Volume 3: National Cost Collection – acute sector

February 2020

NHS England and NHS Improvement

Contents

1. Introduction

1. This document forms part of the 2020 National Cost Collection (NCC) guidance which is being published in volumes.

2. You should have read *Volume 1: Overview* before reading this document.

3. You should also read *Volume 2: National Cost Collection reconciliation and exclusions.*

4. In 2020, we are implementing two new feed types as part of our journey to a single NCC underpinned by patient-level data instead of aggregated costing information. These also reduce the burden for providers of completing the NCC workbook.

5. We are producing a NCC workbook.

6. For your main support contacts during the collection, please refer to Volume 1: Overview.

1.1 Acute collection overview

7. This section provides an overview of the NCC in summer 2020.

8. You should use the healthcare resource group 4+ (HRG4+) 2018/2019 reference cost grouper.

9. The PLICS extracts that should be reported at patient level for this collection are:

   - APC (admitted patient care) complete and incomplete episodes, including regular day and night attenders
   - OP (outpatients) non-admitted patient care (NAPC) attendances, including ward attenders
   - EC (formally AE; accident and emergency) attendances

- SWC (specialised ward care); a new feed type for 2020. This is for all adult critical care bed days in the reporting period[1]
- SI (supplementary information); a new feed type for 2020. This includes data on high-cost drugs, blood products and devices, and unbundled imaging.

10. Three separate Costing Expert Working Groups (CEWGs) have reviewed the two new feed types for 2020 and believe they:
    - are deliverable within the available timeframe before collection
    - are already available in the costing systems
    - reduce the burden for costing practitioners in 2020.

1.2 Review and Feedback Exercise

11. 73% of the responses said that NHS England and NHS Improvement should collect adult critical care at patient level in 2020.

12. 65% of responses said that NHS England and NHS Improvement should collect high-cost drugs and high-cost devices at patient level in 2020.

13. 70% of the respondents said that NHS England and NHS Improvement should collect unbundled imaging at patient level in 2020. In addition, we have introduced one new field into the existing extracts for 2020:
    - cystic fibrosis banding.

14. 63% of the respondents said that NHS England and NHS Improvement should collect the cystic fibrosis banding at patient level in 2020.

15. We have also introduced a unique matching identifier across all the submitted PLICS extracts. This attribute will enable data linkage across all the activity feed types from one organisation..

[1] Neonatal and paediatric critical care will remain an aggregated cost collection in 2020

16. 73% of the respondents said they understood the basis of the PLICS extract matching identifier (PLEMI). 85% said they would prefer to submit the PLEMI than to resubmit all the patient demographic fields.

17. The inclusion of a new field or feed type in 2020 indicates it will become a mandatory field or field type in future collections; its non-mandatory inclusion this year recognises the requirement to introduce new collection elements during a live collection.

1.3 Reasons for changes for the 2020 National Cost Collection

18. Our aim for the 2019 collection was ‘minimum change’ to give those acute trusts that had not participated in a voluntary collection the best chance of success in submitting their first mandated PLICS collection.

19. We have been working with NHS Digital to bring more services into PLICS in 2020 and where possible reduce the burden on costing practitioners in 2020.

20. Our drivers for the 2020 changes were:

    - support the NHS Long Term Plan efficiency challenge
    - support price setting
    - improve data quality, validation and assurance
    - ensure the collection remains fit for purpose
    - support the transition to patient-level costing.

21. We are introducing the changes for the 2020 collection as required fields (non-mandatory) and thus bringing items into the collection in a ‘live’ environment without requiring additional pilot windows to transfer the remaining acute services into PLICS. This reduces provider burden and the timeline for turning off the NCC workbook for acute providers.

22. Where items are not yet available within your costing model, you do not need to provide them for 2020 at patient level but you should ensure you have an action plan in place to do so in future years.

23. If you are concerned about collecting the new fields, contact costing@improvement.nhs.uk citing ‘TE – new collection fields’ in the subject line.

1.3 Main areas of change for 2020

24. Table 1 highlights the main changes to how costing data is collected in 2020.

Table 1: Main changes to the 2020 national cost collection

Change for 2020 collection	Detail
PLICS extract matching identifier (PLEMI)	This attribute will enable data linkage across all the activity feed types from one organisation. As we move more of the aggregate-level collections from the NCC workbook into PLICS, this will link all costed activities matched to a particular episode/attendance/event with a unique ID. This will reduce the volume of data to be collected by eliminating the need to duplicate the collection of patient demographic fields across the collections. For example, if a patient is given a high-cost drug during an inpatient episode, the rows for the inpatient episode will have the same unique ID as the high-cost drug. See Annex 2.
No duplicate collection of unbundled drugs and unbundled imaging **No requirement for the aggregated data to be pushed into the workbook from the data validation tool (DVT)**	Trusts reconcile their total cost quantum in the workbook by entering PLICS totals in the designated area of the reconciliation worksheet. For 2020 the DVT will not aggregate the PLICS submission for entry into the workbook. The quantum in the workbook and the PLICS files’ totals will be quality assured by the NCC team during the collection period to ensure your total submission reconciles within ±1% of the total cost quantum.
‘Specialised ward care’ services brought into PLICS	Adult critical care is a service that can affect the length of stay of the core HRG and has been 'unbundled' in previous years. This is collected in a new feed: specialised ward care (SWC).

