NHS Improvement

Healthcare costing standards for England

Acute: Costing methods

For data being collected in 2020 for financial year 2019/20

Final

collaboration trust respect innovation courage compassion

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We support providers to give patients safe, high quality, compassionate care within local health systems that are financially sustainable.

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Introduction

This final version of the *Healthcare costing standards for England – acute* should be applied to 2019/20 data and used for all national cost collections. It supersedes all earlier versions. All paragraphs have equal importance.

There are four types of standards: information requirements, costing processes, costing methods and costing approaches.

The information requirements and costing processes standards make up the main costing process and should be implemented first. **This document contains the costing methods standards.** These focus on high volume or high value services or departments. They should be implemented after the information requirements and costing processes, and prioritised based on the value and volume of the service for your organisation.

All the standards are published on NHS Improvement's website.[1] An accompanying **technical document** contains the information required to implement the standards, which is best presented in Excel. Cross-references to spreadsheets (eg Spreadsheet CP3.3) refer to the technical document.

We have ordered the standards linearly but, as aspects of the costing process can happen simultaneously, where helpful we have cross-referenced to information in later standards.

We have also cross-referenced to relevant costing principles. These principles should underpin all costing activity.[2]

We have produced a number of tools and templates to support you in implementing the standards. These are available to download from: https://improvement.nhs.uk/resources/approved-costing-guidance-2019

If you would like to give us feedback on the standards, please complete the evidence pro forma and send it to costing@improvement.nhs.uk

[1] See https://improvement.nhs.uk/resources/approved-costing-guidance/
[2] For details see *The costing principles*, https://improvement.nhs.uk/resources/approved-costing-2019/

CM1: Consultant medical staffing

Purpose: To allocate consultant medical staff costs to the activities they deliver.

Objectives

1. To ensure all consultant medical staffing costs are allocated in the correct proportion to the activities they deliver, using an appropriate cost allocation method.

2. To allocate the actual consultant medical staffing costs to their named activity.

Scope

3. This standard applies to all consultant medical staffing costs in the cost ledger.

Overview

4. Consultant medical staff are a large proportion of your organisation's costs and are likely to deliver the most patient-facing activities.

5. To ensure this activity is costed as accurately as possible, you should allocate the actual consultant medical staff costs to their own named activity.

6. For example, Ms Smith is a consultant ophthalmologist. Ms Smith's costs should be allocated to her activity using the prescribed cost allocation methods in columns F and G in Spreadsheet CP3.3.

7. If clinicians are to use patient-level costing effectively to improve services, they need to be confident their activity is costed appropriately. Allocating their

actual costs to the activity they delivered, rather than an average cost, will increase their confidence in the cost data's accuracy.

8. To cost consultant medical staff activities accurately you need to understand where consultant medical staff work in your organisation, eg in A&E or pathology departments.

9. You also need to understand the patient-facing and other activities (such as research and development and education and training[3]) consultant medical staff deliver, and in what settings (such as theatres or outpatients).

What you need to implement this standard

- Spreadsheet CP3.6: Relative weight values specification – pathology
- Spreadsheet CP3.7: Relative weight value specification – diagnostic imaging
- Spreadsheet CP3.8: Ward round data specification
- Spreadsheet CM1.1: Example of a consultant medical staffing information collection template for costing

Approach

10. Review the prescribed list of activities in column B in Spreadsheet CP3.2 and identify those your consultant medical staff deliver.

11. Allocate all consultant medical staffing costs except for consultant anaesthetists using the resource ID: SGR062; Consultant.

12. Allocate consultant anaesthetists' costs using the resource ID: SGR064; Consultant – anaesthetist.

13. Table CM1.1 is an excerpt[4] from Spreadsheet CP3.3 and shows which activities the consultant resource is linked to.

14. Table CM1.2 is an excerpt from the same spreadsheet and shows the activities the consultant anaesthetist resource is linked to.

[3] Please see the costing glossary for more information on these areas.
[4] Please note all excerpts in this standard are for illustrative purposes only. Spreadsheet CP3.3 gives a full list of resource and activity links.

15. For each resource and activity combination below there is a two-step prescribed allocation method in columns F and G.

Table CM1.1: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for the consultant resource

Resource and activity link ID	Resource	Activity
SGR062 – MDA070	Consultant	A scan biometry
SGR062 – SLA121	Consultant	A&E – medical care
SGR062 – SLA104	Consultant	Adult critical care – medical care
SGR062 – CLA041	Consultant	Genetics testing
SGR062 – CLA042	Consultant	Haematology testing
SGR062 – SLA145	Consultant	High dependency unit – medical care
SGR062 – CLA054	Consultant	Neonatal pathology screening
SGR062 – CLA026	Consultant	Non-gynae cytology testing
SGR062 – CLA020	Consultant	Other radiology
SGR062 – SLA138	Consultant	Renal dialysis
SGR062 – SPA155	Consultant	Research and development
SGR062 – SLA098	Consultant	Ward round
SGR062 – CLA023	Consultant	X-ray

Table CM1.2: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for the consultant anaesthetist resource

Resource and activity link ID	Resource	Activity
SGR064 – SLA103	Consultant – anaesthetist	Adult critical care – anaesthetic care
SGR064 – SLA139	Consultant – anaesthetist	Brachytherapy radiotherapy delivery
SGR064 – SLA134	Consultant – anaesthetist	Cardiac catheterisation laboratory
SGR064 – SPA152	Consultant – anaesthetist	DNA

Resource and activity link ID	Resource	Activity
SGR064 – SLA137	Consultant – anaesthetist	Other specialist procedure suites care
SGR064 – SLA135	Consultant – anaesthetist	Outpatient care
SGR064 – SLA136	Consultant – anaesthetist	Outpatient procedure
SGR064 – SLA113	Consultant – anaesthetist	Paediatric critical care – anaesthetic care
SGR064 – SLA143	Consultant – anaesthetist	Pain management care
SGR064 – SLA149	Consultant – anaesthetist	Telemedicine contact
SGR064 – SGA079	Consultant – anaesthetist	Theatre – anaesthetic care
SGR064 – SGA080	Consultant – anaesthetist	Theatre – recovery care
SGR064 – SLA098	Consultant – anaesthetist	Ward round

16. You will need to identify the individual consultant medical staff costs from a payroll data source.[5]

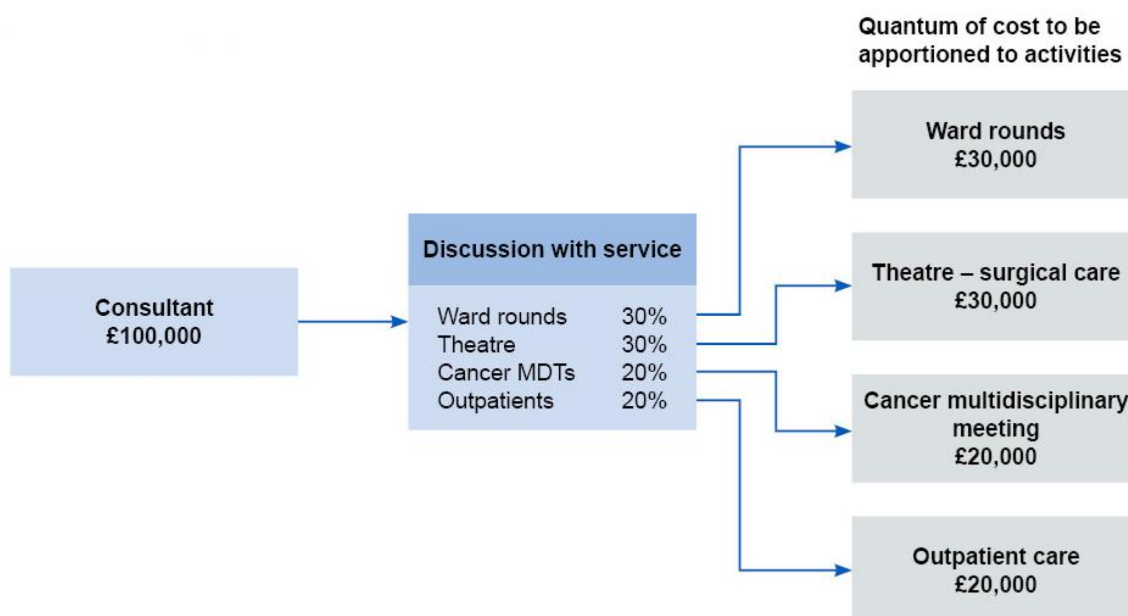
17. You will need to identify the quantum of consultant medical staffing costs to allocate to each type of activity using a percentage split of consultant medical staffing costs by activity type. You can find this out by talking to consultant medical staff, using job plans or other sensible means, such as theatre planning systems, outpatient clinic set-ups, live job diary recording or electronic clinical notes (see Figure CM1.1).

18. Do not use consultant job plans as a basis to allocate other medical staffing costs, such as those for non-consultant medical staff or consultant nurses. Allocate those costs based on discussions with those staff groups and other information sources.

[5] Allocating pay costs using the electronic staff record (ESR) or another payroll has been adopted as a superior method for other staff groups.

Acute costing methods

Figure CM1.1: Identifying the correct quantum of cost to be apportioned to activities



19. An example template for gathering this information is included in your integrated costing assurance log (ICAL) worksheet 23: CM1 Consultant % split.

20. For some consultant medical staff, the percentage split may be divided further for specific groups of patients.

21. Do not apportion the same percentage split to all activity types unless evidence suggests that is appropriate. You must document the rationale for the percentage split used in your ICAL worksheet 24: CM1 Consultant % reasoning.

22. The apportionment should take place in your costing system to give you the quantum of cost for each activity type.

23. Once the quantum of cost for each type of activity has been calculated, the costs are allocated using the prescribed cost allocation methods.

Acute costing methods

Ward rounds

24. Spreadsheet CP3.8 contains a template for a statistic allocation table for ward rounds. This allows you to develop relative weight values for patient groups that require longer ward rounds, or relative weight values for weekend ward rounds.

25. If any consultant medical staff in your organisation care for patients with different treatment function codes (TFCs), or other specific characteristics, and ward rounds vary in duration because of this, find out from discussions with medical staff what the average duration of a ward round is for the different patient groups.

26. Use this information as a relative weight value alongside length of stay to allocate ward round costs that better reflect the time medical staff spend with patients.

27. Consultant anaesthetists may also do pre-surgery ward rounds on patients due to go to theatre. Work with consultant anaesthetists to find out if they do pre-surgery ward rounds, which patients they visit and the average time they spend with each patient. Use this information to develop a relative weight value to assign these patients an appropriate element of consultant anaesthetist costs.

Outpatients

28. It is important to understand which consultant medical staff are involved in multidisciplinary outpatient clinics to ensure they are all included in costing these clinics.

29. Consultant anaesthetists may be involved in or run pain management clinics. Work with consultant anaesthetists to find out if they are involved in outpatient care and if they perform any outpatient procedures. Use this information to develop a relative weight value to assign these patients an appropriate element of consultant anaesthetist costs for these activities.

Theatres

30. The theatres patient-level feed (feed 13) is at procedure level so you can identify when a procedure during an operation is performed by a different surgeon from the lead surgeon.

31. The theatres patient-level feed also has fields for other consultant medical staff involved in the operation in addition to the lead surgeon. This information should be recorded in the fields below in Table CM1.3.

32. You must include the cost for all consultant medical staff in the total cost for the operation.

Table CM1.3: Excerpt from Spreadsheet IR1.2 showing fields to record consultant medical staffing in the theatres feed (feed 13)

Feed name	Field name	Field description
Theatres	Anaesthetist 1	Name or identifier for anaesthetist 1
Theatres	Anaesthetist 2	Name or identifier for anaesthetist 2
Theatres	Anaesthetist 3	Name or identifier for anaesthetist 3
Theatres	Surgeon 1	Name or identifier for surgeon 1
Theatres	Surgeon 2	Name or identifier for surgeon 2
Theatres	Surgeon 3	Name or identifier for surgeon 3

33. Consultant anaesthetists may stay with patients until they are out of recovery. Work with consultant anaesthetists to understand how they deliver anaesthetic care in theatres, and then use the timestamps in column D on the theatres (feed 13) to ensure that consultant anaesthetist costs are allocated using the correct durations.

34. It is important to identify medical staffing activity that is not recorded on any of the provider's databases: for example, time spent preoperatively, postoperatively or at discharge with patients.

35. During discussions with consultant medical staff you should identify the procedures for which or patient types with whom they spend significant time in addition to ward rounds and their other activity. Then set up relative weight

values to allocate this additional consultant medical staffing cost to those patients using activity ID: SLA098; Ward round.

Medical reviews

36. Where medical staff review patients managed under a different specialty from their own – for example, a cardiac patient with asthma is reviewed by a respiratory consultant, this contact should be costed and included in the final patient unit costs.

37. One way to capture this information is for it to be recorded on the organisation's patient administration system (PAS). Then the activity can be reported in the supporting contacts feed (feed 7). If this is the case, the prescribed matching rules for the supporting contacts feed in columns H to O of Spreadsheet CP4.1 will ensure the medical review is matched to the correct patient's episode, contact or attendance.

38. Whichever way medical reviews are captured, they should be costed using activity ID: SLA099; Supporting contact.

Pain management

39. Consultant anaesthetists may be part of a peripatetic pain management team that provides pain management care to inpatients. This information should be recorded on the supporting contacts feed (feed 7) and the costs allocated using the resource and activity link shown in Table CM1.4.

Table CM1.4: Resource and activity link for consultant anaesthetist

Resource and activity link ID	Resource	Activity
SGR064 – SLA143	Consultant – anaesthetist	Pain management care

Clinical support services

Pathology

40. Most pathology consultants specialise in a particular field, such as haematopathology or forensic pathology. They may conduct tests, examine biological samples and collaborate with other physicians to diagnose illnesses.

41. Use Spreadsheet CP3.6 to identify the consultant input to the pathology tests to ensure the tests are allocated an appropriate proportion of consultant costs.

42. Consultant pathologists may be involved in more clinical activities than testing: for example, consultant microbiologists may be involved in delivering patient-facing infection control activities. Work with the department to ensure that consultant costs are allocated appropriately to all the activities its consultants undertake.

43. Table CM1.5 is an excerpt from Spreadsheet CP3.3 that shows the pathology activities the consultant resource is linked to.

Table CM1.5: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for the consultant resource and pathology activities

Resource and activity link ID	Resource	Activity
SGR062 – CLA036	Consultant	Biochemistry testing
SGR062 – CLA039	Consultant	Cytology testing
SGR062 – SLA118	Consultant	Direct access services
SGR062 – CLA041	Consultant	Genetics testing
SGR062 – CLA042	Consultant	Haematology testing
SGR062 – CLA044	Consultant	Immunology testing
SGR062 – SPA162	Consultant	Infection control
SGR062 – CLA054	Consultant	Neonatal pathology screening
SGR062 – CLA026	Consultant	Non-gynae cytology testing
SGR062 – CLA027	Consultant	Organ transplantation compatibility testing

Resource and activity link ID	Resource	Activity
SGR062 – CLA040	Consultant	Other pathology testing
SGR062 – SLA131	Consultant	Screening
SGR062 – CLA032	Consultant	Virology testing

Diagnostic imaging

44. Radiologists specialise in diagnosing and treating disease and injury using medical imaging techniques such as X-rays, computed tomography (CT), magnetic resonance imaging (MRI), nuclear medicine, positron emission tomography (PET), fusion imaging and ultrasound. Because some of these imaging techniques involve the use of radiation, adequate training in and understanding of radiation safety and protection is important.

45. Use Spreadsheet CP3.7 to identify the consultant input in the diagnostic imaging tests and ensure the tests are allocated an appropriate proportion of consultant costs.

46. Consultant radiologists may be involved in more clinical activities than diagnostic imaging. For example, they may be involved in delivering interventional radiology. Work with the department to ensure that consultant costs are allocated appropriately to all the activities its consultants undertake.

47. Table CM1.6 is an excerpt from Spreadsheet CP3.3 showing the diagnostic imaging activities the consultant resource is linked to.

Table CM1.6: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for the consultant resource and diagnostic imaging activities

Resource and activity link ID	Resource	Activity
SGR062 – MDA070	Consultant	A scan biometry
SGR062 – CLA014	Consultant	Cardiac magnetic resonance imaging (MRI)
SGR062 – CLA015	Consultant	Computed tomography scan (CT)

Resource and activity link ID	Resource	Activity
SGR062 – MDA071	Consultant	Corneal topography
SGR062 – CLA016	Consultant	DEXA scan
SGR062 – CLA017	Consultant	Mammogram
SGR062 – CLA018	Consultant	Magnetic resonance imaging (MRI)
SGR062 – CLA019	Consultant	Nuclear medicine – radionuclide imaging
SGR062 – MDA069	Consultant	Refraction testing
SGR062 – CLA021	Consultant	Ultrasound (non-obstetric)
SGR062 – CLA023	Consultant	X-ray
SGR062 – CLA024	Consultant	X-ray fluoroscopy

Critical care

48. Critical care consultant medical staffing cost should be allocated across all patients based on critical care stay duration in hours and minutes, without an acuity relative weight value.

49. If, for example, the patient in critical care is a cardiac patient, they may also receive ward rounds from their named cardiac consultant. These ward rounds should be costed and included in the cost of the critical care stay.

50. Critical care patients may at times require anaesthetic care. Work with the department and anaesthetic medical staff to identify the level of anaesthetic care required for the different types of critical care activity and to develop a relative weight value. Use the 'anaesthetic care received' flag to identify the patients who received this care during their critical care stay. Use the 'critical care activity code' field to assign the correct proportion of anaesthetist medical staffing cost. This cost should then be further weighted by duration in hours and minutes of the critical care stay.

51. Critical care medical staffing cost involved in critical care transport should be allocated across all journeys based on duration using activity ID SLA106; Critical care – journey.

Non-clinical activities

52. Education and training (E&T) activities should be costed in line with the E&T costing standards.

53. E&T activities should not be matched to patients but reported under the ‘education and training’ cost group.

54. Research and development (R&D) activities should be costed using your current methods and documented in your ICAL worksheet 20: Research and development. Cost R&D using activity ID: SPA155; Research and development.

55. R&D activities should not be matched to patients but reported under the ‘research and development’ cost group.

56. Other non-clinical activities should be allocated to clinical activities using the actual cost of the clinical activity as a relative weight value.

57. Table CM1.7 is an example of what consultant medical staffing costs could look like in the resource and activity matrix.

