

Healthcare costing standards for England

Development version 1

Mental health

support collaborate challenge improve inspire

Delivering better healthcare by inspiring and supporting everyone we work with, and challenging ourselves and others to help improve outcomes for all.

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Introduction

Costing begins with good quality source data. The **two information requirement standards** describe the activity information required to implement the other costing standards and how costing teams can work with informatics and service departments to obtain good quality data for costing.

The **five costing process standards** apply to all services provided by your organisation. They cover the costing process from the general ledger through to the final patient unit cost and reconciliation to audited accounts.

The **four costing method standards** cover the costing of high volume or complex areas that account for a material proportion of an organisation's costs. They supplement the five costing process standards.

Implementation of these standards should start with the information requirements, followed by the costing purposes and finally the costing methods. Each type of standard should be implemented in numerical order and in conjunction with the technical guidance where appropriate.

We do not expect you to be able to comply with all the requirements straight away. We just want you to improve your cost data in incremental steps using the standards as your guide.

To note:

- these standards supersede earlier versions
- standard paragraphs are of equal importance
- the materiality threshold applies to all these standards
- the examples given are hypothetical.

People receiving care from a mental health provider are usually referred to as **service users or clients** by healthcare professionals. However, as these standards are for costing practitioners and their aim is to improve quality of patient-level costing in an organisation, the technical focus group agreed that we should refer to anyone accessing mental health services as a patient.

Intended audience:

- informatics professionals and departments providing information for use in costing (information requirement standards only)
- costing practitioners
- costing software suppliers
- healthcare professionals (costing methods only).

Reviewed by:

- NHS Improvement standards development technical focus group (TFG)
- Collection and Costing Advisory Group (C-CAG)
- Central and North West London NHS Foundation Trust
- Oxford Health NHS Foundation Trust
- West London Mental Health NHS Trust.

We have incorporated feedback and are grateful to all those who have taken time to comment.

Information requirements

IR1: Collecting information for costing purposes

IR2: Management of information for costing

IR1:

Collecting information for costing purposes

Purpose: To set out the minimum information requirements for patient-level costing.

Objective

- 1. To ensure all providers collect the same information for costing and collection purposes.
- 2. To help allocate the correct quantum of cost (resource) to the correct activity using the most appropriate allocation method.
- 3. To support reporting of cost information in the provider's dashboards.

Scope

4. This standard specifies three patient-level activity feeds as the minimum requirement for allocating resources and the areas where patient-level information is to be used for allocating support costs.¹

^{1.} Support costs do not directly relate to delivering patient care. Many relate to running the organisation: for example, board costs, human resources, finance, estates. You need to apportion them to patient activity using the appropriate information.

Overview

- 5. The information requirements specified in this standard apply to all admitted and non-admitted patient care activity reported for the following services as covered by development version 1² of the standards:
 - adults and older persons
 - child and adolescent mental health services (CAMHS)
 - forensic services
 - prison services.
- 6. Patient-level costing identifies the actual cost of the care an individual patient receives, and improves the accuracy of costing. It allows costs to be allocated in the correct proportion to activities.
- 7. We recognise that in certain instances based on how care is provided or due to information governance controls, identifying cost of care for a specific patient may not be possible. It is important to keep in mind that our aim is to cost **a** patient, not **the** patient. This applies to patients accessing the mental health component of sexual health services and gender dysphoria services. We recognise that we will collect data for a patient accessing the service and will not gather all data relating to each patient.
- 8. See Standard IR2: Management of information for costing to assess the availability of the required information specified in this standard and for how to manage this information.

Approach

Information required for allocating patient-related costs

- 9. The three patient-level activity feeds required for costing are:
 - admitted patient care (APC)
 - non-admitted patient care (NAPC)
 - pharmacy.
- 2. This development version excludes substance misuse and learning disabilities, but we will include them in future versions. However, the costing process applies to all services provided.

- 10. Spreadsheet IR1.2 in the technical guidance lists the required data fields for each of the above feeds.
- 11. If you currently do not collect and use the minimum required activity data feeds in costing, you should work with your informatics department and the departments/ teams providing the services to put in place systems to collect this information.
- 12. Depending on how information is stored and managed at your organisation, data fields listed within data feeds in Spreadsheet IR1.2 in the technical guidance may appear in different data feeds held locally at your organisation.

Patient-level information for the matching process

- 13. All patient-level activity feeds need to contain information that can be used to match the separate episodes/contacts, such as the unique episode/contact ID, hospital patient identifier number, contact date, point of delivery, ward/team or healthcare professional.³
- 14. For matching, the feeds are categorised in two ways:
 - master feeds: the core patient-level activity feeds that the other feeds will be matched to, eg the APC and NAPC feeds
 - **auxiliary feeds:** the patient-level activity feeds that will be matched to the master feeds, eg pharmacy feed.
- 15. Figure IR2.1 in Standard IR2: Management of information for costing gives more detail on how a provider should make the required data available for costing if it is not already available.

Description of patient-level feeds

16. Spreadsheet IR1.1 in the technical guidance describes the detail required for the activity and patient information data. The specific data fields required for each feed can be found in Spreadsheet IR1.2 of the technical guidance.

3. A healthcare professional is someone who provides care to patients – a care provider, such as a consultant, nurse or therapist.

17. You should work with the informatics department to understand the different types of activity captured and reported against each data feed. This will help ensure you allocate the correct costs in an appropriate proportion, and that the activity is reported correctly in your patient-level reporting dashboard.

Feed 1: Admitted patient care

- 18. This feed provides activity data for patients treated as inpatients, eg while on a ward.
- 19. The feed includes details for admitted patients, including number of occupied bed days, wards admitted to (eg acute, paediatric intensive care unit (PICU), high secure, etc) and healthcare professional details (eg consultant, nurse, therapist, etc).⁴ We recognise that ward establishments at some providers include therapists while at other providers therapists are part of community mental health teams (CMHTs) or other NAPC teams.
- 20. Each time a patient moves to a different ward/location it needs to be captured using the ward/location identifier data field.
- 21. This feed also contains data fields that allow you to flag patients who have not been discharged. This information enables you to cost all patients in a bed at midnight on the last day of the month.

Feed 2: Non-admitted patient care

- 22. This feed includes data for care provided in a non-admitted patient care setting. Data fields in the feed capture details of location where care is provided, and must be populated.
- 23. If the healthcare professional had to travel to another location (eg a patient's usual place of residence), travelling time must be reported.
- 24. This feed will also capture whether a contact was a care programme approach (CPA) meeting or a multidisciplinary team meeting.
- 4. For a detailed list of data fields included, see Spreadsheet IR1.2 in the technical guidance.

- 25. It contains data fields to capture when a patient did not attend (DNA) or in the case of a child was not brought to their NAPC appointment.
- 26. Costs and activity data associated with CMHTs, which may treat patients when they are admitted to a ward, should be reported in the NAPC feed. These costs should not be absorbed into the admitted stay.⁵

Feed 3: Pharmacy

- 27. This feed contains details of drugs administered to a patient during their treatment.
- 28. It should capture data on the issuing of FP10 drugs.
- 29. Healthcare professionals issue drugs in both admitted and non-admitted patient care settings. The local acute hospital will dispense FP10s, rather than the mental health provider. The latter should obtain the costs for this from the local acute hospital dispensing the drugs.
- 30. For a complete list of data fields included in this feed, see Spreadsheet IR1.2 in the technical guidance. Information collected through this feed will be matched to the APC and NAPC feeds using a unique patient identifier.

Locally specified data feeds

- 31. One of the purposes of the healthcare costing standards is to help providers develop their costing processes in a practical and achievable way. We encourage providers to collect more patient-level activity data wherever practical, taking into account the principle of materiality as stated in the costing principles.
- 32. You must collect patient-level activity feeds on the list for patient activities that cost more than the materiality threshold of 0.05% of the organisation's operating expenditure.⁶

^{5.} For a complete list of data fields included in this feed, see Spreadsheet IR1.2 in the technical guidance.

^{6.} As reported in *Foundation trust annual reporting manual 2016/17: draft for consultation:* https://improvement.nhs.uk/resources/annual-reporting-manual-foundation-trusts-201617/

- 33. The three patient-level activity feeds specified above are the minimum required for costing but do not cover all patient activities involved in providing mental health services. You need to decide whether you need additional patient-level feeds to meet specific costing needs. Examples of such feeds are:
 - prison rehabilitation services
 - offsite educational/mental health promotion
 - crisis houses.
- 34. Future development areas should be prioritised according to three criteria:
 - value of service
 - volume of service
 - priority of the service within the provider and the healthcare economy.
- 35. If you are already collecting additional patient-level activity feeds, we encourage you to continue as this is best practice. It is not the aim of the costing standards to push an organisation 'backward' in its costing journey, although it is important for consistency that the areas covered by the standards are costed using the prescribed methods.
- 36. If you are not collecting and using the three patient-level activity feeds in your costing, you should work with the informatics department and the department responsible for the data feed to introduce the systems necessary for collecting information to improve costing.
- Figure IR2.1 in Standard IR2: Management of information for costing gives more 37. detail on the information an organisation needs to collect.

Identifying hidden activity

- Take care to identify any 'hidden' activity that is, activity that takes place but is 38. not recorded on any main system such as the patient administration system (PAS).
- 39. In some organisations, teams report only part of their activity on the main system such as PAS. If this is the case, work with the informatics department and the department responsible for the data to obtain a feed containing 100% of the department's activity. For example, a department reports its admitted patient care activity on PAS but does not report its outreach activity on PAS.

- 40. Capturing hidden activity is important to ensure:
 - any costs incurred for this 'hidden' activity are not incorrectly allocated to recorded activity, inflating its reported cost
 - costs incurred are allocated over all activity, not just activity reported on the providers' main system such as PAS
 - income received is allocated to the correct activities.

Other data considerations

- 41. Spreadsheet IR1.2 in the technical guidance contains the required data fields for the three activity and patient information feeds specified. These fields have various functions, such as costing, collection or reporting. You may add fields for local purposes.
- 42. The activity feeds do not contain any income information. Your organisation may decide to include the income for the feeds at patient level to enhance the value of its reporting dashboard.⁷
- 43. The feeds do not include description fields.⁸ You may request that these are included in the feeds; otherwise you will need to maintain code and description look-up tables for each feed to understand the cost data supplied. You will need a process to map and regularly (at least annually) revalidate the codes and descriptions for each service.

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- 7. See Standard CM4: The income ledger.
- 8. Refer to Spreadsheet IR1.1 in the technical guidance for full details.

IR2:

Management of information for costing

Purpose: To assess the availability of the information specified in Standard IR1: Collecting information for costing purposes.

Objective

To provide guidance on managing information that is available and to recommend processes to follow when information is not available.

Scope

2. This standard covers the technical aspects of how to manage the required information to help you use the costing methods in practice.

Overview

- 3. We acknowledge that data quality is not the costing team's responsibility. This standard focuses on the steps you can take to be confident about the data used for costing and to support improvements in data quality in your organisation.
- Your organisation should have its own governance arrangements for managing 4. data capture and flows and for data quality.