Change for 2020 collection	Detail
'High-cost items'[2] and 'unbundled imaging' brought into PLICS	High-cost drugs were duplicated in the 2019 NCC (being submitted in both workbook and PLICS). To avoid this in 2020, their costs are collected only under a new feed type in the extract specification, called 'supplementary information' (SI). High-cost devices are collected in the same way and not excluded from the collection. This will better inform pricing analysis for the National Tariff. Duplication of unbundled radiology data in 2019 caused problems when reconciling the total costed dataset. The supplementary extracts have now been extended to include a field for the unbundled imaging HRG. These items are **not** to be collected in the NCC workbook.
Cystic fibrosis	In 2020 cystic fibrosis drugs flows into the PLICS APC and OP feeds. The extract specification has been expanded to include the patient's band of care. The high-cost cystic fibrosis drugs are collected in the SI feed.
Sensitive/legally restricted data	Collected by all sectors in the NCC workbook within a dedicated worksheet.
Audiology services	Collected by acute and community sectors in the NCC workbook within a dedicated worksheet.
Homecare drugs	The costs are no longer required to be reported. These items return to being reconciliation items only.
AE – HCD	HCD costs are no longer required to be bundled into the AE attendance.

[2] Excluding homecare drugs which are outside the scope of collection in 2020.

2. Cost collection resources and activities

25. This section describes the resources and activities you should use to report your costs for the 2020 NCC.

26. Tables 2 and 3 below list the collection resources and activities respectively.

27. These tables are presented in the extract specification for acute providers[3] and more information can be found in that document.

Table 2: Collection resources

Collection resource ID	Collection resource description
CFP002	Consultants
CFP005	Drugs (excluding high-cost drugs)
CPF001	Blood and blood products (excluding high-cost blood products)
CPF011	Other doctors
CPF017	Specialist nurses and advanced nurse practitioners
CPF022	Nurses, operating department clinical staff and healthcare support staff
CPF023	Professional and technical staff
CPF024	Supplies and services – non patient-specific
CPF027	High-cost drugs
CPF028	High-cost blood and factor products

[3] See https://improvement.nhs.uk/resources/approved-costing-guidance-2020/ for the extract specification.

Collection resource ID	Collection resource description
CPF029	Medical devices
CPF030	Supplies and services – patient specific
CPF031	Imaging
CPF032	Pharmacy
CPF033	Multidisciplinary meeting co-ordinators
CSC004	Patient support costs (pay)
CSC005	Patient support costs (non-pay)
CSC006	CNST payment

Table 3: Collection activities

Collection activity ID	Collection activity description
BLD001	Dispensing blood products
COM001	Community care
COM002	Issuing equipment
COM003	Wheelchair contact
COM004	Wheelchair equipment issued
DEN001	Dental care
DIM001	CT
DIM002	DEXA scan
DIM003	Fluoroscopy
DIM004	MRI
DIM005	Nuclear medicine
DIM006	Ultrasound – obstetric

Collection activity ID	Collection activity description
DIM007	Ultrasound (non-obstetric)
DIM008	Plain film
DIM009	Other diagnostic imaging
DIM010	Positron emission tomography (PET)
DIM011	Fusion imaging
EMC001	Emergency care
MDT001	Other multidisciplinary team meetings
ODT001	Other diagnostic testing
ODT002	Screening
ODT003	Respiratory investigations
ODT004	Other cardiac non-invasive investigations
ODT005	Neurophysiology investigations
ODT006	Echocardiogram (ECHO)
ODT007	Audiology assessments
ODT008	Urodynamic investigations
GRP001	Group session
OUT001	Outpatient care
OUT002	Outreach contacts
OUT003	Supporting contacts
OUT004	Telemedicine contacts
OUT005	CPA meetings
PAT001	Biochemistry
PAT002	Haematology

Collection activity ID	Collection activity description
PAT003	Immunology
PAT004	Cellular sciences
PAT005	Genetics
PAT006	Microbiology
PAT007	All other tests
PHA003	Dispensing high-cost drugs (on the list)
PHA004	Dispensing other drugs (directly to patients)
PHA005	Pharmacy (other activity)
PHA006	Dispensing non-patient identifiable drugs
RAD002	Chemotherapy delivery
SPS001	Endoscopy
SPS003	Cardiac catheterisation laboratory
SPS004	Other specialist procedure suites
THR001	Anaesthesia
THR002	Surgical care
THR003	Prosthesis, implant or device insertion
WRD001	Ward care
SUP001	Other support services

3. Changes to pharmacy and medicines in 2020

28. In 2019, the guidance on high-cost medicines was contained in one section. For 2020 the guidance on recording the cost of medicines is split between the workbook and the new SI feed.

