NHS Improvement

# Healthcare costing standards for England

# Mental health: Information requirements

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

Final

| | Mandatory (Mental health) |
|---|---|
| Publication status | Final |
| Publication date | 27 February 2019 |
| Relates to financial year data | 2019/20 |
| Collection year | 2020 |

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

# Contents

# Introduction

This version 3 of the *Healthcare costing standards for England – mental health* should be applied to 2018/19 and 2019/20 data and used for all national cost collections. It supersedes all earlier versions. All paragraphs have equal importance.

These standards have been through two development cycles involving engagement, consultation and implementation. Future amendments and additions to the standards may be required but will be made as part of 'business as usual' maintenance. We thank all those who have contributed to the development of these standards.

The main audience for the standards is costing professionals, but they have been written with secondary audiences in mind, such as clinicians and informatics and finance colleagues.

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

- **Information requirements** describe the information you need to collect for costing.
- **Costing processes** describe the costing process you should follow.

These first two sets of standards make up the main costing process. They should be implemented in **numerical order**, before the other two types of standards.

- **Costing methods** focus on high volume and high value services or departments. These should be implemented after the information requirements and costing processes, and prioritised based on the value and volume of the service for your organisation.

All the standards are published on NHS Improvement's website.[1]

[1] See https://improvement.nhs.uk/resources/approved-costing-guidance

## Mental health: information requirements

An accompanying **technical document** contains information required to implement the standards, which is presented in Excel. Cross-references to spreadsheets (for example, Spreadsheet CP3.3) refer to the technical document.

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

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

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

You can also download an evidence pro forma if you would like to give us feedback on the standards. Please send completed forms to costing@improvement.nhs.uk

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

# IR1: Collecting information for costing

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

## Objectives

1. To ensure providers collect the same information for costing, comparison with their peers and collection purposes.

2. To support the costing process of allocating the correct quantum of cost to the correct activity using the prescribed cost allocation method.

3. To support accurate matching of costed activities to the correct patient,[3] admission, attendance or contact.

4. To support local reporting of cost information by activity in the organisation's dashboards for business intelligence.

## Scope

5. This standard specifies the minimum requirement for the patient-level[4] activity feeds as prescribed in the *Healthcare costing standards for England – mental health*.

[3] While we refer to patients in this context of patient-level costing, we recognise that people who access mental health services prefer to be referred to as service users, clients or residents.

[4] Not all feeds are at the patient level. This is a generic description for the collection of feeds required for the costing process. The actual level of the information is specified in the detail below: for example, the medicines feed may be at patient or ward level.

## Overview

6. The standards describe two main information sources for costing:

   - patient-level feeds
   - relative weight values.

7. Any costs not covered in the prescribed patient-level feeds need relative weight values or other local information sources to allocate the costs.

8. One way to store relative weight values in your costing system is to use statistic allocation tables where the standards prescribe using a relative weight[5] to allocate costs.

9. You may be using additional sources of information for costing. If so, continue to use these and document them in your integrated costing assurance log (ICAL) worksheet 2: Additional information sources.[6]

10. The information described in the standards provides the following required for costing:

    - activities that have occurred – for example, the non-admitted patient care (NAPC) feed will itemise all contacts made by the community mental health nursing team, and this information tells the costing system which activities to include in the costing process
    - the cost driver to use to allocate costs – for example, ward minutes
    - the information to use to weight costs – for example, the drug cost included in the medicines dispensed feed
    - information about the clinical care pathway – for example, information about outsourced therapy contacts can be used to allocate specific costs in the costing process.

11. Integrated providers should identify the services they provide for different sectors and build feeds to include all these sectors – see Standard CM11: Integrated providers.

[5] See Integrated standard CP3: Appropriate cost allocation methods paragraphs 43 to 69 for more information on relative weight values.
[6] This was called the costing manual in previous versions of the standards.

12. We recognise that because of the way care is provided or because of information governance controls, you may not be able to identify detail and cost the care for some patients. It is important to keep in mind that our aim is to cost **a** patient, not **the** patient: for example, sensitive/legally restricted data. This may include proxy records where the patient has not consented to their data being held. We recognise that we will collect data for a patient accessing the service and not all data relating to each patient.

13. Column C in Spreadsheet IR1.1 lists the patient-level activity feeds required for costing.

14. You should use national definitions of activity from the relevant dataset, eg the Mental Health Services Data Set (MHSDS). However, if you use local definitions for activity not included in national datasets, or during transition, you should record these in your ICAL worksheet 3: Local activity definitions

## Description of patient-level feeds

15. Three types of feed support the matching process and are detailed in column E in Spreadsheet IR1.1:

    - **master feeds:** the core patient-level activity feeds that the other feeds are matched to, eg the admitted patient care (APC) and non-admitted patient care (NAPC) feeds
    - **auxiliary feeds:** the patient-level activity feeds that are matched to the master feeds, eg the medicines dispensed feed; auxiliary feeds may also include other feeds that can be matched to the master feeds
    - **standalone feeds:** the patient-level activity feeds that are not matched to any episode of care but are reported at service-line level in the organisation's reporting process, eg the clinical multidisciplinary team (MDT) meeting feed.

16. A unique identifier – or combination of fields – in the master and auxiliary feeds is used to perform the matching process. For example, 'local patient identifier (extended)' is the unique patient reference in the MHSDS. See Integrated standard CP4: Matching costed activities to patients: the prescribed matching rules for all the patient-level feeds are given in Spreadsheet CP4.1.

## Mental health: information requirements

17. You should work with your 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 and in appropriate proportions, and that activity is reported correctly in your patient-level reporting dashboard.

18. Columns D and E of Spreadsheet IR1.2 contain the activity data fields required for the costing standards, following national naming conventions for the MHSDS, Improving Access to Psychological Therapies dataset (IAPT) and other datasets. To build the relevant patient-level information costing system (PLICS) feed, you may need to discuss the matching of some local field names with your service teams or informatics department, using the data item code shown in column G of Spreadsheet IR1.2 (where applicable to the dataset).

19. This will ensure the fields are pulled from a consistent location and the PLICS collection will match to the relevant national dataset once submitted.

20. If your organisation is not collecting and using the minimum required activity data feeds in costing, you need to plan for systems to collect this information with your informatics department and the departments/teams providing the services. To help you, we have provided:

    - a transition path (Spreadsheet: Transition path) identifying the information requirements that should be prioritised; this is the information you should plan to access first
    - a mental health information gap analysis template (IGAT)[7] to help you work with your informatics department to identify and document the information that is a priority for improvement.

21. You are not required to collect an activity feed if your organisation does not provide that activity, eg a provider with no inpatient services is not required to collect the APC feed.

22. You are not required to collect duplicate information in the individual feeds unless this is needed for costing, matching or collection purposes. The reason

[7] The IGAT is on the Approved Costing Guidance web page under 'tools', by sector. https://improvement.nhs.uk/resources/approved-costing-guidance-2019/

each field is included in a feed is given in columns L to O in Spreadsheet IR1.2.

23. Your informatics department is best placed to obtain the data required from the most appropriate source, but to help you find out what information your organisation is already collecting, refer to Spreadsheet IR2.1.

24. The standards prescribe the information to be collected, but not how it is collected. So, if you collect several of the specified feeds in one data source, you should continue to do so as long as the required information is captured.