Approach

Availability of information for costing

- 5. Most of the required information⁹ should be held on your information systems, but its availability will vary due to different information management practices and the capacity of your information technology. Here we provide guidance on assessing data availability. You should work with your informatics colleagues and the relevant services to assess data availability against Standard IR1: Collecting information for costing purposes and to streamline processes for extracting what is required.
- 6. The quality of information varies among organisations, APC and NAPC feeds should be available at all mental health providers. Pharmacy feed will only be available at providers that have either a pharmacy function or access to information from the partner organisation that dispenses drugs for them.
- 7. Spreadsheet IR1.3 in the technical guidance lists the national collections' data sources relevant to each patient-level feed. We advise costing teams to work with their informatics department to make information available for costing.
- 8. You need to perform a gap analysis to see where you are meeting or exceeding the requirements and where information is missing or not yet available for costing.
- 9 If you are not collecting the required information, you must work with the relevant departments in your organisation to begin collecting it and to make it available for costing. Figure IR2.1 is a flowchart showing you how to access data for costing.
- Where patient demographic information is not available for governance or 10. confidentiality reasons, following the costing process, costs should still be allocated to 'a patient', not necessarily 'the patient'.
- If these services are outsourced, you will need to obtain patient-level information 11. from the organisation providing services.
- 9. As specified in Standard IR1: Collecting information for costing purposes and the technical guidance.

Unavailable data and future requirements for data collection

- Providers may not collect information for the pharmacy feed in which case it will 12. be unavailable to the costing team.
- Information for costing may be unavailable because: 13.
 - it is not collected at an individual patient level
 - data is not given to the costing team
 - data is not in a usable format for costing
 - data is not loaded into the costing system and included in costing processes.

Making data available

- If you are missing any of the required data fields in Spreadsheet IR1.2 in the technical guidance, you should follow the steps shown in Figure IR2.1 to make the data available for costing.
- 15. Figure IR2.1 helps you identify why patient-level activity information may not be available and the action to take to make it available.
- 16. Until the data becomes available, you will need to use an alternative costing method to allocate costs: for example, a relative weight value unit (RVU).¹⁰
- 17. When patient-level activity data is unavailable, use the current method as a work-around and log it in your costing manual. You should see this as an interim method and start to collect all information specified in Standard IR1: Collecting information for costing purposes to support accurate and consistent costing. We recognise that providers will need time to set up the collection of additional patient-level information for costing.

10. See Acute Standard CM3: Relative weight value units, for further information on RVUs.

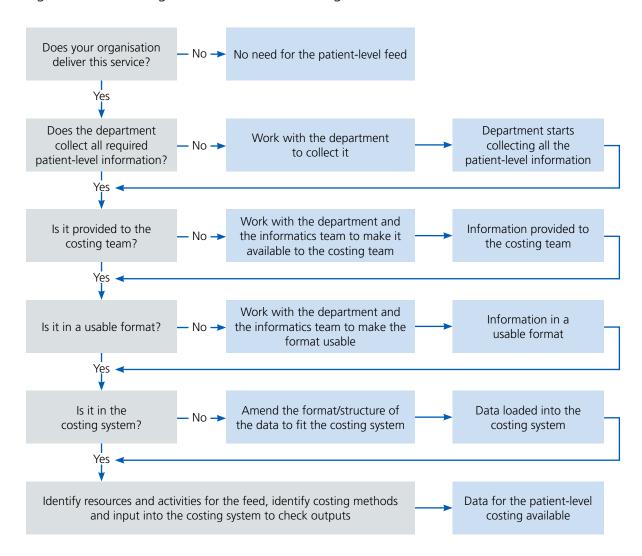


Figure IR2.1: Making data available for costing

Managing costing information

Generating the information

18. Costing is a continuous process, not a one-off exercise for a national collection. If your organisation has its own cost data for internal decision-making, you may need to run our process only once a year for collection. But if your organisation has no other form of cost data, run our patient-level costing process quarterly as a minimum, although we recommend running it monthly as best practice.

- 19. The benefits of frequent calculation of costs are:
 - effects of changes in practice or demand are seen and you can respond to them while they are still relevant
 - internal reporting remains up to date
 - mistakes can be identified and rectified early.
- 20. A first cut of the APC and NAPC patient-level activity feeds from the PAS will generally be available for costing by the fifth day of each month (referred to as day 5 in Table IR2.1 below). You should use this information in the costing process, so if your organisation reports monthly on patient-level costing you can meet the reporting timetable.
- All other patient-level feeds should be submitted to the costing team by the fifth 21. day of each month so costing can begin promptly. You may have to be flexible with some departments on when they provide the patient-level feed – but this should be the exception rather than the rule. Agree this with the service and informatics department and clearly document it to support good governance.
- 22. A second cut of the APC and NAPC patient-level activity feeds from the PAS will generally be available for costing by the 20th day of each month (referred to as day 20 in Table IR2.1 below). You should load these patient-level feeds into your costing system the following month, overwriting the previously reported data feeds.
- 23. The benefits of doing this are:
 - any activity recorded in the PAS that missed the previous cut-off date will be included
 - less unmatched activity.

In-month or year-to-date feeds?

24. You should consider carefully the period for data loading – in-month or cumulative year-to-date. You should base your decision on the approach and frequency of the costing process and your organisation's reporting requirements. Loading monthly data is easier as the number of records is much smaller.

25. It is important that the costing system is configured to recognise whether a load is in-month or year-to-date, otherwise it may not load some of the activity. To ensure the costing system is loading everything it should, check the number of lines in the feed against the number of lines loaded into the costing system.

Descriptions and codes used in the feeds

Databases will use the descriptions and codes provided when they were set up. 26. Over time these descriptions and codes may change, become obsolete or be added to. For example, feed A may record a specialty as psychology and feed B as clinical psychology; if these are the same department, this needs to be identified and recorded in a mapping table.

Logging patient-level activity feeds

- 27. Keep a log of patient-level activity feeds that details:
 - the feed's source system, data table name, department, named person and a deputy responsible for providing the data source to you
 - whether it is an in-month or year-to-date feed
 - period covered by the feed for example, all activities undertaken and patients discharged in the calendar month
 - format of information to be loaded into costing system: SQL script, Excel spreadsheet or text file (eg CSV)
 - the working day when the costing team will receive the feed
 - any known quality issue with the data source
 - number of records on the feed.
- 28. Table IR2.1 shows an example log of patient-level feeds.

Table IR2.1: Example of patient-level feeds log

Feed number	Feeds	In-month/ year-to- date	Data source	Department	Named person/ deputy	Format	Time period	Working day data received	Number of records received	Data quality issue if known
1	Admitted patient care – day 5	In-month	PAS informatics department	Informatics	xxx/xxx	CSV	In-month activity	5	xxx	
1	Admitted patient care – day 20	In-month	PAS informatics department	Informatics	xxx/xxx	CSV	In-month activity	20	xxx	
2	Non- admitted patient care – day 5	In-month	PAS informatics department	Informatics	xxx/xxx	CSV	In-month activity	5	xxx	
2	Non- admitted patient care – day 20	In-month	PAS informatics department	Informatics	xxx/xxx	CSV	In-month activity	20	xxx	
3	Pharmacy	In-month	XXX	Pharmacy	xxx/xxx	CSV	In-month activity	5	xxx	

Refreshing information used for costing

- Note the difference between a refresh and a year-to-date feed. A **refresh** is 29. a rerun of queries or reports by the providing department to pick up any late inputs. A **year-to-date** feed is an accumulation of in-month reports (unless the informatics team has specified otherwise). The refreshed dataset includes all the original data records whether amended or not, plus late entries.
- You need to refresh the data because services will continue to record activity on 30. systems after the official closing dates. Although these entries may be too late for payment purposes, they still need to be costed. The refreshed information picks up these late entries, which may be numerous.
- Get a monthly refresh of all the patient-level activity from the relevant 31. department/team or the informatics department. For example, the informatics department can give you the mental health services dataset (MHSDS) being prepared for submission to NHS Digital.
- 32. A challenge for costing teams is that changes caused by the refreshes can alter the comparative figures in service-line reports. With the help of the service's management accountant lead, you need to explain significant changes to users of the service-line reports, highlighting the impact of late inputs to the department providing the patient-level activity feed.

Information used in the costing system for calculations

33. You need to specify in the costing system whether or not values in the patientlevel feeds can be used in calculations. If inconsistent measures are used across the records – eg if a pharmacy feed's quantity column records number of tablets, number of boxes or millilitres dispensed in different records, the costing system will need to ignore these quantities in the feed.

- 34. If the costing system uses information from a feed to calculate durations, eg length of stay, in hours, it will need to know which columns to use in the calculation. If the durations have already been calculated and included in the feed, the costing system will need to be told which column to use in allocating costs.
- 35. Some pharmacy feeds (feed 3) include the cost in the feed. You will need to instruct the costing system to use this cost as a relative weight value unit (RVU) or actual cost in the costing process.¹¹
- 36. Once you decide the calculation method, keep a record for each patient feed. Table IR2.2 shows an example of a log recording important details of the patient-level activity feeds.

Table IR2.2: Log showing how the costing system uses patient-level activity feeds

	Feeds	Detail	Column to use in costing
1	Admitted patient care	1 line = 1 discrete stay on a specific ward	Duration of stay in hours
2	Non-admitted patient care	1 line = 1 attendance	Duration in minutes
3	Pharmacy	1 line = 1 issue	Total drug cost

Duration caps

- A duration cap rounds outlier values up or down to bring the values within 37. accepted perimeters.
- Review the feeds to decide where to apply duration caps and build them into 38. the costing system.
- You can apply a cap to reduce outliers, eg an appointment/contact in a 39. non-admitted patient care setting that is not being closed. Applying duration caps removes the distraction of unreasonable unit costs when sharing costing information.
- 11. See Acute Standard CM3: Relative weight value units for more details on relative value units.

- 40. Capped data needs to be reported as part of the data quality check. The caps need to be clinically appropriate and signed off by the relevant service.
- While the effect of caps is to moderate or even remove outlier values, it is the 41. study of these outliers (ie unexpected deviations) that is informative from a quality assurance point of view. You should record the caps used and work with the informatics department and the department responsible for the data feed to improve the data quality and reduce the need for duration caps over time.
- 42. Table IR2.3 shows examples of duration caps, which should be used as a default in the absence of better local assumptions.

Table IR2.3: Examples of duration caps

Feed no	Feeds	Duration in minutes	Replace with (minutes)
2	Non-admitted patient care	≤4	5
2	Non-admitted patient care	>180	180
1	Admitted patient care	≤4	5
1	Admitted patient care	>180	180

Recalled items on patient-level activity feeds

- 43. Take care with patient-level activity feeds in case they contain negative values due to products being returned to the department. For example, the pharmacy feed contains the dispensations and the recalls for a patient's drug. These dispensations and recalls are not always netted off within the department's database, so both will appear in the feed. If this is the case, you will need to manually net off the quantities and costs to ensure only what is used is costed.
- If a dispensation takes place in one month (month 1) but recalled in the 44. following month (month 2), remove the negative value from the feed and remove the issue from month 1.

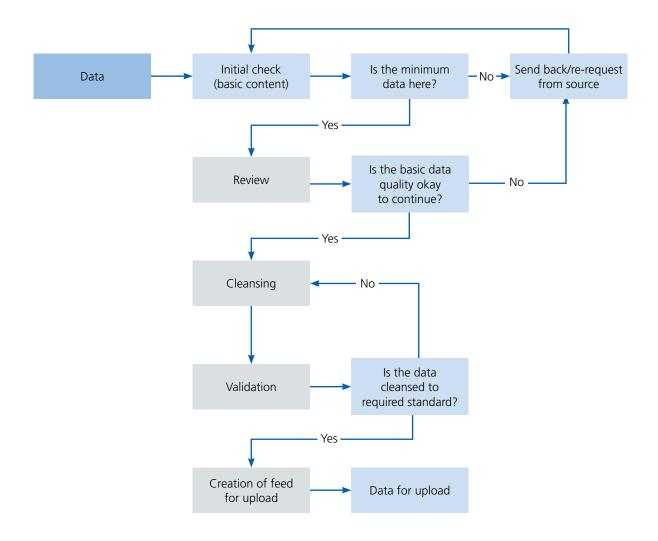
45. Bear in mind the costs on this feed are used as a weighting, not as an actual cost, so all negative costs need to be removed. If a dispensation is recalled in month 2, but the cost was already allocated to the patient in month 1, you do not need to alter this as it falls under the materiality principle. The recalls are not a reconciling item.