Table 4: Collection method for medicines

Medicine type	2020 collection method	Comment
Medicines for sensitive/legally restricted patient including IVF	Exclude and add to the NCC workbook LSRD worksheet	
High-cost drugs and blood products (inclusive of high-cost renal drugs)	SI feed (PLICS)	Only those high-cost drugs and blood products identified as not sensitive/legally restricted.
	NCC workbook	Any high-cost drugs and blood products identified as sensitive/legally restricted.
Chemotherapy drugs	CR worksheet in NCC workbook	
Homecare drugs	Excluded – reconciling Item	Too burdensome to collect at aggregated level or patient level
Non high-cost renal drugs	RENAL worksheet in NCC workbook	
Cystic fibrosis drugs	Flow as part of PLICS	The flow of the drug cost should be part of the cost of the episode or attendance in all circumstance unless it has been listed as a high-cost drug, it should then be included on the SI feed.

Medicine type	2020 collection method	Comment
Any other drug	Should be flowed as part of the cost of the clinical event it was issued.	

29. It may not be obvious where costs should be submitted, eg where a chemotherapy drug is also on the high-cost drugs list. See Annex 1 to understand how high-cost drugs, including IVF drugs, should flow in the collection.

30. This information will also be available in a table on the OLP for those practitioners who prefer that format.

4. PLICS extract matching identifier

31. The PLICS extract matching identifier (PLEMI) is an attribute that enables data linkage across all the activity feed types from one organisation.

32. As we move more of the aggregate-level collections from the NCC workbook into PLICS, this will link all costed activities matched to a particular episode/ attendance/event with a unique ID, and reduce the volume of data that needs to be collected from all collection stakeholders.

33. For example, if a patient is given a high-cost drug during an inpatient episode, the rows for the inpatient episode will have the same unique ID as the high-cost drug.

34. The identifier format is: alphanumeric (including special characters) and maximum length 50.

35. Annex 1 explains an inpatient journey using the PLEMI, but this identifier can be applied to all extracts collected at PLICS level.

36. The PLEMI is already established in costing systems but perhaps has a different name. If you are unsure about this, please ask your software supplier.

37. The PLEMI will be a required field for 2020. It should only be created where matching already exists or this is simple to introduce, and should not add burden to costing practitioners in 2020.

5. Preparing PLICS files for acute services

38. The separately published extract file specification[4] sets out the exact structure of the CSV files you need to produce for the collection: the field names and formats, along with valid codes for certain fields where applicable.

5.1 Admitted patient care

Collection scope

39. This section covers the following types of admitted patient care (APC) and should form the basis of the episodes collected in the APC PLICS data feed:
    - daycase electives
    - ordinary electives
    - ordinary non-electives
    - regular day or night admissions.

40. The HRG4+ 2019/2020 NCC grouper attaches a core HRG to every finished consultant episode (FCE). Providers only report core HRGs in APC.

41. High-cost drugs, devices and blood products are unbundled from the core HRG. The cost of these items must be reported using the appropriate collection resource and collection activity at a patient level in the SI extract (see Section 5.5: Supplementary information).

42. Adult critical care is unbundled from the core HRG. The cost of the days within the financial year of collection must be reported using the appropriate collection resource and collection activity at a patient level in the SWC extract (see Section 5.4: Specialised ward care).

[4] https://improvement.nhs.uk/resources/approved-costing-guidance-2020/

43. Acute trusts submit both complete and incomplete costed episodes for APC. You should follow the guidance below when costing and submitting your APC FCEs.

Incomplete patient episodes

44. To identify and calculate the cost of incomplete patient episodes refer to Standard CM2: Incomplete patient events.

Ordinary non-elective short stays and long stays

45. All ordinary non-elective activity must be separately identified as long or short stay by completing the input fields required by the grouper for critical care, rehabilitation and specialist palliative care length of stays. On processing your APC data the grouper deducts these days from the core stay.

46. A short stay is one day. The grouper automatically adds one day to admissions with a zero day length of stay. All other stay lengths are long.

47. The point of delivery (POD) submitted for an incomplete episode must be that of the episode if it were complete (see example below) so that on linking type 1 to type 2 episodes the correct POD is in both records. The DVT analyses types 1 and 2 length of stay separately from type 3.

48. For example, the admission of a patient as an emergency on 31/3/2020 at 14:40 and their discharge on 10/04/2020 should be recorded as non-elective (NEL) not non-elective short stay (NELST).

Regular day or night admissions

49. Regular day or night admissions[5] are reported in the APC collection for PLICS. Admissions for specialist care, such as cystic fibrosis care, chemotherapy, radiotherapy or renal dialysis, should be reported against the relevant sections of the collection, not under regular day or night admissions.

[5] www.datadictionary.nhs.uk/data_dictionary/attributes/p/pati/patient_classification_de.asp?shownav=1

Excess bed days for acute PLICS submission

50. Acute trusts are not required to calculate the cost and activity for excess bed days in 2020.

5.2 Outpatients

Collection scope

51. This section covers the following types of outpatient activity and should form the basis of the episodes collected in the OP PLICS data feed:
    - outpatient attendances, including ward attendances
    - procedure-driven HRGs in outpatients.