Table CM1.7: Example of consultant medical staffing costs in the resource and activity matrix

	Activity						
Resource	**Ward round**	**Ward care**	**Ward work**	**Theatre – anaesthetic care**	**Theatre – surgical care**	**Theatre care**	**Theatre – recovery care**
Consultant	XX				XX		
Consultant – anaesthetist	XX			XX			
Non-consultant medical staff – anaesthetist			XX	XX			XX
Non-consultant medical staff			XX			XX	
Nurse		XX				XX	XX
Medical and surgical consumables				X		X	
Patient-specific consumables						X	

CM2: Incomplete patient events (integrated)[6]

Purpose: To cost incomplete patient events, in-year costs are allocated to in-year activity.

Objectives

1. To ensure consistent costing of:

   - episodes[7] started but not completed in the current costing period (open)
   - episodes started in a previous costing period and completed in the current costing period (ended)
   - episodes started in a previous costing period that remain incomplete at the end of the current costing period (open).

2. To address other issues relating to incomplete patient events – for example, where a medicine is dispensed or a diagnostic test is carried out in a costing period different from the one to which it relates.

Scope

3. This standard applies to all activity relating to admitted patients who are:

   - not discharged at the end of the costing period or
   - admitted before the beginning of the costing period.

[6] These are often known as 'work in progress'. Our change in terminology acknowledges that as the NHS is a service organisation it is not appropriate to use manufacturing terminology.
[7] All sectors use the term episode, as does the Commissioning Data Set (CDS) and the Mental Health Services Data Set (MHSDS), so it is used throughout the costing standards to indicate an inpatient stay under a single named professional.

Acute costing methods

Overview

4. Episode is the most detailed recorded level of admitted patient care (APC), and all sectors with admission units should cost at this level.

5. As defined in the NHS Data Dictionary, an episode is a period of activity where a named professional is responsible for the patient. See also Acute standard IR1: Collecting information for costing.

6. An episode starts when the patient is admitted or when their care is transferred. Examples of transfers of care are:

   - A consultant transfer occurs when the responsibility for a patient transfers from one consultant (or general medical practitioner acting as a consultant) to another within a hospital provider spell. In this case one consultant episode (hospital provider) will end and another one begin (from NHS Data Dictionary).
   - A transfer of responsibility may occur from a consultant to the patient's own general medical practitioner (not acting as consultant) with the patient still in a ward or care home to receive nursing care. In this case the consultant episode (hospital provider) will end and a nursing episode will begin (from NHS Data Dictionary).
   - A consultant leaves the organisation and the patient is transferred to another care professional.
   - A long-stay or residential patient may have many such transfers because:
     - When the named care professional changes to reflect the change in the responsibility for the patient, a new episode will start – for example, when a patient transfers from a paediatric to an adult service
     - When the named care professional changes due to a change in the patient’s condition, and a new episode may start under the new responsible care professional – for example, when a mental health patient’s condition changes in severity and they are moved to a different care professional for the new part of the care programme.

7. Note: a change of ward does not start a new episode (see Mental health and Community sector-specific standard CM13: Admitted patient care for further information).

8. Community care and some other settings may record a named healthcare professional who is not a consultant. In this case, a consultant name is not required for costing, and the appropriate costs of the named care professional should be allocated to the patient.

9. A spell is defined as a currency and represents the period between admission to and discharge from a hospital unit.[8] There will always be at least one episode within a spell. Please note: **spells** are the measure that is submitted for the PLICS mental health collection 2019.

10. An incomplete patient event is defined as one where the patient's current **episode** is ongoing – that is, they are still in a bed at midnight on the last day of the costing period.

11. By definition, if there is an incomplete episode, the spell will also be incomplete, but this is not costed separately from the episodes within it. You can have one or more complete episodes (patient events) and an incomplete event within the same spell.

12. Costing an episode based on the start and end dates means patients whose care started in an earlier costing period will be recognised as having costs incurred during the current costing period, and those discharged after the end of the current costing period can be identified and costs allocated according to when they were incurred.

13. If costs in the current costing period were allocated to discharged patients only, those yet to be discharged would not incur any cost. Incomplete episodes would be under-costed and the costs of complete episodes inflated by those absorbed from the incomplete episodes.

14. Costing complete and incomplete events allows costs for patients staying in hospital, other inpatient settings or residences to be allocated according to when they occur. This is particularly important in mental health, specialist units and community care organisations with long-term facilities, to ensure costs of patients who have not been discharged are not allocated to those who have been.

[8] See NHS Data Dictionary.

What you need to implement this standard

- Costing principle 2: Good costing should include all costs for an organisation and produce reliable and comparable results

Approach

15. To accurately cost your organisation's activities it is important that only resources consumed in delivering the event are allocated to the event. To achieve this, costs need to be allocated to all patient events regardless of whether they are complete or incomplete at the end of the costing period.

16. While incomplete patient events may not be material for some providers, for those providing specialist and/or long-term physical or mental healthcare, such as spinal units or high secure units, they can be significant.

17. We know that 'work in progress' is included in financial accounts. Organisations are required to follow the principles of IAS18 in relation to revenue recognition; for example, income relating to partially completed episodes at financial year-end should be apportioned across the financial years on a pro-rata basis. Costs of treatment are then accumulated as they are incurred.

18. Given the timing of the completion of the final accounts and cost data, the values for work in progress and for incomplete patient events will be different. There is no requirement to reconcile them, though the incomplete patient events cost data may be helpful in future assessments of income due for annual accounts purposes.

Calculating incomplete events

19. Incomplete events need to be calculated each time you run your costing model to derive patient-level costs. You should work with your informatics team to arrange a suitable way to do this, in conjunction with your costing software.

20. You should ensure that your admitted patient care (APC), ward stay (WS) and other feeds can recognise the incomplete events as valid patient records and bring them into the costing system. They should not be rejected during data

quality checks, eg validation checks on the 'discharge date' or 'discharge flag' fields.

21. To calculate incomplete APC events for an in-year cost period, use the APC feed (feed 1) and WS feed (feed 4) where required by your sector (see Spreadsheet IR1.2).[9] One way to do this is to put the date of the end of the costing period in the 'discharge date' field.

22. The APC feed should then include information on patients still in a bed at midnight on the last day of the costing period.

23. To calculate incomplete events for A&E attendances for an in-year cost period, use the A&E feed (feed 2). You should consider the materiality of this information and ensure that incomplete events for the largest service are calculated first.

24. Patients not discharged at the end of the costing period are identified by the derived 'discharge flag' field in the APC feed; see Spreadsheet IR1.2.

25. Incomplete events are then included in the matching process to ensure costed activities such as medicines dispensed can be matched to incomplete episodes.

26. You should ensure that patients admitted before the start of the costing period are included in the PLICS feeds.

27. For local reporting purposes, users of the patient-level costs should see the information in Table CM2.1.

Table CM2.1: Example of incomplete events in a reporting dashboard

Specialty X	Cost (£)	Income (£)
Patients discharged	100	90
Patients not discharged	60	
Total costs incurred in month on delivering patient care	**160**	

[9] For more information on this feed, see Acute standard IR1: Collecting information for costing.

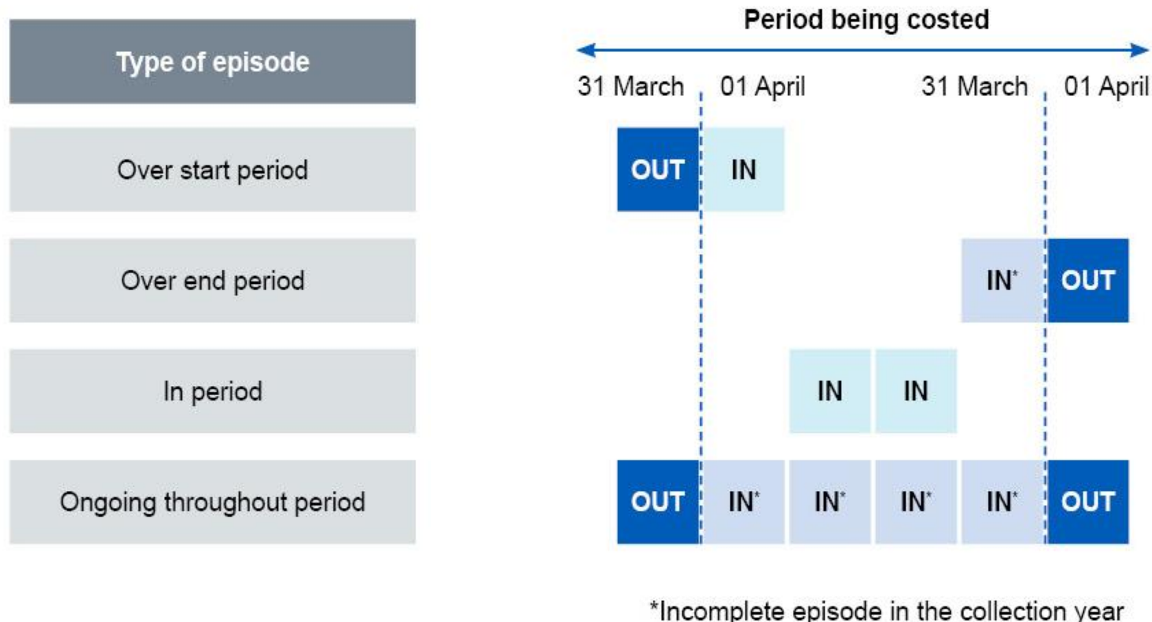
Year-end incomplete patient events

28. Figure CM2.1 shows which part of an episode should be costed in the collection year. There are four types of event:

    - all episodes started in a previous year (over start period) and finished in the current costing year; to correctly allocate the right proportion of costs, eg ward costs, to these episodes, in your costing system calculate the proportion of the episode in days falling in-year
    - all episodes started in the current costing year but incomplete at year-end (over end period)
    - all episodes that started and finished in the period (in period); these do not require a specific calculation at year-end
    - all episodes started in a previous year and incomplete at year-end (ongoing throughout period); to cost these long-stay patients, count the number of in-year days to ensure the in-year costs are only allocated to in-year activity.

29. The ‘episode end date’ field should be used to identify whether an episode is complete or incomplete. See Acute standard IR1: Collecting information for costing and Spreadsheet IR1.2.

Figure CM2.1: Part of an episode to be costed



Matching costed activities to incomplete patient events

30. As information regarding incomplete patient events is included in the APC feed (feeds 1a and 1b) and A&E attendances feed (feed 2), and because the auxiliary patient-level feed(s) include all activity in-month, the matching rules in columns H to O in Spreadsheet CP4.1 will ensure costed activities from other patient-level feeds, such as medicines dispensed or diagnostics, will make a match to the incomplete event.

31. Where activities take place in a different year from the inpatient episode,[10] outpatient attendance or contact to which they relate, this costed activity shows up in the costing system as unmatched. However, this is not a true unmatched activity; rather, it cannot be matched because matching is not done across years.

32. Review all activity that is unmatched at year-end to identify why it is unmatched. See Integrated standard CP4: Matching costed activities to patients for more information on this.

33. Where you identify that costed activity is unmatched because the episode, attendance or contact to which it relates is in a different costing year, you should flag it as ‘unmatched – incomplete patient event’. Then report this under incomplete patient events, not under unmatched. The time spent doing this should be proportional to the value of the unmatched activity for your organisation, in line with the costing principles.

34. Where an expensive prosthesis is used in a cross-year episode, you need to identify when this was from the ‘date of implant’ field in the prostheses and high-cost devices feed (feed 15) in column D in Spreadsheet IR1.2 and allocate this cost to the correct part of the episode. For example, if the episode spans 26 March XX to 6 April XY, and the prosthesis was inserted on 26 March XX, the prosthesis cost should be assigned to the part of the episode that falls in year XX.

35. Incomplete patient events should be flagged in the costing system.

[10] This only applies where diagnostic tests are done for the admission or attendance but occur before the admission or attendance starts or after it ends.

36. The benefits of this method of allocating in-year costs to in-year activity are:
    - full reconciliation to the audited accounts
    - cost of completed events is not inflated by the costs of the incomplete events
    - when the multi-year events are completed, their full costs can be derived.

37. We recognise that costing systems are not set up to hold multi-year data in one model. Where events span more than one costing period, you must link the costs of a patient event across years using the episode in each costing model for the years they appear. This can be done outside the costing system – perhaps in your provider's costing reporting dashboard, as these often contain multi-year cost information. This enables the full cost of the patient event to be derived and used in the provider's local reporting dashboard.

38. While we currently collect only in-year costs and activity, in future this data will be linked to help us understand the true cost of these patients, particularly those whose care spans several periods and is likely to be complex or address specialist needs.

PLICS collection requirements

39. Please refer to the *National cost collection guidance 2019* for collection of incomplete episodes.[11]

[11] https://improvement.nhs.uk/resources/approved-costing-guidance-2019/

CM3: Non-admitted patient care

Purpose: To ensure all types of non-admitted patient care (NAPC) activity are costed consistently.

Objectives

1. To cost outpatients at clinic level, then allocate to the patients attending that clinic.
2. To cost outpatient clinics based on the staff present.
3. To allocate the clinic cost to the patients attending the clinic, based on the duration of the patient contact.
4. To ensure outpatient procedures are costed appropriately.
5. To ensure other NAPC activity is costed correctly.

Scope

6. This standard applies to all NAPC activity.

Overview

7. Outpatient activity should be costed based on which staff are in the clinics[12] and how long the attendance is (in minutes).
8. You must ensure the outpatient department costs are allocated to all activity in the department, using the appropriate cost allocation method.

[12] This does not include staff present for receiving education and training.

9. Outpatient procedures may take place in the outpatient clinic or a specialist treatment room. You need to ensure the correct department costs are allocated to the procedure.

10. Most outpatient departments have a coding pro forma that clinical staff complete. This details the main procedures performed in outpatients. You should obtain a copy of a blank pro forma and use it to guide discussions with clinical and service leads on what the most commonly performed procedures are, and what medical and surgical consumables and staff are involved in delivering those procedures.

11. Many procedures are carried out in outpatients, so the materiality principle applies when developing cost allocation methods for outpatient procedures. We recommend you identify the top five most frequent outpatient procedures for your organisation and work with the department to refine the cost allocation methods for these procedures in the first instance – for example, identifying if any particular consumable is used or an additional staff member is involved.

12. Non face-to-face contacts are increasing, and it is important you include them in costing.

Approach

13. Obtain the patient-level feed for all outpatient activity as prescribed in paragraphs 33 to 38 in Acute standard IR1: Collecting information for costing and Spreadsheets IR1.1 and IR1.2.

14. Use the prescribed matching rules in columns H to O in Spreadsheet CP4.1 to ensure the auxiliary patient-level feeds such as diagnostics match to the correct outpatient attendance.

15. Use the prescribed activities of:

- SLA101 Outreach visit
- SLA102 Other non face-to-face contact
- SLA135 Outpatient care
- SLA136 Outpatient procedure
- SLA149 Telemedicine contact

- SPA152 DNA (for those costing DNAs for local business intelligence).

16. Table CM3.1 is an excerpt[13] from Spreadsheet CP3.3 showing which resources the outpatient activities are linked to.

17. For each of the resource and activity combinations below there is a two-step prescribed allocation method in columns F and G of Spreadsheet CP3.3.

Table CM3.1: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for the outpatient activities

Resource and activity link ID	Resource	Activity
SLR083 – SLA102	Advanced nurse practitioner	Other non face-to-face contact
MDR055 – SLA102	Chiropodist	Other non face-to-face contact
SLR085 – SLA102	Midwife	Other non face-to-face contact
SLR090 – SLA102	Psychologist	Other non face-to-face contact
THR007 – SLA102	Speech and language therapist	Other non face-to-face contact
MDR033 – SLA135	Dietician	Outpatient care
SLR084 – SLA135	Healthcare assistant	Outpatient care
MDR046 – SLA135	Medical and surgical consumables	Outpatient care
MDR038 – SLA135	Orthotist	Outpatient care
MDR045 – SLA135	Patient appliances	Outpatient care
THR003 – SLA135	Physiotherapist	Outpatient care
SLR082 – SLA135	Specialist nurse	Outpatient care
SGR064 – SLA136	Consultant – anaesthetist	Outpatient procedure
MDR047 – SLA136	Medical and surgical equipment and maintenance	Outpatient procedure

[13] Please note all excerpts in this standard are for illustrative purposes only. Use Spreadsheet CP3.3 to ensure you are using all the correct resource and activity links.

18. Other activities on the NAPC feed will have been assigned their own prescribed activity. Review the list of activities in Spreadsheet CP3.2 and identify which may be included on your NAPC feed to ensure you use the correct prescribed activity and do not incorrectly assign those costs to the prescribed activities ‘outpatient care’ or ‘outpatient procedure’.

19. These activities may include but are not limited to the list in Table CM3.2.

Table CM3.2: Other NAPC activities

Activity ID	Activity
MDA062	Audiology assessments
SLA142	Chemotherapy delivery
SLA132	Endoscopy
SLA143	Pain management care
CLA047	Sleep studies

Outpatient attendances and procedures

Costing the outpatient clinic

20. Due to the varied nature of outpatient clinics, it is important that you identify the different type of clinics and the staff involved in each. For example, a clinic may be specialty-specific with a consultant, non-consultant medical staff and nurse. It may be multidisciplinary or multiprofessional, consultant or nurse-led.

21. Column D in the NAPC feed (feed 3) in Spreadsheet IR1.2 contains the fields shown in Table CM3.3 for each outpatient attendance to help you cost.

Table CM3.3: Excerpt from Spreadsheet IR1.2 showing fields to record types of outpatient clinics the NAPC feed 3a

Feed name	Field name	Field description
Non-admitted patient care	Consultant-led or non consultant-led	Is the lead healthcare professional a consultant? Yes or No
Non-admitted patient care	Healthcare professional code	Derived from either the General Medical Council reference number for general medical practitioners, or the General Dental Council registration number for general dental practitioners (where the dentist does not have a General Medical Council reference number). Where the consultant is not the responsible professional, use the local code for the responsible professional.
Non-admitted patient care	Clinic code	Clinic or facility identifier
Non-admitted patient care	Multiprofessional flag	Flag for multiprofessional clinics
Non-admitted patient care	Multidisciplinary flag	Flag for multidisciplinary clinics

22. You will need to collect additional information about who else is present in a clinic to ensure the correct costs are allocated to the correct clinic. Use this information to build relative weight values to allocate the appropriate staff costs to each of the clinics. Be aware that, in the patient-level information, a clinic may be assigned to the consultant with overall responsibility for it: this consultant may not necessarily be present in the clinic.

Costing the individual outpatient attendances and procedures

23. The total cost for the clinic is then allocated to all patients seen in that clinic, based on the duration of their attendance. The field for the appointment duration in hours and minutes is included in column D in the NAPC feed 3a in Spreadsheet IR1.2.

24. Some outpatient procedures may require input from a healthcare professional who is not one of the normal clinic staff. Their cost needs to be included for the relevant patient, based on the duration of the attendance.