Data quality check

- 46. Follow a three-step quality-checking process for costing data:
 - 1. **Review the source data:** identify any deficiencies in the feed, including file format, incomplete data, missing values, incorrect values, insufficient detail, inconsistent values, outliers and duplicates.
 - 2. Cleanse the source data: remedy/fix the identified deficiencies. Follow consistent rules and log your alterations, creating a 'before' and 'after' copy of the data feed. Applying the duration caps is part of this step. Always report data quality issues to the department supplying the source data so they can be addressed for future processes. Keep data amendments to the minimum, only making them when fully justified and documenting them clearly.
 - 3. Validate the source data: you need a system that checks the cleansed and correct data is suitable for loading into the costing system. This may be part of the costing system itself. Check that the cleansing measures have resolved or minimised the data quality issues identified in step 1; if they have not, either repeat step 2 or request higher quality data from the informatics team.
- 47. Consider automating the quality check to reduce human errors and varied formats. Automatic validation, via either an ETL (extract, transform, load) function of the costing software or a self-built process, can save time. But take care that the process tolerates differences in input data or is fed consistent input it can operate on. Otherwise you risk spending disproportionate time fixing the automation.

48. Your organisation should continuously improve data quality for audit purposes. Request changes from the source team/department or informatics team, then review the revised data for areas to improve. Set up a formal process to guide these data quality improvement measures and ensure those most useful to costing are prioritised. Figure IR2.2 shows a flowchart of the process.

Figure IR2.2: Establishing data quality improvement measures



Costing processes

CP1: Role of the general ledger in costing

CP2: Clearly identifiable costs

CP3: Appropriate cost allocation methods

CP4: Matching costed activities to patients

CP5: Reconciliation

CP1:

Role of the general ledger in costing

Purpose: To set out how the general ledger is used for costing, and to highlight the areas which require review to support accurate costing.

Objective

1. To ensure the correct quantum of cost is available for costing.

Scope

2. This standard should be applied to all lines of the general ledger.

Overview

- You will need the income and expenditure for costing. We refer to this as the 'general ledger output'. This output needs to be at cost centre and expense code level, and is a snapshot of the general ledger. You do not require balance sheet items for costing.
- 4. The general ledger is closed down at month end, after which it cannot be revised. For example, if in March you discover an error in the previous January's ledger that needs to be corrected, you can only make the correction in March's ledger. Doing so will correct the year-to-date position, even though the January and March figures do not represent the true cost at those times, as one will be overstated and the other understated.

- 5. The timing of when some costs are reported in the general ledger may pose a challenge for costing. For example, overtime pay for a particular month may be posted in the general ledger in the month it was paid, not the month the overtime was worked. This highlights a limitation in the time-reporting and expense payment system. We recognise this limitation, but are not currently proposing a work-around for it.
- Discuss the general ledger's layout and structure with the finance team so 6. that you understand it. This will help you understand the composition of the costing output.

Approach

- 7. The finance team should tell you when the general ledger has been closed for the month, and give you details of any off-ledger adjustments for the month, especially if they are included in your organisation's report of its financial position.
- 8. Keep a record of all these adjustments to reconcile back to the general ledger output. Take care to ensure that any manual adjustments are mapped to the correct line in the cost ledger.
- 9. You must include all expenditure and income in the general ledger output, which must reconcile with the financial position reported by your board and in the final audited accounts.
- See Spreadsheet CP1.1 in the technical guidance for what the extract of the 10. general ledger output must include.
- 11. Ensure there is a documented process for extracting the general ledger output. Extract the general ledger output once the finance team tells you it has closed the general ledger for the period.
- 12. The finance team should tell you when it has set up new cost centres and subjective codes in the general ledger, and when material movements in costs or income occur between subjective codes or cost centres.

- 13. As best practice, finance teams should not rename, merge or use existing cost centres for something else as this causes problems in costing if you are not informed. Finance teams should close a cost centre and set up a new one rather than renaming it. If this no not possible, you should be informed of any changes.
- The new general ledger cost centres and subjective codes need to be mapped to 14. the cost ledger. You then need to reflect these changes in the costing system.
- Take part in approving all new cost centres and subjective codes so you are 15. aware of where the codes will be used and for what purpose. Cross-team approval increases teams' understanding of how any changes affect them.
- 'Dump'¹² ledger codes need to be addressed so that all costs can be assigned to 16. patients accurately. Work with your finance colleagues to determine what these 'dump' codes contain so they are mapped to the correct lines in the cost ledger. Review any subjective codes leading to negative costs¹³ with colleagues from the financial management team.

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- 12. Varying terms can be used across different organisations for dump ledger codes. For example, they can also be referred to as error suspense codes and holding ledger codes.
- 13. For more guidance on negative costs see Standard CP2: Clearly identifiable costs.

CP2:

Clearly identifiable costs

Purpose: To ensure costs are in the correct starting position for costing.

Objective

To ensure costs are clearly identifiable for costing.

Scope

2. This standard should be applied to all lines of the general ledger.

Overview

- 3. You should use the standardised cost ledger structure in Spreadsheet CP2.1 in the technical guidance.
- 4. The general ledger is often set up to meet the organisation's financial management needs rather than costing, so some costs in it will have to be transferred between ledger codes, or aggregated or disaggregated in the cost ledger to ensure the costs are in the right starting position for costing.
- 5. The standardised ledger classifies costs at the costing account code level, according to whether they are a patient-facing 14 cost or a support cost, 15 and maps costs to the resource/activity combination.
- 14. Patient-facing costs relate directly to delivering patient care and are driven by patient activity; they should have a clear activity-based allocation method, and will be both pay and non-pay.
- 15. Support costs do not directly relate to delivering patient care. Many relate to running the organisation - for example, board costs, HR, finance, estates - and you need to apportion them to patient activity using the appropriate information. Other support costs may be service-level support costs such as ward clerks, service management and sterile services department costs.

- 6. It is the nature of the cost that determines the classification, not the allocation method. Some providers may have sophisticated data systems allowing them to allocate support costs at patient level – such as a recording system for patients using interpreting services; but that does not make them patient-facing costs. Continue to use these methods, and record them in your costing manual.
- 7. You may have some expenditure that is not covered in this version of the standardised ledger. If this is the case, continue to use your current methods for those costs.
- 8. Transforming the general ledger into the cost ledger **must take place within** the costing system to ensure changes can be traced and reconciled to the provider's general ledger.
- 9. Setting up the cost ledger in your costing system is a one-off exercise. 16 Once all the rules have been determined and included in your costing system you only need to get the general ledger output from the finance team for the period, load it in your costing system and run the cost calculation process.
- 10. Review all mapping and statistic allocation tables at least annually. You should also review the mapping if the structure of the general ledger changes.
- 11. The costing process is unaffected by how patients are classified into clusters. The costing standards do not include guidance on how to do this or relate it to costing.

Approach

Setting up the cost ledger in your costing system

Step 1: Map your general ledger to the standardised ledger

- Outside the costing system, map the lines of your general ledger to the 12. standardised ledger¹⁷ in Spreadsheet CP2.1 in the technical guidance. This step may involve aggregation and disaggregation of costs from the general ledger to the cost ledger.
- 16. New account codes should be reflected in the costing system.
- 17. The chart of accounts in Spreadsheet CP2.1 of the technical guidance is based on the NHS Shared Business Services chart of accounts and the NHS Digital occupational code manual.

- 13. You only need to use those categories in the standardised ledger that apply to your organisation.
- You will not be able to analyse each line of the general ledger in depth the first 14. time you do this exercise, but over time – with good communication between you and your finance colleagues – this can be refined, starting with where the largest values are involved.
- 15. The required movements of costs between the general ledger and the standardised ledger then need to be incorporated into your costing system.

Step 2: Moving support costs to patient-facing cost centres

- 16. Within your costing system support costs need to be moved into patientfacing cost centres in the costing system based on actual usage if known, or using statistic allocation tables as specified in Spreadsheet CP2.2 in the technical guidance.
- 17. If your support costs are already devolved to the patient-facing cost centres and can be mapped straight across from the general ledger to the cost ledger, you do not need to repeat this step providing the prescribed costing allocation method has been used.
- 18. Some support costs, such as medical record handling or interpreting, do not need to be moved to patient-facing cost areas, as these have specific activity-driven allocation methods as specified in Spreadsheet CP3.3 in the technical guidance.
- The allocation methods prescribed in this version of the standards in most cases 19. do not include a weighting for acuity or intensity. If you are using a weighting for acuity or intensity with the prescribed allocation method continue to do this and record it in your costing manual.
- 20. This step includes the allocation of support costs between each other. Do this using a **reciprocal** allocation method, which allows all corporate support services to allocate costs to, and receive cost allocations from, other corporate support services.
- 21. Reciprocal costing should take place within the costing system.

- 22. Support costs should not be allocated using a hierarchical method as this only allows cost to be allocated in one direction between corporate support services.
- A reciprocal allocation method accurately reflects the interactions between 23. supporting departments and therefore provides more accurate full-cost results than a hierarchical approach. An example of the reciprocal allocation method is given at the end of this standard.
- You may not be able to do this immediately but we require you to adopt the 24. standard cost allocation methods before the implementation of the costing standards becomes mandatory as we intend.
- Support costs should be allocated at the cost-title level, not at the 25. supporting cost resource level. This is because within each cost resource there will be numerous specific allocations for specific costs, eg HR and finance are both within the 'other corporate costs' resource.¹⁸

Step 3: Allocating support costs to patient-facing costs to produce fully absorbed patient-facing costs

Within the costing system, apportion support costs to the patient-facing costs within the cost centre using an appropriate weighting selected from those in Table CP2.1.

^{18.} See Spreadsheet CP2.2 in the technical guidance for a full list of support cost allocation methods.

Table CP2.1: Weightings for apportioning support costs

Weighting	Example types of support costs to allocate
Actual expenditure of the patient- facing costs	IT, finance, chief executive, procurement
Headcount of the patient-facing costs	Human resource-related costs
An activity-based allocation, eg using length of stay/occupied bed days depending on the area where care was provided	Space-based support costs, eg estates, cleaning, depreciation, rent and rates

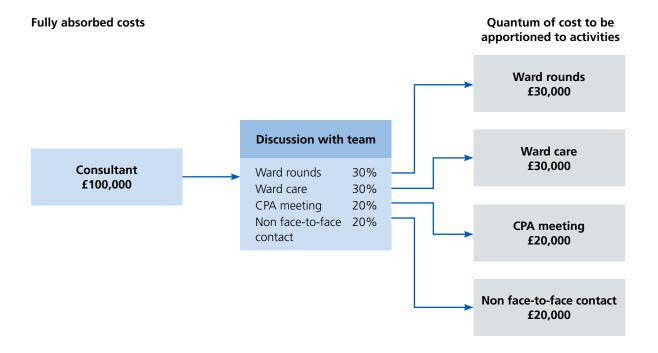
- 27. Under an expenditure-based allocation method, some areas of the ledger may get a larger proportion of the allocated support costs because of specific high cost items, such as medical staffing. If this is the case, the support cost allocation method should be investigated and a more appropriate one used.
- For support costs with activity-driven allocations, including those not moved to 28. patient-facing cost centres in step 2, this step is not needed, as you will have a fully absorbed support cost.
- 29. This support cost allocation process applies to all cost objects – including education and training, and research and development.¹⁹
- 30. An example of the cost ledger movement required to ensure support costs are in the correct starting position in the cost ledger is shown in Table CP2.2 in the example section of this standard.