52. Outpatient attendances and procedures in outpatients should be reported by HRG and treatment function code (TFC) currencies at patient level.

53. The grouper may attach one or more unbundled HRGs to the core HRG produced. Only core attendances should be reported on the OP extract for acute providers.

54. Unbundled imaging HRGs should be reported on the SI feed.

55. Missed appointments (did not attends – DNAs) should not be recorded and their cost should be treated as an overhead.

General outpatients

56. Outpatient attendances in HRG4+ (WF01* and WF02*), generated from a number of mandated fields in the outpatient Commissioning Data Set (CDS), are organised by:
    - first and follow-up attendance
    - face-to-face and non face-to-face attendance
    - single and multiprofessional attendance.

57. The above terms are defined in the *Costing glossary*.

58. Where a patient sees a healthcare professional in an outpatient clinic for a consultation, this counts as valid outpatient activity regardless of whether or not they receive any treatment during the attendance. NHS providers offer outpatient clinics in a variety of settings and these should all be included in the cost collection where the cost is part of your operating expenditure.[6]

59. The NCC does not distinguish between attendances that are pre-booked and those that are not.

60. The patient is recorded under the same TFC (eg a physiotherapist assessing an orthopaedic patient) regardless of whether they see the clinician they were referred to or another healthcare professional.

61. A patient attending a ward for examination or care is counted as an outpatient attendance if they are seen by a doctor. If seen by a nurse, they are counted as a ward attendance. Costs and activity for ward attendances should be reported as non consultant-led outpatient attendances under the appropriate TFC.

Maternity

62. These attendances should be included in the OP extract. Maternity outpatient services include:

- hospital clinics (obstetric and midwifery)
- midwifery antenatal (and if relevant, postnatal) care undertaken by NHS providers in GP and community-based clinics
- ward attendances

63. They should not include midwifery community care contacts with patients in their own home.

64. Providers should only submit activity and costs for the patients they have seen at their organisation, regardless of the maternity pathway payment for the patient.

[6] Exclusions apply. See *Volume 2: National Cost Collection reconciliation and exclusions.*

65. Within the appointment (regardless of whether this has included a consultation) there may be costs for:

    - routine scans
    - routine screens and tests

66. Processing of maternity outpatient activity by the costing grouper may result in an outpatient procedure if the data includes the appropriate OPCS codes. Diagnostic imaging should not be unbundled from outpatient procedures; the cost should be included and therefore excluded from the SI feed.

67. The costs of sample analysis under a separate commissioner contract (such as genetic testing, biochemistry analysis, specialist diagnostic laboratories) should not be included in the obstetrics or maternity costs.

68. One provider may provide all or part of the patient's care, or different providers may be involved in the patient's maternity pathway. The patient's maternity care needs to be costed irrespective of the income received for the pathway they follow.

69. Payments between providers should not be netted off the cost of care. Where cost and income for this type of activity are contained in the accounting ledger, rather than in the patient income monitoring system, the cost should be separately identified for the NCC submission.[7]

Paediatrics

70. Providers should allocate costs and activity to paediatric TFCs in line with their NHS Data Dictionary definition: "dedicated services to children with appropriate facilities and support staff".

71. A few patients aged 19 years and over are also cared for by specialist children's services, including those with learning disabilities. Such activity, where the patient is seen by a paediatric care professional, is assumed to use resources similar to those for children rather than adults, and should be reported under the relevant paediatric TFC.

[7] For more detail. See *Volume 2: National Cost Collection reconciliation and exclusions*.

Therapy services

72. Where patients have been referred directly to a therapy service[8] by a healthcare professional, including a GP, or have self-referred and are seen in a discrete therapy clinic solely for the purpose of receiving treatment, the attendance should be submitted as outpatients.

73. Where these services form part of an APC episode, or outpatient attendance in a different specialty, the costs form part of the composite costs of that episode or attendance and should not be reported as a therapy outpatient attendance.

5.3 Emergency care (EC; formally known as accident and emergency)

Collection scope

74. Emergency department (ED) attendances are categorised as:

- department type:[9]
  - EDs (national code 01)
  - consultant-led monospecialty A&E services (national code 02)[10]
  - other types of A&E (national code 03), including minor injury units (MIUs) and urgent care centres
  - NHS walk-in centres (national code 04)
- healthcare resource group (HRG) – VB emergency care
- post-ED pathway:
  - patients who are admitted for further investigation or treatment rather than discharged from ED
  - patients who are not admitted but are discharged or die while in ED.

[8] For example, physiotherapy (TFC 650), occupational therapy (TFC 651), speech and language therapy (TFC 652), dietetics (TFC 654) or orthotics (TFC 658).

[9] https://www.datadictionary.nhs.uk/data_dictionary/attributes/a/acc/accident_and_emergency_department_type_de.asp

[10] May be 24-hour or non 24-hour.