Table CM3.4: Excerpt from Spreadsheet IR1.2 showing the fields where procedure codes should be recorded to allocate costs for procedures in the NAPC feed 3a

Feed name	Field name	Field description
Non-admitted patient care	Primary procedure (OPCS)	Classification of interventions and procedures References are available on the NHS Digital website and in the NHS Data Dictionary
Non-admitted patient care	Procedure (OPCS)	Valid OPCS-4 code, positions 2 to 99 Classification of interventions and procedures References are available on the NHS Digital website and in the NHS Data Dictionary

Medical and surgical consumables and equipment

25. Medical and surgical consumables and equipment are divided into these categories for costing:

- consumables and equipment on hand in all outpatient clinics for simple investigations and treatments
- consumables and equipment on hand in specific outpatient clinics
- expensive consumables and equipment required for more complex procedures.

26. Allocate consumables and equipment on hand in the outpatient clinic for simple investigation and treatment to all patients in outpatients based on duration of attendance in minutes.

27. Allocate consumables and equipment on hand in specific clinics to the patients in those clinics based on duration of attendance in minutes.

28. Use resource ID: MDR046; Medical and surgical consumables and resource ID: MDR047; Medical and surgical equipment and maintenance.

29. For expensive consumables[14] and equipment required for complex procedures, identify which outpatient procedures use these. Then set up a statistic allocation table so that the expected costs can be used as a relative

[14] We do not define what an ‘expensive consumable’ is; that can be decided locally.

weight value to allocate the consumable's and equipment's costs to patients having that procedure.

30. Use resource ID: MDR052; Patient-specific consumables.

Table CM3.5: Example of how a multidisciplinary outpatient attendance might look in the resource and activity matrix

	Activity	
Resource	**Outpatient care**	**Interpreting – language**
Consultant	XX	
Non-consultant medical staff	XX	
Nurse	XX	
Specialist nurse	XX	
Healthcare assistant	XX	
Dietician	XX	
Psychologist	XX	
Physiotherapist	XX	
Medical and surgical consumables	XX	
Interpreters		XX

Table CM3.6: Example of how outpatient procedures might look in the resource and activity matrix

	Activity
Resource	**Outpatient procedure**
Consultant	XX
Non-consultant medical staff	XX
Nurse	XX
Healthcare assistant	XX
Patient-specific consumables	XX
Medical and surgical consumables	XX

Outreach visits

31. Outreach contacts are those which occur outside the standard clinical setting, including at a patient's home or current place of residence. To cost outreach visits, follow the guidance for costing outpatient attendances.

32. Use activity ID: SLA101; Outreach visit.

Ward attenders

33. The ward attendance will be recorded on the NAPC feed, but most information used for costing the attendance will be found on the ward stay (WS) feed (feed 4).

34. The ward stay element of the ward attendance should be costed using the cost allocation methods in columns F and G in Spreadsheet CP3.3 and using activity ID: SLA097; Ward care.

35. You will need to identify any care providers additional to the ward staff who are involved in the ward attendance. They should be recorded on the supporting contacts feed and costed using activity ID: SLA099; Supporting contact.

36. You will need to identify any specific patient consumables used during the ward attendance using resource ID: MDR052; Patient-specific consumables.

37. The prescribed matching rules in Spreadsheet CP4.1 have a matching option against the NAPC feed, so the ward stay costs from the WS feed can be matched to the ward attendance on the NAPC feed.

Table CM3.7: Example of how a ward attendance might look in the resource and activity matrix

	Activity	
Resource	Ward care	Supporting contact
Specialist nurse		XX
Nurse	XX	
Healthcare assistant	XX	
Patient-specific consumables	XX	

Telemedicine consultation

38. A telemedicine consultation should only be costed if it has been made in line with the definition in the NHS data dictionary.[15]

39. Only non face-to-face contacts that directly support diagnosis and care planning, and replace a face-to-face contact, should be included in the costing process.

40. While telephone calls and other communication methods to tell patients about test results, to have an informal follow-up or to provide reassurance should **not** be included, we recognise these types of call may take significant time and are valuable; the cost of this activity is absorbed by the healthcare professional's recorded non face-to-face activity.

41. For costing, telemedicine consultations are classified as clinical in nature in the same way as an outpatient attendance.

Costing telemedicine consultations

42. Include eligible telemedicine consultations in the NAPC feed. If services record their telemedicine consultations on a separate database from the patient administration system (PAS), you need a patient-level feed that includes all important identifiable information.

43. You need to find out if the time recorded for a telemedicine consultation is the consultation duration (or writing time, if it is written correspondence) or if it also includes the time to prepare and write-up the patient notes. **Only the duration of the telemedicine consultation should be costed** for consistency with costing outpatient attendances.

44. Use activity ID: SLA149; Telemedicine contact.

Table CM3.8: Example of how a ward telemedicine contact might look in the resource and activity matrix

	Activity
Resource	Telemedicine contact
Specialist nurse	XX

[15] www.datadictionary.nhs.uk/data_dictionary/attributes/c/cons/consultation_medium_used

Costing other non face-to-face contacts

45. Follow the guidance on costing telemedicine consultations when costing other non face-to-face contacts.

46. Use activity ID: SLA102; Other non face-to-face contact.

Outpatient DNAs – for guidance only

47. Did not attend (DNA) is the designation providers use to record that a patient did not attend their scheduled appointment in an outpatient clinic.

48. You are not required to cost DNAs for the cost collection.

49. We recognise that costs associated with DNAs may seem immaterial to some providers, particularly those that over-book outpatient clinics to allow for some patients not attending. However, costing these separately can establish the true cost of DNAs to the organisation and the sector.

50. The important DNA cost is the cost of any action required if a patient does not attend or, in the case of a child or vulnerable adult, is not brought to clinic. For example, at the end of the consultant-led clinic a consultant may review the notes and decide whether to send the patient another appointment or refer them back to their GP. You need to find out if your organisation has a DNA policy; if it does, this tells you what action is taken when a patient does not attend. The cost of this action should be included in the cost of a DNA.

51. A patient not attending or not being brought to clinic may indicate a safeguarding issue, so the provider will follow a course of action as part of its safeguarding policy. This action incurs a cost that needs to be calculated.

Costing DNAs for business intelligence

52. Obtain the NAPC – did not attend (DNA) feed (feed 5).

53. Review the provider’s DNA policy to identify the DNA pathway. A high-level example of a DNA pathway may be:

    - patient does not attend

- consultant reviews the notes and decides to send another appointment – five minutes
- medical secretary produces and sends an appointment letter – five minutes
- associated type 1 support costs are allocated.

54. Set up relative weight values for costing DNAs based on the information collected above. The relative weight value will apply to all DNAs irrespective of the reason given for the DNA.

55. As the DNA feed contains named healthcare professional, you should use an actual consultant or healthcare professional cost.

56. Document your review of the provider's DNA policy and the decisions you make on the costing approach in your integrated costing assurance log (ICAL) worksheet 25: CM3 Non-admitted patient care – DNA policy.

Table CM3.9: Example of how a DNA might look in the resource and activity matrix

Resource	Activity
	DNA
Consultant	XX

PLICS collection requirements

57. DNAs should not be costed for the national cost collection. The costs need to form part of your outpatient attendances.

58. For the collection, allocate the costs of all outpatients only to patients who attended, using the prescribed cost allocation rules in columns F and G in Spreadsheet CP3.3, and using the activities outpatient care and outpatient procedures.

CM4: Emergency department attendances (including A&E and minor injury unit)

Purpose: To ensure urgent care attendances are costed in a consistent way.

Objective

1. To ensure all urgent care attendances are costed according to the treatment procedures the patient receives.

Scope

2. This standard covers urgent care attendances reported under treatment function code (TFC) 180 as defined in the NHS Data Dictionary.[16] Attendances may be at adult, paediatric and mixed A&E departments, and minor injury units (MIU).

3. This standard does not cover urgent care activity not reported under TFC 180, such as ophthalmology A&E.

4. Urgent care departments may carry out several types of activity that are all reported under TFC 180. Any inpatient episodes and outpatient attendances

[16] www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/e/emergency_care_facility_de.asp

reported under TFC 180 should be costed using the Integrated standards CP1 to CP6 and Acute standard CM3: Non-admitted patient care.

5. All urgent care attendances within the costing period, including all patients discharged in the costing period and patients still in bed at midnight on the last day of the costing period.

Overview

6. We recognise that the time a patient spends in an urgent care facility from arrival to departure is not an appropriate relative weight value for allocating their costs, as someone with a relatively minor injury is likely to spend a disproportionate time in the department waiting to be seen.

7. **You should cost urgent care attendances by allocating costs weighted by the treatment procedures the patient receives.**[17]

Approach

8. Obtain a patient-level feed[18] (feed 2) for all A&E and MIU attendances as described in paragraphs 29 to 31 in Acute standard IR1: Collecting information for costing and in Spreadsheets IR1.1 and IR1.2.

9. Use the prescribed matching rules in columns H to O in Spreadsheet CP4.1 to ensure the auxiliary patient-level feeds, such as diagnostics, match to the correct urgent care attendance.

10. You must understand all the activities your A&E and MIU departments deliver to ensure the correct costing method is applied.

11. Get this understanding through discussion with service managers and clinical leads covering different activities. For example, consultant A works:

    - 50% of their time in A&E, so 50% of their costs should be allocated to activities on A&E feed (feed 2).

[17] A new A&E commissioning dataset using SNOMED codes was introduced from October 2017.
[18] Column D in Spreadsheet IR1.2 gives the information requirements for A&E and MIU attendances.

- 50% of their time on A&E wards, so 50% of their costs should be allocated to activities on the APC feed 1a.

12. Use the following prescribed activities:

- SLA119 A&E – advanced nurse practitioner (ANP) care
- SLA120 A&E – department care
- SLA121 A&E – medical care
- SLA124 minor injuries unit (MIU) – department care
- SLA125 minor injuries unit (MIU) – medical care.

13. Table CM4.1 is an excerpt from Spreadsheet CP3.3 showing which resources the A&E and MIU activities are linked to.

14. For each of the resource and activity combinations in Table CM4.1 there is a two-step prescribed allocation method in columns F and G of Spreadsheet CP3.3.

Table CM4.1: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for the A&E activities

Resource and activity link ID	Resource	Activity
SLR083 – SLA119	Advanced nurse practitioner	A&E – advanced nurse practitioner (ANP) care
SLR084 – SLA120	Healthcare assistant	A&E – department care
MDR046 – SLA120	Medical and surgical consumables	A&E – department care
MDR047 – SLA120	Medical and surgical equipment and maintenance	A&E – department care
SLR081 – SLA120	Nurse	A&E – department care
MDR052 – SLA120	Patient-specific consumables	A&E – department care
SGR062 – SLA121	Consultant	A&E – medical care
SGR063 – SLA121	Non-consultant medical staff	A&E – medical care
SLR081 – SLA124	Nurse	Minor injuries unit (MIU) – department care

Resource and activity link ID	Resource	Activity
SGR062 – SLA125	Consultant	Minor injuries unit (MIU) – medical care
SGR063 – SLA125	Non-consultant medical staff	Minor injuries unit (MIU) – medical care

Costing using treatment procedures information

15. Use the ‘treatment’ field in the A&E patient-level feed in column D in Spreadsheet IR1.2.

Table CM4.2: Excerpt from Spreadsheet IR1.2 showing fields to record procedure treatment codes

Feed name	Field name	Field description
Accident and emergency attendances	Treatment	Valid treatment code, positions 1 to 99 The A&E treatment description at three-character level, covering the treatment and the sub-analysis. Note that if no sub-analysis has been provided, or is not applicable, report the two-character description. This field contains a description based on the treatment and sub-analysis (first three characters where applicable) and only displays a code where it is unclassifiable against the A&E diagnosis classification

16. Set up relative weight values for each treatment procedure type to use in the costing process. You need to develop these with the A&E clinical and service leads. Table CM4.3 shows how the statistic allocation table could look.

Table CM4.3: Example of a statistic allocation table per treatment procedure[19]

Treatment procedure code	Procedure	Nurse (min)	HCA (min)	Consultant (min)	Non-consultant medical staff (min)	Patient-specific consumables (£)
8	Removal of foreign body	60	30	10	20	10
11	Dressing minor wound/burn/eye	60	30	5	10	20
12	Dressing minor wound/burn/eye	60	30	5	10	20
51	Removal of plaster of Paris	60	30	10	20	0

17. Where there are no treatment procedure codes in the data to be used for costing, use the duration of the attendance as the cost driver.

Major trauma patients

18. **Treat major trauma patients in the same way as above;** they are allocated their own costs depending on the treatment procedures they receive.

19. Be aware that major trauma patients may have a separate funding source, so they need to be flagged in the A&E feed to allow you to correctly allocate the income received for internal reporting and business intelligence purposes.

20. Use the major trauma flag in column D in the A&E feed (feed 2) in Spreadsheet IR1.2 to identify these patients.

21. Major trauma patients may have critical care input while in A&E. Paragraphs 47 and 48 in Integrated standard CM6: Critical care provides guidance on how to identify these costs. **These costs should be included in the costs of the A&E attendance.**

[19] All values are for illustrative purposes only. Your data feed may include SNOMED treatment procedure codes, not those shown in Table CM4.3.

Table CM4.4: Example of how an A&E attendance might look in the resource and activity matrix

Resource	Activity				
	A&E – department care	A&E – medical care	Microbiology testing	Haematology testing	Neurophysiology investigations
Medical and surgical consumables	X		X	X	X
Medical and surgical equipment and maintenance	X		X	X	X
Consultant		X	X	X	
Non-consultant medical staff		X	X	X	
Nurse	X				
Healthcare assistant	X				
Technician			X	X	
Clinical scientist			X	X	
Neurophysicist					X
Neurophysicist assistant					X

CM5: Theatres

Purpose: To ensure all theatre activity is costed consistently.

Objectives

1. To cost theatre sessions based on the staff in attendance in those sessions.
2. To allocate the actual pay costs of the staff in attendance to those sessions rather than using an average.
3. To allocate the cost of the theatre session to the patients who had surgery during the session, based on their time in theatre.
4. To allocate costs based on the procedures performed in theatre, including the costs of additional medical staff from different specialties.
5. To allocate prostheses, implants, devices and other patient consumables to the patients who had procedures using them.

Scope

6. This standard applies to all theatre activity and specialist procedure suites activity.

Overview

7. Theatre session costs must include all appropriate out-of-hours and waiting list costs.
8. Only allocate costs to patients who have had surgery during the session.
9. You need to identify the costs of all the staff in theatres using a payroll source.

Approach

10. Obtain the theatres patient-level feed (feed 13), as prescribed in Acute standard IR1: Collecting information for costing and Spreadsheets IR1.1 and IR1.2.

11. This includes the session and procedure information as prescribed in the theatres patient-level feed in column D in Spreadsheet IR1.2.

12. The theatres patient-level feed includes fields for session information, procedure information and all the staff in the theatre.

13. The theatre management system should capture information on the mix of staff working in individual theatre sessions.

14. Use the prescribed matching rules in columns H to O in Spreadsheet CP4.1 to ensure the costed theatre activity is matched to the correct patient episode.

15. You need to identify the theatre activities that your organisation delivers from the prescribed activity list in Spreadsheet CP3.2:

    - SGA079 Theatre – anaesthetic care
    - SGA080 Theatre – recovery care
    - SGA081 Theatre – surgical care
    - SGA082 Theatre care.

16. Table CM5.1 is an excerpt[20] from Spreadsheet CP3.3 showing which resources the theatre activities are linked to.

17. Each resource and activity combination in Table CM5.1 has a prescribed two-step allocation method in columns F and G of Spreadsheet CP3.3.

[20] Please note all excerpts in this standard are for illustrative purposes only. Use Spreadsheet CP3.3 to ensure you are using all the correct resource and activity links.

Table CM5.1: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for the theatre activities

Resource and activity link ID	Resource	Activity
CLR016 – SGA079	External contracts – clinical	Theatre – anaesthetic care
MDR046 – SGA079	Medical and surgical consumables	Theatre – anaesthetic care
SGR064 – SGA079	Consultant – anaesthetist	Theatre – anaesthetic care
SLR081 – SGA080	Nurse	Theatre – recovery care
SGR062 – SGA081	Consultant	Theatre – surgical care
SGR063 – SGA081	Non-consultant medical staff	Theatre – surgical care
SGR066 – SGA082	Operating department practitioners	Theatre care
MDR052 – SGA082	Patient-specific consumables	Theatre care
SLR082 – SGA082	Specialist nurse	Theatre care
MDR050 – SGA089	Cardiac devices	Insertion of a prosthesis, implant or device
MDR041 – SGA089	Hearing devices	Insertion of a prosthesis, implant or device
SGR075 – SGA089	Stem cells	Insertion of a prosthesis, implant or device
SGR068 - SGA085	Perfusionist	Perfusion
SPR109 – SPA150	Sterile services	Equipment sterilisation

Non-medical staff

18. Identify the non-medical staff in the theatre session from the patient-level information. Then calculate their individual costs in the costing system using their actual costs, which may be identified from a payroll data source.[21]

[21] Using the electronic staff record to allocate appropriate pay costs has been adopted as a superior method for other staff groups.

Table CM5.2: Excerpt from Spreadsheet IR1.2 showing fields to record the different staff in theatres

Feed name	Field name	Field description
Theatres	Number of staff in theatre	Count of staff in the operating theatre during the operation
Theatres	Non-consultant medical staff	Name or identifier
Theatres	Non-consultant medical staff – anaesthetist	Name or identifier
Theatres	Operating department practitioners	Name or identifier
Theatres	Operating department assistant	Name or identifier
Theatres	Advanced nurse practitioner	Name or identifier
Theatres	Nurse	Name or identifier
Theatres	Healthcare assistant	Name or identifier
Theatres	Perfusionist	Name or identifier
Theatres	Perfusion assistant	Name or identifier
Theatres	Audiologist	Name or identifier
Theatres	Audiology assistant	Name or identifier
Theatres	Midwife	Name or identifier
Theatres	Other staff group	Name or identifier

19. If you do not have the necessary theatre information to calculate the costs of the actual non-medical staff over their activity, include relative weight values derived from the number and type of appropriate staff to calculate an average cost per theatre minute for non-medical staffing. One way of holding the relative weight value information is in a statistic allocation table.

20. Then use the ‘number of staff in theatre’ field in column D in the theatres patient-level feed in Spreadsheet IR1.2 to allocate this average cost per theatre minute.

21. We recognise that using actual cost is currently difficult for most providers, but this is something that we are aiming for.

Medical staff

22. Calculate the correct quantum of medical staffing cost to be allocated to theatres using Acute standard CM1: Consultant medical staffing.