Step 4: Disaggregating the fully absorbed patient-facing costs in the correct proportion in readiness for allocation to the activities that consumed them

- 31. Disaggregate the fully absorbed patient-facing costs in the cost ledger based on the activity they do, using Spreadsheets CP2.3 and CP3.3 in the technical guidance.
- 19. Standards on education and training and research and development are beyond the scope of this development version and will be included in a future version. You should follow existing guidance to cost these areas.

32. A single fully absorbed patient-facing cost may need to be apportioned to a number of activities. You need to determine the percentage division of the cost to be apportioned from discussions with healthcare professionals and managers, supported by documented evidence where available (eg job plans). For example, see Figure CP2.1, which shows a division for medical staffing costs.

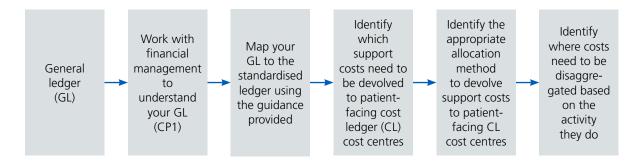
Figure CP2.1: Identifying the correct quantum of cost to apportion to activities



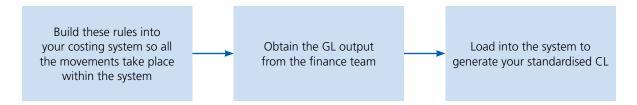
- 33. Do not apportion costs equally to all activities without clear evidence that they are used in this way and do not apportion costs indiscriminately to activities.
- 34. Use a relative weight value unit (RVU) unless there is a local reason for applying a fixed cost.
- 35. The flowchart in Figure CP2.2 shows the process of transforming your general ledger into your cost ledger:

Figure CP2.2: Transforming the general ledger into the cost ledger

Outside the costing software



Inside the costing software



36. Figure CP2.3 on page 37 summarises the costing process from creating the cost ledger, matching costed activities to cost objects, through to the classification of the cost objects into the five cost groups.²⁰

Other considerations

Negative costs

37. Negative costs will arise for various reasons, such as a journal moving more cost than is actually in the subjective code. You should include all costs, including negative costs, in the costing process to enable a full reconciliation to the organisation's accounts.

20. For more guidance on the five cost groups, see Standard CM5: Reconciliation.

- 38. You and the wider finance team need to consider the materiality of the negative costs of each cost centre and subjective code combination. If the negative value is sufficiently material, you may want to treat it as a reconciling item, depending on the materiality and timing of the negative costs. The main questions to ask before deciding are:
 - What negative costs are there?
 - Are they distorting the real costs of providing a service?
 - Are they material?
 - Do they relate to non own-patient care commercial activities?
- 39. You need to investigate with the wider finance team why negative cost balances have arisen. Several issues can cause negative values in the general ledger to be carried into the cost ledger. We describe these below, with suggested solutions.
 - **Miscoding:** Actual expenditure and accruals costs are not matched to the same cost centre and subjective code combination. Ideally, the responsible finance team rectifies such anomalies to give the costing team a clean general ledger output; if not, you should make these adjustments in the cost ledger.
 - Value of journal exceeds value in the cost centre: If the value transferred from the cost centre exceeds the value in the cost centre, this will create a negative cost. Again ideally, the responsible finance team rectifies such anomalies, but if not, you should make these adjustments in the cost ledger.
 - **Timing of accrual release:** An inaccurate accrual release can cause a negative cost value. When this happens, you must consider whether the negative cost is material and whether its timing creates an issue. You may need to report some negative costs caused by timing issues as a reconciliation item.
- 40. Where the accrual is posted in the last month of the financial year and released in the first month of the next year, this can result in an overstatement in the previous year and understatement in the next year. To resolve this, you may need to report the net over-accrual as a reconciliation item to avoid understating the current-year costs. The same is true with an equivalent misstatement for income.

- 41. Negative costs can also be an issue because of **traceable costs**.²¹ If a particular cost per patient or unit is known and allocated to an activity rather than being used as a weighting, and the total of the actual cost multiplied by the number of activities is greater than the cost sitting in the costing accounting code, it will create a negative cost.
- Traceable costs should be used as a weighting. The only exception is where the 42. traceable cost is of a material value and using the actual cost as a weighting will distort the final patient unit cost.²²
- 43. Negative costs may also be found in the cost ledger if, during the required ledger movements, more cost is moved than is actually in the subjective code. To avoid this, use percentages to move costs rather than actual values.

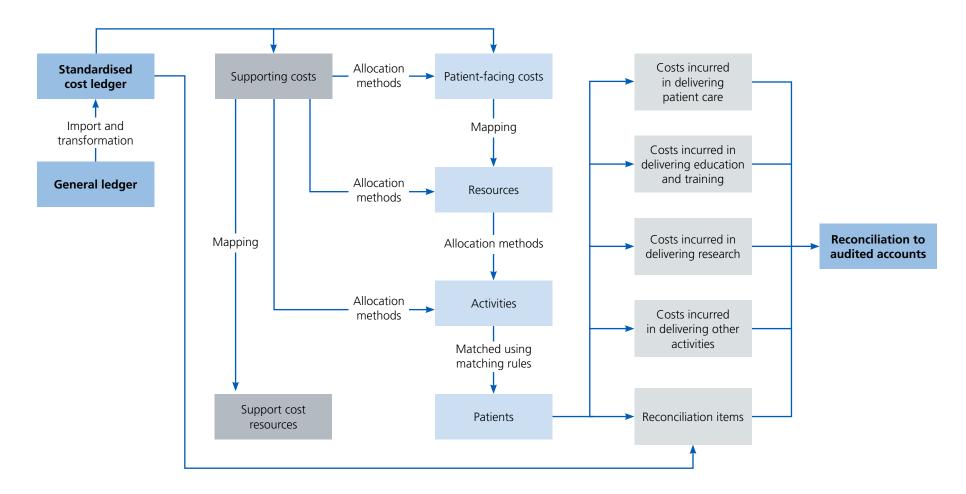
Reporting costs for use by clinical support services

Costs need to be reported in your dashboard in a way that allows the 44. clinical support services to see their own costs, as well as those for the ward/team. Wards/teams need to see all costs incurred in treating their patients, while clinical support services need to see all costs incurred in delivering their service at a ward/team level. This information at ward/team level is crucial as it allows clinical support services to identify which wards/teams are their biggest consumers. Changes to demand within the wards/teams will affect the activity of the clinical support services and will impact on their costs.

^{21.} Where actual costs of the product/resource are known, they are referred to as traceable costs. For more guidance and examples, see Standard CP3: Appropriate cost allocation methods.

^{22.} For more information on traceable costs and other negative costs, see Standard CP3: Appropriate cost allocation methods.

Figure CP2.3: Costing process



Example: Putting support costs in the correct starting position

Table CP2.2: Putting support costs in the correct starting position

General ledger (support cost centres)

Cost centre	Account code	Account
Finance	Admin and clerical staff	£5,000.00
	Printing and postage	£200.00
	Manager	£3,500.00
	Computer hardware	£500.00
	Software licences	£800.00
Total		£10,000.00
Human	Admin and clerical staff	£10,000.00
	Admin and clerical staff Manager	-
Human		£2,000.00
Human	Manager	£2,000.00 £2,000.00

Reciprocal allocation between support cost centres then prescribed support cost allocation to patientfacing cost centres

(see Standard CP3: Appropriate cost allocation methods)

In this example 30% of support costs are moved to ward cost centre

Standardised cost ledger (patient-facing cost centre)

	•	3
Cost centre	Account code	Account
Ward cost	Nurse band 4	£1,000.00
centre	Nurse band 3	£1,000.00
	Specialist nurse 1	£2,000.00
	Occ. therapist	£1,600.00
	Psychologist	£3,500.00
	Drugs	£800.00
	Software licences	£1,200.00
Total		£11,100.00
Support costs	Finance	£ 3,000.00
put into the cost centre	Human resources	£ 1,800.00
Total		£4,800.00
New total (including suppo	ort costs)	£15,900.00

Example: Reciprocal support cost allocation

There are five cost centres:

- two patient-facing cost centres: ward (W) and interpreting team (I)
- three support cost centres: finance (F), human resources (HR) and estates (E).

In the cost ledger the expenditure balances are:

Table CP2.3: Support costs cost centre balances

Cost centre	Expenditure (£)
Finance (F)	13,000
HR (H)	18,000
Estates (E)	22,000
Ward (W)	31,000
Interpreting team (I)	16,000
Total	100,000

For each of the support cost centres there are apportionment statistics based on the appropriate costs allocation method, which are summarised in percentage terms:

Table CP2.4: Apportionment statistics

Cost centre	Finance	HR	Estates	Ward	Interpreting
Finance (F)	10%	25%	40%	15%	10%
HR (H)	30%	10%	20%	10%	30%
Estates (E)	15%	10%	10%	30%	35%

For the finance department, 25% of costs are apportioned to HR, 40% to estates, 15% to ward and 10% to interpreting team. Finance in turn is apportioned costs from estates and HR.

Costs for each support cost centre can be apportioned to and received from the other support cost centres. This is referred to as 'reciprocal apportionment'.

Two possible methods for resolving such a reciprocal apportionment are:

- repeated distribution
- algebraic.

Whichever method is chosen, reciprocal allocation must be calculated within the costing system.²³

Repeated distribution

This method simply applies the apportionment statistics to each expenditure balance and involves making a number of passes or iterations to apportion costs backwards and forwards.

After the first pass the expenditure values apportioned to each cost centre are:

Table CP2.5: First pass

	Total	Finance	HR	Estates	Ward	Interpreting
Finance (F)	13,000	1,300	3,250	5,200	1,950	1,300
HR (H)	18,000	5,400	1,800	3,600	1,800	5,400
Estates (E)	22,000	3,300	2,200	2,200	6,600	7,700
Ward (W)	31,000	0	0	0	0	0
Interpreting team (I)	16,000	0	0	0	0	0
Total	100,000	10,000	7,250	11,000	10,350	14,400

23. We do not recommend one method over the other as the outcome for both will be the same.

After the second pass the values are:

Table CP2.6: Second pass

	Total	Finance	HR	Estates	Ward	Interpreting
Finance (F)	10,000	1,000	2,500	4,000	1,500	1,000
HR (H)	7,250	2,175	725	1,450	725	2,175
Estates (E)	11,000	1,650	1,100	1,100	3,300	3,850
Ward (W)	41,350	0	0	0	0	0
Interpreting team (I)	30,400	0	0	0	0	0
Total	100,000	4,825	4,325	6,550	5,525	7,025

As the expenditure on the patient-facing cost centres is not apportioned to any other cost centres, the balance on these cost centres keeps growing until the total on the direct cost centres is equal to the £100,000 total starting balance. The process of reapportionment is continued until, after the 10th pass, most of the expenditure appears against the patient-facing cost centres.

