing guidance*.

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[5] Available at: www.gov.uk/government/publications/the-nhs-provider-licence

2. **Pricing condition 2: Provision of information**. Having recorded the information in line with pricing condition 1, licence holders can be required to submit this information to us, as well as other information and reports we may require for our pricing functions.

3. **Pricing condition 3: Assurance report on submissions to Monitor**. It is important for price setting that the information submitted is accurate. This condition allows us to require licence holders to submit an assurance report confirming that the information they have provided is accurate.

For the collection of 2015/16 cost information, Chapter 3 (Reference costs guidance) sets out our 'approved reporting currencies' and 'approved guidance' for the licence, and specifies the costing information that must be provided to us under pricing condition 2. We have adopted guidance drafted by DH. Chapter 3 therefore sets out the mandatory requirements for collecting cost information that could be enforced under the provider licence. Data submitted for reference costs may be subject to external assurance.

Although NHS trusts do not have to hold a provider licence, they too must comply with the requirements of our approved guidance on costs collection, as set out in Chapter 3.

For 2016/17, we will not exercise our power to require independent providers with a provider licence to collect cost information in accordance with this guidance. Independent providers are, however, encouraged to comply with the costing principles set out in Chapter 1.

We may require other information to be submitted in future, such as data on clinical outcomes.

Update on the costing transformation programme

The costing transformation programme was launched in early 2015 to deliver significant improvement in the quality and consistency of cost information for NHS services over the next six years, to support the sustainable delivery of high quality patient care.

At a local level, consistent, high quality patient-level cost information will help providers improve the efficiency of their services by supporting effective benchmarking with other providers, and better understand the cost implications of planned changes in the delivery of care.

Nationally, the costing transformation programme will promote efficiency and innovation across the sector, and improve the basis for the payment system in the NHS.

Currently, costing processes vary considerably between providers. Classifications of human and physical resources and activities, and costing allocations and datasets used for cost and quality management are inconsistent. We also know that not all costing systems can provide detailed patient-level cost information.

In 2014, a consultation informed our proposals for implementing the new approach to costing.[6] We have set up a dedicated programme team and workstreams to deliver the main components underpinning this new approach. These comprise:

- **Value for money**: This will articulate the evidence to support trusts' investment in patient-level costings data and the supporting systems, and document case studies.

- **Costing standards**: The new *Healthcare costing standards for England* will set out the methodology for assigning costs to activities and then to individual patients. The first version of these standards will be published in April 2016 and six roadmap partners in the acute sector will use these standards for a cost collection in September 2016. These standards will be refined in the light of that collection and then, subject to impact assessment and further consultation, rolled out across all sectors.

- **Costing systems**: We have published for review a first version of the requirements for costing software, with the post-consultation version to be published in April 2016. Suppliers can then modify their software so that it complies, and apply to us for accreditation for its use by the roadmap partners in the September 2016 cost collection. These requirements will be refined in line with further changes to the costing standards over the coming years.

- **Central collection**: We will develop the capability to collect, store, analyse and then provide authorised access to outputs from patient-level data, in line with the programme timescales. This capability will be in place in time for the first cost collection in September 2016.

- **Transformation**: In addition to the above 'core' components of the new system, the costing transformation programme will develop and deliver activity designed to support the sector to build the capability to use and realise the benefits of the new system.

Appendix 3 shows how this programme will be rolled out across the different sectors.

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[6] Available at:
www.gov.uk/government/uploads/system/uploads/attachment_data/file/420155/CTP_consultation_feedback_report_final__with_cover__2.pdf

1. Principles of costing

Chapter 1 of this guidance contains the costing principles that apply to all NHS cost collections. Using this guidance, in conjunction with other chapters where appropriate, should improve the accuracy, consistency and relevance of costing in an organisation. In this chapter we outline the six costing principles that apply to all providers of NHS services. These are recommended practice.

The principles and supporting steps provide guidance for NHS costing accountants and give an overview of the recommended approach to costing.

The accuracy, consistency and relevance of an organisation's costing should improve if it follows these principles and the guidance in other chapters. We describe how to apply the six costing principles in six costing steps.

1.1. The six costing principles

Cost data have many uses locally and nationally. They are used:

- by providers to manage services and improve operational efficiency

- to support the development of pricing and currency design for reimbursement

- as reference cost data, to respond to parliamentary questions and freedom of information requests.

We have developed six principles (see Table 3) that should be applied to all NHS costing exercises. These principles are unchanged from last year, although we have responded to feedback from NHS costing accountants and given more explanation for some of them. We developed the principles after a review of available costing guidance and engagement with NHS costing accountants. When combined with the HFMA acute and mental health clinical costing standards 2016/17 and the guidance papers referred to in Chapter 2, we expect these principles to improve the quality of costing.

Principle 1: Stakeholder engagement

Effective costing requires input from a wide range of stakeholders, including frontline clinical staff and departments providing clinical support services such as pathology

Costing is not a 'finance department only' exercise in NHS organisations. High quality costing information is only achieved by involving frontline clinicians and other care providers. To ensure costing is accurate and locally relevant, you should work

Table 3: Principles of NHS costing

Principle	Summary
Principle 1: Stakeholder engagement	Effective costing requires input from a wide range of stakeholders, including frontline clinical staff and departments providing clinical support services such as pathology
Principle 2: Consistency	A consistent approach to costing is required across and within organisations
Principle 3: Data accuracy	Accurate costing relies on the quality and coverage of the underlying data input
Principle 4: Materiality	Costing effort should focus on material costs and activities
Principle 5: Causality and objectivity	Costing should be based on an understanding of how resources are used during the patient care pathway, to minimise subjectivity
Principle 6: Transparency	Costing processes and outputs should be transparent and auditable

closely with healthcare professionals delivering patient care in all its settings to understand how resources are used, and with stakeholders who use costing information in decision-making. This will focus you on collecting the most relevant data to develop costing information that best suits its intended purpose.

The typical stakeholders involved in costing are:

- clinical staff (including consultants, other health professionals, nursing staff, clinical support services)

- non-clinical staff involved in service delivery (including operational managers, education and training colleagues, research and development colleagues)

- the informatics department and clinical coding department

- finance staff (including management accountants and those involved in contracting or commissioning)

- end users (including senior managers of providers, regulators, commissioners).

Effective clinical and financial engagement should be integral to costing to ensure the availability of good quality data and useful business intelligence. DH has defined

four levels of engagement as part of the reference costs submission and since 2011/12 has collected information from providers about their level of engagement.[7]

A mandatory requirement for reference costs submissions was introduced in 2012/13, requiring the board of each NHS trust and foundation trust to assure its satisfaction with the trust's costing processes and systems before the start of the submission process. This requirement has helped to raise the profile of costing in NHS organisations, but it is acknowledged that its profile with the board as well as its level of human resources are still lower than those for other finance disciplines.

In line with future plans for using PLICS data and raising the profile of costing in organisations, the 2014/15 voluntary PLICS acute collection introduced the additional requirement for the director of finance to review and sign off the submission before submitting the template to us.

Role of Monitor's reference costs assurance programme

Reference costs submissions are subject to external audit as part of our reference costs assurance programme. We expect all acute NHS trusts and foundation trusts to be audited at least once every three years. These audits identify areas for improvement and the auditors make recommendations to trusts to help them improve the accuracy and consistency of their costing.

This programme's objectives are to:

- improve the accuracy and consistency of the cost submissions used to set national and agree local prices

- provide assurance that providers' cost submissions have been prepared in accordance with our *Approved costing guidance*

- assess the overall accuracy of providers' cost submissions.

To set national prices and agree local prices, the providers' cost submissions ('approved reporting currencies' and 'approved guidance', currently reference costs) must be accurate and consistent. We are concerned that the 2014/15 reference cost assurance programme[8] revealed that almost half the audited trusts (37 of 75)

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[7] Adil M (2013) *Effective clinical and financial engagement: A best practice guide for the NHS*. www.gov.uk/government/uploads/system/uploads/attachment_data/file/255655/effective_clinical_financial_engagement.pdf

[8] www.gov.uk/government/publications/nhs-reference-cost-assurance-programme-findings-from-the-201415-audit

submitted materially inaccurate reference costs in 2013/14.[9]

We are keen to develop integrated audits to assess the impact of activity information on the accuracy of the reference cost return. For this reason a single integrated audit was introduced into the 2014/15 reference cost assurance programme, using the findings from the clinical coding audit to inform the findings of the reference cost audit.

NHS trusts and foundation trusts are required to follow the *Approved costing guidance* when producing their cost submissions. As we can audit trusts against this guidance, it is crucial that it appropriately reflects current costing requirements.

Following the last round of audits, the auditors have reported their detailed findings and recommendations to providers, and providers have been asked to develop plans to implement these recommendations. We expect providers' audit committees to oversee the implementation of these plans.

> **Principle 2: Consistency**
>
> A consistent approach to costing is required across and within organisations

For purposes such as pricing and benchmarking, it is important that all organisations adopt a consistent approach to the same costing exercise; for example, the same activity counting method. The HFMA acute and mental health clinical costing standards 2016/17 and the guidance papers (see Chapter 2), use of the MAQS templates and continued external assurance of annual reference costs submissions should improve the consistency of NHS costing.

We strongly recommend that costing accountants in acute and mental health organisations apply the HFMA clinical costing standards 2016/17 in their costing systems, and that they closely follow the MAQS template when deciding which allocation methods to use in their costing process.

Although clinical standards have not yet been developed for costing community services, many of the principles outlined in the HFMA acute and mental health clinical costing standards 2016/17 can provide helpful guidance when costing community and other services.

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[9] *Reference cost assurance programme: Findings from the 2014/15 audit*. Available at: www.gov.uk/government/publications/nhs-reference-cost-assurance-programme-findings-from-the-201415-audit

Principle 3: Data accuracy

Accurate costing relies on the quality and coverage of the underlying data input

Accurate costs can only be calculated if the data are accurate. Complex costing exercises, such as reference costs, patient-level costing or service-line reporting, require data from many different sources, such as:

- accounting data (eg general ledger, trial balance)

- patient-level activity data (eg admissions, lengths of stay, operating theatre use, number of diagnostic tests undertaken, quantity of drugs prescribed)

- clinical staff activity data (eg time spent in different patient care settings, consultant job plans)

- clinical coding.

Such information is typically recorded on a range of systems, such as the accounting system, patient administration system, theatre system and pathology system. All this information has to be collated for use in the costing process. Good quality and good coverage of the input data are key to the quality of the final costing outputs. PLICS has been designed to help collate information and inform a single output.

We recognise that responsibility for maintaining the accuracy of these different data sources rests with the department that manages the system; however, costing accountants are in an ideal position to flag areas where data quality could be improved. For example, we know of one trust which operates two groups with the sole purpose of improving the quality of patient-level costing information and demonstrating this improvement with better MAQS scores: a PLICS board chaired by a consultant and with an executive membership, and a data quality panel chaired by a different consultant and with a membership drawn from IT, informatics, finance and clinical coding departments, and nursing staff.

Both internal and external audits have a role in assuring the quality of the data sources and the resulting costing information. We recommend that you review HFMA acute clinical costing standard 10: Review and audit of cost information (the corresponding standard for mental health is standard 9) and the guidance papers *Understanding the general ledger for costing* and *Improving the quality of source information for costing in acute and community services* that are referred to in Chapter 2.

Principle 4: Materiality

Costing effort should focus on material costs and activities

You should be able to trace all resources to the activities that use them, such as nursing care on a ward. These activities can be costed at a very detailed level, ideally the individual patient level. However, as costing teams tend to be small, they need to prioritise their time and that dedicated to costing should be proportionate to the materiality of the costs being calculated.

The following three steps should help you judge the proportionality of costing effort:

- focus on high-cost resources first (eg medical or nursing staff costs)

- determine with stakeholders the accuracy required for the costing purpose (eg costing for large investment decisions justifies a high degree of accuracy)

- estimate the expense and time commitment of additional accuracy.

Principle 5: Causality and objectivity

Costing should be based on an understanding of how resources are used during the patient care pathway, to minimise subjectivity

Costing is the process of matching and assigning costs to activities and services. If this is to be done accurately, you need to analyse and understand how resources are used during the patient care pathway. The cost allocation methods used to assign costs will then more accurately reflect the actual costs incurred.

Engagement with clinicians and other care providers (medical staff, nursing staff, allied health professionals, clinical support services staff, and service and operational managers) will help you understand the relationship between delivering patient care and the costs of delivering that care.

Costs based on good clinical information can also support clinicians when reviewing opportunities for efficiencies. Accurate costing can reveal the relationship between the delivery of services and those services' financial impact on the organisation.

Understanding these relationships also benefits price setting. Costs assigned to patient care based on these relationships should extend the use of prices to incentivise efficient clinical and operational behaviour. Where costs do not have an obvious relationship with clinical activity (eg overhead costs), they should be assigned within and across organisations according to an agreed method in line with the consistency principle.

> **Principle 6: Transparency**
>
> Costing processes and outputs should be transparent and auditable

For all costing purposes, it is important to document the costing process clearly. This might include recording all the activities involved in delivering an element of patient care. Clear documentation should identify:

- input data sources

- classification of costs

- the cause-and-effect relationship between resource costs and activities

- any assumptions used for allocation

- costing methodologies used in the costing process.

We recommend that you produce and maintain a costing processes manual specific to your trust, which details all the costing processes your trust used to produce its costing information. This manual will ensure the organisation retains costing knowledge and expertise when costing accountants change. It will also support the consistency of approach in line with Costing Principle 2.

The benefits of transparent costing include:

- showing the assumptions and source data to end users, which will improve the credibility of the outputs and increase confidence in the usefulness of the outputs

- a clear audit trail, which will facilitate reconciliation and assurance processes.

1.2. Why adopt patient-level costing?

NHS costing has traditionally adopted a predominantly 'top-down' allocation approach through analysis of the general ledger. Traditional top-down systems use apportionment to distribute costs to activity, resulting in average unit costs. Averaging simplifies the costing of activity, but obscures variation in clinical practice or resource use.

To apply the six costing principles outlined in Section 1.1 and to increase the accuracy of NHS costing, we recommend providers adopt a patient-level costing approach.

True PLICS take a 'bottom-up' approach to costing, with each costed resource assigned to the activity for an episode in the patient care pathway. PLICS use

electronic patient-level data to match activities (and therefore costs) to patient episodes. With this kind of information, the resources used by patients on a daily basis can be used to build the patient profile of actual costs.

NHS trusts introduced patient-level costing in the mid-2000s. The 2014/15 reference costs survey found that:

- 219 providers had implemented, were implementing or were planning to implement PLICS compared to 207 providers in 2013/14

- 132 providers had implemented PLICS, compared to 130 in 2013/14.