25. If you have activity in your data feeds where the costs are reported in another organisation's accounts, you need to separate the activity from the other activity provided to your patients. Do this by reporting this activity under 'cost and income reconciliation reports', as described in Table CP5.1 in Integrated standard CP5: Reconciliation. This prevents your own costs being allocated to this activity, deflating the cost of your own patients.

26. For internal reporting, this activity can be reported as part of patient pathways, even though it is at zero cost to the organisation: for example, social workers who are paid by the local authority but whose activity is part of a wider care pathway.

27. **Note on special characters:** You should ensure that if your organisation's data submission to NHS Digital (eg MHSDS, IAPT) contains special characters, then the PLICS should contain the special characters, and so the collection should contain special characters. If it does, neither should the collection. The data validation tool 2019 will be set up to allow either. If you are unclear on this, please contact costing@improvement.nhs.uk

## What you need to implement this standard

- Costing principle 5: Good costing should focus on materiality[8]
- Mental health information gap analysis template (IGAT)[9]
- Spreadsheet IR1.1: Patient-level activity feeds required for costing
- Spreadsheet IR1.2: Patient-level field requirements for costing

[8] See *The costing principles*, https://improvement.nhs.uk/resources/approved-costing-guidance/
[9] See 'Tools and templates to help implementing the standards' on https://improvement.nhs.uk/resources/approved-costing-guidance-2019

- Spreadsheet IR1.3: Supporting contacts feed
- Spreadsheet IR2.1: Data sources available as part of national collection

# Approach

## Patient-level information for the costing process

28. This section describes each feed, explaining:

    - relevant costing standard(s)
    - collection source
    - feed scope.

29. The MHSDS and the IAPT sourced fields required for APC and NAPC PLICS feeds are either mandatory or required fields in the MHSDS/IAPT technical specifications. Therefore, your organisation will be collecting this information under the timescales set by NHS Digital.

30. Each organisation may hold the required data fields in a data warehouse and receive the PLICS feed from there.

31. The feeds are numbered sequentially for all sectors. Therefore, not all feed numbers will be used in all sector costing standards, if the feed to which they refer is not required.

32. The six patient-level feeds for mental health services are:

    - feed 1b: Admitted patient care (APC)
    - feed 3b: Non-admitted patient care (NAPC)
    - feed 7: Supporting contacts
    - feed 10: Medicines dispensed
    - feed 14: Clinical multidisciplinary team (MDT)
    - feed 16: IAPT – Improving Access to Psychological Therapies Data Set.

33. **You should read the following sections describing these feeds in conjunction with Spreadsheet IR1.2.**

## Feed 1b: Admitted patient care

### Relevant costing standards

- Mental health standard CM13: Admitted patient care
- Mental health standard CM2: Incomplete patient events
- Mental health standard CM1: Medical staffing
- Spreadsheet IR1.2: Patient-level field requirements for costing
- Spreadsheet IR2.1: Data sources available as part of national collection – row 5

### Collection source

34. This data is collected as part of the nationally collected and mandated MHSDS.

35. Feed 1 in the costing system relates to admitted patient care for all sectors. The suffix ‘b’ indicates this information comes from the MHSDS. This is designed for clarity where trusts cover more than one sector.

36. The APC feed is shown in column C of Spreadsheet IR1.2. The fields shown in column D should be contained in the APC feed to PLICS.

### Feed scope

37. All admitted patient episodes within the costing period, including all patients discharged in the costing period and patients still in bed at midnight on the last day of the costing period.

38. An episode is a period of continuous responsibility recorded under one care professional.[10] When responsibility for that patient moves to another care professional it is called a transfer of care, and a new episode starts.

39. Costing takes place at hospital episode level as this is the most granular unit of inpatient care recorded in the MHSDS. Each episode includes the relevant ‘resources’ and ‘activities’ as required by the Costing Transformation

[10] Episode (hospital provider) is defined in the NHS Data Dictionary: www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/c/consultant_episode_(hospital_provider)_de.asp?shownav=1

Programme (CTP). Episode costing represents responsibility for that patient's care by a named professional.

40. The period starting with the 'start date (care professional admitted care episode)' and finishing with the 'end date (care professional admitted care episode)' spans the length of stay used for costing.

41. If the 'end date (care professional admitted care episode)' field has not been completed for a patient, that patient will still be in a bed, and so will be categorised as an incomplete patient event. See Mental health standard CM2: Incomplete patient events.

42. Including patients who are still in a bed (incomplete patient events) reduces the amount of unmatched activity and ensures that discharged patients are not allocated costs that relate to patients who have yet to be discharged.

43. Including incomplete patient events allows feeds such as feed 10: Medicines dispensed to be allocated more accurately. They will contain all the patient-level activity that has taken place in a month, regardless of whether the patient has been discharged. All these activities can now be costed and matched to the correct patient whether or not they have been discharged, building an appropriate view of the costs incurred during a period.

44. For information: a 'spell' is the full length of the inpatient stay – from admission to discharge.[11] Many patients will have one episode within one spell, but some will have more. This should not influence the costing process, but as spells are currently used for the PLICS collection it is important to understand the difference between spell and episode.

45. Use the 'discharge date (hospital provider spell)' to identify if a patient has been discharged from the hospital. This is needed to inform a further derived field of 'discharge flag' that is used for the PLICS collection (see 'Derived and additional' fields below, paragraphs 81 and 82).

46. The APC feed also includes details for admitted patients, such as ward (eg high secure, rehabilitation, etc identified by 'ward code'). If these fields cannot

[11] Hospital provider spell is defined in the NHS Data Dictionary: www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/h/hospital_provider_spell_de.asp?shownav=1?query=%22spell%22&rank=100&shownav=1

be populated from the MHSDS data, they should be populated from a relevant local source.

47. The service giving the patient care should be identified by ‘service or team type referred to (mental health)’.

48. The feed must include the date and time stamps to allow the number of occupied bed minutes to be calculated, and so the ward cost for the time the patient spent there to be allocated to the patient:

    - start date (ward stay)
    - start time (ward stay)
    - end date (ward stay)
    - end time (ward stay).

49. Every patient move to a different ward/location needs to be captured using the ward code identifier data field.

50. The fields ‘ward setting type (mental health)’, ‘intended clinical care intensity code (mental health)’ and ‘ward security level’ give information about the type of ward the patient is admitted to.

51. The feed should identify the lead care professional responsible for that patient, under ‘care professional local identifier’. This will change if an episode ends, to reflect the different professional responsible for the patient at the different stages of their pathway.

52. The APC feed will not include details of other care professionals working with the admitted patient (eg consultant, nurse, therapist, etc), as this information is not contained in the MHSDS. To capture this information, see feed 7: Supporting contacts.

53. ‘Main specialty code (mental health)’ is included in the feed to enable matching for supporting datasets and integrated provider submissions of cost information.

54. **Home leave**[12] **and mental health leave of absence:**[13] some patients may return home for planned or trial periods while still admitted to an inpatient bed – a practice designed to ensure a bed is reserved for their care.

55. The MHSDS, and therefore the APC dataset, include this leave to reflect the continuing responsibility for the patient. But as far fewer resources are used during home leave, this time is not costed. Resources/activities should be applied to patients according to their length of stay net of home leave days.[14] See Mental health standard CM13: Admitted patient care.