Exceptions

75. Emergency Care Data Set (ECDS) streaming attendances should not be counted and costed.

76. Costs and activity for MIUs should be reported separately only if the MIU is:
    - discrete and the attendance is instead of and has not already been counted as an A&E attendance
    - not discrete but sees patients independently of the main ED.

77. A&E mental health liaison services should be reported as a cost per patient contact using the currencies MHSTAEA and MHSTAEC in the NCC workbook MH tab, not under A&E.

78. The cost of diagnostic imaging, typically unbundled from attendances, should be included in the core A&E HRGs. The grouper will determine a single HRG for each A&E attendance record.

79. Patients brought in dead (A&E patient group code 70)[11] should be coded, costed and submitted against HRG VB99Z – patient dead on arrival.

Implementation of the Emergency Care Data Set

80. NHS Digital's new ECDS for urgent and emergency care is replacing the Accident and Emergency CDS previously used to collect information from EDs across England.

81. We will continue to collect the data as we have previously using HRG4+. This means that trusts have to map their data back to the old treatment codes for the grouper.

82. NHS Digital has released mapping guidance to help with mapping back to the investigation and treatment codes for grouping purposes.[12]

[11] www.datadictionary.nhs.uk/data_dictionary/attributes/a/a_and_e_patient_group_de.asp?shownav=1

[12] https://digital.nhs.uk/Emergency-care-data-set-ECDS-technical-and-implementation-guidance

5.4 Specialised ward care (SWC)[13]

Adult critical care at patient level

83. The PLICS feed type requires costs to be submitted on a calendar bed day basis within the costing period.

84. Adults admitted to any critical care facility as defined by the NHS Data Dictionary must, in addition to their APC record, have a Critical Care Minimum Data Set (CCMDS) record, and this produces an unbundled critical care HRG per critical care bed day. For the 2020 NCC, adult critical care costs are required to be submitted at patient level for mandated acute trusts, in accordance with the PLICS data extract. These costs should include those for:

    - critical care units
    - high dependency units.

85. These units may be discrete or in a specific area on a general ward, defined in the CCMDS as non-standard location using a ward area.

86. A patient admitted to hospital will have an APC dataset record for their hospital admission, and this produces a core HRG. If the patient's stay includes a period of critical care, this produces an unbundled critical care HRG per critical care bed day. Critical care is linked to APC using the PLEMI.

87. In 2020, critical care should be costed per day or part day of the critical care period, and each day or part day should have a separate record. You may use either the CCMDS or your ward feed. You are advised to reconcile your activity to the average costs that you submitted in 2019.

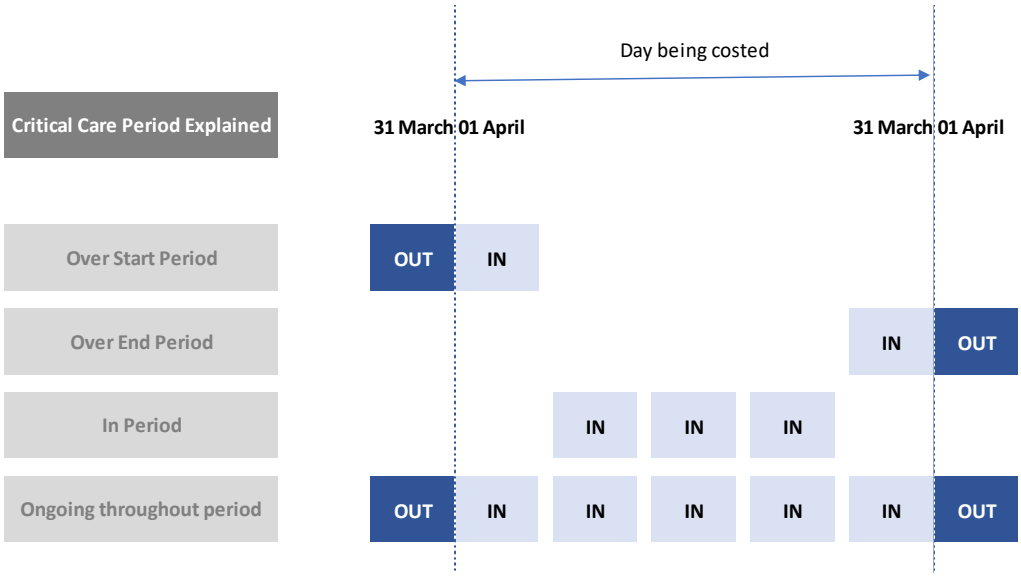
88. Where a patient is moved from a critical care area to a general ward area (or vice versa), the day of the move should be classified as a critical care bed day.[14] In the same way as the part of a calendar day is included in the critical care period for the CCMDS.

[13] In 2020 this relates to adult critical care only.
[14] In terms of length of stay, the day of transfer from critical care should be counted as a critical care bed day.

89. All collection resources and activities (including the general ward costs) should be linked to the SI feed for the calendar day of discharge from the critical care area.

90. The admission or discharge date of the critical care period should be ignored, and only the days of the critical care period within the financial year should be submitted. See Figure 1 below.