23. Identify the medical staff in the theatre session from the patient-level information and calculate their individual costs in the costing system using their actual costs from a payroll data source.

24. Allocate costs using the two-step cost allocation methods in columns F and G in Spreadsheet CP3.3, including different allocations for surgical and anaesthetics medical staff. In the two-step approach, costs are first allocated to activities, then to patients.

25. There may be instances where two theatres share an anaesthetist at the same time. You should consider this in your allocations.

26. The ‘procedure duration’ field in the theatres feed (feed 13) in column D in Spreadsheet IR1.2 allows you to capture where multiple procedures are carried out by different surgeons during one operation. You can then allocate their medical staff costs to their procedure rather than to the whole operation.

27. If this information is not available in the system, you may be able to apply a proportion based on type of procedure. For example, plastic surgeons often come into theatre to complete a procedure, so you could use a relative weight value that only applies part of the full procedure time. Use the ‘procedure (OPCS)’ field in the theatres feed (feed 13) in column D in Spreadsheet IR1.2.

28. If your organisation does not currently collect procedure duration, use ‘operation start and end time’, document it in your integrated costing assurance log (ICAL) worksheets 1: Log of activity feeds and 14: Local cost allocation methods, and work with the department to obtain the information in future. We recognise that most providers do not currently capture procedure start and end time, but this is something that we are aiming for.

Medical and surgical consumables and equipment

29. Divide medical and surgical consumables into these categories for costing:

    - consumables on hand in all theatres for simple investigations and treatments
    - consumables on hand in specific theatres
    - expensive consumables[22] required for more complex procedures.

30. For costing, a consumable is defined by it not being permanently left in the patient after surgery.[23]

31. For consumables and equipment on hand in all theatres for simple investigation and treatment, allocate to all patients in theatres, based on duration of the operation in minutes.

32. For consumables and equipment on hand in specific theatres, allocate to the patients in those theatres based on duration of the operation in minutes.

33. Use resource ID: MDR046; Medical and surgical consumables and resource ID MDR047; Medical and surgical equipment and maintenance.

34. Identify which complex procedures require expensive consumables or specific equipment and set up relative weight values. You can then use the expected costs to allocate the costs of these consumables and equipment to patients undergoing the procedures.

35. Use resource ID: MDR052; Patient-specific consumables.

Prostheses, implants and devices

36. The prostheses and high-cost devices feed (feed 15), as described in Acute standard IR1: Collecting information for costing and Spreadsheets IR1.1 and IR1.2, should include anything that is permanently left in the patient after surgery. This information may be separately recorded for each implant type, or

[22] We are not defining what an expensive consumable is. This is to be defined locally.
[23] Definition provided by NHS England's orthopaedic expert working group as part of the work undertaken by NHS Improvement's Group Advising on Pricing Improvement (GAPI).

a central electronic inventory management system may record all theatre consumables and implants at patient level.

37. Use the prescribed matching rules in columns H to O in Spreadsheet CP4.1 to ensure the costed prosthesis, implant or device is matched to the correct patient episode.

Table CM5.3: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for the prostheses, implants and devices resource

Resource and activity link ID	Resource	Activity
MDR050 – SGA089	Cardiac devices	Insertion of a prosthesis, implant or device
MDR041 – SGA089	Hearing devices	Insertion of a prosthesis, implant or device
SGR072 – SGA089	Heart valves	Insertion of a prosthesis, implant or device
SGR074 – SGA089	Bone marrow	Insertion of a prosthesis, implant or device
SGR075 – SGA089	Stem cells	Insertion of a prosthesis, implant or device
MDR051 – SGA089	Other devices, implants and prostheses	Insertion of a prosthesis, implant or device

38. As the prostheses, implants and high-cost devices resource is linked to its own activity, it can be used in any setting it is needed, not just in theatres.

39. National programmes such as Scan4Safety are valuable sources of patient-level information that can be used to populate the prostheses and high-cost devices feed.

40. If your organisation is not currently collecting any or all the information required by the prostheses and high-cost devices feed, you should produce relative weight values by procedure code for use in costing. These should be developed through discussion with the theatre team.

41. Many procedures' expected costs include prostheses, devices and implants. Use Spreadsheet CP2.3 to identify where your costing outputs may have

missing costs. Then review this with clinicians and service managers to ensure you are identifying and correctly allocating the appropriate costs to procedures for any prostheses, implants or devices used. Use the 'procedure (OPCS)' field in the theatres feed (feed 15) in column D in Spreadsheet IR1.2.

42. The list to review in Spreadsheet CP2.3 makes no clinical statement about whether these items should have been used in this procedure. Its purpose is solely to help identify missing costs in the costing outputs.

43. Prostheses, implants and devices are often expensive. Investing time to ensure your costing system can identify their costs and where they are likely to have been used, and assigning a cost to this activity, will help improve the accuracy of the final patient costs for those procedures.

Recovery costs

44. Recovery costs should be allocated based on the patient's time, in hours and minutes, between entering and leaving recovery.

Table CM5.4: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for the theatre – recovery care activity

Resource and activity link ID	Resource	Activity
SGR064 – SGA080	Consultant – anaesthetist	Theatre – recovery care
SGR065 – SGA080	Non-consultant medical staff – anaesthetist	Theatre – recovery care
SGR066 – SGA080	Operating department practitioners	Theatre – recovery care
SGR067 – SGA080	Operating department assistant	Theatre – recovery care
SLR081 – SGA080	Nurse	Theatre – recovery care
CLR016 – SGA080	External contracts – clinical	Theatre – recovery care
SLR084 – SGA080	Healthcare assistant	Theatre – recovery care

Costing out-of-hours and emergency theatre sessions

45. Out-of-hours theatre sessions can be for both scheduled and unplanned work. Both incur costs that are materially higher than in-hours work due to the enhanced salaries paid to staff working out of hours.

46. If the session is for unplanned emergency theatre activity, which often takes place out of hours, costs can be materially higher due to the lower use of emergency theatre sessions. However, do not assume all costs relate to non-elective patients, as patients admitted electively may need to return to theatre out of hours. Wherever possible, use episode identifiers to allocate these additional costs.

47. You need to ensure the costs associated with emergency theatre sessions and out-of-hours theatre activities do not inflate the costs of main theatre activities, in line with the materiality principle. Allocate emergency theatre costs to the activities for patients who were operated on in that emergency theatre session, and allocate out-of-hour costs to the activities delivered during out of hours.

48. Emergency theatre costs should be allocated to all patients who have used the emergency theatre during the costing period, weighted by actual emergency theatre minutes.

49. Where a provider has emergency theatres on separate sites, collect the cost of the emergency theatres by site, and apportion to the emergency theatre minutes used, by site, for that costing period.

50. You can also determine out-of-hours and weekend working costs by using the date and time in theatre. For enhanced costs, you can derive weighted minutes using relative weight values, as covered in Integrated standard CP3: Appropriate cost allocation methods.

51. The standards do not provide guidance on how to treat cancelled sessions or operations. You should continue to use your current method for this.

Sterilisation costs

52. As equipment sterilisation is its own activity, it can be used for whatever department may have these services.

53. To cost sterilisation services, whether internal or contracted-out, use the information in Table CM5.5.

Table CM5.5: Resource and activity link for sterile services

Resource and activity link ID	Resource	Activity
SPR109 – SPA150	Sterile services	Equipment sterilisation

Specialist procedure suites

54. If your organisation has endoscopy suites, use activity ID: SLA132; Endoscopy.

55. If your organisation has cardiac catheterisation laboratories, use activity ID: SLA134; Cardiac catheterisation laboratory.

56. For all other specialist procedure suites, where minor procedures are performed use activity ID: SLA137; Other specialist procedure suites care.

57. Follow the two-step allocation methods in columns F and G in Spreadsheet CP3.3 to cost this activity.

High-cost equipment

58. You need to consider the cost of capital charges and high-cost consumables specifically related to high-cost equipment – eg robotics, and ensure these costs are only allocated to patients who were treated using them.

Table CM5.6: Example of how a theatre operation might look in the resource and activity matrix

	Activity						
Resource	**Insertion of a prosthesis, implant or device**	**Theatre care**	**Theatre – surgical care**	**Theatre – anaesthetic care**	**Perfusion**	**Equipment sterilisation**	**Theatre – recovery care**
Medical and surgical consumables		XX		XX	XX		
Medical and surgical equipment and maintenance		XX		XX	XX		
Cardiac devices	XX						
Operating department practitioner		XX					XX
Operating department assistant		XX					XX
Nurse		XX					XX
Specialist nurse		XX					
Consultant			XX				
Non-consultant medical staff			XX				
Consultant – anaesthetist				XX			XX
Non-consultant medical staff – anaesthetist				XX			XX
Sterile services						XX	
Perfusionist					XX		
Perfusion assistant					XX		

CM6: Critical care

Purpose: To ensure all critical care activity is costed in a consistent way.

Objective

1. To cost all critical care activity using the prescribed allocation method.

Scope

2. This standard applies to all critical care and high dependency unit (HDU) activity provided by the organisation. This includes but is not limited to:

- intensive care units
- specialist care units
- high dependency units
- high dependency beds and critical care beds in designated bays on a general ward.

Overview

3. You need to consider these costs for critical care:

- nursing
- consultants and non-consultant medical staff
- clinical support costs (eg pathology)
- medical supplies and equipment
- extracorporeal membrane oxygenation (ECMO) and extracorporeal life support (ECLS).

4. You need to consider:

- major trauma patients
- non-critical care patients
- HDU patients on a general ward
- patients involved in research studies.

5. Additional factors you need to consider when costing critical care are:

   - the first day in critical care may incur more costs
   - a readmission to critical care within a short time may incur increased costs
   - lengthy stays in critical care may incur additional costs such as for therapies.

6. Discuss these factors with the critical care team so that you understand the issues and set costing rules accordingly. Document these rules in your integrated costing assurance log (ICAL) worksheet 14: Local costing methods.

Approach

7. Obtain the appropriate patient-level critical care feed (feeds 6a, 6b and 6c) as prescribed in Acute standard IR1: Collecting information for costing and in Spreadsheets IR1.1 and IR1.2.

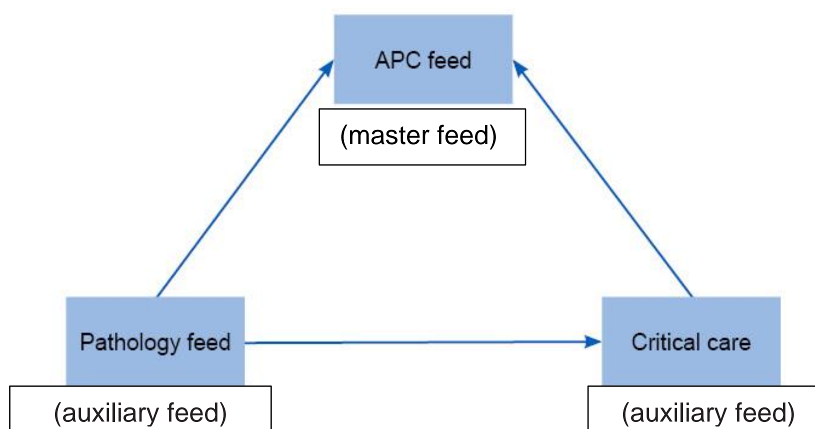
8. Use the prescribed matching rules in columns H to O in Spreadsheet CP4.1 to ensure the costed critical care activity is matched to the correct patient episode.

9. The following auxiliary feeds need to match to the critical care feed (feeds 6a, 6b and 6c) using the prescribed matching rules in Spreadsheet CP4.1. This ensure that all costs related to the critical care stay can be reported correctly for local reporting and collection purposes. A three-way matching system, where auxiliary feeds such as pathology can be matched to the auxiliary feed critical care, increases matching accuracy, as shown in Figure CP6.1. Please note that the following activities do not need to be matched to the master APC feed (feed 1a) if they are matched to the critical care feed:

   - supporting contacts (feed 7)
   - pathology (feed 8)
   - blood products (feed 9)

- medicines dispensed (feed 10)
- diagnostic imaging (feed 12).

Figure CP6.1: Three-way matching system[24]



10. You need to identify what critical care activity your organisation delivers and map this to the prescribed activity list in column B in Spreadsheet CP3.2.

11. Use the prescribed activities in Table CM6.1.

Table CM6.1: Prescribed critical care activities

Code	Description
SLA103	Adult critical care – anaesthetic care
SLA104	Adult critical care – medical care
SLA106	Critical care – journey
SLA107	Adult critical care – ward care
SLA108	Neonatal critical care – anaesthetic care
SLA109	Neonatal critical care – medical care
SLA112	Neonatal critical care – ward care
SLA113	Paediatric critical care – anaesthetic care
SLA114	Paediatric critical care – medical care
SLA117	Paediatric critical care – ward care

[24] This figure is the same as Figure CP4.1.

12. Table CM6.2 is an excerpt[25] from Spreadsheet CP3.3 showing the resources the critical care activities are linked to.

13. Each resource and activity combination in Table CM6.2 has a two-step prescribed allocation method in columns F and G of Spreadsheet CP3.3.

Table CM6.2: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for the critical care activities

Resource and activity link ID	Resource	Activity
SGR064 – SLA103	Consultant – anaesthetist	Adult critical care – anaesthetic care
SGR065 – SLA103	Non-consultant medical staff – anaesthetist	Adult critical care – anaesthetic care
SGR062 – SLA104	Consultant	Adult critical care – medical care
SGR063 – SLA104	Non-consultant medical staff	Adult critical care – medical care
SLR084 – SLA107	Healthcare assistant	Adult critical care – ward care
MDR046 – SLA107	Medical and surgical consumables	Adult critical care – ward care
SGR063 – SLA109	Non-consultant medical staff	Neonatal critical care – medical care
SGR064 – SLA109	Consultant – anaesthetist	Neonatal critical care – medical care
MDR046 – SLA112	Medical and surgical consumables	Neonatal critical care – ward care
SGR064 – SLA114	Consultant – anaesthetist	Paediatric critical care – medical care

[25] Please note all excerpts in this standard are for illustrative purposes only. Use Spreadsheet CP3.3 to ensure you are using all the correct resource and activity links.

Resource and activity link ID	Resource	Activity
MDR046 – SLA117	Medical and surgical consumables	Paediatric critical care – ward care
MDR052 – SRA117	Patient-specific consumables	Paediatric critical care – ward care
SGR064 – SLA145	Consultant – anaesthetist	High dependency unit – medical care
SGR065 – SLA145	Non-consultant medical staff – anaesthetist	High dependency unit – medical care

Nursing

14. Allocate critical care stay nursing costs to the critical care activities based on duration in hours and minutes on the critical care feed.

15. Use the prescribed activities:

    - SLA106 Critical care journey
    - SLA107 Adult critical care – ward care
    - SLA112 Neonatal critical care – ward care
    - SLA117 Paediatric critical care – ward care.

16. This should be weighted based on nursing acuity using the ‘nursing acuity care level’ field in the patient-level feed. This is because the patient-to-nurse ratio, both in terms of the number of nurses and their experience level, will be determined by how ill the patient is.

17. Work with the critical care nursing team to understand the average patient-to-nurse ratio for patients of different acuities and set up relative weight values to allocate nursing costs. One way to do this is within a statistic allocation table. Table CM6.3 shows a hypothetical example.

Table CM6.3: Example of relative weight values for nursing

Acuity/care level (locally determined)	Nurse	Healthcare assistant
HDU1	0.5	0.2
HDU2	0.5	0.2
IC1	1.0	0.5
IC2	1.0	0.5
IC3	1.5	1.0
IC4	2.0	1.5
IC5	2.5	2.0
ECMO/ECLS	3.0	2.5

Medical and surgical consumables and equipment

18. Obtain medical and surgical consumables and equipment costs for each of the types of care as described in the 'critical care activity code' field on the critical care feeds. (Use these as a relative weight value when allocating these resources for feeds 6a, 6b and 6c.)

19. The critical care activity code in column D in the critical care feeds in Spreadsheet IR1.2 will give you information on the items used for the patient or the condition which is driving the use of consumables and equipment. You can use this to inform which relative weight value to apply for the medical supplies and equipment. We recognise this may be difficult, so you should discuss the best way to allocate these resources with your critical care team.

20. Allocate the medical and surgical consumables and equipment relative weight values using critical care stay duration in hours and minutes to all patients with that specific critical care activity code.

21. Use the prescribed resources:

- MDR046 Medical and surgical consumables
- MDR047 Medical and surgical equipment and maintenance.

22. Use resource ID: MDR052; Patient-specific consumables for any expensive consumables used by specific patients.

23. The critical care feeds will identify any changes to the critical care activity code during the critical care stay. This will ensure the medical and surgical consumable and equipment costs can be more accurately allocated to the patients who used them. These costs are weighted based on the actual cost for each critical care activity code.

Medicines dispensed

24. Drugs for critical care stays will appear on the medicines dispensed feed (feed 10). These should be matched to the correct critical care stay according to the prescribed matching rules in columns H to O in Spreadsheet CP4.1.

25. If a significant amount of the drugs used in critical care are not available at patient level, follow the allocation rules for non patient-identifiable drugs as prescribed in Spreadsheet CP3.3. Continue to work with the critical care and pharmacy teams to improve the quantity of critical care drugs information available at patient level.

Table CM6.4: Resource and activity link for non patient-identifiable drugs

Resource and activity link ID	Resource	Activity
MDR044 – MDA065	Drugs	Dispense non patient-identifiable drugs

Medical staff

26. Critical care medical staffing should be allocated across all patients, based on critical care stay duration in hours and minutes, without an acuity relative weight value. Critical care units are usually run by anaesthetists who have trained as ‘intensivists’. Costs for these medical staff should be identified so that they can be allocated separately from the costs of those who work only in theatres.

27. Patients in critical care may also receive ward rounds from their named consultant from another specialty, eg their named cardiac consultant. These

ward rounds should be recorded on the supporting contacts feed, with their duration used to allocate the appropriate cost to the critical care stay.

28. Medical staffing for critical care journeys should be allocated to critical care journeys based on duration in hours and minutes.

Clinical support services

29. Costs such as pathology, therapies and diagnostic imaging will also be incurred in critical care. They are contained in the pathology feed (feed 8), supporting contacts feed (feed 7) and the diagnostic imaging feed (feed 12). Use the prescribed matching rules in Spreadsheet CP4.1 to match them to the critical care stay, not the corresponding core inpatient episode.

ECMO/ECLS

30. ECMO and ECLS use an artificial lung (membrane) located outside the body (extracorporeal) to infuse blood with oxygen (oxygenation) and continuously pump this blood into and around the body.