56. Periods of home leave should be excluded from costing calculations based on time on the ward calculated using the following fields (in accordance with Spreadsheet IR1.2):

    - start date (home leave)
    - start time (home leave)
    - end date (home leave)
    - end time (home leave).

57. By including these home leave fields in the APC feed, home leave can be reported in local reporting dashboards.

58. The patient's 'administrative category code' shows the category of commissioner for their care, eg NHS-funded patient or private patient. The 'organisation code' should be used in conjunction with the 'administrative category code' and the 'overseas visitor status'[15] to identify reciprocal and non-reciprocal overseas visitors to comply with the PLICS collection guidance.

59. Administrative category code may change during an episode; for example, the patient may opt to move from NHS to private healthcare. In such cases, the start and end dates for each new administrative category period should be

[12] www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/h/home_leave_de.asp?shownav=1?query=%22Home+leave%22&rank=100&shownav=1

[13] Mental health leave of absence is for patients sectioned under the Mental Health Act 1983: https://www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/m/mental_health_leave_of_absence_de.asp?shownav=1

[14] The patient may incur costs during home leave, such as escorting costs. These are described in Mental health standard CM13: Admitted patient care.

[15] Overseas visitor status classification is defined in the NHS Data Dictionary: www.datadictionary.nhs.uk/data_dictionary/attributes/o/out/overseas_visitor_status_classification_de.asp?shownav=1

recorded in the APC feed so that patients can be correctly identified and costed accurately.

60. The feed should contain the patient's 'NHS number', to allow organisations where patient-level medicines are provided by another NHS organisation to match the medicines to the episode. This may also be of use in local pathway costing across organisations.[16]

61. Where a patient has a care programme approach (CPA) meeting during an admission, the date of this will be included in the field 'care programme approach review date'. See Mental health standard CM9: Multidisciplinary meetings.

62. Where a patient undergoes a medical/physical intervention during their admission, the field 'coded procedure and procedure status (SNOMED CT)' will include a code that identifies the procedure, eg electroconvulsive therapy (ECT). SNOMED CT will be mandatory in the mental health sector from 2020.

**Derived and additional fields**

63. As the MHSDS is not solely designed for costing purposes, some other fields need to be included in the APC dataset used for costing, taken from other fields in the originating data.

64. These fields are:

- **'discharge flag' – derived field:** this is where the 'discharge date (hospital provider spell)' is null. This is used to indicate whether the inpatient spell was completed within the financial year.[17] This field is used in the PLICS collection to identify incomplete spells; these can then be matched and costed appropriately for the PLICS collection. Valid values are:
  - 1 = started in previous year and ended in reporting financial year (ended)
  - 2 = started but not ended during reporting financial year (open)
  - 3 = started and ended in reporting financial year (ended)

[16] With appropriate information governance arrangements in place.
[17] This is used by the PLICS collection team at NHS Improvement to reconcile the PLICS submission to the reference costs submission.

  - 4 = started in previous financial year but not ended in reporting financial year (open)[18]
- **'escorted home leave' – additional field:**[19] this will need to be populated from a source other than the MHSDS, to show where escorting costs need to be allocated during a home leave period. See Mental health standard CM13: Admitted patient care.

## Feed 3b: Non-admitted patient care[20]

### Relevant costing standards

- Mental health standard CM3: Non-admitted patient care
- Mental health standard CM1: Medical staffing
- Mental health standard CM14: Group sessions
- Spreadsheet IR2.1: Data sources available as part of national collection – row 5

### Collection source

65. This data will come from the nationally collected and mandated MHSDS.

66. Feed 3 in the costing system relates to non-admitted patient care for all sectors. The suffix 'b' indicates this information comes from the MHSDS. This is designed for clarity where trusts cover more than one sector.

### Feed scope

67. All patients who had an attendance, contact or care provided in a non-admitted care setting within the costing period.

68. This feed is designed to be a 'catch all' activity feed. It captures activity recorded on the patient administration system (PAS) but not reported in the other master feeds, including:

    - formal booked 'clinic' contacts

[18] Further information is available in the *National cost collection guidance 2019*.
[19] This field is currently for a superior costing method, but one which will become a prescribed costing method in later versions of the costing standards.
[20] The feed numbers are used across all sectors. For a full list, see Spreadsheet IR1.1: Integrated trusts can use the 'likely sector' filter to reveal the other feeds.

- non-admitted patient contacts – informal contacts, drop-in sessions and outreach services
- other face-to-face contacts, including those in the patient's residence
- telemedicine consultation, including telephone calls and other telemedicine contacts such as text, email, video conference, etc[21]
- ward attenders (outpatient contacts where a patient who does not need full admission to an inpatient unit is seen in a ward environment)
- day care (patients attending for general supportive activities throughout a day, sometimes – but not necessarily – including clinical therapy); they are not admitted, but are present for a far longer time than a standard NAPC contact
- group contacts.

69. The patient identifier field is 'local patient identifier (extended)'.

70. Fields 'care contact identifier' and 'care contact date' are used for the PLICS collection and to match other feeds to the NAPC contact. ('Care contact time' is not required for the PLICS collection for MHSDS data but is required for the IAPT dataset (feed 16) and so should be included in the NAPC feed for consistency.)

71. Where the 'care contact date' and the 'care programme approach review date' are the same, a CPA meeting has taken place.

72. Data fields in this feed capture details of the location where care was provided. A combination of the fields 'service or team type referred to (mental health)' and 'activity location type code' give a local service and site code.

73. If the NAPC feed records where community mental health teams treat patients when they are admitted to a ward, this should be costed as a separate contact. These costs should not be absorbed into the admitted stay: you can achieve this separation by entering these contacts into the supporting contacts feed. See Mental health standard CM13: Admitted patient care for further detail.

74. Costing NAPC patient contacts should be a time-based allocation of resources. Therefore, the field 'clinical contact duration of care contact' is

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

essential. This is the actual time the contact lasts and should not include time spent on supportive work before or after the patient contact, nor travel time. See Integrated standard CP3: Appropriate cost allocation methods and Mental health standard CM3: Non-admitted patient care for detail on using duration of patient-facing time and treatment of travel time, respectively.

75. 'Main specialty code (mental health)' is included in this feed to enable matching for supporting datasets and local reporting of pathway costs.

76. **Groups:** sessions for more than one patient will have a different cost from that for a single patient contact (see Mental health standard CM14: Group sessions). Fields used in the costing process are:

    - the NAPC feed captures whether the contact was a group contact – use field 'group therapy indicator'
    - 'clinical contact duration of group session' shows the group session duration
    - 'number of group session participants' gives the number of patients in the group session.

77. The NAPC feed contains data fields that capture when a patient 'did not attend' (DNA) or was not present at the location of the contact, or in the case of a child/vulnerable adult 'was not brought' (WNB) to their NAPC appointment. Use field 'attended or did not attend code'. Current national policy for tariff development is that DNAs are to be excluded from the cost collection, but the field may be included for local reporting. See Mental health standard CM3: Non-admitted patient care.

78. The NAPC feed uses the field 'consultation medium used' to indicate whether a contact was face to face or using telemedicine (including telephone calls, video conference, text, email or online patient model). See Mental health standard CM3: Non-admitted patient care for more information.

79. The patient's 'administrative category code' shows the category of commissioner for their care, eg private patient, overseas visitor, NHS patient living outside England and patient funded by the Ministry of Defence. The field is included for reporting but is not recognised by the costing process. The

administrative category code does not normally change during an NAPC contact.