Figure 1: Critical care bed days to be reported



91. Where the result of unbundling cost is zero or minimal cost allocation against a core HRG, providers should exclude the core HRG and include all costs against the unbundled HRGs collected within the SWC feed.

92. The critical care period is calculated by including the critical care local identifier. Therefore, the critical care length of stay does not need to be calculated and submitted. It is calculated after submission by counting the number of rows per critical care local identifier submitted on the SWC feed.

93. For 2020, we would like providers to submit number of organs supported on each bed day within the critical care period, or part thereof, where possible.

Flowing adult critical care in PLICS[15]

94. The costs for stays in critical care should be included in the costs reported per bed day and not in the composite cost and length of stay for the APC core HRG. The key principle is that critical care represents the highest level of complexity. The daily costs of providing critical care (care activity described by the CCMDS data) should be recorded against the unbundled critical care HRG, other than for the day the patient is discharged from the critical care bed. For that day the costs relating to the non-specialist ward should be bundled into the cost of the critical care bed day.

95. The grouper will only output one HRG per critical care period. For adult critical care, the unbundled HRG represents the highest level of complexity, based on the total number of organs supported in a critical care period, and it should be reported for each bed day record.

96. The costs of any theatre time must be reported against the core HRG and not the unbundled critical care HRG. If a patient's TFC changes on their admission to a critical care unit, a new FCE will begin and theatre costs will not form part of the total cost for the critical care service. But even if a new FCE does not start for a patient on admission to critical care or a patient is wholly under a critical care consultant from admission to discharge, theatre costs should still be excluded from critical care and reported against the core HRG.

97. The costs of relevant high-cost drugs or high-cost blood products should be included in the supplementary information feed only.

98. Costs for critical care periods, or part thereof, that produce an unbundled HRG of UZ01Z should be reported against UZ01Z and not apportioned elsewhere.

99. Adult critical care outreach teams who operate outside the parameters of the discrete adult critical care unit should be reported as an overhead to critical care and should not be reported as a separate total cost or as part of critical care.

[15] For more information, see Standard CM6: Critical care.

100. You will notice that the following critical care unit functions are included in the SWC feed type:

- 04 Paediatric intensive care unit (paediatric critical care patients predominate)
- 13 Neonatal intensive care unit (neonatal critical care patients predominate)
- 14 Facility for babies on a neonatal transitional care ward
- 15 Facility for babies on a maternity ward
- 16 Ward for children and young people
- 17 High dependency unit for children and young people
- 18 Renal unit for children and young people
- 19 Burns unit for children and young people
- 91 Non-standard location using the operating department
- 92 Non-standard location using the operating department for children and young people.

101. These codes **should not** be used in 2020. They have been included to align with the NHS Data Dictionary and future proof the specification against the later inclusion of additional data.

102. Example patient journeys illustrating the treatment of adult critical care in 2020 are shown in Annex 9.

5.5 Supplementary information

103. In the 2019 NCC the cost of high-cost drugs, high-cost blood products and unbundled imaging appeared in both the NCC workbook and the PLICS data causing:

- significant burden on all NCC stakeholders
- the data validation tool to be used differently from how it was developed to be used (aggregated PLICS into the NCC workbook)
- excessive stress on the NCC workbook that reduced performance.

104. As a result, with one of our CEWGs, we have developed a new PLICS feed, called ‘supplementary information (SI)’. This will capture costs of elements that go alongside the package of care.

105. This extract should therefore include:

- high-cost drugs and blood products
- excluded devices
- unbundled diagnostic imaging.

106. High-cost drugs, high-cost blood products and excluded devices are only submitted in the SI feed. This means no high-cost items are in any other PLICS feed.

107. Diagnostic imaging should be linked to the core episode, attendance or period, except when occurring in outpatients. In the latter setting, the clinical event (eg a scan) will have been unbundled from the core event. For further detail see NCC acute extract specification, worksheet ‘reference data – HRGs’.

108. The currency information for high-cost drugs and blood products, high-cost devices and unbundled diagnostic imaging are mandated in the extract specification, so that the two types of currencies can be flowed as one extract without risking the lines of data being submitted without currency information.

109. However, the data validation tool will test that the currency is included in the record to ensure the mapping of the currencies is accurate.

High-cost drugs and blood products and devices

110. This section covers the submission of the following drug elements:

- high-cost drugs
- high-cost blood products.

111. The National Tariff funds a specific list of high-cost drugs and blood products separately to the core attendance/episode and so the costs have historically been excluded from the cost collection.

112. The list of blood products and drugs are defined in worksheet 13b of Annex A to the National Tariff document.

113. Using your organisation's local pharmacy system, you need to collect the detail of the drug or blood products issued and map the drug or blood product issue to the PLEMI as per the extract specification; recording each issue as a separate row in the SI feed.

114. You should not match high-cost drugs and blood products to patient in the AE, APC and OP feeds.

115. The costs submitted for high-cost drugs should include only the actual costs of the drug. All other pharmacy on-costs, and the costs of drugs administered with high-cost drugs, should remain in the core HRG.