Successful implementation of patient-level costing depends on a good understanding of how healthcare activities take place along the patient pathway, and the quality and coverage of the data available to support the analysis of such activities. HFMA has published two implementation guides to help providers that are considering implementing PLICS:

- *Acute health clinical costing implementation guide to support the 2014/2015 acute health clinical costing standards*[10]

- *Mental health clinical costing implementation guide to support the 2014/2015 acute health clinical costing standards*.[11]

Patient-level costing and PLICS can take a lot of resources to implement. We encourage providers that are considering adopting PLICS to focus first on the most material costs, in line with Costing Principle 4: Materiality.

Based on the concept of patient-level costing, we have developed six steps to support the implementation of the costing principles: see Table 4 below.
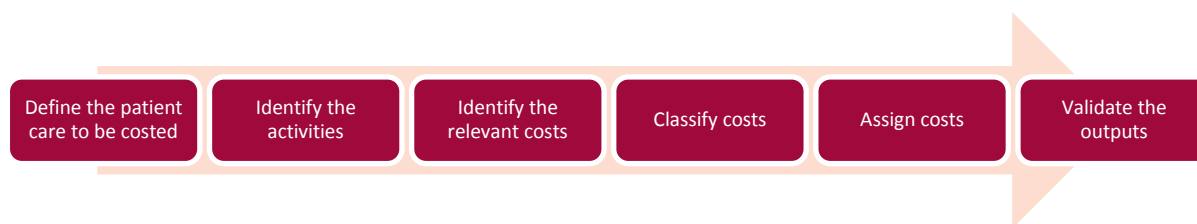
Table 4: Steps to implementing the costing principles

Step	Summary
Step 1	Define the element of patient care to be costed
Step 2	Identify the activities involved in delivering the patient care
Step 3	Identify the costs incurred in delivering the patient care
Step 4	Classify costs by understanding the nature of these costs
Step 5	Assign costs to the activities in the correct proportion
Step 6	Validate the outputs by clinical and other stakeholder review

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[10] Available at: www.hfma.org.uk/NR/rdonlyres/9831C9CA-652E-4D9A-86B0-2CC0C9CE1297/0/implementguidemay14.pdf

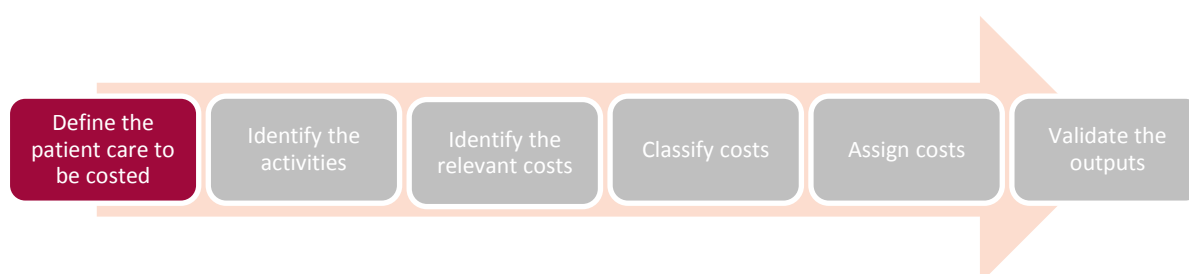[11] Available at: www.hfma.org.uk/costing/standards/supporting-material/mentalhealth/

1.3. Six costing steps

Define the patient care to be costed	Identify the activities	Identify the relevant costs	Classify costs	Assign costs	Validate the outputs

We recommend you take the six steps in sequence. With the principles, they form the recommended practice for regulatory cost returns, such as reference costs and the PLICS acute collection outlined in Chapters 3 and 4. NHS providers doing internal costing exercises may also use the steps.

The important features of each step are described below, with cross-referencing to other guidance documents, such as the HFMA clinical costing standards 2016/17.

Step 1: Define the element of patient care to be costed

Define the patient care to be costed	Identify the activities	Identify the relevant costs	Classify costs	Assign costs	Validate the outputs

For any costing exercise, the first step is to identify the elements of patient care that need to be costed, such as an episode of patient care or a related event such as a pathology test. Once this has been done, you should work with colleagues from informatics, the clinical coding department and other departments to ensure the required quality and coverage of patient-level information is available to support the costing process. To collect this information in a timely and consistent fashion, appropriate systems need to be set up.

Clinical coding is integral to ensuring the accuracy of costing information. It supports the building of costing profiles where the elements of patient care have been identified in preparation for allocating costs. Coding also depends on the quality of the documentation in the patient's notes. The inclusion of both diagnostic and procedural information gives a picture not only of the patient's condition, but also the interventions during the patient's time in the care setting.

As an example of how clinical coders can help, one trust's costing accountants asked them for a 'coding masterclass' so they could better understand what activities are coded in what care settings, and the relationships between the activities

collected on the patient-level feeder systems and coding by the clinical coders. The costing accountants then used their knowledge to refine the costing methodologies in their costing system.

Further guidance

HFMA acute clinical costing standards 2016/17	Standard 8: Information
HFMA mental health clinical costing standards 2016/17	Standard 7: Ensuring high quality source data are used in the costing process
HFMA guidance paper *Improving the quality of source information for costing in acute and community services*	
Reference costs guidance	Sections 3 to 12 of *Reference costs guidance for 2015/16* provide guidance on the services to be included in the reference costs submission
PLICS acute collection guidance (Chapter 4 of this document)	Section 4.3: Scope of the data collection Section 4.5: Approach to the PLICS acute collection

Step 2: Identify the activities involved in delivering the patient care
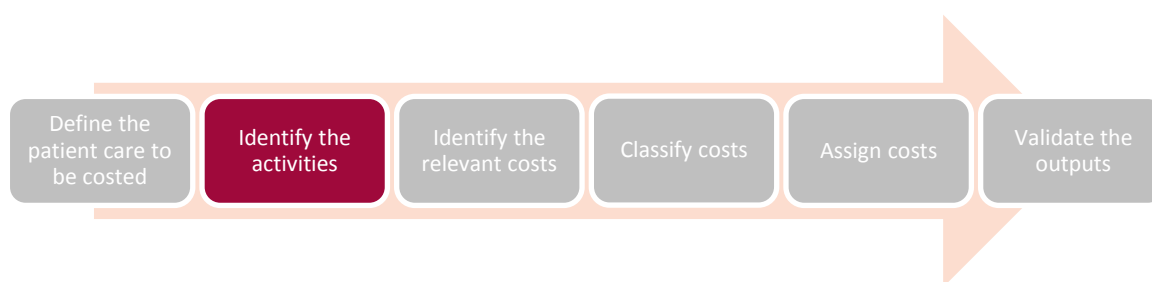
To assign costs accurately to a defined element of patient care, the activities associated with delivering that care need to be accurately identified. Once identified, their relationship to the resources they use can be investigated and documented.

As part of the patient-level costing process, we recommend that the costing accountant:

- identifies and documents each element of the patient care pathway

- identifies the activities involved in delivering that element of care

- records the processes to deliver those activities.

This process will identify what is being costed and how the cost components can be aggregated for reporting and collection purposes.

You should ensure that all activities associated with an element of patient care and the resources used by these activities are fully captured and matched to the correct patient episodes of care. These activities include clinical support activities such as pathology and diagnostic imaging.

To ensure a uniform approach to assigning costed activities to the correct episode of patient care, you should follow:

- HFMA acute clinical costing standard 8a: Data matching

- HFMA mental health clinical costing standard 7a: Matching data from feeder systems to service users.
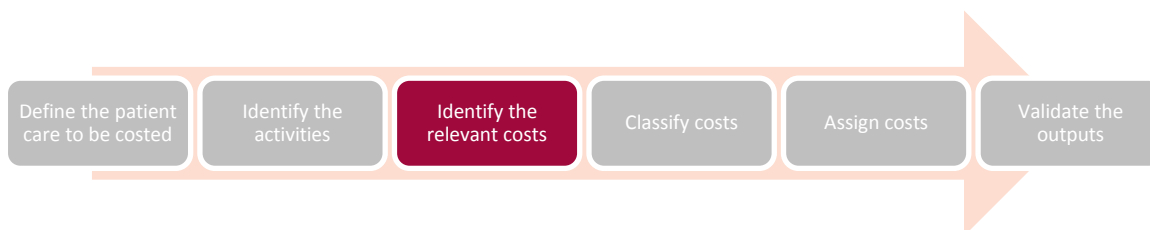
Clinicians will know if activities are assigned incorrectly to an episode of patient care. Such errors must be avoided to maintain their confidence in using costing information in their decision-making. The 'matching principle' is discussed in more detail in costing step 5.

Although recording the processes and activities is labour intensive, improving the quality of costing information makes it worthwhile. We recommend trusts follow Costing Principle 4: Materiality, to prioritise the recording of activities.

Further guidance

HFMA acute clinical costing standards 2016/17	Standard 8a: Data matching
HFMA mental health clinical costing standards 2016/17	Standard 7a: Matching data from feeder systems to service users
HFMA guidance paper *Improving the quality of source information for costing in acute and community services*	
Reference costs guidance	Sections 3 to 12 of *Reference costs guidance for 2015/16* provide guidance on the services to be included in the reference costs submission
PLICS acute collection guidance (Chapter 4 of this document)	Section 4.3: Scope of the data collection Section 4.5: Approach to the PLICS acute collection

Step 3: Identify the costs incurred in delivering the patient care

Define the patient care to be costed	Identify the activities	Identify the relevant costs	Classify costs	Assign costs	Validate the outputs

Once the element of patient care to be costed has been defined, and associated activities and resources identified, the next step is to determine the relevant costs incurred in delivering the patient care.

When establishing the relevant costs, consider:

- the period the costing exercise covers

- which costs should be included.

Cost quantum

An important concept for this step is the 'cost quantum' – the total costs measured and allocated for the costing exercise. For any costing exercise, such as reference costs and PLICS reporting, all relevant costs need to be included in the cost quantum.

We recommend that you work closely with financial management to understand how costs are reported in the general ledger. Some costs in the general ledger should not be included in the costing exercise because they relate to commercial activities. Their inclusion could distort the overall costing information produced for the costing exercise. On the other hand, excluding some costs may result in a failure to accurately identify the full costs for some patients.

You should especially consider whether and how the following costs and associated income should be included in any costing exercise:

- commercial activities

- education and training

- research and development.
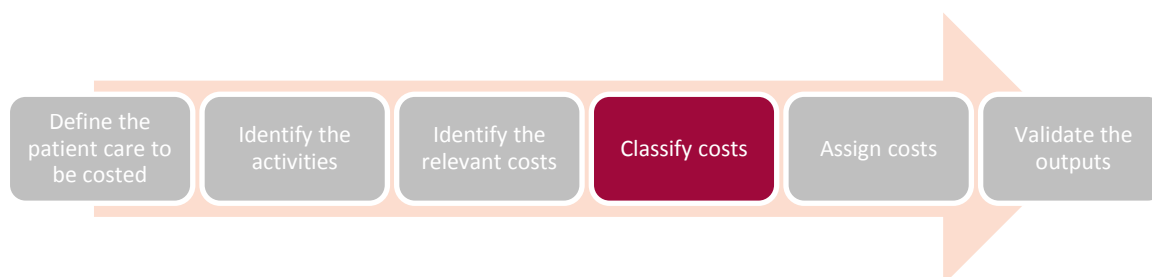
Work in progress

Work in progress is another area you need to consider when producing patient-level costing information and undertaking other costing exercises. We recommend that you review the levels of work in progress by following:

- HFMA acute clinical costing standard 5: Work in progress

- HFMA mental health clinical costing standard 4: Work in progress.

Further guidance

HFMA acute clinical costing standards 2016/17	Standard 5: Work in progress
	Standard 6: Treatment of income
	Standard 7: Treatment of non-patient care activities
HFMA mental health clinical costing standards 2016/17	Standard 4: Work in progress
	Standard 5: Treatment of income
	Standard 6: Treatment of non-service user care activities
HFMA guidance paper *Understanding the general ledger for costing*	
Reference costs guidance	Section 15: Services excluded from reference costs
	Section 16: Reconciliation
PLICS acute collection guidance (Chapter 4 of this document)	Section 4.3: Scope of the data collection
	Section 4.5: Approach to the PLICS acute collection

Step 4: Classify costs by understanding the nature of these costs

| Define the patient care to be costed | Identify the activities | Identify the relevant costs | Classify costs | Assign costs | Validate the outputs |

After identifying the costs for an element of patient care, the next step is to analyse and classify these costs. Classifying costs allows cost relationship analysis, which helps in assigning costs (see step 5) and enables the costs to be reported in different ways for control or study purposes.

Costs can be classified in many ways. To support regulatory costing, costs should be classified based on:

- direct, indirect and overhead costs

- fixed, semi-fixed and variable costs.

Direct, indirect and overhead costs

This classification is used to examine how costs relate to an element of patient care. It does not depend on whether costs can be directly traced to a patient or require allocation by a methodology such as floor area.

HFMA has defined direct, indirect and overhead costs, and developed guidelines for classification – see HFMA standard 1: Classification of direct, indirect and overhead costs of both the acute and mental health clinical costing standards 2016/17 – to support a common approach across the NHS. We recommend that you follow these guidelines. The standards include cost centre classification examples.

*Fixed, semi-fixed and variable costs*

This classification is used to examine cost behaviour, as well as cost control. Analysing these costs can help providers and commissioners understand how costs will vary with changes in activity. The classification supports costing purposes such as service-line management, service redesign, merger considerations and commissioning.

HFMA has defined the fixed and variable categories, and developed guidelines for this classification – see HFMA acute clinical costing standard 4 and mental health costing standard 3: Classification of costs into fixed and variable categories – to support a common approach across the NHS. We recommend that you follow these guidelines.

Further guidance

HFMA acute clinical costing standards 2016/17	Standard 1**:** Classification of direct, indirect and overhead costs
	Standard 4: Classification of costs into fixed and variable categories
	Standard 6: Treatment of income
HFMA mental health clinical costing standards 2016/17	Standard 1: Classification of direct, indirect and overhead costs
	Standard 3: Classification of costs into fixed and variable categories
	Standard 5: Treatment of income
PLICS acute collection guidance (Chapter 4 of this document)	Section 4.6: Overview of the template

Step 5. Assign costs to the activities in the correct proportion
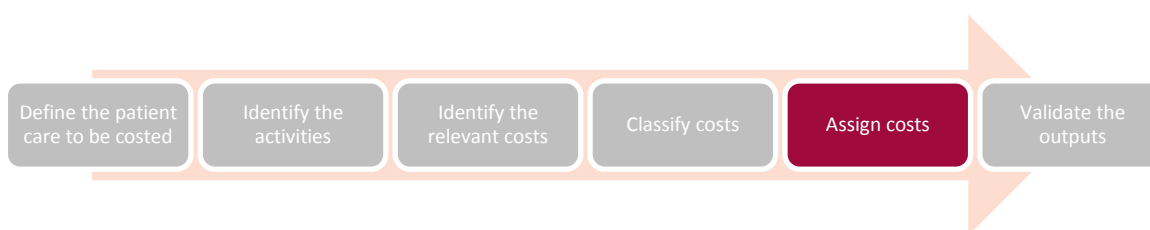
Once the resource costs and activities underpinning the element of patient care to be costed have been fully analysed and understood, the next step is to assign the resource costs to the respective elements of patient care.