80. The field 'language code (preferred)' is used to allocate interpreting costs to all patients with a language code of 'not English' and/or a communication extension recorded – for example, British Sign Language.

**Derived and additional fields**

81. As the MHSDS is not solely designed for costing purposes, some other fields need to be included in the NAPC dataset used for costing, taken from other fields in the originating data.

82. The field is:

- **'multiprofessional contact' – derived field:** the MHSDS currently does not identify multidisciplinary contacts separately from single professional contacts. See Mental health standard CM9: Multidisciplinary meetings. This information is important for allocating cost from the relevant resources, and a field has been added for local population.

## Feed 7: Supporting contacts[22]

**Collection source**

83. This data needs to be collected locally.[23]

**Feed scope**

84. All patients who had contacts from anyone other than their named care professional within the costing period. The costing process will match supporting contacts to any relevant master feed event.

85. A patient can be expected to have contact with their named care professional during their admission as part of standard ward rounds and ward care. However, they will also have single professional contacts with other care

[22] The feed numbers are used across all sectors. For a full list, see Spreadsheet IR1.1. Integrated trusts can use the 'likely sector' filter to reveal the other feeds.

[23] Some organisations have created this feed based on electronic care notes. These should include the relevant elements for matching and allocation as stated in Integrated CP4: Matching costed activities to patients and Integrated CP3: Appropriate cost allocation methods respectively.

professionals and take part in multiprofessional and/or multidisciplinary contacts during their episode – such as occupational therapy sessions and CPA meetings.

86. The supporting contacts feed is designed to reflect the multifaceted nature of a patient's pathway and costs associated with it. The detail and accuracy of the final patient cost are improved by including these activities in the costing process.

87. Staff who may perform supporting contacts are listed in column A in Spreadsheet IR1.3, but this is not an exhaustive list.

88. Spreadsheet CP4.1 contains prescribed matching rules for this feed.

89. Fields used in the costing process are:

- 'local patient identifier (extended)' – for matching the patient to the supporting contact
- 'contact start date and time' – for matching, and to calculate the contact duration
- 'contact end date and time' – for matching, and to calculate the contact duration
- 'care contact duration' – for allocating resources to activities
- 'healthcare professional code' – for allocating the correct resource for the staff member/type to activities
- 'contracted-out indicator' – to identify costs for a patient that are shown separately in the general ledger because services have been purchased from another provider
- 'group contact' – to identify whether a contact included more than one patient; see Mental health standard CM14: Group sessions
- 'multidisciplinary contact' – to identify whether the contact involved more than one member of staff; see Mental health standard CM9: Multidisciplinary meetings.

## Feed 10: Medicines dispensed[24]

90. This feed contains details of drugs administered to a patient during their treatment, including the actual drug cost. As such it is a valuable source of patient information and matching it to the appropriate patient episode/contact is vital.

### Relevant costing standards

- Integrated standard CP4: Matching costed activities to patients
- Mental health standard CM10: Pharmacy and medicines
- Spreadsheet IR2.1: Data sources available as part of national collection – row 11

### Collection source

91. This data needs to be collected locally from the pharmacy system or a report supplied by the pharmacy provider under contract, as there is no national dataset for medicines prescribed.

92. Local information may be supplemented by the mandated devices and drugs taxonomy and monthly dataset specifications for NHS England's specialised commissioning on high cost drugs, which covers approximately 70% of high cost drugs nationally (including acute services). This may be useful for some mental health organisations and integrated trusts.

93. The information relating to any locally commissioned high cost drugs may also inform the medicines data feed.

### Feed scope

94. All medicines dispensed in all provider locations, including wards and clinics, and medicines issued in the patient's residence. These should be at patient level.

95. This feed should allow matching of medicines dispensed and identified to an individual patient during an admission or an NAPC contact, for accurate costing within the costing period. Such medicines are likely to include

[24] The feed numbers are used across all sectors. For a full list, please see Spreadsheet IR1.1. Integrated trusts can use the 'likely sector' filter to reveal the other feeds.

controlled drugs and high cost items, but possibly also regular and other medications.

96. For information on the matching of medicines to patients, see Integrated standard CP4: Matching costed activities to patients and Mental health standard CM10: Pharmacy and medicines.

97. The standard fields for matching are 'local patient identifier (extended)', dates of admission/appointment, and the date of prescription.

98. Medicines issued to wards that are not identified to an individual patient may also be included in this feed – for example, non-identifiable or 'ward stock' drugs – for allocation by the appropriate method: see Integrated standard CP3: Appropriate cost allocation methods.

99. The medicines dispensed feed should also include all:

- high cost drugs dispensed by the provider to the provider's patient on another provider's site
- high cost drugs dispensed by a third-party provider to your organisation's patients (eg where pharmacy is contracted out to another provider)
- FP10 prescription costs recorded in the provider's ledger.

100. Where pharmacy services and/or medicines are supplied by an acute provider or a non-NHS party, and the cost is in your organisation's general ledger, the information received should comply with the fields needed for costing as above. The NHS number is required for patient-identifiable drugs, to allow matching to the episode of care. Work with your pharmacy lead to ensure you have access to this information.

101. FP10 prescription information gives useful information about the patient pathway, so should be included in your medicines dispensed feed. The costs of these prescriptions should be treated in the following ways:

- Where community or private pharmacies or the NHS Business Services Authority – NHS Prescription Services (NHSPS) – charge the provider for the cost of FP10 prescriptions, the provider will have recorded this cost in

the general ledger. The organisation should obtain a dataset[25] to understand which patient prescriptions these relate to, so the cost of the drugs may be matched to the relevant patient contact in accordance with Integrated standard CP2: Clearly identifiable costs. This dataset should be included in feed 10: Medicines dispensed, as shown in Spreadsheet IR1.2.

- Where community or private pharmacies dispense FP10 drugs and charge this directly to the clinical commissioning group, not the community organisation, the cost will not be in the organisation's general ledger and there is no requirement to gather information on it.
- Where the FP10 cost is in the general ledger but the patient-level information is not available, the cost should be allocated to resource MDR044: Drugs, and to the activity MDA065: Dispense non-patient identifiable drugs. Use the 'requesting location code' to allocate these costs first to the ward, department or service. Use actual cost as a weighting, in accordance with Spreadsheet CP3.3 in the technical document. Work with your pharmacy lead and informatics department to get better access to patient-level information.

102. Fields used in the costing process are:

- 'drug identification' – the name of the drug dispensed (you should ensure this field contains the medicine name, not the brand name); having the name of the medicine and not just its code will improve local reporting of PLICS and discussions with clinicians
- 'total drug cost' – this field contains the key information for patient-level costing
- 'drug quantity supplied (units)' – this field will improve understanding of the medicines included for local verification and reporting
- 'location code' – this field will improve local reporting and enable discussion with the correct service area.

103. The feed should contain 'drug identification' and 'drug name' for local business use and for cross-checking the feed with clinicians.

[25] NHSPS is currently trialling a reporting model that allows for patient-level information.

104. Note the ‘drug identification’ field may include both the medicine and the quantity supplied, eg ‘risperidone 50 mg powder and solvent for suspension for injection vials’.

105. The feed should contain the patient’s ‘NHS number’, to allow organisations where patient-level medicines are provided by another NHS organisation to match the medicines to the episode.