High-cost devices

116. High-cost devices are expensive and paid for on top of the national price (tariff) for the procedure in which they are used. Relatively few centres procure the devices and we recognise that the costs would not be reimbursed fairly if they were funded through the tariff alone.

117. Providers have two methods for procuring high-cost devices:

- transactional model[16] introduced in 2016 and operated by NHS Supply Chain: orders are made by suppliers as zero cost
- local procurement model used by trusts: the purchase value to the provider is invoiced to the commissioner.

118. In the SI feed you should only include the cost of 'high-cost tariff excluded devices' on the list of high-cost devices in the 2020/21 National Tariff that have been procured by your organisation using its local procurement model.

[16] Rather than each provider paying for the devices and being reimbursed by NHS England and NHS Improvement as before, providers now place orders with NHS Supply Chain at zero cost to them. NHS Supply Chain then places the order with suppliers and invoices NHS England and NHS Improvement.

119. To ensure all providers cost the inpatient HRG in the same way, high-cost devices should be excluded from the HRG costs and flowed as part of the SI feed.

120. The list of devices are defined in worksheet 13a of Annex A to the National Tariff document.

121. Each item should have a separate record and the number issued should be included in the extract under the relevant XML field.

122. If you are unable to separately identify and map the costs of these high-cost devices, please e-mail costing@improvement.nhs.uk.

123. Where zero or minimal cost is to be allocated against a core HRG as a result of unbundling costs in PLICS, you should exclude the core HRG from your PLICS return and include all costs against the unbundled HRGs in the SI feed.

High-cost devices – exceptions

124. **Continuous positive airway pressure (CPAP)** and **bilevel positive airway pressure (BiPAP)** machines are not on the high-cost devices list. Their cost is usually under a pass-through agreement with the commissioner. The income for these machines should therefore net off to zero and not inflate the cost of the attendance. If the cost of these machines is in your cost ledger, but the income is classed as ‘patient income’ and not included in Line 7, then the cost of these machines should flow into PLICS as part of the SI feed type.

125. **Cardiology loop recorders** are also not on the high-cost devices list. This has been queried by providers during the submission process. Loop recorders are implantable, single use devices and therefore their cost should be matched to the patients who had one fitted. Therefore, loop recorders should be mapped to the patients who had HRG EY12A or EY12B and not be included in the SI feed.

Unbundled diagnostic imaging

126. Diagnostic imaging is unbundled from the attendance cost and should be reported separately when occurring in the following settings:
    - outpatients first/follow-up attendances
    - direct access
    - other.

127. The costing process in the standards requires diagnostic imaging costs to be matched to the patient attendance or episode using the diagnostic imaging collection activities.

128. On collection however, the cost of the unbundled HRG needs to flow as part of the SI feed.

129. Diagnostic imaging should not be reported separately when occurring in APC or as part of an ED or outpatient procedure (OPPROC) attendance. Its costs should be included within the core episode, and you should ignore any unbundled diagnostic imaging HRGs produced by the grouper. Similarly, the costs of diagnostic imaging in critical care, rehabilitation or specialist palliative care should be included in the unbundled critical care, rehabilitation or specialist palliative care HRG.

130. Some diagnostic imaging is not coded in a way that generates an unbundled diagnostic imaging HRG. For example, a correctly coded obstetric ultrasound in outpatients is likely to group to one of the obstetric medicine core HRGs. Costs and activity for these scans should not be unbundled, but reported within the generated core HRG.

131. Plain film X-rays have no unbundled HRG. When occurring in admitted patient or outpatient settings, their costs should be included in the core attendance. If the patient is X-rayed as a result of a direct access referral, the costs should be reported separately.

132. Diagnostic imaging should be linked to the outpatient event in which the imaging was requested.

133. If you are unable to accurately assign a PLEMI, the cost should be treated as unmatched and record under 812 on the DA worksheet.

134. The unit cost is per examination.

5.6 Cystic fibrosis

135. This section covers the cystic fibrosis year-of-care banding[17] that adult and paediatric cystic fibrosis centres[18] and other providers with network care arrangements should use for their NCC.

136. We no longer collect full or part year of care and adult/child splits are derived centrally.

137. The grouper generates HRGs for cystic fibrosis (DZ13*, PD13*) and their costs should be linked to a year-of-care currency.

138. The Cystic Fibrosis Trust[19] informs trusts how each patient will be categorised for the coming year.

139. To help improve the quality of these year-of-care costs, providers should:

- calculate costs against the 2020 calendar year bands, with no further local adjustment
- ensure the data from network care providers conforms with this banding before submission.

140. Under the year-of-care banding model, each patient is allocated to one of seven bands, derived from clinical information including cystic fibrosis complications and medicine requirements.[20] Providers should access their banding data from the registry through their lead clinician.