31. ECMO is used mainly to support a failing respiratory system, whereas ECLS is used mainly to support a failing heart.

32. Perfusionists may be involved in delivering ECMO/ECLS.

33. Use the ECMO/ECLS flag in each of the critical care feeds as described in column D in Spreadsheet IR1.2 to identify when ECMO or ECLS has been delivered, and ensure those patients receive the appropriate nursing acuity costs and medical and surgical equipment and consumable costs.

34. Nursing acuity for patients receiving ECMO or ECLS should be reported in the 'nursing acuity care level' field in column D in the critical care patient-level feeds.

35. While there are no separate resources and activities to identify patients who have received ECMO/ECLS, these patients are likely to report higher costs against their critical care activities than critical care patients with a lower acuity. Use the ECMO/ECLS flag to identify these patients for business intelligence purposes.

Critical care transport

36. If your organisation provides critical care transport you will need to obtain a patient-level feed (feed 6d) for this as prescribed in Acute standard IR1: Collecting information for costing and Spreadsheets IR1.1 and 1.2.

37. Not all patients conveyed using critical care transport will be taken to your hospital. This means that not every patient on the critical care transport feed will be found in the master APC feed. Only journeys for your patients should be matched to the master APC feed. Costed critical care journey activities for patients conveyed to other providers should be reported under ‘other activities’.

38. Use the prescribed matching rules in columns H to O in Spreadsheet CP4.1 to ensure the costed journey is matched to the correct patient episode if applicable.

39. Use the prescribed cost allocation rules in Spreadsheet CP3.3, using activity ID: SLA106; Critical care journey.

Table CM6.5: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for the critical care journey activities

Resource and activity link ID	Resource	Activity
SGR062 – SLA106	Consultant	Critical care journey
SGR064 – SLA106	Consultant – anaesthetist	Critical care journey
SLR086 – SLA106	Critical care transport	Critical care journey
MDR046 – SLA106	Medical and surgical consumables	Critical care journey
MDR047 – SLA106	Medical and surgical equipment and maintenance	Critical care journey
SGR063 – SLA106	Non-consultant medical staff	Critical care journey
SGR065 – SLA106	Non-consultant medical staff – anaesthetist	Critical care journey
SLR081 – SLA106	Nurse	Critical care journey

40. You need to ensure that all patient critical care journeys are costed using the prescribed cost allocation methods.

41. If your organisation provides critical care transport, you are likely to hold the network and central costs for running this service. Identify these costs in the cost ledger and allocate them using the two-step allocation method in Spreadsheet CP3.4.

Major trauma patients[26]

42. Major trauma patients may require critical care medical and nursing input while they are in A&E. These patients should be flagged in the A&E feed (feed 2) as described in column D in Adult spreadsheet IR1.2. You will need to discuss and agree with the critical care team:

- how information is collected for major trauma patients who receive input from the critical care team
- how this input is measured; that is, who in the team provides the input
- a scale to weigh the input; that is, how long a member of the critical care team stays with the patient. This could be a sliding scale based on patient need.

43. These costs need to be reported in the A&E attendance.

PACE teams

44. Your organisation may have a perioperative and critical care team (PACE). These teams will support patients across the wards. Their patient-level activity should be recorded on the supporting contacts feed, and their costs identified in the cost ledger and allocated to this activity. Only patients who have received care from the PACE team should receive these costs.

Table CM6.6: Excerpt from Spreadsheet CP3.3 showing the resource and activity link for the PACE activity

Resource and activity link ID	Resource	Activity
SLR082 – SLA099	Specialist nurse	Supporting contact

[26] See Acute standard CM4: Emergency department attendances (including A&E and MIU).

Critical care outreach teams

45. Your organisation may have a specialist critical care outreach team. These teams support clinical staff in managing acutely ill patients in hospital by providing closer observation of ‘at risk’ patients on non-critical care wards. Their activity should be recorded on the supporting contacts feed (feed 7). The nurses’ costs should be classified as the specialist nurse resource. Only patients who have received care from the critical care outreach team should receive these costs.

Table CM6.7: Excerpt from Spreadsheet CP3.3 showing the resource and activity link for the critical care outreach activity

Resource and activity link ID	Resource	Activity
SLR082 – SLA099	Specialist nurse	Supporting contact

HDU patients on a general ward

46. Where you have HDU beds on a general ward, you will need to ensure patients using these beds are flagged in the ward stay feed (feed 4) in the ‘HDU bed on a general ward’ field in column D. You will then need to work with the ward manager to identify how the nursing ratio differs for these patients. You will need to set up relative weight values to ensure the patients in the HDU beds receive a higher proportion of the nursing costs than those in the general beds.

Table CM6.8: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for the HDU activities

Resource and activity link ID	Resource	Activity
MDR046 – SLA144	Medical and surgical consumables	High dependency unit – ward care
MDR047 – SLA144	Medical and surgical equipment and maintenance	High dependency unit – ward care
MDR052 – SLA144	Patient-specific consumables	High dependency unit – ward care
SLR081 – SLA144	Nurse	High dependency unit – ward care

Acute costing methods

Resource and activity link ID	Resource	Activity
SLR084 – SLA144	Healthcare assistant	High dependency unit – ward care
SGR062 – SLA145	Consultant	High dependency unit – medical care
SGR063 – SLA145	Non-consultant medical staff	High dependency unit – medical care
SGR064 – SLA145	Consultant – anaesthetist	High dependency unit – medical care
SGR065 – SLA145	Non-consultant medical staff – anaesthetist	High dependency unit – medical care

Non-critical patients in a critical care bed

47. Patients who do not require critical care may be placed in a critical care bed (**non-critical care patients**). Their costs are not as high as those for a critical care patient, and the relative weight values applied should be discussed and agreed with the critical care team. Flag these patients in the critical care feed using the 'Non-intensive care unit patient flag' field in column D in Spreadsheet IR1.2.

Research and development

48. If you can identify the costs associated with research and development for individual patients, allocate them to those patients using activity ID: SPA155; Research and development. If not, continue with your current method and document it in your integrated costing assurance log (ICAL) worksheet 20: Research and development.

~~PLICS collection requirements~~ Superseded by Collection Guidance for 2020

~~49. Critical care is out of scope for the PLICS patient-level extracts. Critical care costs should be reported in the reference costs workbook only: see Section 12 in the *National cost collection guidance 2019*[27] for more information.~~

[27] https://improvement.nhs.uk/resources/approved-costing-guidance-2019

Acute costing methods

~~50. We are looking to include critical care in future national cost collections.~~

Table CM6.8: Example of how a paediatric critical care stay for a patient receiving ECMO might look in the resource and activity matrix

Resource	Activity							
	Critical care journey	Paediatric critical care – ward care	Paediatric critical care – medical care	Ward round	Dispense non patient-identifiable drugs	Supporting contact	Perfusion	Haematology testing
Medical and surgical consumables	XX	XX					XX	XX
Medical and surgical equipment and maintenance	XX	XX					XX	XX
Consultant	XX		XX	XX				XX
Non-consultant medical staff	XX		XX					XX
Nurse	XX	XX						
Healthcare assistant		XX						
Patient-specific consumables		XX						
Drugs					XX			
Pharmacy technician					XX			
Physiotherapist						XX		
Specialist nurse						XX		

Acute costing methods

Resource	Activity							
	Critical care journey	Paediatric critical care – ward care	Paediatric critical care – medical care	Ward round	Dispense non patient-identifiable drugs	Supporting contact	Perfusion	Haematology testing
Perfusionist							XX	
Perfusion assistant							XX	
Clinical scientist								XX
Other clinical staff								XX
Critical care transport	XX							
Critical care transport network	XX							

CM7: Private patients and other non-NHS funded patients (integrated)

Purpose: To ensure private patients and other non NHS-funded patients are costed in a consistent way.

Objectives

1. To ensure the activities relating to private patients,[28] overseas visitors, patients funded by the Ministry of Defence and other patients funded from outside NHS commissioning in England are costed in line with the *Healthcare costing standards for England*.

2. To ensure the associated income for these patients is correctly identified and matched to the correct episode, attendance or contact.

Scope

3. This standard applies to activities relating to all private patients, overseas visitors, patients funded by the Ministry of Defence and other patients funded from outside NHS commissioning. This is on the basis that all patients for whom care is provided by the NHS should be costed in the same way, irrespective of the way their funding is provided.

4. Patients funded by English NHS commissioners, but managed and paid for via a third party, **should not** be excluded from the quantum of costs because they remain classified as NHS patients for tariff calculation.

[28] For our definition of private patient care, see *Approved Costing Guidance: Glossary*. https://improvement.nhs.uk/resources/approved-costing-guidance/

Overview

5. These patients should be costed in the same way as patients funded by the English NHS using the prescribed resources, activities and cost allocation methods in Spreadsheets CP3.1, CP3.2 and CP3.3, with the addition of any specific administration or management costs that should be attributed solely to these patients. They should also be included in the allocation of support costs.

6. The relevant episodes, attendances and contacts must be flagged in the costing system.

7. Costed activity for these patients should be reported as 'own-patient care' and along with the corresponding income for local reporting and business intelligence purposes.

8. We recognise that there may be issues with recording these patients. For example, if a patient changes from private status to NHS or vice versa during an inpatient episode, this may not be assigned correctly in the patient administration system (PAS). The informatics department should work with the relevant service to address this if it is an issue for your organisation.

Approach

9. Identify who funds the care of the patient for each patient episode, attendance or contact from their organisation identifier (code of commissioner) and their administrative category code in column D in Spreadsheet IR1.2.

10. The patient's administration category code may change during an episode. For example, the patient may choose to change from NHS to private healthcare. In this case, the start and end dates for each new administrative category code (episode) should be recorded in the APC feed, so all activity for private patients, overseas visitors, patients funded by the Ministry of Defence and other non-NHS funded patients can be correctly identified and costed accurately.

11. Non-admitted patients cannot change status during one contact.

12. Private patients' administration and overseas visitor managers' costs have been classified as a type 2 support cost in the standards. These costs should be allocated directly to private patients as prescribed in Spreadsheet CP3.4. It is inappropriate for this administration cost to be allocated as a type 1 support

cost as it needs to go directly to the subset of patients who used this resource, and not be allocated to nurses or other staff who care for NHS and non-NHS patients alike.

13. Table CM7.1 shows the resource and activity combinations to be used for private patient administrators and overseas visitor management teams.

Table CM7.1 Excerpt from Spreadsheet CP3.4 showing the resource and activity links for private patient administration and overseas visitor management

Resource and activity link ID	Support resource	Support/patient-facing activity
SPR125 – SPA167	Overseas visitor management team	Overseas visitor management
SPR127 – SPA171	Private patient administrator	Private patient administration

14. Do not include any costs in the costing process for these patients where the incurred costs do not sit in the organisation's accounts. For example, where a consultant saw a patient using NHS facilities and staff but separately invoices the patient/healthcare company for their time, you should allocate the facilities and other staff cost to that patient, but not the consultant time.[29]

15. Therapy, drugs, diagnostic tests, critical care, social care and other costs should be included in the costing process unless they do not sit in the organisation's accounts.

16. If the patient receives a service that is additional to those received by an NHS-funded patient, the costs should be identified and allocated to the private patient; for example:

- private room costs
- additional catering costs
- additional clinical or holistic treatments, tests and screening not normally available on the NHS patient pathway
- privately or charitably-funded specialist limbs/equipment, including those provided to veterans and children.

[29] This example presumes the patient contact was recorded on an NHS data system.

Acute costing methods

17. It is important that the income received for caring for these patients is allocated to the correct episode, attendance or contact. This will ensure that any element of profit is shown against the private patient, not netted off from the NHS-funded patient care costs.

PLICS collection requirements

18. Private patients and non-NHS patients are out of scope for the PLICS patient-level extracts. The costs for these patients should be reported in the reconciliation file only; see the *National cost collection guidance 2019*[30] for more information.

[30] https://improvement.nhs.uk/resources/approved-costing-guidance-2019/

CM8: Other activities (integrated)

Purpose: To ensure all other activities provided to or by another organisation are costed in a consistent way.

Objectives

1. To ensure activities delivered by your organisation on another organisation's behalf are costed in a consistent way, including direct access (**contracted-in services and commercial services**).

2. To ensure activities delivered on your organisation's behalf by another organisation are costed in a consistent way (**contracted-out services**).

Scope

3. This standard applies to all activities performed by a provider that do not relate to the care of its own patients. These include care provided to direct access patients and commercial activities where non-patient care services are provided.

Overview

4. Patient care that is classified as 'other activities' needs to be flagged in the information feeds using the contracted-in and contracted-out indicators in column D in Spreadsheet IR1.2.[31]

5. All activities delivered by your organisation on another organisation's behalf should be costed in the same way as your organisation's own-patient activity

[31] This currently applies to acute activity only. We are looking at how other activities can be identified in the mental health and community care activity datasets.

but reported separately so that it and any related patient activity is not included in your organisation's own patient care costs.

6. You should cost all activities undertaken by another organisation on your organisation's behalf (contracted-in activity) using activity information provided by the other organisation and reported using the prescribed resources and activities provided by the other organisation.

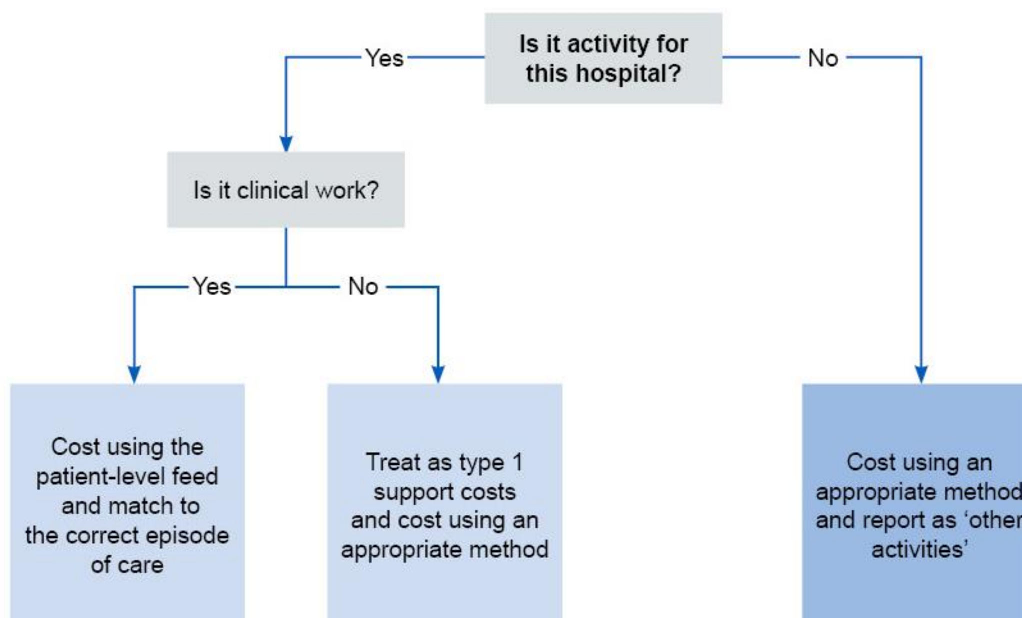
7. Work with contract managers and other finance colleagues to understand the basis of the service-level agreements, as this helps you to identify the nature of these activities.

Approach

Contracted-in activity

8. Where this activity is in your activity feeds, you need to understand the different service users for departments that deliver this activity (see Figure CM8.1).

Figure CM8.1: Services with different service users



9. The patient-level activity feeds you obtain from the relevant departments need to contain each department's entire activity, not just the activity for your organisation's own patients.

Acute costing methods

10. Contracted-in activity needs to be flagged in the information feeds using the contracted-in indicator in column D in Spreadsheet IR1.2.[32]

11. Contracted-in activity should be flagged in your costing system.

12. Contracted-in activity should be costed using the resources, activities and cost allocation methods described in Spreadsheets CP3.1 to CP3.3.

13. Costed contracted-in activities are not matched to the provider's own activity but are reported under the 'other activities' cost group.

14. If it is unclear whether an activity is own-patient care or contracted-in activity, discuss it with the service manager to agree an appropriate apportionment and document this in your integrated costing assurance log (ICAL) worksheet 13: % allocation bases.

15. For contracted-in non-clinical services, use the proportion of costs that should be attributed to the services it supports if the department has a system for recording this information. If it does not, develop a relative weight value with the service and the financial management team for use in the costing process.

Commercial activities

16. Some NHS organisations have developed commercial services[33] which generate additional income that is reinvested in patient care. These may include but are not limited to:

    - commercial research and trials
    - international healthcare management and consultancy
    - pathology, pharmaceutical production, toxicology
    - occupational health
    - retail space and site rental
    - facilitating market entry for new services to the NHS.

17. This activity should be costed where possible in the same way as other activity, so you need to identify the costs and activity information relating to it.

[32] This is for Acute only. We are looking at how other activities can be identified in the mental health and community care activity datasets.
[33] www.england.nhs.uk/nhsidentity/identity-examples-categories/income-generation/

Acute costing methods

18. All commercial activity should be flagged in the costing system.

19. Commercial activity should be costed using the resources, activities and cost allocation methods as described in the technical document (Spreadsheets CP3.1, CP3.2 and CP3.3).

20. Costed commercial activities are not matched to the provider's own activity but are reported under the 'other activities' cost group.

21. These activities should be reported under 'other activities' with their associated income for business intelligence purposes. For details, please see Integrated standard CM12: The income ledger.

Direct access activity

22. **You do not need to calculate direct access activity at individual patient level or individual test level.** From a system perspective, there is no need to run multiple calculations if the correct costs and activities are used.[34]

23. Direct access should be reported under the 'other activities' cost group.

24. Use activity ID: SLA118; Direct access services.

Neonatal screening programme

25. If your organisation has a contract for delivering a neonatal screening programme, you do not need to calculate this activity at patient level.

26. Neonatal screening programmes should be reported under 'other activities' alongside the corresponding income for business intelligence purposes.

27. Use these for neonatal screening:

    - activity ID: MDA073; Neonatal audiology screening
    - activity ID: CLA054; Neonatal pathology screening.

28. For all other screening use activity ID: SLA131; Screening.

[34] You should continue to calculate direct access at patient level if you already do so.

Contracted-out activity

29. Contracted-out services may be:

- the whole spell, to a private or voluntary provider or neighbouring NHS provider
- part of an episode, such as pathology, pharmacy or diagnostic imaging
- type 1 support services, such as payroll or shared services.

30. This activity should be costed where possible in the same way as other activity, so you need to identify the costs and activity information relating to it.

31. All contracted-out activity should be flagged in the costing system.

32. The costs relating to this activity are in the form of invoices charged to the general ledger. You need to identify these costs in the cost ledger.

Patient-facing services

33. Where the contract relates to patient-facing activity, the patient record for that provided service needs to be entered in the relevant feed and flagged in the information feeds using the contracted-out indicator in column D in Spreadsheet IR1.2.