106. The ‘contracted-out flag’ field is required in the medicines dispensed feed to understand data completeness in local datasets. The field may need to be derived from a relevant feed in your local system, eg ‘requesting care provider code’.

107. Some medicines may only be provided to one cohort of patients. You should work with your pharmacy team to find out if there are such cohorts; you can then query any instances of cost data indicating such a medicine was issued outside the expected cohort. For example, as melatonin is normally used in child and adolescent mental health services (CAMHS),[26] its issue to an adult should be queried with the pharmacy or service team.

## Feed 14: Clinical multidisciplinary team meetings

### Relevant costing standard

- Mental health standard CM9: Clinical MDT meetings

### Collection source

108. This data needs to be collected locally.

### Feed scope

109. All clinical MDT meetings held within the costing period.

110. This feed does not have to be at patient level as the costs for MDTs are reported at specialty level, not patient level.

[26] Information provided by the NHS Improvement mental health lead pharmacist.

111. This standalone feed is not matched to patient episodes, attendances or contacts. It is not included in the prescribed matching rules in Spreadsheet CP4.1.

## Feed 16: Improving Access to Psychological Therapies (IAPT)[27]

112. The IAPT dataset has been developed to improve the information available on assessment and treatment of adult patients with anxiety disorders and depression. Some organisations also provide these services to older adults and child and adolescent mental health services (CAMHS).

113. This feed should contain the non-admitted contacts for IAPT services that are not recorded in the MHSDS dataset.

114. The fields available in IAPT – as shown in Spreadsheet IR1.2 – are not the same as those in the MHSDS, so we are treating this as a separate master feed. The costing processes should be the same as for NAPC.

115. This information makes costing more appropriate by adding the additional contacts to the costed patient-level activity; these were previously 'hidden' activity (see below). This information is required for the PLICS collection.[28]

### Relevant costing standard

- Mental health standard CM3: Non-admitted patient care
- Spreadsheet IR2.1: Data sources available as part of national collection – row 7

### Collection source

116. This data needs to be collected locally from the PAS or separate clinical information system, in accordance with the submission of IAPT data. Your informatics team should be able to supply this dataset.

[27] The feed numbers are used across all sectors. For a full list, see Spreadsheet IR1.1. Integrated trusts can use the 'likely sector' filter to reveal the other feeds.
[28] Further information on mapping for this feed will be available during implementation.

## Mental health: information requirements

### Feed scope

117. This data is a separate source of contact information from the MHSDS, as IAPT contacts are not contained in the MHSDS. It contains these fields:

- 'organisation code (code of provider)'
- 'service request identifier, appointment date' and 'appointment time' – used for the unique reference to the patient
- 'appointment type' – gives reporting information on the type of initial or follow-up appointment
- 'mental health care cluster code (final)' – used for reporting the cluster information at national level
- local patient identifier (extended), NHS number, NHS number status indicator code, date of birth, postcode, gender, attended or did not attend, referral request received date – all used for matching the costed data to patient within the full IAPT dataset.

## Additional patient-level activity feeds and fields

118. One purpose of the *Healthcare costing standards for England* is to help organisations develop their costing processes in a practical and achievable way. We encourage organisations to collect more patient-level activity data wherever practical, taking account of the principle of materiality as stated in the costing principles.

119. The patient-level activity feeds specified above are the minimum required for costing but may not cover all the patient activities involved in providing healthcare services. You need to decide whether you require additional patient-level feeds to meet specific costing needs. Examples of such feeds are:

- prison rehabilitation services
- offsite educational/mental health promotion
- crisis houses
- outreach services.

120. Future development areas should be prioritised according to three criteria:

- value of service
- volume of service
- priority of the service to the provider and the healthcare economy.

121. If your organisation already uses additional patient-level activity feeds in costing, you should continue to do so. It is not the aim of the costing standards to push a provider 'backward' in its costing journey, although it is important for consistency that the areas covered by the standards are costed using the prescribed methods. Record your additional feeds in your ICAL worksheet 2: Additional information sources.

122. You should prioritise the prescribed feeds over adding additional feeds.

123. Figure IR2.1 in Mental health standard IR2: Management of information for costing gives more detail on the information an organisation needs to collect.

## Identifying hidden activity

124. Take care to identify any 'hidden' activity in your organisation. This is activity that takes place but is not recorded on any main system such as the PAS.

125. In some organisations, teams report only part of their activity on the main system such as PAS, eg a department reports its APC activity on PAS but its outreach activity on a separate clinical information system. Or a service team records telephone calls with patients in a book, not electronically. Also, provider mergers may mean data is held in different systems. If any of these are the case, work with your informatics department and the department responsible for the data to obtain a feed containing 100% of the department's activity.

126. 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 provider's main system
- income received is allocated to the correct activities in service line reporting.

## Mental health: information requirements

### Contracted-in activity

**Relevant costing standard**

- Mental health standard CM8: Other activities

127. If your organisation receives income for services delivered to another provider, the income received should not be used to offset costs: for example, specialist art therapy, where the activity is included in your patient-level data and income is received from those organisations. The activity should be costed exactly as for own-patient activity, but the costs should be reported as 'other activities' and not matched to your organisation's own activity.

128. Use the contracted-in flag in column D of Spreadsheet IR1.2 to identify this activity.

129. Ensure this activity is not incorrectly matched to patient episodes, attendances or contacts by using the prescribed matching rules in Spreadsheet CP4.1.

### Other data considerations

130. The information requirement 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.[29]

131. You should request that the names of the fields are included in the feeds into your costing system; otherwise you will need to maintain code and description look-up tables for each feed to understand the data included in your reporting. You will need a process to map and maintain a rolling programme for revalidating the codes and descriptions with each service.

132. Locally generated specialty or service team codes may be used to allow specialist activity to be reported internally at a more granular level than treatment function code (TFC).

133. If local specialty codes are used, they should be included in the patient-level feeds and in the costing process. The costs and income attributed to these specialist areas need to be allocated correctly. You need to maintain a table

[29] See Mental health standard CM4: The income ledger.

mapping the local specialty codes to the national TFCs. This needs to be consistent with the information submitted nationally to ensure activity can be reconciled

### Proxy records

134. For areas with no patient-level activity, it may be possible to create proxy records at patient level. These should conform to the same criteria as the MHSDS or IAPT datasets but remain clearly identifiable as proxy records. However, these should be treated with caution and noted in your ICAL worksheet 16: Proxy records. They should also appear in the activity reconciliation – as described in Integrated standard CP5: Reconciliation – as the costed patient records will not reconcile to the in-house activity count.

135. You should avoid generating proxy patient contact/attendance records in the costing system to solve data quality issues in the main patient feeds. It is better practice to work with your informatics department and service teams to create the correct data entry on the 'right first time' principle. Creating proxy records can lead to double-counting of activity outputs – for example, when someone later adds a missing record and it flows through to the costing system, both the proxy record and the correct record will receive costs for the same activity.

136. However, proxy patient contact/attendance records can be created to provide patient records to which to attach cost – for example, care provided outside the organisation – or to provide anonymous costed records for services that need to cost **a** patient not **the** patient – for example, sensitive/legally restricted data. You will need a suitable source of local information to know how many records to create – for example, the Sexual and Reproductive Health Activity Data Set (SRHAD) collection as described in Community spreadsheet IR2.1 in the technical document as a data source.