Table CP2.7: Tenth pass

	Total	Finance	HR	Estates	Control	Stations
Finance (F)	72	7	18	29	11	7
HR (H)	61	18	6	12	6	18
Estates (E)	92	14	9	9	28	32
Control centre (C)	53,604	0	0	0	0	0
Stations (S)	46,171	0	0	0	0	0
Total	100,000	39	33	50	45	58

After multiple passes the balances left on support cost centres are sufficiently small to be allocated on a pro rata basis to the direct cost centres without a material difference to the result.

Algebraic

The algebraic approach expresses the reciprocal apportionments as a set of simultaneous equations. Each equation shows that the value of the cost centre is based on the original ledger amount plus the apportionments from each of the support cost centres.

Table CP2.8: Simultaneous equations

Cost centre	Total	Finance	HR	Estates
F	= 13000	+0.1F	+0.3H	+0.15E
Н	= 18000	+0.25F	+0.1H	+0.1E
E	= 22000	+0.4F	+0.2H	+0.1E
W	= 31000	+0.15F	+0.1H	+0.3E
1	= 16000	+0.1F	+0.3H	+0.35E

Only one value for each of the cost centres – F, H, E, W and I – allows all the above equations to be simultaneously true.

The simultaneous equations may be solved using a converging algorithm or a mathematical approach. The mathematical approach will produce an exact result:

Table CP2.9: Mathematical outcome

I	46,298.24
W	53,701.75
Total	100,000.00

The mathematical approach also answers questions about where the costs have come from – for example, the interpreting team's costs are based on the values apportioned from the support cost centres plus the expense reported:

$$I = 16,000 + 0.1F + 0.4H + 0.35E$$

Since the values of F, H and E are now known, the interpreting team's costs are broken down as follows:

Table CP2.10: Interpreting team cost breakdown

Classification	Cost centres	£
Support costs	Interpreting team	16,000.00
Support costs	Finance	3,385.96
Support costs	Human resources	10,394.74
Support costs	Estates	16,517.54
Total		46,298.24

This value is the same as the solution for the value of the interpreting team cost centre that allows all the equations to be simultaneously true.

CP3:

Appropriate cost allocation methods

Purpose: To ensure that the correct quantum of costs is allocated to the correct activity using the most appropriate costing allocation method.

Objective

- 1. To ensure all providers allocate costs to activities using a single appropriate method, ensuring consistency and comparability in collecting and reporting cost information, and minimising subjectivity.
- 2. To ensure costs are allocated to activities in a way that reflects how care is delivered to the patient.
- 3. To ensure relative weight value units (RVUs) reflect how costs are incurred.

Scope

- 4. All costs reported in the cost ledger and all activities undertaken by the organisation.
- 5. This standard covers RVUs and how to identify and use traceable costs in the organisation.

Overview

6. The standardised costing process using resources and activities aims to capture cost information by reflecting the causality of costs. This is based on the principle that every cost in the general ledger has 'a cause' – that is, something happened for that cost to be incurred.

- 7. The costing process is designed to answer these main questions:
 - Why are the costs incurred?
 - Who incurs them?
 - By doing what?
 - And ultimately for whom?
- 8. Resources are a collection of costs, used to deliver an activity. The costs within a resource may have different information sources and cost drivers. Once these costs have been calculated they can be aggregated to whatever level the resources have been set at, and you can be confident the resource unit cost is accurate because it is underpinned by this costing process.
- 9. Activities are the 'things' the healthcare professional does, such as a therapy session carried out by a community mental health team or a patient escorted securely in a high-secure facility.
- Together resources and activities form a two-dimensional view of what costs 10. have been incurred to deliver what activity.

Approach

- 11. For the costing process, depending on your costing system, the level you drive the costs at may be the costing account code (the cost centre plus the expense code), a local resource or a two-dimensional resource including the cost area, eg ward nursing.
- 12. Continue to use your current approach in the costing system for costing purposes, checking you are using the prescribed information sources, the cost ledger and the prescribed costing methods in the technical guidance.
- 13. You need to identify all the activities your organisation performs from the list in Spreadsheet CP3.2 in the technical guidance.
- The cost ledger will already have the resources and activities combinations 14. mapped to each line of the cost ledger. When you have mapped your general ledger to the cost ledger you will know which resources your organisation uses to deliver which activities.

- 15. You can ignore the resource and activity combinations for activities that your organisation does not provide.
- Once the resources and activity combinations are identified, they need to be 16. scripted into the costing system with the associated methods.
- 17. You must allocate your costs to the activities using the methods prescribed in Spreadsheet CP3.2 in the technical guidance.
- 18. Costs need to be allocated to activities in the correct proportion. There are two ways to do this:
 - based on actual time or costs²⁴ from the relevant feed
 - using weightings based on RVUs created in partnership with the relevant teams.
- 19. Where the same cost driver is used for several calculations in the costing system and providing the costs can be disaggregated after calculation, you can aggregate the calculations in your costing system to reduce calculation time.
- If you have a more sophisticated cost allocation method: 20.
 - keep using it
 - document it in your costing manual
 - tell us about it.²⁵
- 21. We will not accept some cost allocation methods as superior to the prescribed methods. These include using income or national averages to weight costs or allocating costs equally to activities.
- 22. The patient-level feeds will inform the costing methods providing key cost drivers such as length of stay. The patient-level feeds will also provide information for weightings to be used in the costing process such as drug costs in the pharmacy feed.

- 24. The costs should be used as a weighting rather than a fixed cost.
- 25. Email us: NHSI.costing@nhs.net

- 23. If you do not have the information available as prescribed in the information requirement standards for a particular activity:
 - continue with your current approaches
 - document the method you have used in your costing manual
 - follow the flowchart in Figure IR2.1 in Standard IR2: Management of information for costing purposes to obtain the information you need, taking into account materiality.
- 24. Investigate any costs not driven to an activity, or any activities that have not received a cost, and correct this.

Traceable costs

- Where actual costs²⁶ of items are known, use these in the costing process as a 25. weighting²⁷ to allocate them to the activities.
- Items for which a traceable cost may be available include: 26.
 - drugs, including high cost drugs
 - security patient-specific cost of escorting
 - blood tests where an admitted patient's blood sample is sent to another provider for further investigation.

Table CP3.1: How to use traceable costs as a weighting

	No of staff at a facility	Expected cost	Expected spend	Actual spend	Weighted spend ([expected spend/ total expected spend] x actual spend)
Prosthesis A	5	1,000	5,000	Not known	4,091
Prosthesis B	12	500	6,000	Not known	4,909
Total	17	1,500	11,000	9,000	9,000

^{26.} These actual unit costs are known as traceable costs.

^{27.} If an actual cost is applied, it is likely that costs will be over or under-recovered in the costing system, so actual traceable costs should be used as a weighting to allocate the costs.

- 27. If the value of the item is material to the cost of the patient and you want to use the actual cost, you must ensure the value matches the ledger cost. If there is under or over-recovery you must use the cost as a weighting, as outlined above.
- 28. Some departments may have local databases that record material cost components against the individual patients who incurred them. Information retrieved from these databases can be used in the costing process to allocate the costs.

Relative weight value units

- 29. Relative weight units are values or statistics used to allocate costs in proportion to the total cost incurred. They are an agreed weighting of an item to allocate costs to a patient event.
- 30. Income values and national cost averages should not be used as relative weight values.
- RVUs are used to allocate costs when other drivers are not available or 31. appropriate. They need to be developed and agreed with the relevant service managers and healthcare professionals to ascertain all aspects of the costs involved and ensure these are as accurate as possible.
- 32. Different costs will require different approaches to derive appropriate RVUs to support their allocation to patients. For example, a group therapy session may require RVUs for:
 - lead healthcare professional time per session
 - therapist time per session by band.
- 34. You should allocate all costs to patients based on actual usage or consumption. Only in exceptional circumstances where you cannot do this should you use an RVU to allocate costs to a patient.
- The approach should not be high level for example, it should not be the 35. average time to carry out an observation or therapy session. Instead, the measure should be tailored to the particular activity. To do this you need to break down the activity into its component costs and measure the drivers of these individual costs.

- 36. RVUs should be reviewed regularly, at least annually or when a significant change occurs in the relevant team.
- 37. When creating RVUs you should consider the materiality principle to inform where to concentrate your efforts to see the biggest improvements to your costing.
- 38. Although the admitted patient care feed contains information on the length of stay of patients on a ward/facility, it does not contain the length of time a healthcare professional spends on ward rounds or the number of ward rounds undertaken.
- 39. An RVU is required to cost whether the healthcare professional:
 - does more than one ward round a day
 - spends more time during ward rounds with one cohort of patients than with others, due to the complexity of their condition.
- 40. We recommend you start by finding out if one healthcare professional cares for patients with varying needs, to ascertain if the ward round is longer for different cohorts of patients.
- 41. If ward rounds in your organisation do not meet either of the criteria above, you do not need to calculate an RVU.
- 42. Work with healthcare professionals delivering care to derive RVUs that they will accept.

Allocating support costs

43. Support costs should be allocated using the method in Standard CP2: Clearly identifiable costs.

RVUs for support costs

44. To allocate support costs in the correct proportion, RVUs may need to be identified by obtaining the relevant information from the departments.

An example of a statistic allocation table for whole-time equivalent (WTE) staff is 45. given in Table CP3.2. Other examples of these statistic allocation tables include staff headcount, floor area and number of computers.

Table CP3.2: Whole-time equivalent statistic allocation table

Department	WTE
High-secure ward	15
General ward	25
Therapy rooms	20
Clinic reception	2
Psychiatric intensive care unit	30
Finance office	8
Total	100

CP4:

Matching costed activities to patients

Purpose: To achieve consistency across organisations in assigning costed activities to the correct patient episode, attendance or contact.

Objective

- 1. To ensure all organisations use the prescribed matching rules for consistency.
- 2. To assign costed activities to the correct patient episode, attendance or contact.
- 3. To highlight and report source data quality issues that hinder accurate matching.

Scope

- 4. This standard should be applied to all costed activities for the organisation's own-patient care.²⁸
- 5. This standard is only relevant if you have an auxiliary data feed (eg pharmacy feed) that needs to be matched to your master data feed (eg admitted patient care feed).

Overview

6. 'Matching' is the term used to describe the linking of costed activities to the patient episode, attendance or contact in which they occurred.

28. Standard IR1.1: Collecting information for costing purposes identifies which patient-level activities are to be part of the matching process.

- Matching is integral to accurate patient-level costing.²⁹ If the final patient unit 7. cost is to be accurate, the costed activities need to be matched to the patient episode, attendance or contact in which they occurred.
- 8. Matching rules need to be hierarchical and strict enough to maximise matching accuracy, but not so strict as to make any match impossible. If the matching rules are not strict enough, there is the risk of 'false-positive' matches – that is, activity is matched to the wrong patient episode, attendance or contact.
- 9. The matching hierarchy in the prescribed matching rules dictates which master patient administration system (PAS) datasets the non-integrated auxiliary feed is matched against, and in what order. For example, the pharmacy feed is matched against admitted patients who have been discharged, and then against admitted patients who have not yet been discharged.
- 10. Where a data feed contains the patient's point of delivery (POD) or location, it is used to determine which core PAS patient dataset to match against. For example, if a patient is classed as an outpatient in the data feed, this patient's activity is first matched against the master outpatient dataset. If the data in this field is considered robust, records should only be matched to the outpatient dataset to avoid the risk of 'false-positive' matches.
- As data feeds have different matching patterns associated with their 11. activities, each has a distinct set of matching rules. Matching rules may differ in their hierarchies, date parameters or additional data fields used in the matching criteria.
- 12. The rules are designed to match iteratively by using the strictest matching rules first and then relaxing these if a match is not achieved. These rules are designed to achieve a balance between the number of false positives being matched and the number of records remaining unmatched.