34. Where you cannot obtain a breakdown of the resources, use the resource IDs:

- CLR026 Contracted-out pathology testing
- CLR027 Contracted-out pharmacy services
- CLR028 Contracted-out radiology scans
- MDR036 Orthotics
- CLR016 External contracts – clinical.

35. If the activities provided on your organisation's behalf by another organisation are recharged at a fixed value per patient or per treatment, use this as a relative weight value in the costing process.

36. The fixed value will contain an element of type 1 support costs. You do not need to classify the fixed value between patient-facing and type 1 support costs as all are patient-facing costs to your organisation.

Acute costing methods

Support services

37. Where the contracted-out activity relates to support services, costs should be allocated using the same allocation method as though it were an in-house service.

38. For example, a contract for facilities (maintenance, cleaning, etc) with NHS Property Services would be disaggregated to show cost allocation of:

    - maintenance – use the same allocation method as T1S030 Estates, buildings and plant, facilities maintenance costs – floor area (sq m)
    - cleaning – use the same allocation method as T1S013 Cleaning and other hotel services (pay and non-pay costs) – floor area (sq m) occupied by an area weighted by the number of times cleaning is carried out.

Other considerations

39. Activities provided by your organisation on another organisation's behalf may need to be apportioned an element of your organisation's own support type 1 costs for administering the contract. You need to identify which support type 1 costs to apply and in what proportion.

Services funded in part or in full by local authorities

40. If your organisation has the costs but not the activity, or vice versa, these should not be included in the costing process and reported as 'cost and activity reconciliation items'.

41. If your organisation has the costs and the activity, these should be costed using Integrated standards CP1 to CP6 and reported as 'other activities'.

PLICS collection requirements

42. Contracted-out activity is excluded from the national cost collection. The provider receiving contracted-out services must report their cost in the collection cost reconciliation.

43. Costs for commercial services should be allocated to patient care for the collection. The income for commercial services is netted off against patient care costs.

Acute costing methods

44. Direct access cost and activity is not collected at a patient level. These must be reported in the reference costs workbook.

45. For more information on other activities, see sections 19 and 20 in the *National cost collection guidance 2019*.[35]

[35] https://improvement.nhs.uk/resources/approved-costing-guidance-2019

CM9: Clinical MDT meetings

Purpose: To ensure clinical multidisciplinary team (MDT) meetings are costed consistently.

Objective

1. To cost all clinical MDT meetings hosted by the organisation that are not recorded elsewhere (eg in the non-admitted patient care (NAPC) feed).

Scope

2. This standard applies to all cancer MDT meetings hosted by your organisation, whether held locally or nationally, at which the treatment of patients with cancer is reviewed. Review includes available treatment options and individual responses. Patients do not attend these meetings.

3. Although the examples given in this standard relate specifically to **cancer** MDT meetings, the costing method can also be applied to **other** MDT meetings. This is because all MDT meetings which incur a material cost should be costed and reported locally for business intelligence.

Overview

4. You need to know the types of clinical MDT meetings hosted by your organisation, eg breast, retinoblastoma, leukaemia, specialist palliative care.

5. Clinical MDT meeting costs are not allocated to individual patients but are reported at specialty level.

6. Clinical MDT meeting costs need to be reported locally alongside any corresponding income for business intelligence.

7. Clinical MDT meetings should be reported under the ‘own patient activities’ cost group.

What you need to implement this standard

- ICAL worksheet 27: CM9 Clinical multidisciplinary team (MDT) meetings

Approach

8. Obtain the clinical MDT meetings feed (feed 14) from your organisation’s MDT meeting information database as prescribed by Acute standard IR1: Collecting information for costing and Spreadsheets IR1.1 and IR1.2.

9. The feed contains the number of times each MDT meeting is held during the calendar month or year.

10. This feed is classified as a standalone feed so prescribed matching rules are **not** provided in columns H to O in Spreadsheet CP4.1.

11. Use activity ID: SLA127; Cancer multidisciplinary meeting and activity ID: SLA128; Other multidisciplinary meeting.

Table CM9.1: Excerpt[36] from Spreadsheet CP3.3 showing the resource and activity links for the cancer multidisciplinary meeting activity

Resource and activity link ID	Resource	Activity
SLR083 – SLA127	Advanced nurse practitioner	Cancer multidisciplinary meeting
CLR017 – SLA127	Clinical scientist	Cancer multidisciplinary meeting
SGR062 – SLA127	Consultant	Cancer multidisciplinary meeting
MDR033 – SLA127	Dietician	Cancer multidisciplinary meeting
SGR063 – SLA127	Non-consultant medical staff	Cancer multidisciplinary meeting
THR005 – SLA127	Occupational therapist	Cancer multidisciplinary meeting
THR003 – SLA127	Physiotherapist	Cancer multidisciplinary meeting
SLR090 – SLA127	Psychologist	Cancer multidisciplinary meeting

[36] Please note all excerpts in this standard are for illustrative purposes only. Use Spreadsheet CP3.3 to ensure you are using all the correct resource and activity links.

Acute costing methods

Resource and activity link ID	Resource	Activity
CLR013 – SLA127	Radiographer	Cancer multidisciplinary meeting
SLR082 – SLA127	Specialist nurse	Cancer multidisciplinary meeting
THR007 – SLA127	Speech and language therapist	Cancer multidisciplinary meeting
CLR015 – SLA127	Technician	Cancer multidisciplinary meeting
THR001 – SLA127	Therapist	Cancer multidisciplinary meeting
SLR091 – SLE127	Cancer multidisciplinary meeting co-ordinator	Cancer multidisciplinary meeting

12. Set up relative weight values to calculate an average cost of the MDT meeting to be used in the costing process.

13. Use the costing template in your integrated costing assurance log (ICAL) worksheet 27: clinical MDT meetings to identify the information you need to set up the statistic allocation table, including:

    - meeting members, including whether they are internal or external staff and the department they belong to
    - length of the meeting
    - number of meetings attended by each member over the last year to calculate the average number of each type of meeting each member attends
    - preparation time for an MDT meeting, particularly the time pathologists and radiologists spend reviewing test results.

14. See column A in your integrated costing assurance log (ICAL) worksheet 27: clinical MDT meetings for an example of the potential attendees at a clinical MDT meeting whose input may need to be costed.

15. Cancer MDT meeting co-ordinators have been classified as a type 2 support resource and are linked to the cancer MDT meeting activity in Spreadsheet CP3.4.

Acute costing methods

Table CM9.2 Resource and activity link for the resource cancer MDT meeting co-ordinator

Resource and activity link ID	Support resource	Patient-facing activity
SLR091 – SLA127	Cancer multidisciplinary meeting co-ordinator	Cancer multidisciplinary meeting

16. Support type 1 costs, such as room use, catering, heating, lighting, printing and secretarial costs, need to be allocated appropriately.

Attendance at cancer MDT meetings as subject matter experts

17. You will need to identify the frequency of these meetings and who from your organisation attends.

18. Use activity ID: SLA127; Cancer multidisciplinary meeting or activity ID: SLA128; Other multidisciplinary meeting

19. Follow the costing method for hosted clinical MDT meetings.

20. You will need to find out whether staff attend because your organisation's patients are discussed at these national meetings or because they attend as 'subject matter experts'.

21. If your organisation's patients are discussed, report the activity under the 'own-patient activity' cost group. If the attendees are 'subject matter experts', report this activity under the 'other activities' cost group.

Table CM9.3: Example of what a cancer MDT meeting might look like in the resource and activity matrix

Resource	Activity Cancer MDT meeting
Consultant	XX
Non-consultant medical staff	XX
Clinical scientist	XX
Specialist nurse	XX
Advanced nurse practitioner	XX
Technician	XX

Acute costing methods

Resource	Activity Cancer MDT meeting
Radiographer	XX
Dietician	XX
Speech and language therapist	XX
Occupational therapist	XX
Psychologist	XX
Cancer MDT meeting co-ordinator	XX

PLICS collection requirements

22. Cancer MDT meetings are not collected at a patient level in the PLICS collection. Costs should be reported in the reference costs workbook: see section 10 of the *National cost collection guidance 2019*[37] for more information.

23. All other MDT meetings should be allocated to the relevant master data feed using the other MDT collection activity.

[37] https://improvement.nhs.uk/resources/approved-costing-guidance-2019

CM10: Pharmacy and medicines

Purpose: To ensure costs of pharmacy staffing and medicines are consistently allocated to the activities they deliver.

Objectives

1. To ensure pharmacy staffing costs are allocated in the correct proportion to the activities they deliver, using an appropriate cost allocation method.

2. To ensure medicine costs are allocated to the correct patient episode, attendance or contact.

Scope

3. This standard applies to all pharmacy staffing costs and all medicine costs in the cost ledger.

Overview

4. For the NHS as a whole, medicines are a material cost second only to staffing; for acute providers, they are a significant cost. Therefore, ensuring medicines are costed appropriately, then allocated or matched to the correct patient episode, attendance or contact, is important for the overall accuracy of the final patient cost.

5. The standards further classify medicines as high-cost drugs and chemotherapy drugs where appropriate, to support the costing process and cost collection.

6. Pharmacy staff carry out significantly more activities than simply dispensing drugs. While a high proportion of pharmacy pay costs is associated with patient-facing clinical services (including prescribing, the developing role of

supporting medicines use and optimisation on wards), the other activities undertaken by pharmacy staff need to be identified.

7. Pharmacy services have an infrastructure, governance and clinical (IGC) model in which the infrastructure and governance elements should be costed separately from the clinical element of the service provided. The elements are:

   - patient-facing clinical services: includes prescribing, supporting patient self-care and medicine reviews
   - infrastructure: includes managing supply of medicines, monitoring outsourced pharmacy service contracts, formulary development and medicines information
   - governance: includes policies and procedures development, safe management of medicines, audit of clinical practice and recording information.

8. This standard provides guidance on how to identify the activities that pharmacy staff undertake in your organisation and how to apportion their cost to those activities.

Approach

Medicines

Medicines identifiable at patient level

9. Paragraphs 68 to 73 in Acute standard IR1: Collecting information for costing and Spreadsheets IR1.1 and IR1.2 provide guidance on the collection of the medicines dispensed patient-level feed (feed 10) to be used when costing medicines. The information required for this feed is collected in a locally-held database and supplemented by a mandated monthly dataset for NHS England's specialised commissioning of high-cost drugs, which covers approximately 70% of high-cost drugs.[38]

10. Use the prescribed matching rules in columns H to O in Spreadsheet CP4.1 to match costed medicines activities from this patient-level feed to the correct patient episode, attendance or contact.

[38] The list of high cost drugs is available as part of the National Tariff Payment System documentation: https://improvement.nhs.uk/resources/developing-the-national-tariff/

11. Pay particular attention to ensuring high-cost drugs and chemotherapy drugs are identified correctly using the ‘high-cost drugs (OPCS)’ and ‘chemotherapy drug flag’ fields in column D in the medicines dispensed feed and are matched to the correct patient episode, attendance or contact.

Table CM10.1: Excerpt[39] from Spreadsheet CP3.3 showing the resource and activity links for drugs

Resource and activity link ID	Resource	Activity
MDR044 – MDA068	Drugs	Dispense all other medicine scripts
MDR044 – MDA067	Drugs	Dispense chemotherapy drug scripts
MDR044 – MDA065	Drugs	Dispense non patient-identifiable drugs
MDR044 – SLA126	Drugs	Homecare medicines
MDR044 – SPA155	Drugs	Research and development
MDR061 – MDA063	High cost drugs	Dispensing high cost drugs

12. The costs on the medicines dispensed feed are used as a relative weight values to allocate the costs in the cost ledger. This is so that if the total cost to the pharmacy is £1,000 but only £900 is in the cost ledger, a negative cost is not incurred by allocating more cost using the pharmacy feed than is actually on the ledger code.

Medicines not identifiable at patient level

13. Identify drugs which are not identifiable at patient level – for example, ward stock or ‘stock’ items[40] – using the ‘non patient-identifiable flag’ field to identify this. Use the ‘requesting location code’ to allocate these costs first to the ward, department or service, and then allocate to all the episodes, attendances and contacts based on duration in hours and minutes. Use activity ID: MDA065; Dispense non-patient identifiable drugs.

14. Pharmacy input fluctuates as the patient moves between wards or is discharged to primary care, and not necessarily because their acuity changes.

[39] Please note all excerpts in this standard are for illustrative purposes only. Use Spreadsheet CP3.3 to ensure you are using all the correct resource and activity links.
[40] This terminology is widely used for non patient-identifiable medicines.

Pay particular attention to ensuring all medicines are identified for each transfer of care, such as admission, transfer between wards and discharge, and are then matched to the correct episode, attendance or contact.

Negative costs in the medicines dispensed feed

15. The medicines dispensed feed (feed 10) is likely to contain negative values due to products being returned to the pharmacy, eg it may contain the dispensing, supply and returns for a patient's drug.

16. These issues and returns are not always netted off within the department's pharmacy stock management system. If this is the case, you need to net off the quantities and costs to ensure only what is used is costed.

17. All negative costs need to be removed. The returns are not a reconciling item.

18. Be aware that partial returns may take place. You may need to calculate the drug cost that should remain in the feed.

19. Also, the return unit cost may differ from the dispensing unit cost. You need to calculate the appropriate value for partial recalls.

20. If an issue is made in one month (month 1), but returned the following month (month 2), remove the negative value from the feed and remove the dispensation from the previous month. However, if you are reporting monthly, the cost of the drug recalled in month 2 will have already been allocated to the patient in month 1. You do not need to adjust for this as it falls under the materiality principle.

Treatment of FP10 costs

21. FP10 prescription information is useful as part of the patient pathway as it shows how the medication regimen continues outside the clinical setting, though currently it may not be included in your main pharmacy information system. Where community pharmacies or the NHS Business Services Authority – NHS Prescription Services[41] charges your provider for these drugs, you will have the costs for them in the general ledger.

[41] Formerly the Prescription Pricing Authority.

22. However, where possible you should try and obtain a dataset[42] to understand which patient prescription each cost relates to, so it can be matched to the relevant patient contact. The information should be added to the medicines dispensed feed as shown in Spreadsheet IR1.2 and matched to the patient contact as described in Integrated standard CP4: Matching costed activities to patients. See Table CM10.2 for the resources and activities to use.

Table CM10.2 Excerpt from Spreadsheet CP3.3: Methods to allocate patient-facing resources, first to activities and then to patients

Resource and activity link ID	Resource	Activity
MDR044 – MDA068	Drugs	Dispense all other medicine scripts

23. Where patient-level information is not available, but the cost is in the general ledger, you should still gather it into the appropriate resource and then allocate it equally to all patients who used the service. It should be included in the unmatched reconciliation, not matched to patients, to ensure the cost is not spread over patients who did not receive these medicines.

24. Note: in areas where community or private pharmacies dispense drugs, they charge the clinical commissioning group (CCG) directly for this, not the provider. The cost will therefore not be in the organisation's accounts and there is no requirement to gather on it.

Pharmacy staffing

Variable infrastructure services

25. You will need to identify which staff grades dispense drugs and perform dispensing accuracy checks in your organisation. Not all staff grades are involved.

26. Only a small percentage of a pharmacist's time is likely to be spent dispensing drugs; they are usually present to meet the legal requirement for supply of drugs to patients. You will therefore need to identify the percentage of pharmacy staff's time spent:

[42] The NHS Prescription Services section of the NHS Business Services Authority is trialling a reporting model that will allows inclusion of patient-level information.

- dispensing drugs (clinical)
- working with patients on wards to manage the medicines (clinical)
- on other activities that support the effective, safe use of medicines (infrastructure and governance).

Table CM10.2: Excerpt from Spreadsheet CP3.3 showing the resource and activity links for pharmacy

Resource and activity link ID	Resource	Activity
MDR042 – MDA074	Pharmacist	Aseptic unit work
MDR043 – MDA074	Pharmacy assistant	Aseptic unit work
MDR054 – MDA074	Pharmacy technician	Aseptic unit work
MDR054 – MDA068	Pharmacy technician	Dispense all other medicine scripts
MDR054 – MDA067	Pharmacy technician	Dispense chemotherapy drug scripts
MDR054 – MDA065	Pharmacy technician	Dispense non patient-identifiable drugs
MDR054 – MDA063	Pharmacy technician	Dispensing high-cost drugs
MDR042 – MDA066	Pharmacist	Pharmacy work
MDR043 – MDA066	Pharmacy assistant	Pharmacy work
MDR054 – MDA066	Pharmacy technician	Pharmacy work
MDR042 – SPA155	Pharmacist	Research and development
MDR043 – SPA155	Pharmacy assistant	Research and development
MDR054 – SPA155	Pharmacy technician	Research and development

Clinical services

27. Clinical services include dispensing drugs and direct patient support in clinical units.

28. For dispensing medicines, allocate identified pharmacy staff costs for dispensing using the allocation methods in columns F and G in Spreadsheet CP3.3. Use activity ID: MDA063; Dispensing high cost drugs (patient identifiable) and activity ID: MDA065; Dispense non-patient identifiable drugs.

Acute costing methods

29. Many wards will receive a ward-based pharmacy service, with input determined by specialty, clinical need and patient turnover. Use activity ID: MDA066; Pharmacy work.

30. Where pharmacy staff time is dedicated to a particular service or wards, the pharmacy staffing cost should be allocated only to those patients using this service or ward.

31. You should speak to your chief pharmacist to identify how many pharmacy staff work with dedicated services and set up relative weight values to ensure their costs are allocated only to patients using those services/wards.

32. As well as supporting specialty areas, pharmacy staff provide generalist input to clinical areas. You will need to identify and include them in your relative weight values.

33. Specialties that typically receive dedicated pharmacy services include:
    - critical care
    - renal dialysis
    - respiratory
    - aseptic
    - cancer/haematology
    - medical admissions
    - psychiatry (liaison)
    - parenteral nutrition (adult and paediatric).

34. The same principle applies for pharmacy staff who may work over multiple areas. You will need to find out how their time is split between the areas: for example, 20% in area 1, 30% in area 2 and 50% in area 3. You will need to set up relative weight values to ensure the costs are allocated to these areas based on those percentages.

35. Further things to consider when developing relative weight values for allocating pharmacy staffing costs are:
    - Do inpatients require a higher percentage pharmacy staffing cost than outpatients?
    - Do admission wards require a higher percentage pharmacy staffing cost?

Acute costing methods

Aseptic unit

36. An aseptic unit is a production unit for the aseptic preparation of injectables, such as chemotherapy, biological preparations/formulations and total parental nutrition (TPN).

37. The aseptic unit is staffed mainly by specially trained pharmacy technicians.

38. This is a separate pharmacy activity and as such should be costed separately. Use activity ID: MDA074; Aseptic unit work.