## PLICS collection requirements

**Notes show where the collection guidance currently differs from the standard**

137. In the mental health cost collection, APC costs must be aggregated from the costed episodes to spell and cluster code.

## Mental health: information requirements

138. Information on the IAPT collection for 2018/19 data will be available with the mental health collection guidance.

# IR2: Managing information for costing (integrated)

Purpose: To assess, manage and improve the availability and quality of the information specified in Mental health standard IR1: Collecting information for costing.

## Objectives

1. To explain how to use information in costing.

2. To explain how to support your organisation in improving data quality in information used for costing.

3. To explain how to manage data quality issues in information used for costing in the short term.

4. To explain what to do when information is not available for costing.

## Scope

5. All information required for the costing process.

## Overview

6. Costing practitioners are not responsible for the quality and coverage of information. That responsibility rests with your organisation. However, you are ideally placed to raise data quality issues within your organisation.

7. This standard provides guidance on how you can mitigate the impact of poor-quality information when producing cost information. These short-term measures that allow you to produce reasonable cost information in line with

the costing principles while your organisation continues to work on the quality and coverage of its information as a whole.

8. This standard does not provide guidance on complying with information governance including confidentiality, data protection and data security. You should consult your organisation on information governance policies and procedures.

9. Most of the required information should be held on your organisation's information systems, but its availability will vary due to different information management practices and your IT server capacity.

10. Use our information gap analysis template (IGAT)[30] and work with your informatics colleagues and relevant services to assess data availability for costing. Use Spreadsheet IR2.1 to inform these discussions.

11. Information availability for your organisation can be grouped as:

    - **available as part of national data collections** – for patient-level feeds where national data collections capture all or some of the data. Information relating to these national data collections is in Spreadsheet IR2.1, eg the admitted patient care commissioning dataset (CDS)
    - **available in department-specific systems** – you should obtain all or some of the data from the informatics department or directly from the department or specialty for these feeds, eg the medicines dispensed feed
    - **unavailable at patient level** – depending on your organisation's patient-level data collection arrangements, data may not be available.

12. Providers' departmental systems can be accessed to collect the information required for some patient-level feeds – for example, pharmacy, pathology, and theatres.

13. You may be able to obtain these feeds from informatics or directly from the department. If these services are outsourced, you need to obtain patient-level information from the supplier.

[30] See Tools and templates to help implement the standards: https://improvement.nhs.uk/resources/approved-costing-guidance-2019

## Mental health: information requirements

14. Agree with informatics colleagues the format of information, frequency of patient-level activity feeds and any specific data quality checks for costing and use this information to populate the patient-level feeds log in your integrated costing assurance log (ICAL) worksheet 1: Patient-level activity feeds.

15. Access locally held information for allocating type 1 support costs, such as information on budgeted headcount for allocating HR costs.

16. Work with your informatics colleagues and relevant services to streamline the extraction the information required for costing.

### What you need to implement this standard

- Costing principle 1: Good costing should be based on high quality data that supports confidence in the results[31]
- Information gap analysis template (IGAT)[32]
- Spreadsheet IR2.1: Data sources available as part of national collection
- Integrated costing assurance log (ICAL) template – showing how to record and monitor your patient-level activity feed set-up, progress and regular feeds

# Approach

### Using information in costing

17. Costing is a continuous process, not a one-off exercise for a national collection.

18. If your organisation has its own cost data for local reporting and business intelligence that is available quarterly or monthly, you may only need to run our patient-level costing once a year for the national collections.

[31] See *The costing principles*: https://improvement.nhs.uk/resources/approved-costing-guidance/
[32] See Tools and templates to help implement the standards: https://improvement.nhs.uk/resources/approved-costing-guidance-2019

19. 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.[33]

20. The benefits of frequently calculating costs are:

    - seeing the effects of changes in practice or demand and being able to respond while they are still relevant
    - internal reporting remains up to date
    - mistakes can be identified and rectified early.

21. A first cut of the patient-level activity feeds (that is, those that can be obtained from the national data collections) will generally be available from the patient administration system (PAS) by the fifth day of each month (referred to as Day 5 in Table IR2.1).

22. Some organisations will also have updates to this first cut of feeds – for example, by the 20th day of each month (referred to as Day 20 in Table IR2.1). You should assess whether the data for costing is materially changed in any update; if it is, include the update in the costing process.

23. Depending on the costing software and by agreement with the informatics team, you can load these patient-level feeds into your costing system:

    - the following month, or
    - to a locally agreed timetable in-month.

24. Any loaded update should add new records, amend existing records and remove erroneous records from the PLICS, to reflect changes to the PAS. The method chosen should be documented in your ICAL worksheet 4: Timing of activity feeds. You should also record how much data is loaded each time, so you can reconcile activity inputs and outputs. ICAL worksheet 5: Activity load record gives a structure for doing this.

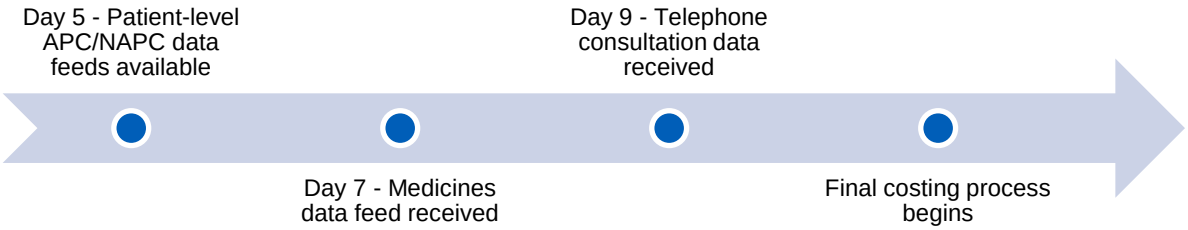
25. All other patient-level feeds should be submitted once a month to the costing team according to a locally agreed timetable, so the costing process can begin promptly. You may need to be flexible about when some departments provide

[33] The benefits of real-time data can be found at: www.gov.uk/government/publications/nhs-e-procurement-strategy

their patient-level feed – but late submission should be the exception rather than the rule. This should be agreed with the service and informatics departments and clearly documented to support good governance.

26. You may find it useful to represent agreed dates for the monthly cycle of data receipts in a timeline diagram (see Figure IR2.1 below).

**Figure IR2.1: Example timeline diagram showing when data should be available in the monthly cycle**




Note: In this example, some parts of the costing cycle may start at Day 5, depending on the software used; some feeds are updated later.

### In-month or year-to-date feeds

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

28. The costing system must be configured to recognise whether a load is in-month or year-to-date, or it may not load some of the activity.

29. Organisations providing mental health or community services should ensure that you understand whether your PLICS requires special characters. This will depend on whether your submitted main datasets – for example, MHSDS or CSDS – have special characters in them. See also Standard IR1: Collecting information for costing, paragraph 27.

30. To ensure the costing system is loading everything, you should follow the guidance in Integrated standard CP5: Reconciliation and use the patient event

activity reconciliation report as described in Spreadsheet CP5.2. You can use this to check the number of patient records in the feed against the number of lines loaded into the costing system.

### Descriptions and codes used in the feeds

31. Bespoke databases use the descriptions and codes provided when they were set up. 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, so they are treated as one item in the costing process.