^{29.} For mental health providers, medical staff costs constitute a major proportion of overall costs. However, to make patient-level cost data more reliable it is important to track and match other comparatively less material costs back to patients as well.

Approach

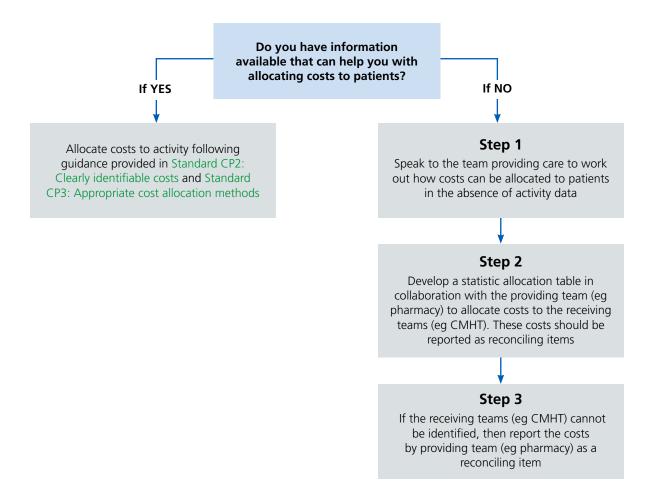
- The episode/attendance/contact ID always generates the best match. 13.
- If your auxiliary data feeds (eg pharmacy feed) are obtained from the PAS, and 14. you can include the episode or attendance ID in the feeds, use this to match to the master feeds.
- If your auxiliary feeds do not include the episode/attendance/contact ID, use the 15. prescribed matching rules in Spreadsheet CP4.1 in the technical guidance.
- 16. If your matching rules are more sophisticated than the prescribed matching rules and improve the accuracy of your matching, continue to use them and record them in your costing manual.
- 17. Activities from the non-integrated systems need to be matched to patients who fall into these categories:
 - patients discharged during the calendar month matched to the PAS feed for discharged patients
 - patients not discharged and still in a bed at midnight on the last day of the month – matched to the PAS feed for patients not discharged by the end of the month
 - non-admitted patient care.
- 18. In exceptional circumstances some activities from non-integrated systems **should not be matched**: for example, drugs dispensed from pharmacy for a patient whose episode is already closed.³⁰
- 19. You should develop a list of 'never scenarios' to be included in the matching rules for your organisation to ensure that costs for some activities are not assigned to episodes incorrectly. For example, drugs that are never used by a certain team should never be assigned to patients that team takes care of, even if other matching criteria are fulfilled. Engagement with healthcare professionals will help you identify these 'never scenarios'.
- 30. For more guidance on how to cost patient-specific drugs, see Standard CM1: Admitted patient care.

20. Your costing system should produce a report of the matching criteria used in your system and you should review this regularly. This is because costed activities may match only on the least stringent criteria, and you could improve data quality to match activity more accurately. Review matching criteria at least annually.

Other considerations

- Inevitably some costed activities will not match either because the activity took 21. place too long before the episode/contact or the information in the activity feed is so poor an appropriate match cannot be found.
- Organisations have traditionally treated the cost of this unmatched activity in 22. different ways. Most commonly, it was absorbed by matched activity, which could have a material impact on the cost of matched activity, particularly when reviewing the cost at an individual patient level for benchmarking and tariff calculation.
- 23. For local reporting purposes we recommend you do not assign unmatched activity to other patient episodes, attendances or contacts.
- 24. To achieve consistent and comparable costing outputs, unmatched activity must be treated consistently across organisations.
- 25. If reported unmatched activity under reconciliation items forms a material proportion of an organisation's expenditure, it is likely to be due to poor source data. As this issue will deflate the patient unit cost, it is important to identify it and improve the quality of the source data rather than artificially inflating the patient unit cost by allocating unmatched activity.
- Follow the steps identified in Figure IR2.1 in Standard IR2: Management of 26. information for costing to make auxiliary data feeds available for costing. You will need to work along with your informatics team to make information available that can be used for matching. Guidance of how costs should be allocated to patients is being provided in Standard CP3: Appropriate cost allocation methods. Figure CP4.1 indicates the options that you can use if data is currently unavailable.

Figure CP4.1: Allocating costs if patient activity information is unavailable



PLICS cost collection requirements

27. Unmatched activity is not reported separately, so all unmatched activity costs will need to be allocated to patient episodes and contacts using the total cost of the matched activity as a weighting to all matched activity at team/department level. You will need to be able to flag the two elements of matched activity in your costing system (a detailed patient-level cost collection guidance for mental health providers will be released separately by NHS Improvement).

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CP5:

Reconciliation

Purpose: Process for reconciling costs and income to the organisation's accounts and to reconcile the activity counts reported by the organisation.

Objective

- To ensure the cost and income outputs from the costing system reconcile to the 1. organisation's accounts.
- 2. To ensure the activity outputs from the costing system reconcile to what the organisation is reporting elsewhere.

Scope

- 3. This standard covers all costs, income and activity included in the costing process.
- NHS Improvement's cost collection guidance will specify the services for which 4. patient-level cost and activity data is being collected in a particular year.

Overview

5. All outputs of the costing process must reconcile to the information reported to the board and in the final audited accounts. This ensures a clear link between these outputs and the costs and activity information captured in the source data.

Approach

Reconciliation of costs and income

- 6. The costs and income outputs must reconcile to the main sources of this information, with the general ledger output and the organiation's reported financial postion.31
- To demonstrate that the outputs of the costing process reconcile to the main 7. sources of information, the reports detailed in Spreadsheet CP5.1 in the technical guidance for the cost reconciliation process must be available from the costing system.
- 8. To support reconciliation, once the costing model is fully processed the costs associated with patients and other cost objects should be classified into the five cost groups described below.
- 9. **Own-patient care:** comprises the costs related to the provider's ownpatient activity.
- **Education and training (E&T):** follow the standards from Health Education 10. England on costing education and training.³²
- 11. **Research:** future versions of the standards will cover this; until then, set your own allocation method for these costs.
- Other activities such as non own-patient care: includes the costs related to:
 - the organisation's commercial activities, such as psychiatric liaison services for another provider or providing support services (eg IT support) to another provider or clinical commissioning group (CCG)
 - the organisation's direct access services, where the patient is referred from primary or community care for diagnostics or treatment

^{31.} See Standard CP2: Clearly identifiable costs for guidance on where adjustments may be made between the general ledger output and the cost ledger, to be included in your reconciliation.

^{32.} We will consider developing these in future versions of the mental health costing standards. We will engage with colleagues at providers and other organisations to do this.

- an agreement to provide resources to an external body with no responsibility for delivering a service to a commissioner; for example, a provider-to-provider service-level agreement
- a staff member such as a youth worker employed by a provider for activity undertaken by the local council and which the provider is unable to include in the costing system.
- **Cost reconciliation items:** includes costs for which there is no corresponding 13. activity; this occurs for reasons such as unmatched activity.
- Where your organisation is commissioned to provide an activity but this activity 14. occurs outside it and is recorded by an external body, you should obtain this information and include it with your organisation's costing data. If you cannot obtain the activity data, report the cost in reconciliation items.
- The benefits of cost reconciliation items are: 15.
 - patient unit costs reflect the true cost of treatment undistorted by providerincurred costs that are not patient-related, such as bad debt, investing in infrastrucuture (eg IT upgrade), legal fines and counter-fraud measures
 - the true cost is more appropriate for benchmarking as non patient-related costs could significantly affect cost reporting in different organisations.

Reconciliation of activity

- 16. The activity outputs must reconcile to what your organisation reports. For example, if it reports X contacts in non-admitted patient care in any costing period your activity costing outputs should reconcile to this. To avoid reconciliation differences due to timing, we emphasise that patient-level feeds used in the costing process and those reported by the organisation are created at the same time. Departments often continue to input data into the feeder system after the official end date.
- 17. To demonstrate that the outputs of the costing system reconcile to the main sources of activity information, the reports detailed in Spreadsheet CP5.2 in the technical guidance for activity reconciliation must be available from the costing system.

- 18. You should also reconcile the activity outputs to the activity in the source datasets to ensure all the activity you entered into your costing system has been costed and then included in the costing output.
- 19. If possible, you should avoid generating proxy patient contact/attendance records within the costing system as this can lead to double counting of activity outputs.
- 20. Proxy patient contact/attendance records should be treated with caution to avoid recording outpatient contact/attendance activity inaccurately for example, care provided outside the organisation.
- 21. Proxy contacts/attendances may also particularly apply to some mental health and community services, for which activity is often not fully recorded.
- 22. The costing team must be clear about the purposes of such activity and treat it appropriately. This should be demonstrated through the activity reconciliation.
- 23. Do not include activity in your costing process which is recorded in your data feeds but the costs incurred for delivering it sit in another organisation. Report this activity in reconciliation items.
- 24. To reconcile the activity used in the system to that actually carried out by the department/service, the activity count must be correct on the information feeds. For example, if each line on the non-admitted patient care feed represents one contact, a straight count of activity is adequate. If three separate lines on the feed represent a single contact, the reconciliation report needs to aggregate these lines to give an accurate activity count.

Costing methods

CM1: Admitted patient care

CM2: Additional staff activities

CM3: Group activities

CM4: The income ledger

CM1:

Admitted patient care

Purpose: To ensure admitted patient care is costed consistently.

Objective

To ensure costs are correctly allocated to episodes of admitted patient care (APC). 1.

Scope

2. This standard applies to all admitted patient care.

Overview

- 3. As part of a longer care pathway, patients may spend time in an APC setting. Specific periods when patients are receiving APC are referred to as APC episodes.
- 4. Within an APC episode, patients receive ward care from medical, nursing and other staff (including support staff). These patients may also need to be observed and escorted by ward staff. They will incur costs from using patient consumables, may be given ward stock drugs and will incur support costs related to running the ward.
- In addition, patients may receive care from other therapeutic and medical staff 5. during specific periods according to their need.
- 6. Some organisations have staff integrated into APC teams specifically to provide these services and their activity appears on the APC feed. In other organisations non-admitted patient care (NAPC) teams provide these services, which may appear on the NAPC feed. Finally, in some cases staff from another organisation will provide these services.

7. It is important to avoid variation in the apparent cost of APC episodes based on whether APC or NAPC teams provide treatment. It is also important to accurately record and compare the full cost of caring for a patient. Therefore all activities provided to a patient during an APC episode should be recorded and costed using the prescribed list of activities in Spreadsheet CP3.2 in the technical guidance, no matter who performed the activities. These costs make up the cost of the APC episode.

Approach

Core costs of admitted patient care

Ward care

- 8. Admitted patients incur costs just by being on a ward. These costs are allocated to the ward care activity, mostly by length of stay.³³
- Ward care costs include (but are not limited to): 9.
 - nurses, healthcare assistants (HCAs), support workers and patient-specific needs providing general care and supervision
 - patient-related consumables
 - ward stock drugs
 - ward equipment
 - support costs related to running the ward (including admission and discharge administration)
 - activity by ward staff, such as restraint or that prompted by severe untoward incidents (SUI)
 - multidisciplinary team (MDT) meetings with patients not present, which review and discuss several patients³⁴
 - depending on need, some patients may require security to avoid harming themselves or others.