39. Costs in an aseptic unit include:

- staffing (pharmacist, pharmacy technicians and assistants)
- hire/depreciation of the unit
- registration and inspection to ensure the unit is fit for purpose
- quality assurance
- consumables and cleaning of the unit.

Infrastructure and governance

40. Work on infrastructure and governance should be considered when agreeing the allocation of cost to activities. Therefore, the resources identified for pharmacy should include the time spent working on these areas. Use activity ID: MDA066; Pharmacy work.

Other considerations

41. Pharmacy teams are peripatetic in nature and not based on a single ward. One pharmacist may cover three wards a day and provide input to a different area at the weekend, eg to help provide a seven-day hospital service.

42. Remember that different clinical areas have different pharmacy care needs. The average time a pharmacist is required per bed varies. For example, the hours per bed requirement differs for the following areas:

- medical admissions requiring seven-day hospital services with multiple visits to support 24/7 admissions
- intensive therapy unit
- elective surgery

- urgent care
- maternity.

43. Some areas, such as admission units, have high patient turnover and therefore will have pharmacy cover for much of the day, not as a peripatetic service.

44. Pharmacy staff also input to:

- outpatients
- homecare
- high-cost and chemotherapy drugs (particularly important for recovering pass-through drug costs)
- governance
- provision of medicines information
- clinical support for specialist preparative services, eg TPN
- other pharmacy services.

Table CM10.3: Example of how pharmacy and medicines might look in the resource and activity matrix

Resource	Activity		
	Aseptic unit work	Dispense chemotherapy drug scripts	Pharmacy work
Pharmacist	XX		XX
Pharmacy technician	XX	XX	
Pharmacy assistant	XX		
Drugs		XX	

CM11: Integrated providers (integrated)

Purpose: To ensure providers of integrated services cost all their services in a consistent way.

Objective

1. To ensure providers of integrated services cost in a consistent way across all services.

Scope

2. This standard applies to all services provided by NHS integrated providers.[43]

Overview

3. Many providers are integrated. For example, your organisation may be an integrated mental health and community provider or provide mental health and acute services. Where your services fall within the scope of a costing method standard, that standard for patient-level costing should apply: for example, Standard CM1: Consultant medical staffing.

4. Primary care services and local authority/social care services do not need to be costed at patient level, but you should ensure the costs relating to these areas are recorded against the correct service if they are in your general ledger. They should be reported under the 'other activities' cost group.

5. All providers of NHS services in England must follow the **same** costing process. This one process is described in the Spreadsheet: costing diagram.

[43] Integrated providers are organisations delivering services across acute, mental health, community and ambulance sectors. Primary care services are not included. Local authority care and social care are outside the funding structures of the NHS and are also not included.

Acute costing methods

6. This costing process is further described in the Integrated acute, mental health and community standards CP1 to CP6. Ambulance services are included in these where they are provided by an organisation that also provides services from one of the other sector(s).[44]

7. We have also developed sector-specific standards for each healthcare sector to accommodate their different information requirements and terminology, as well as need for different examples.

8. The information each sector requires for costing is described in the relevant Standards IR1: Collecting information for costing[45] and IR2: Managing information for costing.

9. The contents page for each sector's costing methods standards lists those relevant to that sector. Where your integrated provider delivers services not listed in the costing methods standards document for the main sector of its services, you should refer to the other sector-wide documents as appropriate.

10. For example, if an acute provider also delivers genitourinary medicine, it should use the costing methods in this document as relevant and refer to Community standard CM16: Sexual health.

11. The costing approaches standards apply to all organisations providing the specific services to which they relate– although we expect them to apply largely to the acute sector.

What you need to implement this standard

- Costing principle 6: Good costing should be consistent across services, enabling cost comparison within and across organisations

Approach

12. We have developed the standards to be consistent[46] across acute, mental health and community services because integrated providers mostly provide

[44] Ambulance services currently have their own standards, and these include elements of the integrated standards. In the future we intend to include ambulance services in the integrated standards where appropriate.
[45] The different healthcare sectors will have different information feeds.
[46] If you find inconsistencies or gaps across the three sets of standards, please raise them with us as a matter of urgency; costing@improvement.nhs.uk

these services.[47] This supports the costing of integrated services and a fully integrated cost collection. For example, Integrated standard CP2: Clearly identifiable costs and Spreadsheets CP2.1 and CP2.2 apply to all providers delivering these services, irrespective of the main sector of the provider. We have also developed standards for ambulance service providers.[48]

13. One set of costing process standards (Integrated standards CP1 to CP6 applies to all services as the core principles of the costing process are the same for all services. This enables consistent costing across services. Relevant spreadsheets (the costing processes spreadsheets) are also integrated.

14. Use the appropriate standards (information requirements, costing methods and costing approaches) for each service: the acute standards to cost your acute services, the mental health standards to cost your mental health services including child and adolescent mental health services (CAMHS), and the community standards to cost your community services.

15. You should obtain all the information feeds required for the different sectors you require. Spreadsheets IR1.1 and IR1.2 for each healthcare sector show these feeds and the data fields in each information feed.[49]

16. We do not expect you to set up individual cost ledgers for acute, mental health and community services. You should use the integrated cost ledger in Spreadsheet CP2.1.

17. The Spreadsheet CP2.1 is easier to use if you filter it by noting the services and codes you use in column Q. However, you should ensure that all rows are put into your costing software.

18. If any departments or individuals work across sectors – for example, in both mental health and community services – we expect you to set up appropriate cost allocation rules and relative weight values to ensure the correct costs are allocated in the correct proportion to the correct services. For example, we do not expect to see community-specific costs allocated to mental health activities.

[47] We looked at the reference costs 2016/17 to assess how many organisations provide integrated services.
[48] Ambulance services are only rarely supplied by acute, mental health or community providers, but should your organisation supply some, use the ambulance costing standards for that proportion of your costs.
[49] If you find identical field names across the standards that prevent you costing your sector, please raise these with us as a matter of urgency; costing@improvement.nhs.uk

Document your rules and relative weights in your integrated costing assurance log (ICAL) worksheet 13: % allocation bases.

19. Corporate support functions such as human resources will most likely support all services in the organisation. The relative weight values set up for them should include the relevant information for all services, so they receive their appropriate share of these support costs.

20. If you are provided with patient-level activity for different sectors in one feed, we expect that the sector the activities belong to will be identifiable to support the costing and collection process – for example, those that are acute activities.

21. If patient-level information is provided in a single auxiliary feed – eg medicines dispensed – your matching rules must ensure the medicines activities are matched to the correct episode, attendance or contact irrespective of the sector the care was given in.

Other considerations

22. If your organisation provides integrated social care services, primary care or public health services and the cost is in your general ledger, you should apply the costing principles and:

    - ensure that the costs of these services are clearly identified, and apply the costing processes
    - map the services to the rows in the cost ledger where appropriate rows exist, adding local rows to the cost ledger where they do not
    - follow Spreadsheet CP2.1 to apply any appropriate resources and if not present, create local resources with appropriate allocation methods[50]
    - use existing activities where possible and create local activities if they are not present
    - ensure these services share the support costs, so their cost quantum is not understated.

23. If your organisation has the costs but not the activity for a service, or vice versa, these should be costed using Integrated standards CP1 to CP6 and reported as ‘other activities’. Please see also Integrated standard CM8: Other activities.

[50] A resource application hierarchy flowchart is available on the Online Learning Platform to assist with this process.

CM12: The income ledger (integrated)

Purpose: To assign income in the correct proportion to the correct costed activities.

Objective

1. To support providers to accurately produce their service-line reports.

Scope

2. This standard is for guidance only. There are no plans to collect income in the cost collection.

3. This standard applies to all the income your organisation receives.

4. See paragraph 17 in Integrated standard CP2: Clearly identifiable costs for where income needs to be treated as part of the costing process.

Overview

5. All the income your organisation receives needs to be aligned to all the costs incurred for the purposes of service-line reporting and management, so that it can be effectively used internally in decision-making.

6. You need to understand the different types of income recorded in the general ledger and what costs they relate to, so that the outputs from the costing system can be reconciled to the accounts.

What you need to implement this standard

- Spreadsheet CM12.1: Examples of block income allocation

Approach

7. The income codes in the general ledger are usually at an aggregated level. Income for care services is often in monthly contractual amounts from the commissioner and relate to a wide range of services. Several types of income for different activities may be recorded on a single line in the general ledger.

8. Corporate income codes are often at an aggregated level – for example, central funding for a pilot project or initiatives to improve estates.

9. Commercial income should be identified and costed to the reconciliation statement. It should not be netted off from cost – for example, income from vending machines should be shown separately (matched to the cost of providing those facilities).

10. The general ledger is not the only source of income information. Other sources may be more helpful in providing the detail that improves the allocation method for income at both patient and service-line level.

11. For internal reporting, to calculate income at service-line level and to understand surplus and deficit positions at a patient level, you need to obtain patient-level income information from either the informatics or contracting departments. Other income, such as private patient income, if held in a database at patient level, should also be loaded into the income ledger.

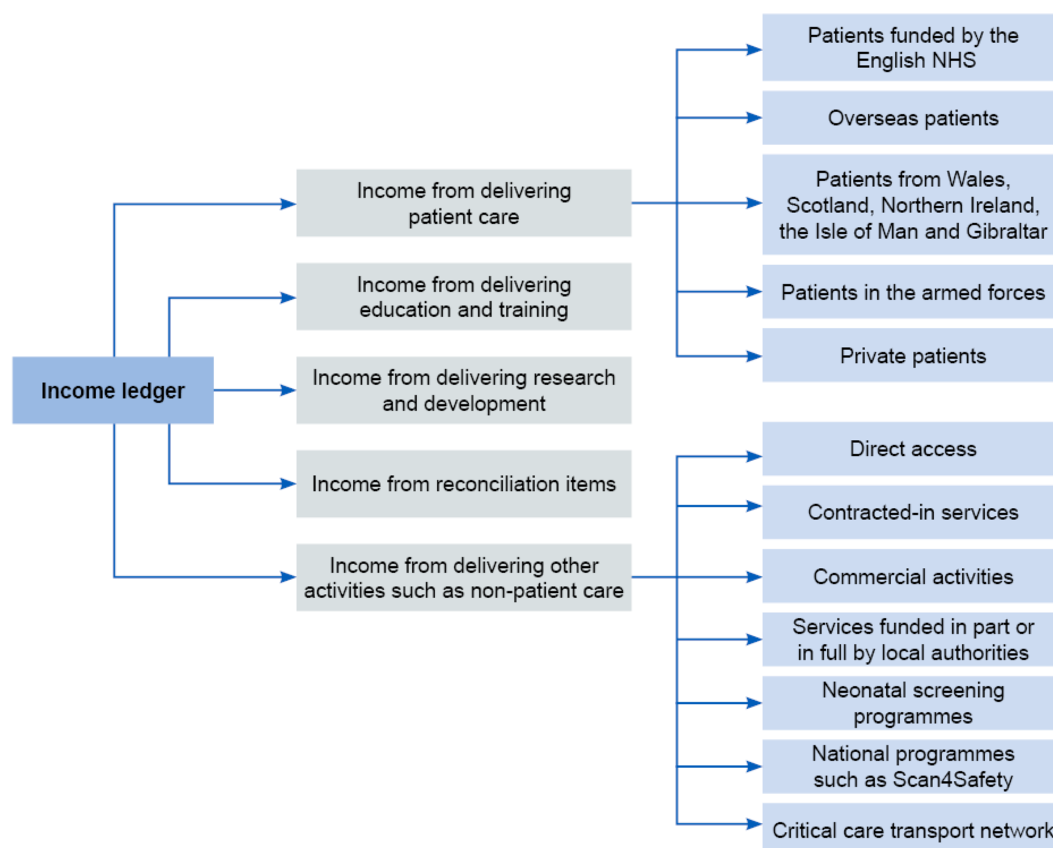
12. Where more detailed income information is unavailable, you need to identify the related income in the general ledger and develop local allocation rules to allocate it at the patient level.

13. To avoid duplicating income in the costing system, if more detailed income information is loaded into the income ledger from another source – for example, an income feed from the contracting team at patient level – the costing system should exclude the corresponding income value loaded from the general ledger output.

14. You should maintain a clear audit trail of all sources of information loaded into your costing system, ensuring it reconciles with the data reported in your organisation's accounts. Use the reports in Spreadsheet CP5.1 to do this.

15. The income ledger[51] is divided into five income groups as shown in Figure CM12.1 – your organisation may not provide all the services shown and your list of income types may be shorter.

Figure CM12.1: Income groups



16. For reconciliation to the PLICS collection, the five income groups need to be separated into allowable and non-allowable income. For this purpose and to clarify the reconciliation process, we recommend you understand how each general ledger code is categorised into the income centres[52] in Spreadsheet CP2.1:

- Category A income – Patient contract income. This is the core patient income from English NHS commissioners, and patient income from the devolved administrations, the Ministry of Defence, the Isle of Man and Gibraltar. This category also includes other income considered ‘not allowable non-contractual income’ for reference costs. No planned ‘profit’ is expected

[51] We do not provide a template for the income ledger.
[52] These are shown in the cost centre columns.

within this income beyond what may occur from the difference between tariff prices and cost.

- Category B income – private patient and overseas visitor income. This covers private patients and overseas visitors. These patients are also NHS healthcare patients, but the funding will come from sources other than NHS or other agreed commissioners. It is expected that this income will include planned profit, which is why it is separate from Category A income.
- Category C income – other income. This is the remainder of the income and is also known as 'allowable income for the cost collections'. It can be netted off from the service area costs.

For more information on which items are allowable or not allowable in the PLICS collection, please see Tables 11 and 12 in the *National cost collection guidance 2019.*[53]

17. The income ledger rows are identified by 'income centre codes' shown in columns A and B, Spreadsheet CP2.1. The codes are prefixed YYY to separate them from the cost centres. These rows can be expanded to meet the need of the organisation's general ledger, as long as the income is clearly identifiable throughout the costing system. This will help with the reconciliation of PLICS to the general ledger.

'Own-patient care' income group

18. The 'own-patient care' income group comprises the income from the provider's own-patient care activity. This includes income from:

- patients funded by the English NHS through national pricing, local pricing or block contracting arrangements (also known as healthcare income)
- overseas patients, both from countries with and without reciprocal charging arrangements
- patients from Wales, Scotland and Northern Ireland
- patients from the Isle of Man and Gibraltar
- armed forces personnel funded directly by the Ministry of Defence
- private patients: defined as those who choose to be treated privately and are responsible for paying the fees for their care.

[53] https://improvement.nhs.uk/resources/approved-costing-guidance-2019/

See also Integrated standard CM7: Private patients and non-NHS funded patients.

19. The income for the different patient groups needs to be identified and allocated to them only. You can do this using the codes for organisation identifier (code of commissioner)[54] and administrative category code[55] in column D in Spreadsheet IR1.2.

20. This is important as you need to be able to check that private patients are not being cross-subsidised by NHS income.[56]

21. Healthcare income is defined as the income a provider receives for the activity it undertakes for NHS commissioning organisations. For acute services, it is often recorded in a separate recording system at patient spell level, which means this information can be used to allocate the income at patient level. For mental health and community services, this information may not be available in the same format as the income in block contracts.

22. There are different types of healthcare income:

- income paid based on national prices, other than block contract income
- income paid based on locally agreed prices, other than block income
- block contract income
- income for pass-through costs such as high-cost drugs.

23. An organisation's patient care income and services may be derived from and commissioned by different sources, including:

- clinical commissioning groups – through various payment methods, including national tariff income or locally determined prices
- NHS England specialised commissioning
- private (non-NHS funded) patients – self-funded and from insurance schemes
- local authority
- voluntary and other third-party sector (NHS and non-NHS).

[54] www.datadictionary.nhs.uk/data_dictionary/data_field_notes/c/cd/cds_prime_recipient_identity
[55] www.datadictionary.nhs.uk/data_dictionary/attributes/a/add/administrative_category_code
[56] Integrated standard CM7: Private patients and non-NHS funded patients gives guidance on costing patients not funded by the English NHS.

Acute costing methods

24. All healthcare income streams should be allocated at patient level based on the activity undertaken or outcomes. National prices, local prices and pass-through income is recorded by patient, point of delivery and date(s) of treatment in some provider's income-monitoring systems. The income for services using national prices includes the market forces factor, excess bed days and specialist top-ups. Other services use locally agreed prices.

25. Where a contract is paid for with a block income, this income needs to be allocated using a locally agreed and appropriate method. Worksheet 19 in your integrated costing assurance log (ICAL) gives examples of ways in which you can allocate block income and suggests a template for recording your chosen method.

26. Although the activity relating to block contracts does not drive the income value, you need to know the currency of the service provision, so this can be used to drive the income allocation. Please note that none of the allocation methods shown in ICAL worksheet 19 is mandatory; allocation methods used must be agreed locally.

27. Allocation methods should be reviewed annually, as contracts between provider and commissioner bring in new models of payment.

28. Although treatment function codes may be useful in some sectors in allocating block income, they may cover a range of patients wider than the cohort covered by the block contract. To avoid this, use a look-up table of the patients in the cohort to allocate the income, with appropriate consideration of the materiality and availability of this information.

29. NHS care is provided for overseas patients through reciprocal agreements, healthcare insurance or self-funding. Where income for overseas visitors is received at patient level, it should be allocated at patient level, and where received as a block value for reciprocal agreements, it should be allocated in the same way as NHS healthcare block income (see paragraph 25).

30. Private patient income at a higher tariff than standard NHS care may be received from self-funding patients or healthcare insurance companies. Some overseas visitors may pay at this higher rate. These income streams are received at patient level and should therefore be allocated at patient level.

31. Non-English NHS income comes from overseas patients, military personnel and patients from Wales, Scotland, Northern Ireland, the Isle of Man and Gibraltar. This may be recorded in the income monitoring system or separately – for example, in a line on the relevant consultant's cost centre. The income needs to be allocated to the relevant patients for reporting against the associated costs.

Education and training (E&T) income group

32. The 'E&T' income group comprises the income the provider receives for E&T activities.

33. The learning and development agreement issued by Health Education England breaks down this income by the courses it relates to, and you should refer to this to allocate this income. Please see the Education and training costing standards for details.

34. This income may be held in corporate cost centres or department cost centres. You need to identify where the income is held and ensure it is all reported in the 'E&T' income group.

35. Please also see Standard E&T2: Clearly identified E&T costs and income for details.

36. E&T income needs to be netted off for the national PLICS collection. Please see Standard E&T6: Netting off E&T income for details of the process to follow.