Costs can be attributed using the following methodologies:

- actual use

- weighted costs

- apportionment based on relevant statistics such as floor area.

HFMA has developed acute clinical costing standards 3, 3a, 3b, 3c and 3d to support a common approach to the allocation of costs across acute services, and mental health clinical costing standards 2, 2a, 2b and 2c to support a common approach across mental health services. We recommend that you follow the guidelines as set out in HFMA acute clinical costing standards 3 to 3d.

MAQS templates for acute and mental health services

We strongly recommend that you use the MAQS template when deciding which cost allocation method is suitable. The template provides costing methodologies for all the main areas of expenditure in a trust. For each area the appropriate level of costing methodology should be chosen, depending on the quality and coverage of information available to the trust to support its costing process.

HFMA and Monitor have worked with costing accountants from providers of mental health services to update the mental health MAQS template for 2016/17 so it more closely represents how care is delivered.

Benefits of using the most suitable allocation methods include:

- transparency on the approaches taken to cost data

- a consistent approach to costing across the NHS

- a method to assess the improvements in the quality of costing over time

- awareness of where data quality issues are affecting the quality of costing

- assurance to the board and other key stakeholders of the quality of costing.

Actual use

Some costs can be directly assigned to individual patients if resource use is recorded at patient level (see Table 5). Assigning costs at patient level based on actual use greatly improves the accuracy of costing, and should be done wherever possible. However, the benefit of increased accuracy should be assessed against the cost of data recording. Following Costing Principle 4: Materiality, we recommend costing accountants and other stakeholders involved in the costing process prioritise investment in activity-recording systems for their most costly specialties or services.

If departments collect patient-level information on non-integrated databases or spreadsheets, we recommend that you find out what the information is and investigate whether it can easily be included in the costing process.

Table 5: Examples of assigning actual use costs to individual patients

Direct resource costs	Cost assigned to
Cost of drugs prescribed to patient A	Finished consultant episode (FCE; of patient A)[12]
Cost of prosthesis provided to patient B	FCE (of patient B)

Weighted costs

In many instances, the same resources are used by multiple activities. Costs of these activities are often captured at an aggregated level, which complicates allocating actual costs to individual patients or increases the likelihood that patient-level activity data are not available. In these cases, assigning costs should be based on understanding the relationship between activity and cost (Table 6).

Table 6: Examples of allocating costs using weights

Weighted costs	Method of assigning costs to patients	Cost assigned to
20% of physiotherapy department costs allocated to burns patients based on specialty use of the physiotherapy department	Based on length of stay in hours	FCE
15% of physiotherapy department costs allocated to orthopaedic patients based on specialty use of the physiotherapy department	Based on length of stay and on acuity	FCE

Apportionment based on statistics such as floor area

Overhead costs need to be included in the cost calculation and, in turn, reported as part of the unit cost. The HFMA clinical costing standards for acute and mental health services 2016/17 outline several use-based allocation methods for overhead costs. We recommend you follow these standards. We also recommend using the MAQS template (see section above, 'MAQS templates for acute and mental health services') to help determine the most suitable allocation method for a cost type, based on the information available.

Typically, overhead costs (such as information technology, human resources and the executive team) do not have a well-established quantitative cost driver that relates directly to specific patient treatments. As a result, the relationship between costs and activities is unclear.

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[12] A completed episode of patient treatment under the care of a consultant.

To minimise any potential cost distortion, you should not use a simplified 'equal spread' allocation method for overhead costs.

We recommend a two-stage approach to allocating overhead costs to a patient:

1. assign costs to other resources that are used in delivering patient care

2. assign the resource plus its share of overheads to the patient care activity.

When allocating overhead costs, follow Costing Principle 5: Causality and objectivity, to ensure this is based on logic and reason (see Table 7).

Table 7: Examples of allocating costs using apportionment tables

Weighted costs	Method of allocating to other resources
Human resources costs	Based on head count
Finance costs	Based on budget value

The matching principle

The 'matching principle' is important in assigning costs accurately. If costs are not assigned to the correct episode of care, costs for the correct episodes would be understated and costs of the episodes incorrectly matched to would be overstated.

HFMA has developed acute clinical costing standard 8a: Data matching, and mental health clinical costing standard 7a: Matching data from feeder systems to service users to support a common approach to matching across the acute and mental health services. We recommend that you follow the guidelines in those standards when developing matching rules for costing. Matching rules need to be developed with clinicians and other care providers to ensure they accurately reflect the care pathway. They should be continuously developed to keep pace with changes in care delivery, improved quality and quantity of patient-level information, and better understanding of care pathways.

One acute trust approaches the matching principle by developing gold, silver and bronze matching rules for all patient-level feeds, based on the quality and coverage of the information provided. The trust also develops 'never scenarios' to ensure that costs for some activities are not assigned to episodes incorrectly. For example, drugs that are never used by certain specialties are never assigned to episodes within those specialties, even if other matching criteria are fulfilled.

We recommend that you annually review the matching rules applied in your costing systems with clinicians and other key stakeholders, to ensure the process is as transparent and accurate as possible.

Cost pool groups and cost pools

We recommend simplifying the costing process for acute services by grouping resource costs that can be allocated on the same basis to elements of patient care together into cost pool groups/cost pools (as per HFMA acute clinical costing Standard 2: Creation of cost pool groups and cost pools).

Standard 2 contains specific guidance on how to create cost pool groups and cost pools. We recommend that you use HFMA-defined cost pools. For the PLICS acute collection, HFMA-defined cost pools have been adopted for consistency and cost comparison.
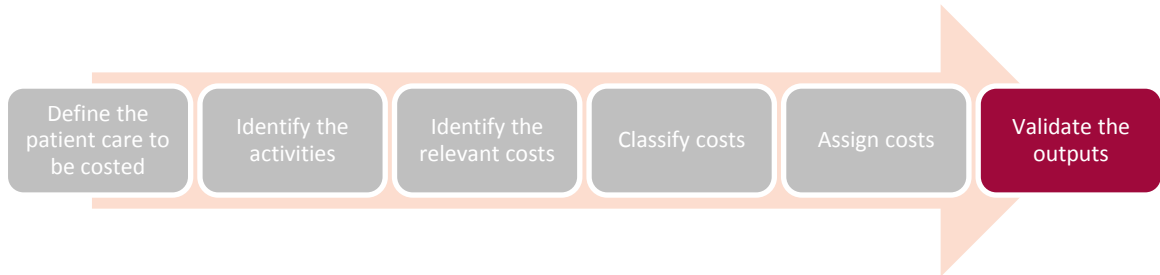
Following consultation with costing accountants for mental health services, cost pools and cost pool groups have been removed from the mental health clinical costing standards. The new PLICS mental health voluntary collection being developed by Monitor will not contain cost pools.

Further guidance

HFMA acute clinical costing standards 2016/17	Standard 3: Allocation of costs
	Standard 3a: Allocating ward costs
	Standard 3b: Allocating theatre costs
	Standard 3c: Allocating medical staffing costs
	Standard 3d: Allocating emergency department costs
	Standard 8a: Data matching
	Standard 9: Quality assessment and measurement
	Acute MAQS template
HFMA mental health clinical costing standards 2016/17	Standard 2: Allocation of costs
	Standard 2a: Allocating ward nursing staff costs
	Standard 2b: Allocating community clinical staff costs
	Standard 2c: Allocating medical staffing costs
	Standard 7a: Matching data from feeder systems to service users
	Standard 8: Assessing the quality of the costing process
	Mental health MAQS template

Reference costs guidance	Sections 5 to 14
PLICS acute collection guidance (Chapter 4 of this document)	Section 4.4: Relevant guidance

Step 6: Validate the outputs by clinical and other stakeholder review

Define the patient care to be costed	Identify the activities	Identify the relevant costs	Classify costs	Assign costs	Validate the outputs

The final step is to validate the outputs. You should do basic checks to ensure your costs are accurate. These include:

- sense-checking submissions to ensure there are no obvious mistakes

- analysing historical data to identify and explain large year-on-year changes

- benchmarking activity and costs to ensure they are reasonable

- reconciling to other data sources, such as hospital episode statistics (HES).

Clinicians and service managers should be involved in the process of 'sense-checking' the costing process and cost outputs to ensure their accuracy and reasonableness.

The effort applied to validation should be proportionate to the significance of the costs being measured and to the costing purpose. To support validation we recommend keeping a clear audit trail of all source data and calculations.

Costing processes and outputs should also be internally and externally reviewed to provide assurance that the accuracy of the costing information is proportionate to its intended use.

If you have submitted patient-level cost information as part of the PLICS acute collection, you will find our benchmarking tool helpful to review costing information and to identify areas where costs vary significantly from those of your peers.

Chapters 3 and 4 of this document specify the assurance measures required for the reference costs and PLICS acute collections, respectively.

As part of the ongoing validation process we recommend that you regularly complete the checklist in Table 8.

Further guidance

HFMA acute clinical costing standards 2016/17	Standard 10: Review and audit of cost information
HFMA mental health clinical costing standards 2016/17	Standard 9: Review and audit of cost information
Reference costs guidance	Sections 2 to 4
PLICS acute collection guidance (Chapter 4 of this document)	Section 4.6.5: Summary Section 4.6.6: Reconciliation

Table 8: Costing process checklist

Costing process step	Checks	Completed
1. **Define the patient care to be costed**	• Elements of patient care to be costed have been identified • Time period covered by the costing exercise has been decided	
2. **Identify the activities**	• Activities related to the element of patient care to be costed have been identified and documented • Processes related to these activities have been identified and recorded • Activity information required for the costing process has been identified and collected	
3. **Identify the relevant costs**	Quantum of cost to be used in the costing exercise has been identified and calculated	
4. **Classify the costs**	Costs are classified as per HFMA acute and mental health clinical costing standards 2016/17: • direct/indirect/overhead • variable/semi-fixed/fixed	
5. **Assign the costs**	• Costs are assigned to the resource as per the MAQS template costing methodology • Costs for acute services are assigned to cost pools as per the HFMA acute clinical costing standards • Matching rules have been reviewed and validated for accuracy	
6. **Validate the outputs**	• Costing outputs have been reviewed by costing accountants for accuracy and reasonableness • Costing outputs have been reviewed by clinicians and other key stakeholders for accuracy and reasonableness • Costing outputs have been benchmarked against the trust's peers for this activity	
Overview	• Costing system and processes have been updated in line with Monitor's 2015/16 guidance • Costing system and processes have been updated for HFMA acute and mental health clinical costing standards 2016/17 and the guidance papers	

2. HFMA clinical costing standards 2016/17

The HFMA on behalf of Monitor has developed the following documents:

- *Acute clinical costing standards 2016/17*

- *Mental health clinical costing standards 2016/17*

and the guidance papers:

- *Understanding the general ledger for costing*

- *Improving the quality of source information for costing in acute and community services.*

These are all available from the HFMA website:[13]

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[13] Available at: www.hfma.org.uk/costing/standards

3. Reference costs guidance for 2015/16

The DH *Reference costs guidance for 2015/16* is available from the DH website.[14]

Monitor has adopted DH's reference cost guidance and incorporated it into this document. The guidance therefore constitutes Monitor's 'approved reporting currencies' and 'approved guidance' – the guidance that NHS foundation trusts and NHS trusts must apply to the recording and allocation of costs, pursuant to the provider licence (for foundation trusts) and the NHS Trust Development Authority's (TDA's) standards for NHS trusts. As indicated in the draft 2015/16 collection guidance, there is a commitment from DH, Monitor, TDA, HEE and NHS England to integrate the actual costs of education and training into the annual reference costs collection as soon as possible. Integration of the education and training collection means that in the longer term, trusts will exclude the cost of, rather than the income from, education and training as part of a single reference costs collection. To ensure we understand the effects of integration and can mitigate against adverse impact on reference costs data and the national tariff before moving to a single reference costs collection, the integrated cost collection exercise will be additional to the main reference costs exercise in 2015/16. The collection will replace the existing education and training cost collection exercise.

The integrated reference costs collection will begin on Monday 20 June 2016 (in line with the existing reference cost collection) and end on Friday 16 September 2016. Further information relating to the integrated collection will be shared via a separate guidance document, due to be published at the end of February 2016.

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[14] Available at: www.gov.uk/government/publications/nhs-reference-costs-collection-guidance-for-2015-to-2016

4. The PLICS acute data collection guidance for 2015/16

This chapter sets out guidance for the 2015/16 PLICS acute cost collection, including:

- the collection's purpose

- the collection's scope

- explanation of the PLICS collection template.

The acute data collection is retrospective (ie the collection taking place in 2016 applies to the 2015/16 financial year).

We revised the template after reviewing the 2014/15 PLICS collection and our main changes for 2015/16 are summarised in Table 9.

Table 9: Main changes to the PLICS collection template for 2015/16

Section	Changes
Front page	No change
Instructions sheet	Minor edit reflecting worksheet order change
1. Trust info sheet	No change
2. Reconciliation	• Moved before data input
3. Data Input sheet	• Column order changed
	• Slight name changes to enhance clarity
	• Comments have been added to the headings to make clearer what is required
	For the 2015/16 PLICS collection, the following data fields (columns) have been added:
	• patient classification
	• education and training costs (non-patient care activity costs)
	• research and development costs (non-patient care activity costs)
	• other costs including commercial (non-patient care activity costs)
	• impairments
	• WIP partial episode flag
	• contracted out/in flag
	• contracted full or part cost
	The following data fields have been removed:
	• non-patient care activity costs
	• WIP episode flag
4. Summary sheet	No change
5. Sign-off sheet	• Updated to reflect other sheet changes
	• Includes number of data feeds question
Field definitions sheet	Updated to reflect changes to 3. Data input sheet
Changes to the acute MAQS template	No change

4.1. Purpose

The headline figures for the 2013, 2014 and 2015 collections are shown in Table 10. Over the three years of voluntary PLICS collections, 93 different acute providers have taken part: 93 acute trusts took part in at least one collection; 44 took part in all three.

We are delighted that 68 providers took part in the 2015 PLICS acute collection, and especially pleased that 11 acute providers submitted costs for the first time in this collection.

The top five treatment function codes (TFCs) reported against for total volume and value of activity are given in Tables 11 and 12, respectively.

Table 10: PLICS acute collection headline figures

Financial year	Total number of FCEs	Total cost value of FCEs	Number of different TFCs reported against
2012/13	7,384,914	£13,703,544,479	126
2013/14	7,925,891	£14,609,954,881	131
2014/15	8,385,867	£15,657,146,303	138

FCE: finished consultant episode; TFC: treatment function code.