^{33.} See Spreadsheet CP3.3 in the technical guidance for a list of allocation methods.

^{34.} These meetings may be referred to as case reviews or 'whiteboard discussions'. They are included in ward care as organisations report that the time spent talking about specific patients cannot currently be recorded.

10. The standards specify length of stay in days as a weighting to allocate these costs. But if you can, it is better to use acuity to allocate some of these costs more accurately, so continue to do so and record it in your costing manual. We recognise that capturing acuity-related data may remain an aspiration for some organisations.

Ward rounds

- Ward rounds are activities performed by specialists including consultants, nonconsultant medical staff, and in some cases specialist nurses. They involve visiting individual patients on a ward and reviewing them.
- The actual time spent on ward rounds is not recorded.³⁵ You should set up a 12. statistic allocation table by carrying out an internal exercise. This will help you determine the average time spent with each patient by ward type. Use this average time as a weighting to allocate the cost of medical staff time to patients.

Patient-specific drugs, observations, escort and group activity

Ward care and ward rounds are not based on specific activity recorded for 13. specific patients. Patient-specific drugs, observations, escorts and group activity participation should be recorded for individual patients so costs can be allocated to the correct patients.

Patient-specific drugs³⁶

In addition to ward stock drugs, which are allocated across all relevant patients, 14. there are drugs issued to specific patients. For example, a drug exclusively used to treat a patient with dementia should be allocated only to patients being treated for that condition.

^{35.} Some organisations may have access to the time spent by healthcare professionals who carry out ward rounds, as they record and report it. However, we recognise that not all costing practitioners have access to such information.

^{36.} This section is relevant to care provided in both APC and NAPC settings. It is included here as this costing method provides an in-depth look at costing admitted patient care. Guidance provided in Standards CP1 to CP5 applies to both APC and NAPC settings.

- 15. The patient ID of the patient who was issued these drugs should be on your pharmacy feed, and this should be linked to the APC episode using the matching rules.37
- 16. The actual cost of the drugs issued should be used as a weighting to allocate drug costs. The number of scripts issued should be used to allocate pharmacist costs.38
- 17. Where drugs cannot be matched to specific patients, allocate them to the team, specialty or ward and treat them as reconciling items. Record this in your costing manual.
- 18. For local costing purposes you can use your existing method to allocate unmatched drug costs. However, within the standards and for the national PLICS collection, these unmatched drug issue activities should be treated as reconciling items and reported as such. This is to highlight the issues with the data and to avoid inflating the cost of patients who did not receive the drugs.

Observations

- 19. Some patients require frequent observations to ensure their safety and security. Record the staff member(s) involved and the frequency of observations.
- 20. Use the duration of observations as a weighting to allocate the costs of the specific staff members who perform observations to the observations activity for that patient.
- 21. Where the same staff perform observations and general ward care, the percentage of their time spent on observations needs to be recorded or estimated to find the correct quantum of cost to allocate across patients who are observed.

Escort

- 22. Some patients need to be escorted at times to ensure their safety and security. Record the specific staff escorting a patient and the number of escorts.
- 37. As specified in Standard CP5.1: Matching costed activities to patients.
- 38. See Spreadsheet CP3.3 in the technical guidance for a full list of allocation methods.

- 23. The duration of escorts should be used as a weighting to allocate the costs of the specific staff involved.
- As with observations, where staff have multiple duties the percentage of their 24. time spent escorting patients needs to be recorded or estimated to find the correct quantum of cost to allocate across patients who are escorted.

Group activity³⁹

- 25. Patients may have access to activities such as supervised sport, cookery or work preparation.
- Allocate the costs of these activities to patients recorded as attending. These 26. costs consist of the pay of staff providing and supervising the activity and related non-pay items.

Additional admitted patient care support contact

- 27. Specific contacts between healthcare professionals and patients can occur. These can be group contacts, MDT activity, care programme approach (CPA) meetings, 40 or therapies provided one to one.
- Record the staff present and the duration of contact, as well as the point of 28. delivery (POD) and the team of the staff providing care.
- 29. Use the duration of contact as a weighting to allocate the cost of the staff present to the APC activity for that patient. Where multiple patients and/or staff members are involved, follow the costing method in Standard CM3: Group activities.
- 30. There may also be costs of consumables and equipment related to the APC. Allocate these using the duration of the contact in minutes as a weighting.

^{39.} Activity associated with group activities should be recorded as contact in your APC or NAPC data feed. For more information see Standard IR1: Collecting information for costing purposes.

^{40.} See Standard CM3: Group activities.

- Knowing the team from which healthcare professionals originate is useful for 31. understanding how care is delivered and for service-level reporting, but does not affect whether the costs form part of the cost for the APC episode. Allocating costs using resources and activities should ensure that activities provided by internal and external teams can be aggregated or disaggregated as desired, if reports need to be generated at different levels.
- Where APC activity cannot be matched to a patient's episode, report it as 32. unmatched and treat it as a reconciling item. For local reporting you can continue with your current allocation method, but within the standards and for the national PLICS collection you will have to record the costs of all unmatched activity as reconciling items. This is to highlight issues with data and avoid inflating the cost of patients who did not receive the care activities that have not been matched.

Example Figure CM1.1: Example of activities for allocating costs during an APC episode **Patient** Supporting Core costs of APC identifiable costs contacts Day 1 Ward rounds Admission Day 2 Observations Internal Ward rounds psychologist session required Day 3 Patient-specific Ward rounds drug issue Group activity Ward rounds participation Visiting music Ward rounds therapist session Day 6 Ward rounds CPA meeting Patient-specific Ward rounds drug issue Day 8 Internal Ward rounds Discharge psychologist session

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CM2:

Additional staff activities

Purpose: To ensure additional staff activities are costed consistently.

Objective

To ensure that the costs of time staff spend on activities other than directly 1. delivering care to patients are allocated to the correct activities and patients using the correct allocation methods – for example, educational sessions for other staff, travelling time while visiting a patient at their home.

Scope

- This standard applies to all costs of patient-related staff that are not incurred 2. directly by providing care to patients.
- 3. This standard covers time when staff are not interacting with patients. Therefore non face-to-face contact is not within its scope.
- 4. These activities provide necessary support and help maintain infrastructure that enables healthcare professionals to deliver good quality care.

Overview

- 5. A percentage of staff time will be directly attributable to patient care, and its costs can be allocated to patient attendances or contacts based on the duration recorded on the relevant patient-level activity feed.
- The rest of the time, staff are working and incurring costs, but not performing 6. tasks directly associated with delivering patient care. This is referred to as time spent on carrying out 'additional activities'.

- 7. Some of this time can be recorded and directly associated with a patient or a subset of patients: for example, time spent writing up notes on or preparing for a contact with a patient, and time spent travelling to meet one or more patients.
- 8. Other parts of time are not recorded or cannot be allocated accurately to specific patients: for example, time at multidisciplinary team (MDT) meetings discussing multiple patients, where the time spent on specific patients varies and is not systematically recorded.
- 9. The time that can be directly associated with specific patients should be allocated to those patients. The ability to record the time spent on administration for specific patients is an area for development: organisations raised concern that this activity consumes significant staff time.
- 10. Other time spent carrying out additional activities should be allocated across all activity performed by the ward/team in which the staff member works.

Approach

Calculating time spent on additional activities

- To calculate time spent on additional activities it helps to keep a table of staff-11. time use.
- 12. Record the duration of specific patient-related activities each staff member performs. These will consist of durations from the relevant patient-level activity feeds and durations based on survey or job plans (eg ward rounds).
- 13. The time left over is time spent on additional activities.
- If you do not have the information to calculate the costs of the actual staff, set 14. up a statistic allocation table including all appropriate staff and use a weighting to calculate an average cost for carrying out a specific additional activity.

Allocating costs to patient-attributable time and non-patient attributable time

Patient-attributable time

- 15. The time spent on additional activities that you have calculated will include some time that can be attributed to specific patients or subsets of patients.
- Clinical administration time should be recorded for specific patients. We are 16. aware that many organisations cannot do this yet: they should work with the relevant teams providing care and the informatics department to make this information available.
- Travel time is also patient-specific. Where a staff member travels to several patients 17. in a day without returning to the workplace, distribute the total travel time across all patients seen that day and use it as a weighting to allocate staff costs to those patients. When there are specific episodes of travel for individual patients, use the time spent on travel as a weighting to allocate costs directly to those patients.
- 18. If travel time is not specifically recorded, it should be possible to calculate by subtracting the duration of patient contacts/appointments on the day of travel from the hours a staff member is scheduled to work that day. There may be some non-patient attributable time, which should be factored in while calculating travel time. This needs to be worked out in collaboration with healthcare professionals carrying out that specific activity.

Non-patient attributable time

- 19. After calculating the patient-attributable time spent on additional activities, some time may be left over for each staff member.
- 20. This will consist of four types of activity:
 - truly not patient-related, such as administration of infrastructure and support functions, staff training
 - where individual patients or subsets of patients cannot currently be recorded, such as wide-ranging MDT meeting discussions
 - that which is not recorded.
 - recorded but cannot be matched to patients.

- 21. Allocate the costs of the first three types across all patients in the relevant team/ service using appropriate allocation methods.⁴¹ For admitted patient care this usually involves using length of stay as a weighting; for non-admitted care the weighting is usually appointment or contact duration.
- 22. Report the cost of the fourth type, unmatched activity, as a reconciling item. For local reporting you can continue to use your current method, but for the standards and the annual PLICS collection report them as reconciling items. This is to highlight data issues and avoid inflating the costs of patients who did not receive the unmatched activity.

Example

For a worked example of costing patient-related time and time spent by staff on additional activities, see Spreadsheet CM2.1: Example of non-patient facing time cost allocation in the technical guidance.

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41. See Spreadsheet CP3.3 in the technical guidance for a list of allocation methods and resource activity links, and Spreadsheet CP2.2 for a list of support cost allocation methods.

CM3:

Group activities

Purpose: To ensure group activities are costed consistently.

Objective

1. To ensure costs are correctly allocated to patient episodes/contacts where there are multiple professionals and/or multiple patients.

Scope

2. This standard covers group contacts, multidisciplinary team (MDT) contacts, and care programme approach (CPA) meetings that take place in admitted patient care and non-admitted patient care settings.

Overview

- 3. Mental healthcare is often delivered in a group setting. Group therapies can involve multiple patients and staff, MDT or other group contacts in which multiple healthcare professionals interact with a single patient. In CPA meetings a group of healthcare professionals reviews each patient's case, usually with the patient present.
- CPA meetings are resource intensive, and mental health providers must carry 4. them out with a specified set of staff. For these reasons, costing them correctly forms a substantial part of this standard.
- 5. The costing method for MDT contacts and CPA meetings is the same. You need to ensure all staff costs are attributed to the specific activity.