'Research and development (R&D)' income group

37. The 'research and development (R&D)' income group comprises the income the provider receives for R&D activities.

38. Record the R&D income in the income centre: YYY004 – Research and development income – Cat C. This income should be divided into privately funded and centrally funded in the reconciliation statement.

39. You should set the allocation method with the R&D department for this income, which includes:

   - commercial clinical trial income where the funder is the sponsor

- commercial income where the funder is not the sponsor (eg a commercial grant)
- investigator-led income which is non-commercial but funded by a commercial company
- National Institute for Health Research (NIHR) income (biomedical research centres, fellowships, research capability funding, clinical research facilities, research for patient benefit)
- NIHR income via the Clinical Research Network
- grants from charities and other organisations.

40. This income may be held in corporate cost centres or department cost centres. You need to understand where the income is held, and ensure it is all reported in the 'R&D' income group and allocated to research activities.

'Reconciliation items' income group

41. The 'reconciliation items' income group includes income for which there is no corresponding activity, such as:

- grants or donations received by the organisation
- income for a staff member such as a youth worker employed by your organisation for activity undertaken by the local council, where your organisation cannot obtain the activity information for inclusion in the costing system
- income for which the costs cannot be identified, such car parking.

42. As the income for the period must match the income reported to the board, a full reconciliation must be kept showing how the ledger income maps to the income loaded into the costing system. Use the income centre and appropriate expense codes in Spreadsheet CP2.1 which map to the reconciliation codes.

43. Follow the guidance in Integrated standard CP5: Reconciliation and use the reconciliation report 'Input accounting reconciliation' in Spreadsheet CP5.1. This information will also form part of the assurance information reported to the board as per Integrated standard CP6: Assurance of cost data, to ensure that the costs and income have been treated appropriately.

‘Other activities’ income group

44. The ‘other activities’ income group includes the following provider income:

- contracted-in services
- commercial activities
- direct access services
- neonatal screening programmes
- services funded in part or in full by local authorities
- national programmes such as Scan4Safety
- critical care transport network
- therapy services for another organisation.

45. Make sure both costs and income are reported under the correct cost group and income group and allocated to the correct activities, so that any profitable commercial activities do not reduce the total cost amount for your organisation’s own-patient activities.

46. A provider may receive income if it has a contract to carry out all or part of an activity on another provider’s behalf, such as providing pathology services to other healthcare providers or psychotherapy services to a local organisation’s employee assistance programme.

47. These contracted-in services are commercial activities. Their associated costs and income should be treated as described in Integrated standard CM8: Other activities.[57]

PLICS collection requirements

48. Income from E&T, R&D and non-patient care activities must be netted off patient care costs for the national cost collection. For more information, see the *National cost collection guidance 2019*.[58]

[57] If your provider is the contracting or requesting organisation, the standards refer to this commercial activity as contracted-out activity; see Integrated standard CM8: Other activities for further information.
[58] https://improvement.nhs.uk/resources/approved-costing-guidance-2019

CM15: Cost classification (integrated)

Purpose: To correctly classify costs on each ledger as fixed, semi-fixed or variable.

Objectives

1. To ensure costs are classified as fixed, semi-fixed or variable in a consistent way across all providers.

2. To enable providers to analyse costs based on which elements are fixed, semi-fixed or variable.

Scope

3. All costs in the cost ledger will be eligible for classification, including research and development (R&D) and education and training (E&T). Income and balance sheet items are not costs and therefore do not currently have this classification.

4. This standard **will not** provide guidance on bottom-up costing exercises for contract negotiation. It is expected that the outputs from the costing process can be used to inform those costing exercises.

5. This standard **will not** identify the fixed portion of cost and the portion that is variable in the semi-fixed quantum of cost.

Overview

6. Classifying costs as fixed, semi-fixed or variable is not part of the costing process but rather a classification showing how costs behave based on the level of activity.

7. This classification is important for a trust's internal financial management as well as tariff purposes, as often, contracts are calculated to fund the fixed costs of maintaining the infrastructure and with a variable cost element based on the activity. For example, a specialist paediatric hospital was the national centre for bowel transplants. This meant the infrastructure for the activity needed to be constantly maintained even though on average there were only three bowel transplants a year.

What you need to implement this standard

- Costing principle 2: Good costing should include all costs for an organisation and produce reliable and comparable results
- Costing principle 6: Good costing should be consistent across services, enabling cost comparison within and across organisations
- Costing principle 7: Good costing should engage clinical and non-clinical stakeholders and encourage use of costing information.
- Spreadsheet CP2.1: Standardised cost ledger

Approach

8. You should classify each line in your cost ledge as fixed, semi-fixed or variable, based on a timeframe of 12 months.

9. The definitions adopted for fixed, semi-fixed and variable costs in the *Healthcare costing standards for England* are given below.

10. Details of the classification of costs can found in column R in Spreadsheet CP2.1.

Fixed costs

11. Fixed costs remain the same regardless of the level of activity.

12. Typical examples of fixed costs include rates, standing charges, financial charges and board of directors' costs.

13. Agenda for Change (AfC) staff at Band 8a and above are also classed as fixed, as the AfC guidelines state that these grades do not qualify for overtime. Staff at Band 8a or above employed during the year will be classified according this rule, irrespective of the role or duties they were employed for.

Semi-fixed costs

14. Semi-fixed costs remain the same until a certain level of activity is reached; the costs then increase in proportion to the level of activity.

15. Costs are defined as semi-fixed when the level of cost needed to maintain and infrastructure to deliver the contracted activity level is fixed. The costs incurred to deliver additional activity above that level are thus variable.

16. An example of semi-fixed costs would be contracted staff who can work and be paid for overtime. A consultant's basic pay must be paid regardless of their activity, so this is fixed; however, for example, additional sessions that reduce waiting lists will be variable.

17. AfC staff up to and including Band 7 also fall into this category, based on current AfC guidelines.

Variable costs

18. Variable costs increase in proportion to the level of activity.

19. Variable costs are only incurred to deliver activity – for example, those for drugs, patient consumables and hire of equipment – and they will vary depending on the level of activity.

20. Agency and bank staff will also fall into this category. We understand that sometimes agency and bank staff are contracted to cover longer term absences (eg for leave and staff sickness). However, for this version of the standards, we maintain these absences would usually be covered by the service establishment,[59] so the choice to use agency and bank staff represents increased volume.

Classification of resources

21. As each cost ledger line is mapped to a classification, resources will inevitably end up containing all three cost classifications, based on how type 1 support costs are allocated in the costing process. For this version of the standards, the classification of fixed/semi-fixed/variable will be applied at cost ledger level. Therefore, resources will not map to a single classification.

[59] This will be discussed further with technical focus groups during 2019.

Other considerations

22. Activities are not classified as fixed, semi-fixed or variable.

23. The classification of costs into fixed, semi-fixed or variable depends on the period being assessed. In the long term, all costs are variable, so you should base this classification on a 12-month period.

CM20: General practitioner services in secondary care settings (integrated)

Purpose: To allocate GP costs within NHS trusts and foundation trusts to the activities they deliver.

Objective

1. To ensure all GP costs are allocated in the correct proportion to the activities they deliver, using an appropriate cost allocation method.

Scope

2. This standard applies to all GP costs in the cost ledger.

3. This standard applies to NHS provider organisations.

4. This standard requires patient-level costs for secondary care activities only.

5. This standard applies to other staff grades who provide primary care services.

Overview

6. GPs provide:

   - care in primary care settings, such as GP surgeries and health centres
   - care related to a special interest in secondary/tertiary care
   - core cover for agreed services such as community hospitals and GP out-of-hours services.

7. Most of a GP's work is usually within the primary care setting. However, their patient care activities in other settings and their training activities need to be understood to ensure accurate costs within NHS providers.

8. Some GP work in non-primary care provider settings helps meet the increasing demand for NHS services and/or is for the GP's personal development. For example, the agreed operational model may be for a GP to provide medical cover for wards in an intermediate care unit.

9. GPs may have undergone specialist training for the clinical area they are working in or be developing skills in that area.

10. GP work in a non-primary care provider is of two types:

- Patient-facing activities – where the GP sees the patient in place of a one of the provider's medical staff. For example, a GP with a special interest in the stroke service may work up to two sessions per week in the acute stroke or stroke rehabilitation unit as part of their contract.
- Other activities – include where the GP is attending academic training sessions or is shadowing other care professionals. For example, a GP in the process of developing a special interest may shadow the clinical team but not yet contribute to the medical service.

11. The primary care GP cost to a non-primary care provider should be understood to ensure the quantum of cost is accurate, but it does not need to be allocated to patient level.

12. The costing team should understand the nature of GPs' contribution to the care provided so their costs can be allocated appropriately.

What you need to implement this standard

- Acute standard CM1: Medical staff
- Spreadsheet CP2.1: Standardised cost ledger
- Spreadsheets CP3.1: Resources for patient-facing and type 2 support costs
- Spreadsheet 3.2: Activities
- Spreadsheet 3.3: Methods to allocate patient-facing resources, first to activities and then to patients

Approach

13. You will need to identify the medical staff costs in the general ledger, using the expense codes for GPs. The cost of the GP will usually be in the provider's ledger through:

- a recharge on a session basis
- as a payroll entry in the same way as for other medical staff.

14. Map your medical staffing GP costs to the cost centres in the cost ledger according to the service they work in. This may be at specialty level or a local team category.

15. Where GPs provide primary care within your organisation, use the cost centres in Table CM20.1.

Table CM20.1: Excerpt from Spreadsheet CP2.1: standardised cost ledger

Cost centre	Description
XXX057	GP and primary care services
XXX232	Research and development
XXX273	Education and training
XXX640	GP out of hours services

16. You will also need to identify the expense codes used in the general ledger and map them to the expense codes for GPs in the cost ledger. Use the following expense codes:

- 5361 General practitioners – primary care
- 5363 General practitioners – secondary care.

17. These expense codes will flow GP costs using the resource IDs in Table CM20.2.

Table CM20.2: Excerpt from Spreadsheet CP3.1: Resources for patient-facing and type 2 support costs

Resource ID	Resource
SGR077	General practitioner – secondary care
SPR115	Research and development
SPR114	Education and training
CMR313	General practitioner – primary care

18. You should review the first output of this process to ensure the cost of the GP has been allocated to the correct resource. If it has not, the general ledger codes should be disaggregated and remapped to the cost ledger expense codes and resources, using information from the service manager or clinical lead in the service area in the same way as other medical staff time is allocated. Any primary care service provided should be kept separate from the secondary care service cost.

19. For the resource ID: CMR313 General practitioner – primary care, you should map to the activity shown in Table CM20.3 only. There is no requirement to obtain or cost at patient level for primary care, but this process will ensure you can reconcile all costs within your system.

Table CM20.3: Excerpt from Spreadsheet CP3.3 for primary care activities

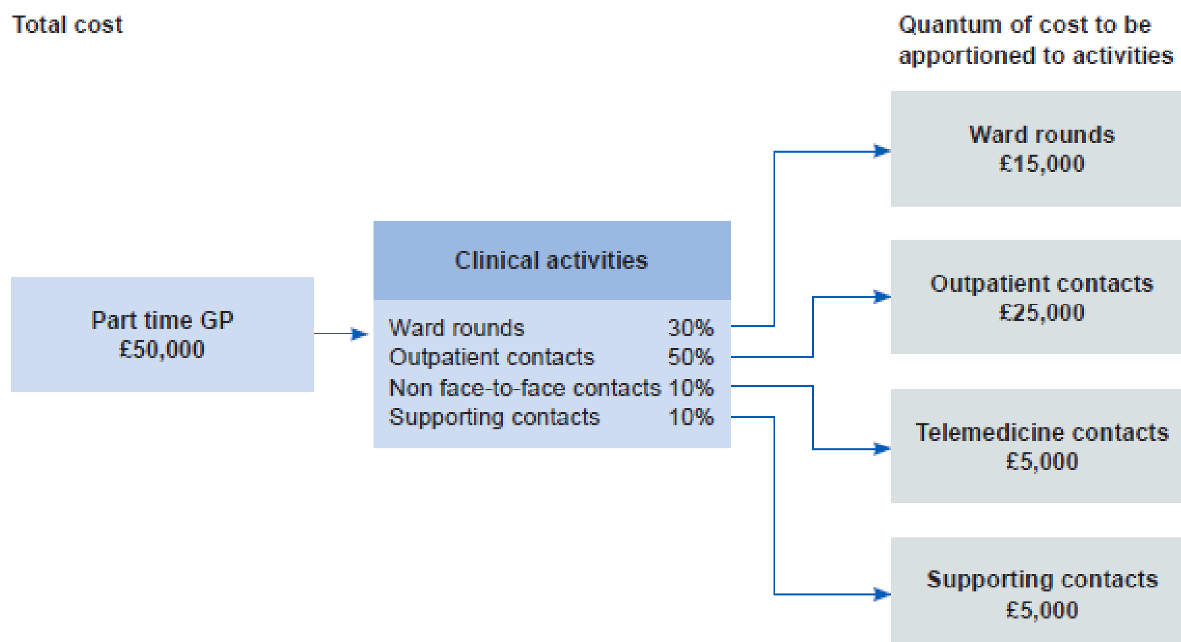
Resource ID – activity ID	Resource	Activity
CMR313 – SGA091	General practitioner – primary care	GP and primary care service
CMR313 – AMA191	General practitioner – primary care	GP out of hours service (OOH)

20. For the resource ID: SGR077; General practitioner – secondary care, you should map to the relevant activity at patient level, in accordance with Spreadsheet CP3.3.

Patient-facing activity

21. The activity (that is, special interest or medical cover for contacts, appointments, support of inpatients, etc) will usually be shown in your provider's patient administration system (PAS). Therefore, the cost of the GP should be allocated to the appropriate patient care, in the same way as for other medical staff (see Integrated standard CP3: Appropriate cost allocation methods and Acute standard CM1: Consultant medical staffing). An example is shown in Figure CM20.1.

Figure CM20.1: Identifying the correct quantum of cost to be apportioned to activities



22. The 'care professional local identifier' field in the PAS should include where a GP has been responsible for the contact or admission according to local policy. Where this is the case, the GP is responsible for the patient for the period they are in the dataset (episode, attendance or contact). Each patient admission may have multiple episodes of care, with responsibility changing from one to the next. See also Acute standard CM1: Medical staff.

23. In accordance with Acute standard CM1: Medical staff, this standard requires the costs for individual GPs performing a consultant role to be allocated at patient level. So, in Figure CM20.1 the resource shown as 'Part time general practitioner' would be one individual.

24. Table CM20.4 is an excerpt[60] from Spreadsheet CP3.3 showing examples of the activities the GP resource is linked to.

[60] Please note this is an excerpt for illustration purposes. Use Spreadsheet CP3.3 to ensure you are using all the correct resource and activity links.

Table CM20.4: Excerpt from Spreadsheet CP3.3 showing some resource – activity combinations for care provided by GP to secondary care patients

Resource ID – activity ID	Resource	Activity
SGR077 – CLA150	General practitioner – secondary care	Mortuary services – internal work
SGR077 – CMA308	General practitioner – secondary care	Support or other group contact
SGR077 – MHA258	General practitioner – secondary care	MH supporting contact 1:1 – Inpatient unit
SGR077 – MHA259	General practitioner – secondary care	MH supporting contact multidisciplinary – inpatient unit
SGR077 – MHA260	General practitioner – secondary care	Psychoeducational group contact
SGR077 – MHA261	General practitioner – secondary care	CPA meeting
SGR077 – MHA262	General practitioner – secondary care	Day care
SGR077 – MHA263	General practitioner – secondary care	Respite care
SGR077 – MHA280	General practitioner – secondary care	Skills development group contact
SGR077 – MHA281	General practitioner – secondary care	Cognitive behaviour/problem-solving group contact
SGR077 – MHA282	General practitioner – secondary care	Interpersonal process group contact
SGR077 – MHA289	General practitioner – secondary care	Initial assignment
SGR077 – SGA081	General practitioner – secondary care	Theatre – surgical care
SGR077 – SLA098	General practitioner – secondary care	Ward round

Other activities

25. The GP should have no named patient responsibility while involved in purely training activities.

26. This portion of their cost should be allocated to the cost centre XXX273: Education and training, to ensure the cost of patient care is not inflated.

27. Where the GP performs R&D activity, the appropriate proportion of the cost should be mapped to cost centre XXX232: Research and development

GP out-of-hours services run by providers

28. Where these services are provided in a secondary care organisation by GPs or other staff (such as nurse practitioners and paramedics), the cost may be recharged to the GP practice(s) that require cover, and the income may be included in the contract with clinical commissioning groups (CCG) or in a separate income stream.

29. You should use the resource for the staff group providing the service (eg 5363: General practitioners – secondary care). The cost centre in the cost ledger should be XXX640: GP out-of-hours services.[61]

30. You should use the activity ID: AMA191; GP out-of-hours service (OOH).

31. Services which are part of the contract with a CCG should be shown in the 'own patient care' cost group.

32. For out-of-hours services recharged to primary care practices, the general ledger codes should be identified and shown under cost group 'other activities' in the reconciliation.

Primary care services run by secondary care providers

33. Some providers run GP surgeries and services. These are largely recorded in a separate PAS and reported separately from the secondary care activity. However, the cost of providing these services is as important as that for other areas and the quantum of costs for it needs to be accurate.

34. Staff types other than GPs may also contribute to this service. These should be identified in the cost ledger as primary care staff, in the same way as the GPs (paragraphs 2132 but using the relevant staff expense code and resource.

[61] If new combinations for this cost centre are required, please contact NHS Improvement at costing@improvement.nhs.uk.

Acute costing methods

35. Currently there is no requirement to bring this information into the costing system.

36. However, for business intelligence, we recommend the services are costed locally in a way that is consistent with the costing of the other services provided.

Other considerations

37. Primary care services and GP out-of-hours services are currently out of scope of the PLICS collection. There is therefore no requirement currently to cost of these services at patient level for national purposes. This section is for information only and to ensure the cost quantum for provider services are accurate. It will be for the provider to decide whether patient-level detail is useful for local purposes.

38. Where services are provided by secondary care teams in GP surgeries or other primary care settings, and the cost is within the provider organisation, these should be costed according to the relevant sector costing standards.

39. In some cases, the commissioner may pay the GP the cost directly, particularly if they work across several providers. The patient activity will be present but without the cost of the GP. The costing process should identify the areas where this is the case and recognise that, while the cost to the organisation may be appropriate, the true cost of care for the wider health economy will not be shown. This activity should be reported in the reconciliation statement and a note made in your ICAL worksheet 22: Other notes for reference, to appropriately inform discussions on cost.

PLICS collection requirements

40. GPs as a resource in secondary and tertiary care services should be reported under the relevant resource within the PLICS collection. Primary care services and GP out-of-hours services are currently out of scope of the PLICS collection.

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