Table 11: Top five TFCs for volume of activity reported

Treatment function code	Total number of FCEs	
	2014/15	All years
General medicine	1,150,456	3,254,056
Gastroenterology	547,176	1,498,245
General surgery	482,422	1,415,789
Obstetrics	452,670	1,401,657
Trauma and orthopaedics	449,672	1,262,552

Table 12: Top five TFCs for total costs reported

Treatment function code	Total cost	
	2014/15	All years
Trauma and orthopaedics	£1,599,243,810	£4,525,339,242
General medicine	£1,465,765,198	£4,107,838,343
General surgery	£1,017,172,042	£2,943,322,564
Obstetrics	£851,950,269	£2,448,267,171
Cardiology	£841,213,229	£2,377,793,192

The data have given us insight into patient-level costing, as well as expanding our understanding of how such data can inform future pricing, benchmark cost data between trusts and highlight where costing improvements are most needed.

Given its proven usefulness, we will conduct another voluntary collection of PLICS data in 2016. We have therefore updated this chapter to support the July to October 2016 cost collection of 2015/16 data. We will invite and strongly encourage all acute providers that have implemented PLICS to take part in this voluntary collection.

The benefits of taking part are:

- the collection's validation process will identify areas requiring attention, thus providing the opportunity to strengthen costing processes to improve the quality of the provider's cost information for both local and national uses

- access to Monitor's benchmarking tool (the benefits of benchmarking with PLICS information are described in Section 4.2)

- contribution to learning and best practice to improve the quality of costing information at a local and national level.

If you would like to discuss participating in the 2016 PLICS acute collection, please contact the Monitor costing team at costing@monitor.gov.uk

We will begin work in early 2016 to develop a voluntary PLICS mental health collection with input from providers of mental health services that have implemented PLICS. If you would like to discuss working with us to develop this mental health collection, please contact the Monitor costing team at costing@monitor.gov.uk.

The PLICS mental health collection is being developed to support the investment in developing the HFMA mental health clinical costing standards 2016/17 and accompanying mental health MAQs template.[15]

4.1.1. Benefits of benchmarking with PLICS information

Benchmarking health costing data checks if the:

- costing data accurately reflect the cost of the care provided

- care was delivered in a cost-efficient fashion

- hospital data systems are of acceptable quality for management purposes

- nationally submitted costing data are of suitable quality to base the tariff on.

For health costing data to be relevant, they must pass any 'reasonableness' test for the true cost of the delivery of care. If they do, service managers can be confident that reported costs are accurate. So, if a senior clinician's team of junior doctors orders comparatively higher numbers of pathology tests or medical imaging on a daily basis, then a service manager can use the costing data to enquire about this level of care delivery. It is, of course, the clinician's prerogative to continue this level of care (and the system should allow clinical choice), but variation in cost identified by benchmarking against best practice for patients of similar levels of acuity should prompt discussion. The more confident clinicians and managers are in the accuracy of costing data, the more these costs can be stress tested against those of peers to identify where efficiencies can be made in the delivery of care.

Benchmarking costing data can also improve their quality – the basis of the tariff system.

On occasion benchmarking may reveal cost data to be wrong, such as when a theatre data system allocates too much theatre time to a patient and as a result the costing system allocates too much theatre cost to that patient. Occasionally, this error is not the fault of the costing system as the data may have inherent quality issues. However, benchmarking – by itself – can identify where the quality of the data from hospital data systems used for management purposes needs to be raised.

4.2. Scope of the acute data collection

The acute collection is designed to capture the unit costs, cost elements and activities of admitted patient care at FCE level in acute trusts.

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[15] Available at: www.hfma.org.uk/costing/standards

The PLICS collection template[16] accompanying this guidance covers admitted patient care.

To help determine the quality of PLICS data, we ask all participating trusts to also complete the MAQS template developed by HFMA and Monitor for acute service providers.[16]

We recognise that PLICS have been more widely implemented by acute providers than mental health, community service or ambulance providers. If your trust is a non-acute or independent sector provider but you wish to supply PLICS and/or MAQS data, email PLICS_Collection@monitor.gov.uk to discuss.

The types of admitted patient care included in the collection are:

- day cases

- ordinary electives

- ordinary non-electives

- regular day or night admissions.

Non-NHS patients

By non-NHS patients, we mean:

- private patients

- reciprocal patients

- all overseas patients regardless of whether they are charged for treatment or not

- patients from other parts of the UK not covered by the English NHS (eg from Wales, Scotland and Northern Ireland).

We encourage trusts to submit acute cost information for all inpatient episodes but submitting non-NHS patient episode costs is optional. You can choose to either:

- submit non-NHS patient episode costs, using the non-NHS patient flag '1' in the non-NHS patient flag column

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[16] Available at: www.gov.uk/government/publications/approved-costing-guidance

- exclude non-NHS patient costed episodes from the submission and include their total costs in the relevant line on the collection template reconciliation statement.

We encourage you to determine non-NHS patient costs and income to make sure (if choosing to exclude non-NHS patients) you do not allocate income for treating non-NHS patients to (included) NHS patients (influencing either costs or income for NHS patients).

To collect **all** your trust's admitted patient costs, we encourage you to report acute cost information for all inpatient episodes, including episodes where part of a patient's care is delivered by another provider, **and** admitted patient care activity which is carried out for another 'receiving' provider. Direct access activity conducted for other 'receiving' providers should not be included (see 'Direct access' section below). We have added appropriate columns to this year's collection to allow trusts to mark this provider-to-provider activity and to note it as comprising a full or partial cost of episode care (to facilitate correct comparison between episodes).

4.3. How we will use the PLICS data

We intend to use the cost data collected during 2015/16 and all data collected up to this point to conduct analysis to, for example:

- inform new methods of pricing NHS services

- inform new approaches and other changes to currency design

- inform the relationship between provider characteristics and cost

- model new pricing methods

- help trusts to maximise use of their resources and improve efficiencies

- identify the relationship between patient characteristics and cost

- support an approach to benchmarking for regulatory purposes.

We may share suitably anonymised and/or aggregated PLICS data with our partner organisations (such as NHS England, TDA and the Health and Social Care Information Centre), other arm's length bodies (ALBs) of DH, private bodies and higher education institutes (HEIs) to deliver any of the programmes of work listed above or any other purpose relating to our pricing functions. Any sharing of PLICS data will be subject to a data sharing agreement approved by the senior information risk owner at Monitor.

We are developing analytical tools using PLICS data that help trusts improve data quality, identify operational and clinical efficiencies, and review and challenge their patient-level cost data. An example is the current PLICS benchmarking tool.

4.4. Approach to the PLICS collection

For the PLICS acute data collection in 2015/16, all participating trusts should follow:

- the costing approach outlined in Chapter 1 of this guidance

- the HFMA acute clinical costing standards referred to in Chapter 2 on a 'comply or explain' basis (ie they should adopt those standards or explain why they have not done so, either generally or for particular areas).

Guidance on the approach to the key items in the PLICS collection is detailed below.

4.4.1. Patient care activities

Quantum of cost

Total costs reported in the acute PLICS collection should reconcile to the final audited accounts for 2015/16.

Reference costs exclusions do not apply to the acute PLICS collection. You should identify any costs incurred as part of admitted patient care and include them in the relevant cost pool groups.

Including all the following items is desirable, and you should consider their treatment when completing an acute PLICS collection return:

- education and training (costs and income)

- research and development (costs and income)

- centrally funded clinical excellence awards (costs and income)

- private finance initiative or local improvement finance trust costs

- patient transport service

- impairments.

Unbundling services

For reference costs, some services (such as radiotherapy) are unbundled and reported separately from those of the core healthcare resource group (HRG) episode. However, for the PLICS data collection you should **not** unbundle these services' costs and activities or report them separately. Instead, you should match them to the correct patient and report them under patient core HRG-coded FCEs.

They are to be reported as part of the total unit costs of that patient's core HRG-coded FCE in the correct cost pool(s).

In the 2014/15 collection some trusts continued to report costs against unbundled HRGs. We recommend that trusts check their submission to ensure they report all costs against the episode's core HRG in the correct cost pools, according to the HFMA acute clinical costing standards.

Note that we recognise trusts' patient systems handle critical care episodes in different ways. Some record periods of critical care in the core episode. Others close the non-critical care episode and begin a distinct critical care episode. In this situation, if the critical care episode is given a core critical care HRG coding, it should be included in the PLICS return (being a core critical care HRG-coded episode). If it is not given one, the cost and activity need to be reported in the core HRG episodes, and episode dates may need to be adjusted to avoid under-representing length of stay (LoS).

Activity to be costed/work in progress

The organisation's approach to costing work in progress (WIP) will determine the activity to be costed for submission. We advise trusts to review their WIP approach before beginning the cost collection. Refer to the HFMA acute clinical costing standard 5: Work in progress, for the recommended approaches to costing WIP (see also Appendix 2 of this guidance).

The WIP levels below describe the episodes to be costed in each scenario (and therefore included as a line in the PLICS return), and clarify the revised use of the WIP 'partial episode' flag:

Level 1: Each episode within a spell that is completed in the financial reporting period is costed. This may include episodes completed in the previous financial reporting period. Episodes within spells incomplete at the end of the financial reporting period are not costed, even if the episode itself is complete. This is the approach in DH's *Reference cost guidance* and is the minimum standard for costing WIP. All organisations should be able to achieve this. In this scenario **no** episodes are flagged as WIP partial episodes.

Level 2: All episodes completed in the financial reporting period are costed, irrespective of when the episode or the spell started. This may include episodes started in the previous financial reporting period. Episodes completed before the financial reporting period began or after the financial reporting period ended are not included. In this scenario **no** episodes are flagged as WIP partial episodes.

Level 3: The following episodes or partial episodes are costed:

a) the in-year portion of episodes in progress at the start of the financial reporting period

b) full episodes (that is, started and completed) within the financial reporting period

c) the in-year portion of episodes incomplete at the end of the financial reporting period.

If – and only if – trusts are able to submit activity at level 3, all partial episodes (3a and 3c above) should be flagged in the template WIP partial episode flag column as '1'.

Orthotics

You should include orthotics costs in the PLICS collection where they relate to admitted patient care.

The local service set-up should determine where you report orthotics costs: if the service is broadly dispensatory, costs should be assigned to the 'Other clinical supplies and services' column; if it is therapy-based (eg with an orthotist clinic), you should report these costs in the 'Therapies' cost pool column. You should note where you have assigned these costs in the 'Additional comments' box on the 'Reconciliation' worksheet in the PLICS collection template.

Patient transport service

You should include patient transport service (PTS) costs in the PLICS collection (where they relate to admitted patient care) and these should be treated as an indirect cost and allocated accordingly. For further information on handling PTS costs, consult HFMA acute clinical costing standard 2: Creation of cost pool groups and cost pools.

For further information on costing indirect costs, see *Patient-level cost collection: follow-up review and recommendations for 2014/15*.[17]

4.4.2. Non-patient care activity

Non-patient care activity refers to activities such as education and training, research and development, and commercial activities.

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[17] Available at: www.gov.uk/government/publications/patient-level-cost-collection-201314-review-and-lessons-for-the-future

Costs

You should report costs for non-patient care activities in the following columns: 'Education and training costs', 'Research and development costs' and 'Other costs including commercial'. These should be excluded from the cost pools and 'Total cost' columns in the template (which refer to the **patient care** cost).

For further guidance on costing these activities, refer to HFMA acute clinical costing standard 7: Treatment of non-patient care activities.

We recognise that organisations are at different stages of being able to separately identify these non-patient care activities.

Factors such as whether the structure of the general ledger allows you to identify these costs, and the availability of activity information, contribute to how far you can comply with standard 7. Because the education and training cost collection may have been prepared outside the costing models, you may not be able to separate education and training costs in full from the other cost pools at the patient level.

For example, a trust may be able to report its research and development in the 'Research and development costs' column and its commercial activities in the 'Other costs including commercial' column, but be unable to separate the costs of education and training into the 'Education and training costs' column.

Therefore, we ask that any non-patient care costs still partly or fully reported in the cost pools (rather than as requested in the non-patient care activity cost columns) are reported in the free text box on the sign-off worksheet

If assigning costs related to non-patient care activities at patient level is not possible, please record this in the comment box in Section 1.4 of the PLICS template's Reconciliation worksheet.

Please ensure that non-patient care costs assigned to patients are only those which relate to those patients. Do not assign non-patient care costs from other patients (eg those not included in the submission) to patients to whom they do not relate (eg patients included in the submission).

Income from non-patient care activity – 'other income'

For reference costs, you must net off incomes associated with non-patient care activities from operating expenses before calculating average unit costs. However, this approach may overstate or understate the unit costs and therefore not capture the 'true' costs of providing patient care. In principle, it would be better to net off costs of non-patient care activities from patient care costs, rather than income.

For the 2015/16 PLICS collection, you should:

- **not** net off non-patient care activity income from operating costs; instead, you should separately identify and report the income where possible

- record in the 'other income' column in the PLICS template's Data Input worksheet income that can be reasonably assigned at patient level

- record in the comment box in Section 1.4 of the PLICS template's Reconciliation worksheet when assigning other incomes at patient level is not possible

- assign income at patient level for specialties for which this is possible and note the remaining income in the reconciliation worksheet's comment box.

For further guidance on how to treat these income streams, refer to HFMA acute clinical costing standard 6: Treatment of income.

Please ensure that 'other income' assigned to patients is only that which relates to those patients. Do not assign 'other income' from other patients (eg not included in the submission) to patients to whom it does not relate (eg patients included in the submission).

Direct access

You should not include costs and income relating to direct access activity that you have done for other providers, including pathology and other diagnostic testing, in the Data Input worksheet. Instead, report this on the Reconciliation worksheet.

As direct access activity is not admitted patient care, there is no relevant inpatient FCEs to attach these costs to.

Healthcare at home

Costs related to healthcare at home, including home delivery of drugs, should be reported on Reconciliation worksheet, and not included on the Data Input worksheet.

However, for early discharge schemes you should take care if the trust records:

- no activity but still incurs costs – these schemes are likely to be considered healthcare at home and excluded

- PAS activity even if the patient is not physically present (eg a 'virtual ward') – this activity and the attached costs are included because there is 'admitted' activity to attach the cost to.

4.4.3. Overview of the template

The template requires Microsoft Excel 2010 SP1 or newer, and users will need to enable macros. Monitor has digitally signed the macros in the template.

You can find the PLICS template on Monitor's website. It contains:

- front page, which reminds users to enable macros before completing the template

- instructions, on how to complete the template

- trust info, which collects the submitting trust's basic information

- reconciliation, which establishes the PLICS quantum from the audited accounts and reconciles the PLICS activity inputted to records in the secondary use services (SUS) data warehouse

- data input, where the main cost information is recorded

- summary, of costs reported per cost pool as well as activities and costs at HRG level

- sign-off, which confirms that uploaded data are complete and validated

- field definitions, for costing accountants to refer to.