Approach

Required information

- 6. Standard IR1: Collecting the information for costing purposes and Standard IR2: Management of information for costing specify the minimum information required to cost group contacts.
- Each group contact should have a unique identifier.⁴² There should be a record 7. of the time spent on the contact by each staff member and a list of the patient or patients treated during the contact. The group contact identifier can be used to link these records. Recording date and time as well will mean records may be matched even when the contact ID is missing.
- 8. If you do not currently record this information, the priority is to develop a process for collecting information at this level for CPA meetings. Processes for other areas can then be developed in order of their relative materiality.
- 9 Some organisations may only record group contacts under a single clinician. This can deflate the group contact cost and inflate the costs of all other activity because the costs of other staff involved in the group contact are shared across other activities or patients.
- Work with the relevant team/service/department, your informatics department 10. and if necessary, the software supplier for your patient administration system, so you can record each staff member's involvement in the activity.
- Where staff names are recorded but only in the case notes (held electronically), we recommend you extract this information by writing appropriate scripts using regular expressions. 43 This takes the names of staff out of the free-text case notes field and matches them to names in the electronic staff record (ESR) or other relevant staff database.44
- 42. If you do not use a unique identifier you can generate one by combining the contact date and time in the format 'yyyymmddhhmm' with the patient pathway ID (see Spreadsheet IR1.2 in the technical guidance).
- 43. Regular expressions, or RegEx, are sequences of characters that define a search pattern. They are frequently used to extract names, postcodes, email addresses or other character sequences with a predictable format from longer strings. See http://www.regular-expressions.info/ or web search 'regular expressions' for more information.
- 44. This is a suggestion. We recognise that it may be challenging to search case notes in this way.

Allocating the cost of multiple staff members across multiple patients

- Once the total duration of contact for each staff member has been established, 12. divide it equally between the patients present. If patient-level information is not available through a data feed, you need to develop a statistic allocation table to apportion costs appropriately.
- Each patient's calculated share of contact time with each specific staff member 13. should be used as a weighting to allocate that staff member's cost.
- This method relies on several assumptions: 14.
 - each member of staff spends the same time with each patient
 - patients do not leave the session early
 - staff members do not leave the session early.
- We acknowledge that these assumptions do not always hold true and the 15. method will therefore not be a completely accurate representation of how care is delivered. As the ability to collect information improves, future versions of the standards will specify more accurate methods based on, for example, patient acuity or measuring actual time spent with specific patients.

Allocating non-pay costs to group contacts

- 16. Most group contacts will not involve equipment, drugs or patient consumables.
- 17. In cases where equipment, consumable or drug use is recorded with no units or cost, use the number of patients and the duration of the contact as weightings to allocate the cost. If the number of units or cost of drugs or consumables is recorded for the group contact activity, use them as a weighting to get the correct quantum of cost from the relevant drugs or consumables account code in the cost ledger. Then allocate this quantum across those patients present in the group contact.

18. If you know that certain group contacts or types of group contact involve the use of equipment, consumables or drugs but this use is not recorded, establish the weightings that should be used to allocate their costs to the activity and create relative weight value units (RVUs⁴⁵) if necessary. However, recording actual use is seen as best practice.

Costing CPA meetings

- 19. CPA meetings are held to review a patient's care plan. They must be held annually but can be held more regularly.
- 20. The patient is usually present; however, they may instead be represented by their care co-ordinator, who may be a social worker, community psychiatric nurse or occupational therapist.
- 21. As with other group contacts, the meeting duration should be recorded for each staff member present.
- 22. CPA meetings also incur considerable preparation and follow-up costs. Record these costs for the relevant staff members and use them as weightings to allocate staff costs to the clinical administration activity.
- 23. If this clinical administration activity is known to take place but not recorded, work with the relevant departments and your informatics team to record the necessary information. If it cannot be recorded, estimate the amount of time required for clinical administration related to a CPA meeting and create RVUs. You can use these as weightings to allocate the correct costs of the relevant staff to the clinical administration activity whenever a CPA meeting is recorded for a patient.

Allocating support costs to group contacts

24. Allocate support costs using the same methods as single patient contacts.⁴⁶

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- 45. See Acute Standard CM3: Relative weight value units and traceable costs for more information on using RVUs.
- 46. For a full list of allocation methods, see Spreadsheet CP2.2 in the technical guidance.

CM4:

The income ledger

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

Objective

- To assign income to the correct costed activities in the correct proportion. 1.
- 2. To ensure outputs from the costing system reconcile to the organisation's accounts.
- 3. To ensure income is not netted off against costs.

Scope

- 4. This standard is for guidance only. There are no plans to collect income in the cost collection.
- 5. This standard applies to all income received by the organisation.

Overview

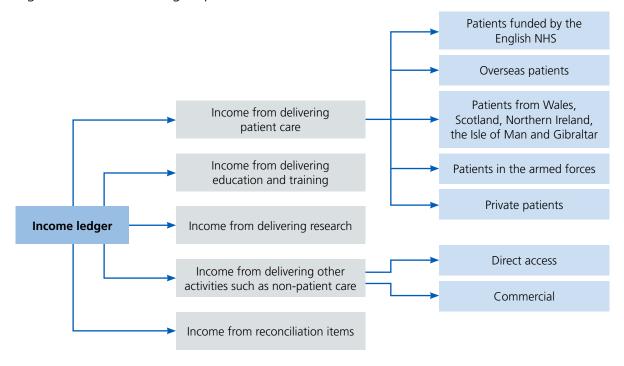
6. All income received by your organisation needs to be aligned to all the costs incurred for the purposes of management reporting so it can be used effectively internally in decision-making.

Approach

- 7. You need to understand the different types of income recorded in the general ledger and what costs the income relates to, so the outputs from the costing system can be reconciled to the accounts.
- 8. The corporate income cost centres and subjective codes in the general ledger are at an aggregated level. Several types of income for different activities may also be recorded on a single line in the general ledger.
- 9. The general ledger is not the only source of income information available to you. Other sources are more helpful in providing detail that will improve the allocation method for income at both patient and specialty level.
- 10. 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. Private patient income, if held in a database at patient level, should also be loaded into the income ledger.
- Where more detailed income information is unavailable, this income needs to be 11. identified in the general ledger and local rules need to be developed to allocate this income at the patient level.
- 12. To avoid duplicating income in the costing system, if more detailed income information is loaded into the income ledger from another source – for example, a block income feed from the contracting team – the costing system should exclude the corresponding income value loaded from the general ledger output.
- 13. Take care that income is neither double-counted nor completely excluded within the costing system. You should maintain a clear audit trail of all sources of information loaded into the costing system, ensuring this reconciles with data reported in the organisation's accounts.

- 14. To maintain transparency in the costing system, income should not be netted off from the costs. The only exceptions to this rule are:
 - income received for clinical excellence awards can be netted off the healthcare professional's salary cost
 - where 100% of a healthcare professional's costs are reported in the organisation's general ledger but part of their time is spent with patients at another organisation; income for this activity can be netted off the healthcare professional's pay costs to avoid inflating the cost per minute of the organisation's own-patient activity; it is important to determine whether the recharged value includes support costs recovery, as netting this additional support costs income off staff costs would understate the remaining resource cost
 - where the materiality principle would apply, so for very small value contracts or service-line agreements (SLAs) you do not need to try to determine the associated costs.
- Although activity relating to block contracts does not drive income value, 15. it is important you know the currency of the service provision so it can be used to drive the income allocation. Example allocation methods are given in Spreadsheet CM4.1 in the technical guidance. None of these allocation methods is mandatory, but those used must be agreed locally.
- 16. Although treatment function codes may be useful in allocating block income, they may cover a wider range of patients than the patient cohort covered by the block contract. To avoid this possibility, you can use a look-up table of the patients in the cohort to allocate the income, taking account of the availability of the information and the materiality costing principle.
- 17. The income ledger is divided into five income groups as shown in Figure CM4.1.

Figure CM4.1: Income groups



- 18. The **own-patient care income group** comprises the income relating to the organisation's own-patient activity, including:
 - patients funded by the English NHS through national pricing, local pricing or block contracting arrangements (also known as healthcare income)
 - overseas patients, from countries with and without reciprocal charging arrangements
 - patients from Wales, Scotland, Northern Ireland, 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.
- 19. You need to identify the income for different patient groups and allocate it to them only. You can do this by using the individual patients' commissioner codes, which can be found on NHS Digital's website.⁴⁷ This is important as you need to be able to check that private patients are not being cross-subsidised by NHS income.⁴⁸
- 47. https://www.digital.nhs.uk/
- 48. Acute Standard CM7: Private patients and NHS patients living outside England gives guidance on how to cost patients not funded by the English NHS. This is done in the same way as NHS patients are costed, but with an adjustment for the costs paid directly to consultants for private work.

- 20. Healthcare income is defined as the income an organisation receives for the activity it undertakes for NHS commissioning organisations. It is often recorded in a separate recording system at patient-spell level, meaning the information can be used to allocate the income at patient level.
- 21. Organisations' income and services may be derived and commissioned from different sources, including:
 - clinical commissioning groups (CCGs) via various payment methods, including national tariff income or locally determined prices
 - NHS England specialised commissioning
 - private (non-NHS) patients
 - local authority
 - voluntary and other third-party sector (NHS).
- 22. All NHS contracted and non-contracted activity income streams should be allocated to a patient based on the activity undertaken or outcomes.
- 23. Where a contract is paid for with a block income, this income needs to be allocated using a locally agreed method. Spreadsheet CM4.1 in the technical guidance gives examples of ways to allocate block income.
- Non-NHS and non-English NHS healthcare income comes from overseas patients, 24. military personnel and patients from Wales, Scotland, Northern Ireland, the Isle of Man and Gibraltar. These 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 non-NHS patients and NHS patients living outside England for reporting against the associated costs.
- 25. The education and training (E&T) income group comprises the organisation's income from E&T activities. You should set your organisation's allocation method for this income.
- 26. The learning and development agreement issued by Health Education England breaks down this income by specialty. Refer to it to allocate this income.
- 27. This income may be held in corporate cost centres or department cost centres. Identify where the income is held and ensure it is all reported in the E&T income group.

- 28. The **research income group** comprises the income the organisation receives for research and development (R&D) activities. You should set your organisation's allocation method, in conjunction with the R&D department, for this income. This includes:
 - commercial clinical trial income, where the funder is the sponsor
 - commercial income where the funder is not the sponsor (ie 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.
- 29. 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 research income group and allocated to research activities.
- 30. The **other activities income group** (such as non own-patient care) includes the income related to the organisation's:
 - commercial activities, such as therapy services for another organisation
 - direct access services, where the patient is referred from primary or community care for assessment or treatment.
- The **income reconciliation items income group** includes income for which 31. there is no corresponding activity; this occurs for reasons, such as:
 - grants or donations received by the organisation
 - income for a staff member such as a youth worker employed by an organisation for activity undertaken by the local council, where the organisation is unable to obtain the activity information to include in the costing system.

- 32. Where an organisation is commissioned to provide an activity that occurs outside the hospital and is recorded by an external body, you should obtain this information and include it with data from your patient-level information costing system (PLICS). Do not treat this income as a reconciling item.
- 33. Use the central database of all SLAs in the organisation, which the financial management team should hold, to identify this income and report it in the correct income group.
- 34. You should also work with the financial management team to identify the costs and activities associated with the SLA, which should be updated annually.
- 35. Make sure both income and costs are reported in the correct 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.
- An organisation may receive income if it has a contract to carry out all or part of 36. an activity on another organisation's behalf, such as providing therapy services to other healthcare organisations.
- 37. These contracted services are commercial activities. Their associated costs and income should be treated as described in Acute Standard CM8: Other activities.⁴⁹
- 38. As the income for the period must match the income reported to the board, you must keep a full reconciliation showing how the ledger income maps to the income loaded into the costing system.

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49. If your organisation is the contracting or requesting organisation, this is referred to as contracted out activity in the standards (see Acute Standard CM8: Other activities for further information).

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