### Logging patient-level activity feeds

32. Use your ICAL worksheet 1: Patient-level activity feeds to keep a record of patient-level activity feeds. Table IR2.1 shows an example log of patient-level feeds.

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

| Feed no | Feed name | Detail – how many rows in the feed represent 1 unit of activity | Field to use in costing | Unit measurement used for costing | Relative weight value used (Y/N) | Duration caps applied? |
|---|---|---|---|---|---|---|
| 3b | Non-admitted patient care (NAPC) outpatients | 1 line = 1 attendance | Appointment duration | Hours and minutes | Y, for procedures | >180 capped at 180 min |
| 7 | Supporting contacts | 1 line = 1 contact | Care contact duration | Hours and minutes | N | ≤4 min rounded up to 5 min |
| 10 | Medicines dispensed | 1 line = 1 issue | Total drug cost | Total cost | N | |

### Refreshing the patient-level feeds

33. Note the difference between a refresh and a year-to-date feed. A **year-to-date feed** is an accumulation of in-month reports (unless the informatics team has specified otherwise). A **refresh** is a rerun of queries or reports by the

providing department to pick up any late inputs. The refreshed dataset includes all the original data records plus late entries.

34. You need to refresh the data because services will continue to record activity on 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 material in quantity.

35. Get a refresh of all the patient-level activity from the relevant department/team or the informatics department to an agreed timetable. You will need to ensure that nationally available data can be reconciled to the activity information costed locally:

    - six-monthly – refresh all the data feeds for the previous six months (April to September)[34]
    - annually – after the informatics department has finished refreshing the national dataset. For example, for acute and community services, the annual Hospital Episode Statistics (HES) will be finally refreshed for 'month 13' usually in May, to refresh all the admissions for the previous financial year (April to March).[35]

36. You will need to ensure that nationally available data can be reconciled to the locally costed activity information.

37. A challenge for costing practitioners is that changes resulting from the refreshes can alter the comparative figures in monthly service-line reports. With the help of the relevant services' management accountant leads, 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**

38. You need to specify in the costing system whether values in the patient-level feeds can be used in calculations. If inconsistent measures are used across the records – for example, if the medicines dispensed feed's 'quantity' column

[34] You should do a six-monthly refresh in November to refresh data feeds from April to September.
[35] There is no such national refresh of the dataset for mental health services.

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.

39. If the costing system uses information from a feed to calculate durations – for example, length of stay in hours – it needs to know which columns to use in the calculation. If the durations have already been calculated and included in the feed, the costing system needs to know which column to use in allocating costs.

40. Some patient-level feeds – such as the medicines dispensed feed – include the cost in the feed. The standards call this a traceable cost. You need to instruct the costing system to use this actual cost as a relative weight value in the costing process.[36]

41. Once you decide the calculation method, keep a record for each patient-level feed. Table IR2.2 shows an example of a log recording important details of the patient-level activity feeds. The template for this log is included in your ICAL worksheet 1: Patient-level activity feeds.

**Table IR2.2: Example ICAL worksheet 1 showing how the costing system uses patient-level activity feeds**

| Feed number | Feed | Detail | Column to use in costing |
|---|---|---|---|
| 1b | Admitted patient care | 1 line = 1 discrete stay on a specific ward | Duration of stay in hours |
| 3b | Non-admitted patient care | 1 line = 1 attendance | Duration in minutes |
| 10 | Medicines dispensed | 1 line = 1 issue | Total drug cost |

[36] See Integrated standard CP3: Appropriate cost allocation methods for more details on relative value units.

## Supporting your organisation in improving data quality for costing and managing data quality issues in the short term

### Data quality checks for information to be used in costing

42. You need to quality check information to be used for costing by following a three-step process:

    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. Take care when cleansing data to follow consistent rules and log your alterations. Create 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 refreshes. Keep data amendments to the minimum, only making them when fully justified and documenting them clearly in ICAL worksheet 7: Activity data cleansing.
    3. **Validate the source data:** you need a system that checks that the cleansed and correct data are 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.

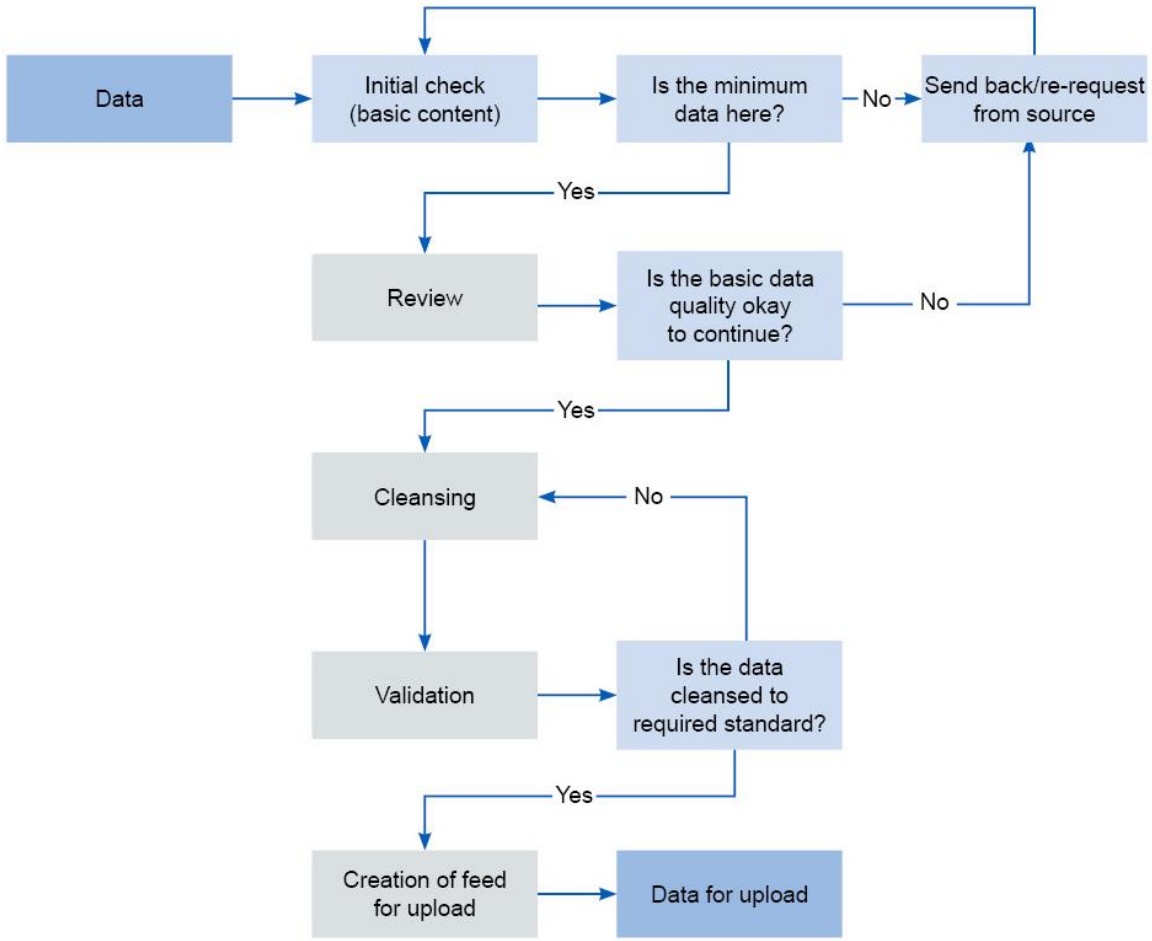
43. Consider automating the quality check to reduce human errors and varied formats. Automatic validation – either via an ETL (extract, transform, and load) function of the costing software or self-built processes – can save time. But take care that the process tolerates differences in input data and if not, that this data is consistent. Without this precaution you risk spending disproportionate time fixing the automation.