Each worksheet has navigation buttons to allow users to switch between worksheets.
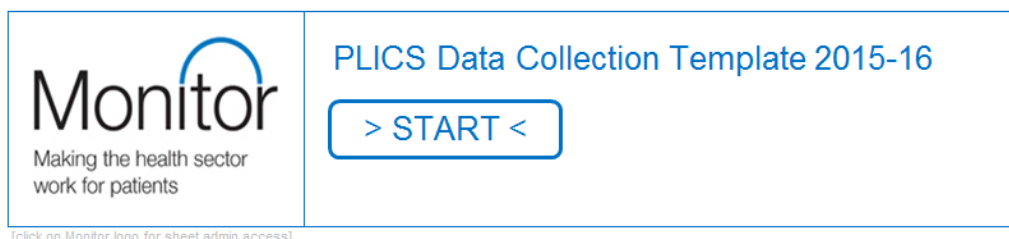
Front page

On opening the template for the first time you will see a note reminding you to enable macros (Figure 1).

Figure 1: Macros reminder
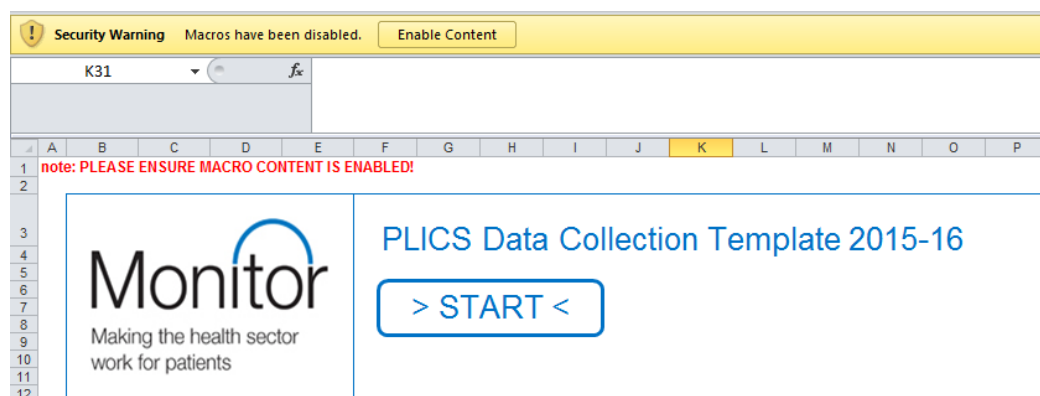
Ensure you enable the macros before continuing. Once you have done this, the note will no longer appear on opening the template (Figure 2).

Figure 2: After macros are enabled
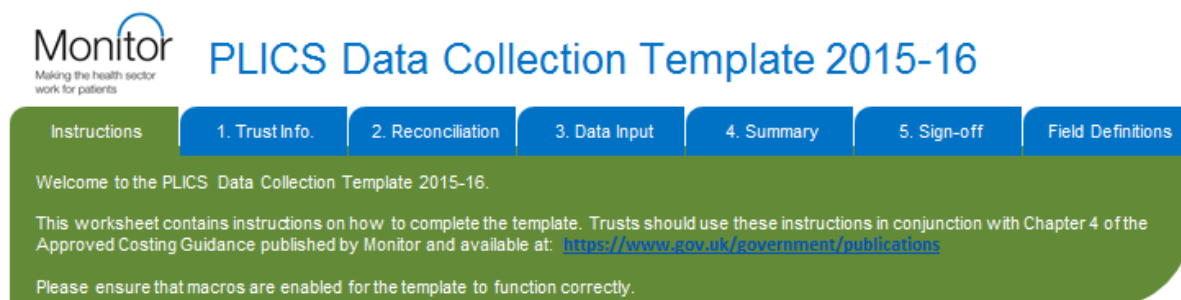

[click on Monitor logo for sheet admin access]

Click the >START< button to continue.

Instructions

The template contains instructions on how to prepare and submit data (Figure 3). You should read these before you start using the template.

Figure 3: Instructions for preparing and submitting data

Trust Info

This worksheet contains fields for (see Figure 4):

- three-digit organisation code

- organisation name (populated automatically when the organisation code is selected)

- contact details for a primary and alternative contact

- financial year

- PLICS supplier.

Figure 4: Fields for Trust Info

Reconciliation

The Reconciliation worksheet helps you establish the template PLICS quantum from your final audited accounts. It asks you to submit reconciliation between the FCE records and activities totals from SUS.

Note we have moved this worksheet earlier in this year's acute PLICS template so you can clarify early the quantum of costs to be included in the collection. This should help align the received data in terms of cost inclusion (to enable most equivalent benchmarking) and avoid time-consuming late revisions/recalculations, reducing the burden on trust personnel.

Section 1.1: Final audited accounts to PLICS Collection Patient Care Cost reconciles the total included admitted patient care PLICS template quantum with the reported figures in the final audited accounts (Figure 5).

Figure 5: Arriving at the total PLICS Patient Care Cost quantum and checking against the Data Input worksheet

Monitor
Making the health sector work for patients

PLICS Data Collection Template 2015-16

| Instructions | 1. Trust Info. | 2. Reconciliation | 3. Data Input | 4. Summary | 5. Sign-off | Field Definitions |

We have moved this worksheet earlier in the template to give collection participants initial sight of the intended collection quantum. We suggust brief review of this sheet before initiating collection efforts. Also consider at this point the Work in Progress (WIP) level at which you plan to submit. Once '3. Data Input' has been populated with data and sense checks are complete, please complete the reconciliation tables below. Section 1.1 requires reconciliation of the final audited accounts to the Admitted Patient Care PLICS Quantum. Section 1.2 checks this figure against the data entered in the '3. Data Input' worksheet. Section 2 requires a reconciliation of episodes (by point of delivery) data back to Secondary Uses Services (SUS) data. Section 3 requires a break down of overhead costs reported for admitted patient care.
For section 1.4, we have provided some free text fields for trusts to insert additional lines of costs. We would encourage trusts to provide descriptions of any material costs in these fields.

Section 1 - Cost Reconciliation

Section 1.1: Final Audited Accounts to PLICS Collection Patient Care Cost

		£ COST	Notes: FTs	Notes: NHS Trusts
1	Operating expenses		SOCI sc105	TRU01 sc100 + sc110
2	[ADD] Finance expenses financial liabilities (FTs) or finance costs (NHS trusts)		SOCI sc120	TRU01 sc170
3	[ADD] PDC dividends payable		SOCI sc130	TRU01 sc190
4	[ADD] Finance expenses - unwinding of discount		SOCI sc125	Not applicable
5	[ADD] Corporation tax expense		SOCI sc145	Not applicable
6	PLICS Cost Quantum (Whole)	0		
7	[LESS] Non-Admitted Patient-Care Costs			(relatin
8	[LESS] Non-Admitted Non-Patient-Care Costs			(relatin
9	PLICS Cost Quantum (Admitted)	0		
10	[LESS] NonEnglishNHS and NonNHS Admitted Patient-Care Costs **(if applicable)**			(zero f
11	[LESS] NonEnglishNHS and NonNHS Admitted Non-Patient-Care Costs **(if applicable)**			(zero f
12	PLICS Cost Quantum (Admitted) (Included)	0		
13	[LESS] (Included) Admitted Non-Patient-Care Costs			
14	PLICS Patient Care Cost Quantum (Admitted) (Included)	0		

Section 1.2: Variances to Data Input

	FROM DATA INPUT:		
15	Total Cost (Column BH from Data Input)	0	(this c
16	Difference between 14 and 15	0	

Section 1.1 is made up of operating expenses, finance expenses that can be extracted from the Statement of Comprehensive Income (SOCI) or notes to the SOCI. Lines 7 and 8 contain the main adjustment to exclude non-admitted patient activity. Following this, lines 10 and 11 contain adjustments for non-NHS costs, as it is optional for organisations to include or exclude non-NHS activity from the submission. (If included, non-NHS episodes should be flagged using the appropriate column on the Data Input worksheet.) Trusts that exclude non-NHS activity in their submission should remove these costs from the quantum, and record them on lines 10 and 11. They can only populate these lines once they have run the PLICS model from start to finish, because these patients need to be costed to the patient level to establish all the associated costs (to exclude them correctly and fully).

Section 1.2: Variances to Data Input checks the quantum figure from Section 1.1 against the total for the relevant column in the Data Input worksheet, which represents patient care costs ('Total costs').

Section 1.3: Final audited accounts to PLICS Collection Patient Care Other Operating Income arrives at the equivalent template quantum as established in Section 1.1 but for 'Other operating income' (as opposed to patient care cost) (Figure 6).

Section 1.3 also checks the 'Other operating income' from the final audited accounts against the relevant Data Input worksheet column total ('Other income').

We recommend you review and correct any variances between the admitted patient care PLICS quantum from the input data and the final audited accounts identified by Sections 1.1 and 1.3 before submission. If you cannot resolve the variance, use **Section 1.4: Variances explanation** lines 1 to 25 and the additional comments box to provide explanatory notes.

Figure 6: Arriving at the total PLICS Patient Care Other Operating Income quantum and checking against the Data Input worksheet and noting variances in the collection quantums

PLICS Data Collection Template 2015-16

| Instructions | 1. Trust Info. | 2. Reconciliation | 3. Data Input | 4. Summary | 5. Sign-off | Field Definitions |

We have moved this worksheet earlier in the template to give collection participants initial sight of the intended collection quantum. We suggust brief review of this sheet before initiating collection efforts. Also consider at this point the Work in Progress (WIP) level at which you plan to submit. Once '3. Data Input' has been populated with data and sense checks are complete, please complete the reconciliation tables below. Section 1.1 requires reconciliation of the final audited accounts to the Admitted Patient Care PLICS Quantum. Section 1.2 checks this figure against the data entered in the '3. Data Input' worksheet. Section 2 requires a reconciliation of episodes (by point of delivery) data back to Secondary Uses Services (SUS) data. Section 3 requires a break down of overhead costs reported for admitted patient care.
For section 1.4, we have provided some free text fields for trusts to insert additional lines of costs. We would encourage trusts to provide descriptions of any material costs in these fields.

Section 1.3: Final Audited Accounts to PLICS Collection Patient Care Other Operating Income

		£ Other OP. INCOME	Notes: FTs	Notes: NHS Trusts	
18	Other Operating Income/Other Operating Revenue		SOCI sc102	TRU05 sc130	(expecting
19	[ADD] Finance Income/ Investment Revenue		SOCI sc115	TRU01 sc150	(expecting
20	[ADD] Movement in fair value of investment property and other investments		SOCI sc142	Not applicable	(expecting
21	[ADD] Share of profit/loss of associates / joint ventures		SOCI sc140	Not applicable	(expecting
22	[ADD] Other Gains and Losses		Not applicable	TRU01 sc160	(expecting
23	[LESS] Non-Admitted Other Operating Income				(expecting
24	[LESS] NonEnglishNHS Admitted Other Operating Income (if applicable)				(expecting
25	PLICS Patient Care Other Operating Income Quantum (Admitted) (Included)	0			

FROM DATA INPUT:

26	Other Income (Column BG from Data Input)	0	(this colur

27	Difference between 25 and 26	0	

Section 1.4: Variances explanation

Please explain any variances identified in lines 16 and 27 above:

Line	Description		Comments
1	[Insert description of variance factor]		
2	[Insert description of variance factor]		

Section 2: Activity reconciliation. Total admitted patient episodes should be reconcilable to the SUS data reported for the same period. The reconciliation accounts for the three levels of WIP, so if the trust uses level 2 or 3, you will need to populate additional adjustments to reconcile to SUS. The column 'Count of episodes from Data Input' is automatically populated from the Data Input worksheet.

We recommend you review and correct any variances between the PLICS output and SUS data before submission (Figure 7). If you cannot resolve the variance, you should provide explanatory notes in the 'Possible reasons for variance' column.

Figure 7: Reconciling total admitted patient episodes to SUS data

Section 2 - Activity Reconciliation

Line	POD Type	Count of Episodes from Data Input	[WIP Level 2 & 3] FCEs started and completed in previous financial years from spells completed in financial year	[WIP Level 2 & 3] FCEs completed in FY from spells incomplete at FY end	[WIP Level 3] End-of-year WIP 'partial' episodes	(Admitted Patient Care) Activity from SUS	Variance	Possible re
			+	-	-			
1	Elective	0					0	
2	Non Elective	0					0	
3	Day Cases	0					0	
4	Regular Day or Night Admissions	0					0	
5	Total	0	0	0	0	0	0	

Section 3: Overheads breakdown. To help us better understand the overhead costs, we ask trusts to provide a detailed breakdown of the overhead costs associated with admitted patient care, where possible (Figure 8). The breakdown of the overhead costs is based on the HFMA acute clinical costing standard 1: Classification of direct, indirect and overhead costs.

The 'Total overheads' here should be those related to admitted patient care only so these are checked to match the total of the 'Overheads' cost pool from the Data Input worksheet.

Figure 8: Breakdown of overheads for admitted patient care

Section 3 - Breakdown of Overheads for Admitted Patient Care

Line	Description	£
1	**Estates overhead costs**	
1a	Building insurance	
1b	Building maintenance	
1c	Capital charges - Buildings	
1d	Cleaning	
1e	Energy/Utilities (unless metered)	
2	**Other overheads**	
2a	Board expenses	
2b	Computer licences	
2c	Finance	
2d	General trust administration	
2e	HR	
2f	Information management	
2g	Information technology	
2h	Medical staff Management	
2i	Organisational development	
2j	Payroll	
2k	Procurement	
2l	Site security	
2m	Strategic planning	
2n	Training - Organisation Wide	
2o	Consultancy Costs - Organisation Wide	
2p	PFI Payments	
2q	Interest payments	
2r	Patient liaison and complaints	
2s	Marketing and public relations	
2t	Other	
3	**Total Overheads**	£0

Data Input

The Data Input worksheet is where providers should submit data. Table 13 below defines what you should collect and which currency to use (eg theatre time is collected in minutes).

Table 13: Data fields

Field name	Description
Commissioner	Providers should give the organisation code of the commissioners (eg clinical commissioning groups) in this field
	For private patients, reciprocal patients and overseas patients, use X98 as the commissioner code
	For patients from other parts of the UK not covered by the English NHS (ie Wales, Scotland or Northern Ireland), if the commissioner code is not known, use X98
	Ensure all non-NHS patients have '1' in the 'Non-NHS patient flag' column
Anonymised local patient ID	Consistently anonymised local patient ID. Organisations should not include any patient-identifiable data, such as NHS number, in this data field
	Ensure anonymised local patient IDs do not contain any special characters (eg !"^&}/]`)

Spell ID	Consistently anonymised local spell ID. Patient-identifiable data should not be included in this data field Ensure spell IDs do not contain any special characters (eg !"^&}/]`)
Spell-episode ID	Spell-episode ID. Patient-identifiable data should not be included in this data field Note: this should be the spell ID and the episode order number concatenated with a separator. For example, 5000001.1 to represent the first episode within the spell 5000001 Ensure that spell-episode IDs do not contain any special characters (eg !"^&}/]`)
Episode start date and time	The FCE's start date and time. The input format is dd/mm/yyyy hh:mm. Ensure the value is in the standard Excel serial date-time format. If times cannot be obtained from systems, trusts should use date values alone (resulting in a 00:00 time) and not artificially construct a time value
Episode end date and time	The FCE's end date and time. The input format is dd/mm/yyyy hh:mm. Ensure the value is in the standard Excel serial date-time format. If times cannot be obtained from systems, trusts should use date values alone (resulting in a 00:00 time) and not artificially construct a time value
Anonymised consultant/care provider code	The anonymised consultant or care provider code for the finished consultant episode
Admission date and time	The admission date and time for the spell. The input format is dd/mm/yyyy hh:mm. Ensure the value is in the standard Excel serial date-time format. If times cannot be obtained from systems, trusts should use date values alone (resulting in a 00:00 time) and not artificially construct a time value
Discharge date and time	The discharge date and time for the spell. The input format is dd/mm/yyyy hh:mm. Ensure the value is in the standard Excel serial date-time format. If times cannot be obtained from systems, trusts should use date values alone (resulting in a 00:00 time) and not artificially construct a time value
Admission method code	The method of admission to a hospital provider spell. There is a set of national codes used to describe the method of admission (see the NHS Data Dictionary admission method codes18 for the full list)
Source of admission code	A set of national codes is used to describe the source of admission – see the NHS Data Dictionary source of admission codes[19]

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[18] Available at:
www.datadictionary.nhs.uk/data_dictionary/attributes/s/smo/source_of_admission_de.asp
[19] Available at:
http://www.datadictionary.nhs.uk/data_dictionary/attributes/s/smo/source_of_admission_de.asp

Discharge method code	The method of discharge from a hospital provider spell. It is a set of national codes used to describe the method of discharge (see the NHS Data Dictionary discharge method codes20 for the full list)
Discharge destination code	A patient's destination on completing a hospital provider spell, or a note that the patient died. A set of national codes is used to describe this (see the NHS Data Dictionary discharge destination codes21 for the full list)
Patient gender	The codes which indicate the patient's gender. Use the following codes for this field: 1 indicates male 2 indicates female 8 indicates not specified
Patient age	The patient's age in whole years at date of admission
Patient classification	This is a coded classification of patients who have been admitted to a provider spell: • ordinary admission • day case admission • regular day admission • regular night admission • mother and baby using delivery facilities only It is one of the mandatory fields used for HRG grouping. The NHS Data Dictionary patient classification codes22 contains the full list
Treatment function code	The NHS Data Dictionary treatment function codes23 contains the full list Local treatment function code or specialty codes will not be accepted
Main specialty code	Care professional main specialty code. Further guidance on these codes can be found in the NHS Data Dictionary main specialty code24 We do not accept local treatment function codes or specialty codes

[20] Available at: www.datadictionary.nhs.uk/data_dictionary/attributes/d/disc/discharge_method_de.asp
[21] Available at:
www.datadictionary.nhs.uk/data_dictionary/attributes/d/disc/discharge_destination_de.asp

[22] Available at:
www.datadictionary.nhs.uk/data_dictionary/attributes/p/pati/patient_classification_de.asp
[23] Available at:
www.datadictionary.nhs.uk/data_dictionary/attributes/t/tran/treatment_function_code_de.asp
[24] Available at: www.datadictionary.nhs.uk/data_dictionary/attributes/m/main_specialty_code_de.asp

Point of delivery (POD)	Four points of delivery abbreviations are used in this collection: • DC: day case • EL: elective inpatient • NE: non-elective inpatient (including both long-stay and short-stay episodes) • RP: regular day or night admissions (this POD is the same as the RDNA code previously used for the annual reference costs collection. For the purpose of this collection, we have created this abbreviation to minimise the data volume)
FCE HRG (RC)	The FCE HRG based on the HRG4+ 2015/16 reference costs grouper Ensure you report the reference cost HRG here and not the service HRG
Spell HRG (RC)	The spell HRG based on the HRG4+ 2015/16 reference costs grouper Ensure you report the reference cost HRG here and not the service HRG
Dominant procedure code	Dominant procedure code as identified by the HRG4+ 2015/16 reference costs grouper Please note dominant procedure is not the same as the first procedure (OPCS1) (although they may have the same value). Dominant procedure is selected by the HRG grouper from an episode's OPCS code complement. The dominant procedure code value should also be present in one of the episode's OPCS codes Further information on this field can be found in the NHS Data Dictionary dominant procedure25
OPCS-4 codes (x13 fields)	Fields for recording OPCS-4 codes. To minimise the volume of data being collected, up to 13 fields will be collected per episode
ICD 10 codes (x13 fields)	Fields for recording ICD 10 codes. To minimise the volume of data collected, up to 13 ICD 10 codes will be collected per episode
Critical care length of stay (in hours)	Patient's length of stay (in hours) at a critical care unit. For example, three-and-a-half hours' stay in a critical care unit should be recorded as 3.5. Report to a maximum of two decimal places For patients who have more than one stay on a critical care unit during an episode of care, submit total hours for these stays
Theatre time (in minutes)	The total time in minutes in theatre from when anaesthetisation is started to when the patient enters the recovery room, eg enter three-and-a-half hours as 210. This excludes endoscopy minutes
Endoscopy time (in minutes)	The total time in minutes the patient is in the special procedure suite, from the start of anaesthetisation to when they enter the recovery room, eg enter three and a half hours as 210

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[25] Available at: www.hscic.gov.uk/article/5444/Dominant-procedure-DOMPROC

Specialist service code	An indication of whether the FCE is considered a specialist service under the HRG4+ Use HRG4+ 2015/16 reference costs grouper to generate the data for this field
Education and training costs (non-patient care activity costs)	Costs (not net of income) from education and training non-patient care activities For further guidance on costs to include in this column, see HFMA acute clinical costing standard 7: Treatment of non-patient care activities Non-patient care costs should not be included in the total costs per FCE
Research and development costs (non-patient care activity costs)	Costs from research and development non-patient care activities For further guidance on costs to include in this column, see HFMA acute clinical costing standard 7: Treatment of non-patient care activities Non-patient care costs should not be included in the total costs per FCE
Other costs including commercial (non-patient care activity costs)	Costs from other non-patient care activities including commercial activities For further guidance on costs to include in this column, see HFMA acute clinical costing standard 7: Treatment of non-patient care activities Non-patient care costs should not be included in the total costs per FCE
Other income	Includes income from private or overseas patients, service provision to other providers, provision of goods and services to non-NHS entities, research and development income, and education and training income For further guidance on costs to include in this column, see HFMA acute clinical costing standard 6: Treatment of income Other income should not be included in the total costs per FCE
Cost classification: Fixed/semi-fixed/variable (x3 fields)	Providers should separately identify and report an FCE's fixed, semi-fixed and variable costs in three columns: • fixed costs refer to costs which do not change as activity changes over a 12-month period (eg annual contract cost for cleaning services) • semi-fixed costs do not move with activity changes on a small scale, but jump or step up when a certain threshold is reached • variable costs are directly affected by the number of patients treated or seen. They are an incremental or marginal cost (eg drug costs) You should report costs on a fully absorbed basis, ie include any relevant overhead costs in these data fields See HFMA acute clinical costing standard 4: Classification of costs into fixed and variable categories and HFMA acute clinical costing standards Appendix E for further guidance on how to classify costs as fixed, semi-fixed and variable

	The total value of fixed, semi-fixed and variable costs per FCE must equal the total quantum of costs for the cost pools Non-patient care costs and other income should not be included in the total value of fixed, semi-fixed and variable costs per FCE
Total cost	You should report the unit costs on a full absorption basis, which should equal the sum of the costs reported under the 28 cost pool groups and sub-cost pools Total cost should also equal the sum of fixed costs, semi-fixed costs and variable costs per FCE Non-patient care costs and other income should: • not be included in the total cost per FCE • not be included in fixed, semi-fixed and variable costs per FCE • not be included in cost pool costs per FCE
Cost pool groups and cost pools (x26 fields)	Breakdown of the total costs by cost pool groups and sub-cost pools For further guidance on cost pools, see Table 14 For further guidance on costs to include in this column, see HFMA acute clinical costing standard 2: Allocation of costs
Overheads	Overheads include costs of support services such as board, HR, finance, information management and information technology, and other costs not directly related to patient care Technically, overhead costs should be absorbed in individual cost pools. However, for this collection, we ask organisations to identify and report such costs separately For further guidance on costs to include in this column, see HFMA acute clinical costing standard 1: Classification of direct, indirect and overhead costs Impairments overheads should be reported separately in the following column
Impairments	Impairments are an accounting adjustment resulting from the change in a fixed asset or the economic environment in which it is used, and is not directly related to patient care Technically, impairments costs are overheads that should be captured in the overhead column. However, for this collection we ask organisations to identify and report impairments separately
Non-NHS patient flag	'0' indicates an NHS patient and '1' a non-NHS patient Providers that choose to include costs of non-NHS patients should complete this data field to indicate if the patient is an NHS or non-NHS patient By non-NHS patients, we mean: • private patients • reciprocal patients • overseas patients • patients from parts of the UK not covered by the English NHS (ie Wales, Scotland and Northern Ireland)

WIP partial episode flag	'0' is not a WIP partial episode; '1' is a WIP partial episode (level 3 only)

An organisation reporting WIP at level 1 or level 2 populates this column with '0' values

Use a WIP episode flag identifier value of '1' to identify where an episode is WIP (level 3 only):

- a partial episode that is either the in-year portion of an episode in progress at the start of the financial year or the in-year portion of an episode in progress at the end of the financial year, and therefore probably does not represent a 'full' episode cost

For guidance on the revised levels of WIP, see HFMA acute clinical costing standard 5: Work in progress, and Appendix 2 of this document |
| **Contracted out/in cost flag** | Use this field to indicate whether the episode has an element of care contracted out or in (ie patient care has been provided for or to another provider):

0 – entire episode of care was provided solely by the provider making the PLICS submission

1 – contracted out episode: all or part of this episode of care was provided by a different provider from the one making the PLICS submission

2 – contracted in episode: all or part of this episode of care was provided by the provider making the PLICS submission to another provider |
| **Contracted full or part cost** | This column should be used to designate whether an FCE line (of those designated '1' or '2' in the previous field) contains a full episode cost or (as a consequence of provider-to-provider contracting interactions), partial costs only (and therefore should be excluded from the benchmarking costs):

F – full episode cost

P – partial episode cost |

The Field Definitions worksheet in the template summarises the information required about the data (Figure 9). Table 13 above shows this in more detail. You will find it helpful to review this and refer back to it during your collection.

Figure 9: Data fields for submitting data
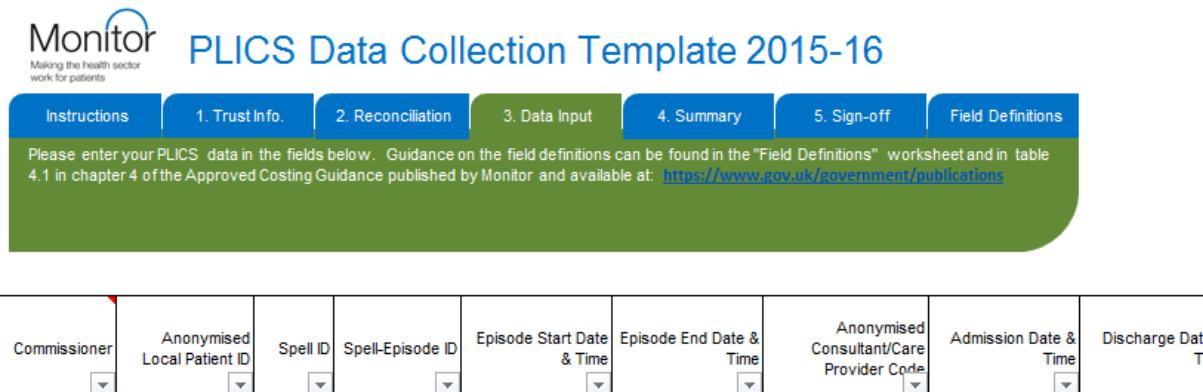
Certain column headings include comment boxes to help the costing accountant decide the information and format required for that column.

All fields are mandatory for providers submitting data.

For the 2015/16 PLICS collection, the following data fields have been added:

- patient classification

- education and training costs (non-patient care activity costs)

- research and development costs (non-patient care activity costs)

- other costs including commercial (non-patient care activity costs)

- impairments

- contracted out/in flag

- contracted full or part cost.

These additional data fields should allow us to better understand and benchmark patient treatment costs.

We have removed from the Data Input worksheet the following data fields:

- non-patient care activity costs

- WIP episode flag.

Information governance

To comply with information governance requirements, you should not include any patient-identifiable data (ID). Participating organisations should consistently anonymise local patient ID, consultant and care provider codes before submitting data to us.

Consistent anonymisation means that each patient and care provider will have a unique anonymised ID that can be used by Monitor to identify all associated episodes of care in an organisation's return.

Formatting

To reduce the size of the template file, only the first few lines contain the date and time formatting dd/mm/yyyy hh:mm in the relevant date-time columns (eg admission date). When entering your data on the template, we advise you to paste the data values without any formatting.

For all numeric entries, you should report numbers to at least two decimal places, including critical stay in hours.

Cost pool groups and cost pools

Table 14 lists cost pool groups and cost pools you should use as part of this data collection. Table 14 also provides guidance on the services or cost types each cost pool is intended to cover.

We have developed these cost pool groups in line with the 2015/16 HFMA acute clinical costing standards. For further guidance on reporting costs in the appropriate cost pool, see HFMA acute clinical costing standard 2: Allocation of costs.

Direct and indirect costs

The cost pools should contain both direct and indirect costs. For consistency of reporting costs, refer to HFMA acute clinical costing standard 1: Classification of direct, indirect and overhead costs.

We recommend that you pay particular attention to classifying indirect costs according to HFMA acute clinical costing standard 1, and ensure only these costs are reported in the relevant cost pools (along with the direct costs).

Indirect costs should not be reported in the overheads cost pool.

Overheads and impairments

To allow more meaningful benchmarking and analysis, we ask trusts to identify and report their overhead costs and impairments costs separately, and not to absorb them in the cost pool groups.

This year impairments are to be reported separately from other overheads.

Indirect costs should not be reported in the overheads cost pool.

The total unit cost reported for each episode of care should reflect the fully absorbed cost of patient care.

Cost pool groups

To support national cost reporting requirements, these cost pool groups will be collected at cost pool level.