44. Your organisation should be able to demonstrate an iterative improvement in data quality for audit purposes. You should request changes to the data feeds via the source department or informatics team, then review the revised data again for areas to improve. Set up a formal process to guide these data quality

improvement measures and ensure those most useful to the costing process are prioritised. Figure IR2.2 below shows the process.

45. Record the actions taken to improve data quality in your ICAL worksheet 6: Activity data quality checks, and any data-cleansing processes in ICAL worksheet 7: Activity data cleansing.

**Figure IR2.2: Establishing data quality improvement measures**




**Use of duration caps**

46. A duration cap rounds outlier values up or down to bring them within accepted parameters. Review the feeds to decide where to apply duration caps and build them into the costing system.

47. You can apply a cap to reduce outliers: for example, an appointment/contact in a non-admitted patient care (NAPC) setting that has not been closed. Doing

so removes the distraction of unreasonable unit costs when sharing costing information.

48. 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.

49. While caps moderate or even remove outlier values, studying these outliers is informative from a quality assurance point of view (ie unexpected deviations). 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.

50. Table IR2.3 shows examples of duration caps that should be used as a default in the absence of better local assumptions.

**Table IR2.3: Examples of duration caps**

| Feed number | Feed name | Duration in minutes | Replace with (minutes) |
|---|---|---|---|
| 1b | Admitted patient care | ≤4 | 5 |
| 3b | Non-admitted patient care | ≤4 | 5 |
| 3b | Non-admitted patient care | >180 | 180 |

### Recalled items on patient-level activity feeds

51. Take care with patient-level activity feeds in case they contain negative values due to products being returned to the department, eg medicines dispensed feed[37] can contain both the dispensed and the returned drugs for a patient. These dispensations and returns are not always netted off within the department's database, so both will appear in the feed. If this is the case, you need to net off the quantities and costs to ensure only what is used is costed.

### Unavailable data

52. Where patient demographic information is not available for governance or confidentiality reasons, costs should still be allocated to a patient, not

[37] For further guidance on ensuring the quality of the medicines dispensed feed, see Acute standard CM10: Pharmacy and medicines.

necessarily the patient by following the costing process. The costing software may require a proxy patient record and anonymous patient number to provide a base for the costs to be attached to (see Integrated CP5: Reconciliation, paragraphs 13 to 18). In this case, the process for managing these records should be recorded in your ICAL worksheet 16: Proxy records.

53. Information for costing may be unavailable because:

- 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
- Your organisation may not collect information for auxiliary data feeds, eg if medicines are dispensed by a private pharmacy.

**Making data available**

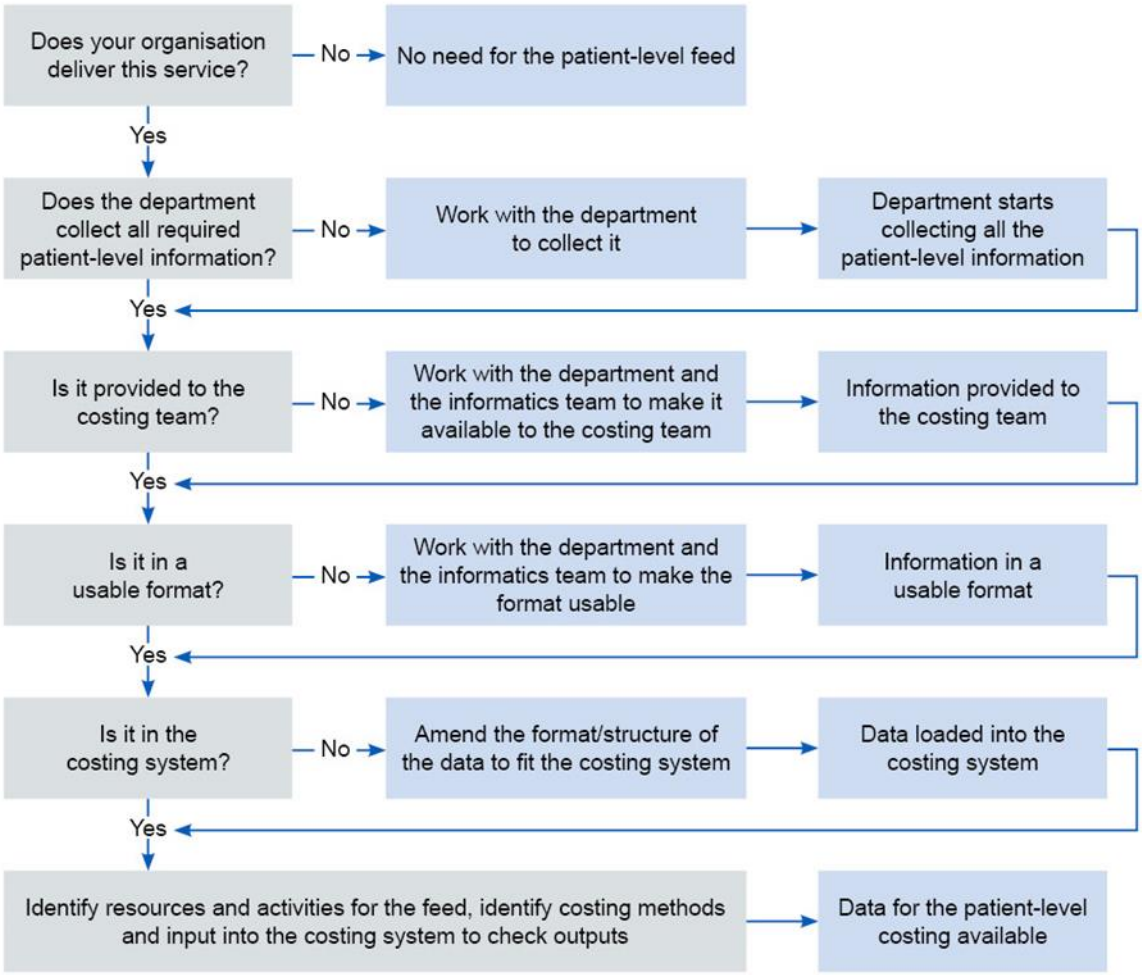
54. If any of the required data fields in Spreadsheet IR1.2 are empty, you should follow the steps in Figure IR2.3 to make the data available for costing.

55. Figure IR2.3 below helps you identify why patient-level activity information may not be available and the action you will need to take to make it available.

56. Until the data becomes available, you will need to use an alternative costing method to allocate costs, eg relative weight values.[38]

[38] See Integrated standard CP3: Appropriate cost allocation methods for further information on relative weight values.

**Figure IR2.3: Making data available for costing**



Contact us:

**costing@improvement.nhs.uk**

**NHS Improvement**
Wellington House
133-155 Waterloo Road
London
SE1 8UG

This publication can be made available in a number of other formats on request.

 Publication code: CG 17/19