The 'drug' cost pool group will be collected in three cost pools:

- high-cost drugs (as defined by a procedure code)

- chemotherapy drugs

- all other drugs.

The 'imaging' cost pool group will be collected in two cost pools:

- imaging – medical staffing

- imaging – all other costs.

The 'other diagnostics tests' cost pool group will be collected in two cost pools:

- other diagnostics tests – medical staffing

- other diagnostics tests – all other costs.

The 'pathology' cost pool group will be collected in two cost pools:

- pathology – medical staffing

- pathology – all other costs.

The 'Special procedure suite' cost pool group will be collected in two cost pools:

- special procedure suite costs without endoscopy suites costs

- endoscopy suites costs.

Emergency department cost pool

The 'Emergency department' cost pool group covers the costs associated with running the emergency department, including minor injury units and walk-in centres. We would **not** expect to see any costs in this cost pool for the admitted patient care

collection. You should report any costs related to emergency department costs incurred in delivering admitted patient care in the 'Wards' cost pool.

Outpatients cost pool

The 'outpatients' cost pool group is for costs associated with running outpatient clinics. We would **not** expect to see any costs in this cost pool for the admitted patient care collection. Report any costs related to outpatient costs used in delivering admitted patient care in the 'Wards' cost pool.

Table 14: Cost pool groups and cost pools

Cost pool groups and cost pools	Services covered by cost pool groups and cost pools
Blood and blood products	Blood and blood products used and in stock across all service areas
CNST	Costs associated with the Clinical Negligence Scheme For Trusts (CNST), which handles all clinical negligence claims
Critical care	Adult intensive care unit (ITU), adult high-dependency care unit (HDU), paediatric intensive care unit (PICU), neonatal intensive care unit (NICU), post-acute care enablement (PACE) teams and critical care transport
High-cost drugs	Costs associated with high-cost drugs generally excluded from the payment by results tariff. These drugs are identified as those triggering application of certain procedure codes by the clinical coding team
Chemotherapy drugs	Costs of chemotherapy drugs generally excluded from the payment by results tariff. These chemotherapy drugs are identified as those triggering application of certain procedure codes by the clinical coding team. In situations where drug costs could be indicated as being both high cost drugs and chemotherapy drugs, as in reference costs, preferentially record these costs in the 'High cost drugs' cost pool
All other drugs	Costs of all other drugs not reported in the two other drug cost pools above. This includes all drugs, stock drugs, drugs dispensed directly to patients. Home delivery drugs should not be reported in this cost pool but in the reconciliation worksheet
Emergency department	Costs associated with running the emergency department, including minor injury units and walk-in centres. We would not expect to see any costs in this cost pool for the admitted patient care collection. Report any costs related to emergency department costs used in delivering admitted patient care in the 'Wards' cost pool
Imaging – medical staffing	The medical staffing cost for radiology (diagnostic or interventional) includes: X-ray, mammography, fluoroscopy, computed tomography (CT), magnetic resonance imaging (MRI), nuclear medicine, positron emission tomography (PET), ultrasound
Imaging – all other costs	The imaging cost pool group for radiology (diagnostic or

	interventional) includes: X-ray, mammography, fluoroscopy, CT, MRI, nuclear medicine, PET, ultrasound, excluding medical staffing costs
Medical staffing (excluding imaging, pathology and other diagnostics)	The 'Medical staffing' cost pool group consists of medical staffing salaries associated with treating patients. It covers the costs of consultants, anaesthetists, registrars and junior doctors. However, medical staff working in radiology and other diagnostic and pathology departments should be excluded from this cost pool
Operating theatres	Costs of the area of a hospital where significant surgical procedures are carried out under surgical conditions, supervised by qualified surgeons. The operating theatre must be equipped to deliver general anaesthesia
Other clinical supplies and services	Costs of clinical supply and services not covered by other cost pool groups, such as audiology and clinical photography
Other diagnostic tests – medical staffing	All other diagnostic tests, with the exception of imaging and pathology. Such tests may include: echocardiogram, stress tests, electroencephalography (EEG), electro-cardiogram (ECG), neurophysiology, lung function tests
Other diagnostic tests – all other costs	All other diagnostic tests, with the exception of imaging and pathology. Such tests may include: echocardiogram, stress tests, EEG, ECG, neurophysiology, lung function tests (excluding medical staffing costs)
Outpatients	Costs associated with running outpatient clinics. We would not expect to see any costs in this cost pool for the admitted patient care collection. Report any costs related to outpatient costs incurred in delivering admitted patient care in the 'Wards' cost pool
Pathology – medical staffing	Costs of clinical laboratory testing for the diagnosis and treatment of patients, including histopathology, clinical chemistry, microbiology, haematology and biochemical sciences and genetics
Pathology – all other costs	Costs of clinical laboratory testing for the diagnosis and treatment of patients, including histopathology, clinical chemistry, microbiology, haematology and biochemical sciences and genetics, excluding medical staffing
Pharmacy services	Provision of drugs. This includes the production, distribution, supply and storage of drugs and clinical pharmacy services
Prostheses/implants/ devices	Costs of all prosthetics, implants and medical devices. A prosthesis is not only an artificial part of the body but also any item – eg surgical screws, wires – attached to or implanted into the body with the purpose of remaining permanently or until removed during another procedure
Radiotherapy	The 'Radiotherapy' cost pool group covers the costs associated with radiotherapy services
Secondary commissioning costs	Costs related to secondary commissioning of activity by, for example, an independent treatment centre
Specialist procedure suites excluding	Costs for suites specifically equipped for diagnostic and therapeutic procedures directed by qualified medical

endoscopy suites	practitioners. It would also include costs for special treatment rooms such as plaster rooms or hyperbaric chambers. Costs for the catheterisation laboratory and renal dialysis unit should also be included here. It excludes endoscopy suites costs
Specialist procedure suites including endoscopy suites	A cost pool established specifically for the PLICS cost collection. It covers all endoscopy suites
Specialist nursing staff	The 'Specialist nursing staff' cost pool consists of nursing staff who cannot be included in other specific cost pool groups, including specialist and consultant nurses
Therapies	Includes clinical services delivered by qualified therapy professionals who have direct patient contact, including physiotherapy, occupational therapy, and speech and language therapy
Wards	Includes nursing staff salaries, as well as costs of medical and surgical supplies, and other goods and services used and delivered on wards
Overheads	Costs of support services such as board, HR, finance, information management and information technology, and other costs not directly related to patient care. Overheads are technically not a cost pool group, but for this collection we ask organisations to report the costs separately. Impairment overheads should be reported separately in the following column
Impairments	Costs of impairments. Impairments are technically not a cost pool group, but for this collection we ask organisations to report the costs separately from other overheads. Reversal of impairments should also be reported in this column

Summary

The summary worksheet (Figure 10) contains four tables:

- 'Validation checks' – checks that the sum of the total cost equals the total of the fixed/variable elements and the total of the cost pool elements; ensure these both register a 'pass' before continuing

- 'Key summary statistics' – provides statistics such as total costs and total activities reported

- 'Costs by fixed/variable' – summarises total costs reported under fixed, semi-fixed and variable costs by value and percentage

- 'Costs by cost pool groups' – summarises the profile of the total costs reported against each cost pool by value and percentage.

Figure 10: Summary worksheet

Examples of sense-checks using the tables

These examples are intended to help you check the reasonableness of the costs and activities collected:

- 'Key summary statistics' will identify the count of episodes on the Data Input worksheet and how many episodes have either a total unit cost of zero or a negative cost; you can review and correct these as needed.

- 'Costs by fixed/variable' provides the opportunity to review the fixed and variable profile for the organisation and to sense-check with other stakeholders if that is a reasonable view.

- 'Costs by cost pool groups' provides a profile of the resources used for admitted patient care; this profile (in value and percentage) can be reviewed by:

  o costing accountants to ensure that no expected costs are missing from a cost pool: for example, zero costs in the 'Blood products' column because blood products have been reported in error in another cost pool

o   stakeholders to see if the profile shows a reasonable spread of costs incurred in delivering patient care: for example, if the 'medical staffing' cost pool has only 2% of total costs, this should prompt a review of the costing methodologies to ensure medical staffing costs are being classified accurately.

Sign off

The final step is to complete the sign-off sheet (Figure 11). This confirms the submission is complete and has been validated.

Template completion steps

Complete the checklist by clicking on the tick box.

Note the 2015/16 collection's requirement that the trust's finance director reviews and signs off the PLICS submission.

'Comply or explain': compliance with HFMA acute clinical costing standards

As part of the sign off, you should indicate whether you have complied with the HFMA acute clinical costing standards 2016/17 and if not, explain any non-compliance. This is because it is recognised that organisations are at different stages of their costing transformation and may still be working towards full compliance with the HFMA acute clinical costing standards 2016/17.

Use the free-text box to identify areas of the costing information that do not comply with the HFMA acute clinical costing standards 2016/17, stating whether a completely different approach has been taken from the standards or whether there is partial compliance. If the latter, state clearly which areas do not comply with the standards for this submission.

Number of patient-level feeds

You should report the number of patient-level feeds which you use in your patient-level costing.

Work in progress

You must record your method of costing work in progress in line with HFMA acute clinical costing standard 5: Work in progress (see also Appendix 2 to this document).

If the template is not ready for submission, the banner at the top of the worksheet will remain red. Once the template is ready for submission, it will turn green.

Figure 11: Confirming the completeness of the submission

Monitor PLICS Data Collection Template 2015-16
Making the health sector work for patients

| Instructions | 1. Trust Info. | 2. Reconciliation | 3. Data Input | 4. Summary | 5. Sign-off | Field Definitions |

Please ensure you::
(1) check the 6 boxes below to confirm that all required steps have been completed,
(2) respond to the question regarding data submission compliance,
(3) select the method used for accounting for work-in-progress.
Once this is done, the template is ready for submission to Monitor.

Template not ready for submission. Please complete the above steps.

Template completion steps

☐ '1. Trust Info' worksheet completed.

☐ '2. Reconciliation' worksheet reviewed to clarify correct PLICS quantum ahead of PLICS system running.

☐ '3. Data Input' worksheet populated.

☐ '4. Summary' reviewed for validation errors and sense-check of costs and both validation checks register a 'pass'.

☐ '2. Reconciliation' worksheet completed and reviewed in concert with '3. Data Input'.

☐ Materiality and Quality Scores (MAQS) template has been completed

☐ Submission is reviewed and signed off by the Director of Finance   Please enter Director of Finance Name: [   ]

Do you believe this PLICS data submission is in compliance with the requirements set out by Monitor in that the HFMA's Acute Clinical Costing

○ Yes   ○ No

Please provide a brief explanation where HFMA's Acute Clinical Costing Standards have NOT been followed when preparing this submission:

[   ]

[   ] How many patient level feeds do you use in your patient level costing?
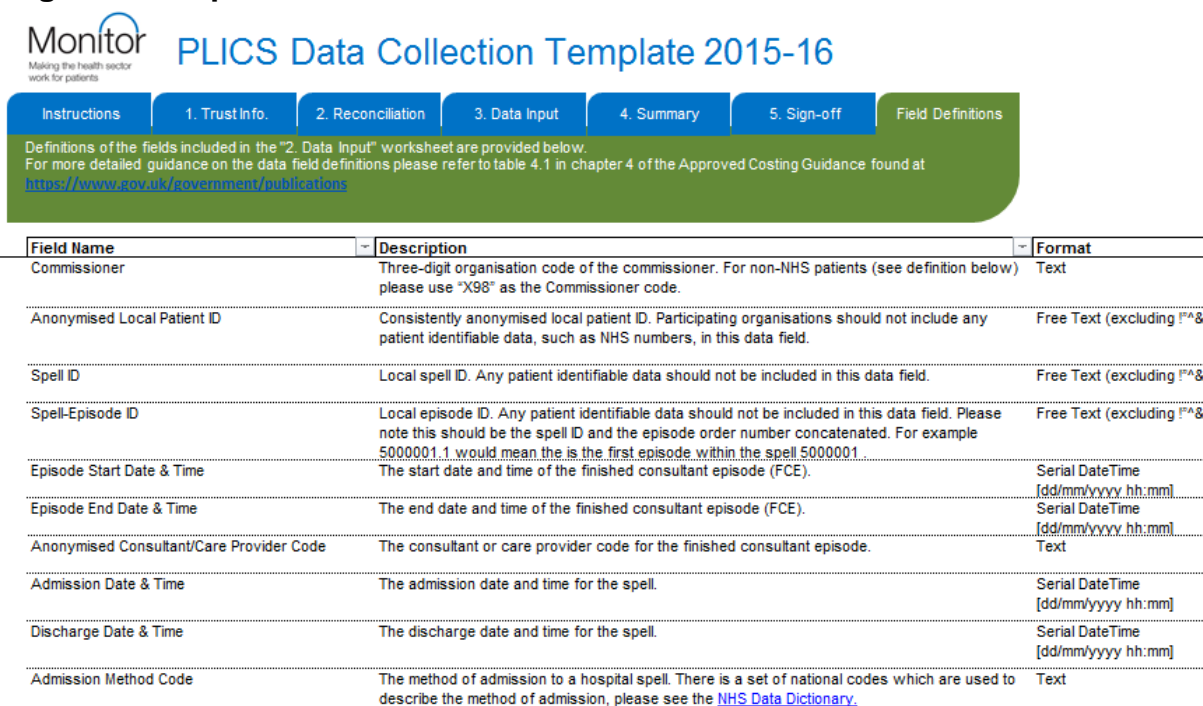
Method for accounting for work-in-progress - please select a method

○ Level 1 - Takes all episodes within spells that were completed within the financial year. This may include episodes which actually started in a previous report is the approach currently set out in the Department of Health's reference cost guidance. This is the minimum standard for costing work in progress and shoul by all organisations.

○ Level 2 - Takes all of the completed finished consultant episodes that are included within spells that are either completed in the financial reporting period or st end of the financial reporting period.

Field Definitions

The final worksheet lists field definitions for reference (Figure 11). For a more detailed explanation of the data fields and the requirements for the information to populate them, see Table 13 above.

Figure 11: Explanation of data fields

Field Name	Description	Format
Commissioner	Three-digit organisation code of the commissioner. For non-NHS patients (see definition below) please use "X98" as the Commissioner code.	Text
Anonymised Local Patient ID	Consistently anonymised local patient ID. Participating organisations should not include any patient identifiable data, such as NHS numbers, in this data field.	Free Text (excluding !"^&
Spell ID	Local spell ID. Any patient identifiable data should not be included in this data field.	Free Text (excluding !"^&
Spell-Episode ID	Local episode ID. Any patient identifiable data should not be included in this data field. Please note this should be the spell ID and the episode order number concatenated. For example 5000001.1 would mean the is the first episode within the spell 5000001	Free Text (excluding !"^&
Episode Start Date & Time	The start date and time of the finished consultant episode (FCE).	Serial DateTime [dd/mm/yyyy hh:mm]
Episode End Date & Time	The end date and time of the finished consultant episode (FCE).	Serial DateTime [dd/mm/yyyy hh:mm]
Anonymised Consultant/Care Provider Code	The consultant or care provider code for the finished consultant episode.	Text
Admission Date & Time	The admission date and time for the spell.	Serial DateTime [dd/mm/yyyy hh:mm]
Discharge Date & Time	The discharge date and time for the spell.	Serial DateTime [dd/mm/yyyy hh:mm]
Admission Method Code	The method of admission to a hospital spell. There is a set of national codes which are used to describe the method of admission, please see the NHS Data Dictionary.	Text

Saving the template

A built-in macro will give the PLICS template a standardised name when the user saves the template. This makes it possible to have an automated submission process; templates with non-standard names may be rejected. We recommend saving new versions of the template in a new folder to ensure version control.

Data validation

While we will validate all uploaded submissions, we encourage you to complete the data validation checklist in Table 15 before submission.

We will continue to refine our submission process to ensure that all trusts receive prompt feedback. We will give you details of this validation and feedback before opening our collection.

Table 15: Data validation checklist

Data validation check	Completed
Episode ID is unique	
Reference costs HRGs, not service HRGs, are reported	
Total costs of each episode equals the sum of the costs of the cost pool group	
Total costs of each episode equal the sum of the fixed, semi-fixed and variable costs	
Date and time format for all date columns is dd/mm/yyyy hh:mm	
The start and end dates of episodes and spells are not transposed (so creating a negative length of stay when calculated)	
Patient gender is reported using '1' for male, '2' for female and '8' for not specified	
Patient age is a positive number	
No unbundled HRGs are used	
Private patients have been given the commissioner code X98	
Non-NHS patients have been identified in the 'Non-NHS patient flag' with '1' column	
The 'WIP episode flag' column has been populated (level 3 only)	
No negative values in the 'Critical care LoS in hours' column	
No negative values in the 'Theatre time in minutes' column	
No negative values in the 'Endoscopy time in minutes' column	
Non-patient care activity cost columns are not included in the episode cost total	
Other income is not included in the episode cost total	
Review all unit cost pool costs with a value of less than £1	
Review all unit cost pool costs with a negative value	
Review all unit cost pool costs with a value of more than £30,000	

4.4.4. Completing the MAQS template

To allow us to determine the quality of the submitted PLICS data, we ask trusts to complete and submit the MAQS template for acute services (Figures 12 and 13). HFMA and Monitor have developed this template alongside the PLICS template. The MAQS template checks the level of data matching as well as the allocation methods adopted, and calculates an overall quality score.

You can find the MAQS template on Monitor's and HFMA's websites. For guidance on how to complete the MAQS template, see the HFMA acute clinical costing Standard 9: Quality assessment and measurement.

Figure 12: Front page for the acute MAQS template

HFMA Materiality and Quality Score (Acute)

>START<

[click on HFMA logo for sheet admin access]

Figure 13: MAQS template for completion

HFMA Materiality and Quality Score (Acute)

| GUIDANCE | TRUST INFO. | MAQS | COSTPOOL MAQS | RECONCILIATION |

Organisation Name: Organisation Name <Not yet specified via Trust Info

Final MAQS: 0.0%

Total Costs £0

Cost Cat.	Cost Pool Groups	Service	Resource Type	Allocation Method Adopted (Please select methods BEFORE entering the respective costs) (Note: Can select "Multiple Allocation Methods" to reveal accommodating subsection)	Score for Allocation Method	Total Costs (Please insert the costs. If no cost is reported for the cost pool group, please leave the cell in its current default format.)
Direct	Blood and blood products	Blood and blood products	Non pay	<Please Select>	NA	£0
	CNST	Clinical Negligence Scheme for Trusts(CNST)	Non Pay - all other specialities	<Please Select>	NA	£0
			Non Pay - Maternity	<Please Select>	NA	£0
	Critical Care	Critical Care	Consumables	<Please Select>	NA	£0
			Non Pay	<Please Select>	NA	£0
			Nursing Salaries	<Please Select>	NA	£0
			Other pay costs	<Please Select>	NA	£0
	Drugs	Drugs	Drugs - inpatient	<Please Select>	NA	£0
			Drugs - non-inpatient	<Please Select>	NA	£0
	Drugs - chemotherapy	Chemotherapy Delivery	Pay costs	<Please Select>	NA	£0
		Chemotherapy Procurement	Drugs and drug dispensing costs	<Please Select>	NA	£0
			Procurement Costs	<Please Select>	NA	£0
	Drugs - high cost drugs	Drugs	High cost drugs	<Please Select>	NA	£0
	Emergency Department	Emergency Department	Non Pay	<Please Select>	NA	£0

For the 2015/16 collection, we ask all organisations to complete this template for all PLICS costs (where appropriate) instead of just focusing on the admitted patient care costs.

Note that with HFMA we have developed a separate MAQS template for mental health providers. If any mental health providers wish to share their MAQS with us, please email PLICS_Collection@monitor.gov.uk.

4.4.5. Submission process and timetable

You should submit the completed PLICS and MAQS templates to us via a secure portal. We will give organisations further details on the process closer to the start of the collection.

The PLICS data collection template is available on Monitor's website. Providers that wish to take part in the collection should ensure their PLICS is capable of capturing the required data fields. We encourage you to fill in the template as early as possible.

The PLICS data collection window will open in July 2016 and close in early October 2016. We will tell trusts the exact dates closer to opening our collection. Organisations can submit data at any time during this period and submit both PLICS and MAQS templates multiple times within the collection window.

Appendix 1: Glossary of costing terms

Term	Description
Activity	A measurable amount of work performed by resources to deliver elements of patient care.
Acuity	The severity of an illness. This can be considered in patient classification systems, designed to guide the allocation of nursing staff, to justify staffing decisions, and to help in long-range projection of staffing and budget.
Assign	Process of apportioning costs from a high-level pool of costs to an activity, based on a predetermined methodology.
Admitted patient care	Care for patients who are admitted to hospital, including ordinary elective admissions, ordinary non-elective admissions, day cases, regular day admissions and regular night admissions.
Cause and effect	Cost assignment method that assigns costs to the cost object based on the cause of the cost.
Cost driver	Factor that causes activities and costs to vary, such as length of stay or theatre minutes.
Cost pools	Accumulated costs in logical groupings, which are subsequently used to support cost allocation and for reporting.
Cost quantum	Total costs measured and allocated for a particular costing exercise/collection.
Finished consultant episode (FCE)	Episode of patient treatment under the care of one consultant, which has finished.
Patient-level costs	Costs that are calculated by tracing the actual resource use of individual patients.
PLICS	Patient-level information and costing system; IT systems that combine activity, financial and operational data to cost individual episodes of patient care.
Reference costs	Average unit costs across the NHS of providing defined services in a given financial year. These are collected yearly from all trusts at HRG, point-of-delivery level.
Resources	Components that are used to deliver the activities. For example, nursing in delivering ward care or reagents in pathology testing.
Service line reporting (SLR)	Method for reporting cost and income by service lines to improve management's understanding of the contribution of each service line to performance.
Spell	Period from a patient's date of admission to their date of discharge.
Secondary Uses Service (SUS)	The single, comprehensive repository for healthcare data in England.

Appendix 2: Work in progress
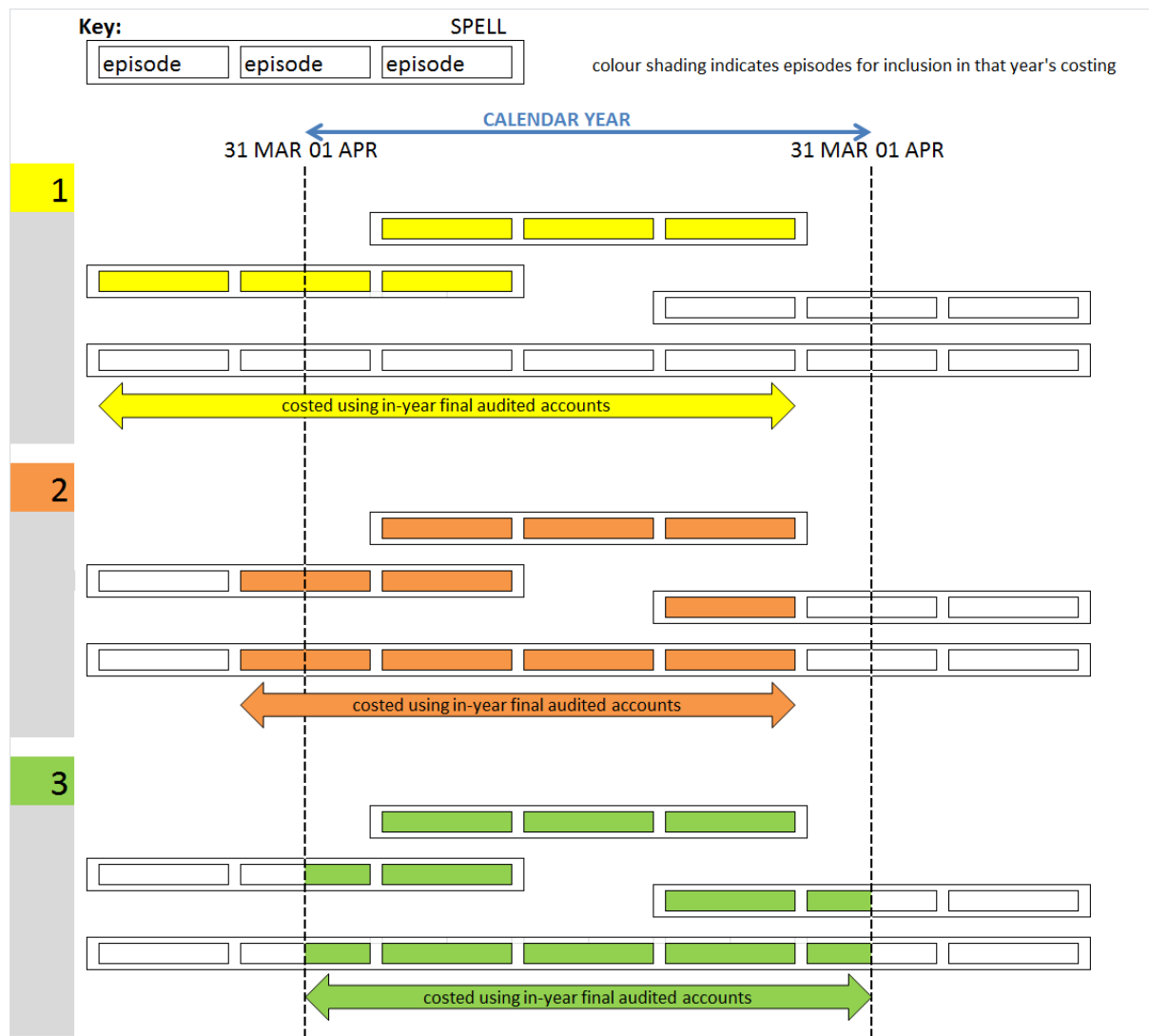
Appendix 3: High-level timeline for the costing transformation programme 2015 to 2021
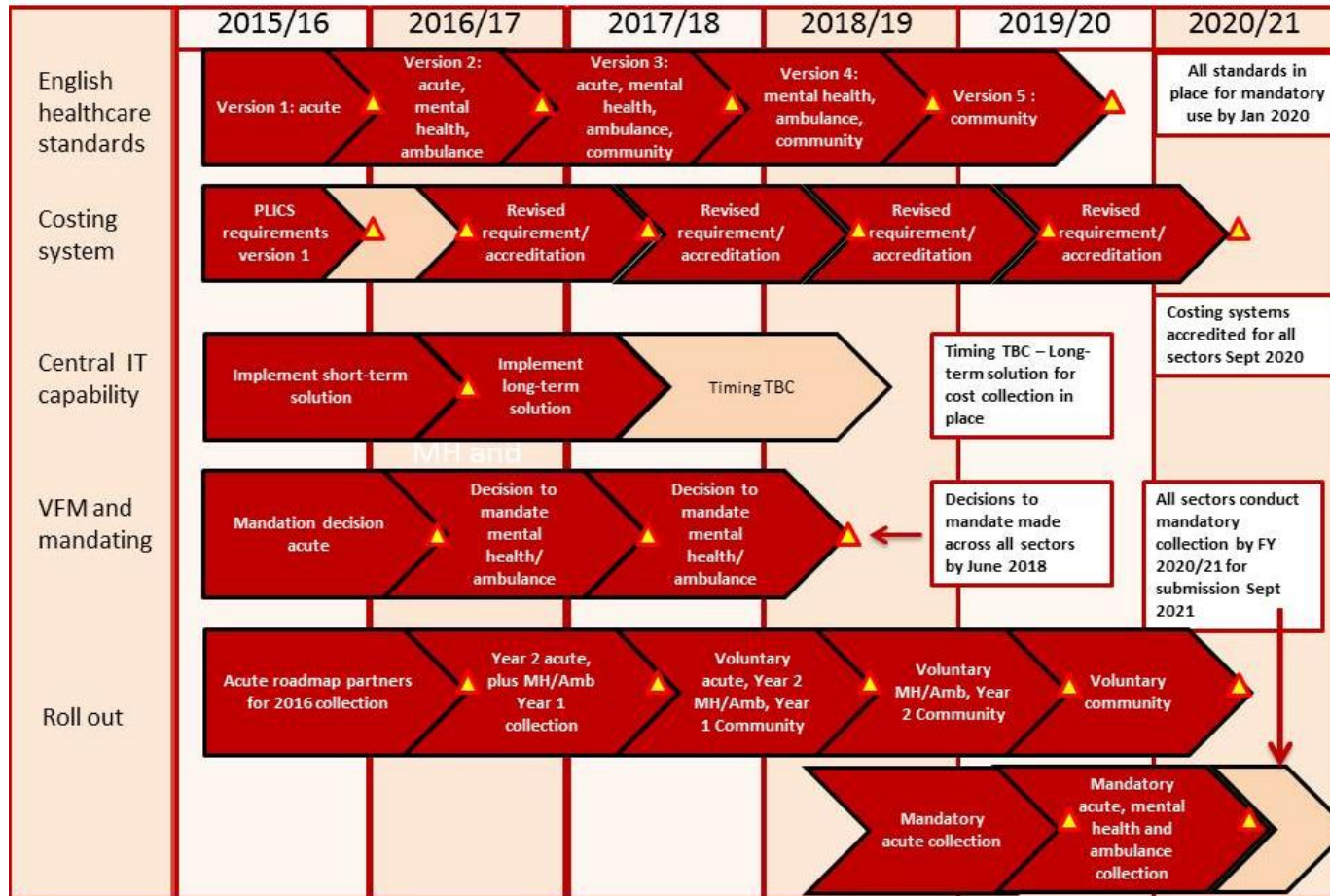
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