141. Band allocations are based on data from the calendar year before the next financial year and are issued each February. The 2019 calendar year bands

[17] Within organisations currency may be used instead of the term banding.
[18] www.cysticfibrosis.org.uk/about-cf/cystic-fibrosis-care/uk-specialist-cf-centres.aspx
[19] www.cftrust.org.uk/
[20] Each band describes an increasingly complex year of care. The bands are described in Specialised Services National Definitions Set (SSNDS) Definition No10: Cystic Fibrosis Services (all ages), third edition.

issued by the Cystic Fibrosis Trust in February 2020 should be used for the 2020 NCC.

142. Cystic fibrosis is a chronic condition for which disease severity increases steadily over several years. Thus, patients are unlikely to transfer between bands within a financial year.

Flowing cystic fibrosis in PLICS

143. The costs submitted against the bands issued in February 2020 should cover all cystic fibrosis-related care for the 2019/20 financial year.

144. Patients can be identified as through:

- APC episode or outpatient attendance for the purpose of cystic fibrosis, regardless of whether it is one of the DZ13* or PD13* HRGs
- TFCs for adult cystic fibrosis (TFC 343) and paediatric cystic fibrosis (TFC 264), as described in the NHS Data Dictionary[21]
- a primary diagnosis of cystic fibrosis may also be a useful way to identify cystic fibrosis-specific care.

145. The following costs should be included as overheads to cystic fibrosis services:

- home care support,[22] including home intravenous antibiotics supervised by the cystic fibrosis service, home visits by the multidisciplinary team to monitor a patient's condition (eg management of totally implantable venous access devices – TIVADs), collection of mid-course aminoglycoside blood levels and general support for patient and carers
- annual review investigations.

146. We are aware the very small number of severely ill band 5 patients will have highly variable costs. Some requiring continuous intravenous antibiotics can

[21] www.datadictionary.nhs.uk/web_site_content/supporting_information/main_specialty_and_treatment_function_codes_table.asp?shownav=1

[22] There is no requirement to collect or code homecare support independently and flow as part of the PLICS extracts. Any costs relating to home care support should be treated as an overhead to APC and NAPC activity.

manage their care at home with the support of the specialist team. Others may require prolonged (six months or more) hospitalisation for their administration. Such costs should nevertheless be included.

147. The following costs should **not** be included in the calculation of cystic fibrosis costs:

- the high-cost drugs on Annex A worksheet 13b of the National Tariff document; these should flow as part of supplementary information
- unrelated care;[23] this is assigned to the relevant HRG or TFC[24]
- insertion of gastrostomy devices and of TIVADs; the associated surgical costs should be covered by the relevant separate codes
- costs associated with long-term nutritional supplementation via gastrostomy or nasogastric tube feeding; these remain within primary medical services
- costs associated with all other chronic non-cystic fibrosis-specific medication prescribed by GPs and funded from primary medical services (eg long-term oral antibiotics, pancreatic enzyme replacement therapy, salt tablets and vitamin supplements)
- costs associated with high-cost antifungal medicines that generate an unbundled high-cost drug HRG
- neonates admitted with meconium ileus; they should be costed against the relevant HRG. Annual banding should not include the period for which the neonate was admitted for initial surgical management
- patient transport services.

High-cost drugs for patients with cystic fibrosis

148. Funding for high-cost drugs is governed by national commissioning policies. The specialist centre initiates their prescription.

[23] Cystic fibrosis ICD10 codes are included in HRG complication and co-morbidity lists, and recognised in HRG4+ output.
[24] For example, obstetric care for a pregnant woman with cystic fibrosis, or ear, nose and throat (ENT) outpatient review for nasal polyps.

149. However, should they need to be used long-term (as in bands 2A to 5), the responsible GP may be prepared to continue prescribing. Under these circumstances, and where the prescribing GP recharges the provider for the actual cost of medicines received, the provider should flow this into PLICS as part of the SI feed type.

6. Preparing aggregated data for acute services

6.1 Cancer multidisciplinary meetings

150. The National Institute for Health and Clinical Excellence (NICE) considers cancer multidisciplinary teams essential to the delivery of high-quality cancer care.

151. For acute PLICS, these costs should be allocated to the cancer MDT activity and not submitted as part of the NAPC submission.

152. Providers should submit data against six categories of cancer MDT:

- breast
- colorectal
- local gynaecological[25]
- specialist gynaecological[26]
- specialist upper gastrointestinal
- other cancers: to include lung, haematological, brain.

153. Cancer MDT meetings bring together representatives from different healthcare disciplines on a formal timetabled basis to discuss new cancer patients. The purpose of these meetings is to review individual patients and agree individual treatment plans for initial and ongoing treatment. The core role of the cancer MDT is to resolve difficulties in diagnosis and staging, and to agree a management plan.[27]

[25] Local teams diagnose most cancers, provide treatment for some types of cancer and refer women to the specialist teams if necessary.
[26] Specialist teams provide specialist care and treatment for women with less common cancers or who require specialist treatment for other reasons.
[27] Other roles of cancer MDTs can be found in NICE's improving outcomes guidance https://www.nice.org.uk/guidance/published?type=csg.

154. Cancer MDT meetings are additional to, not instead of, outpatient activity. Cancer outpatient clinics are often multidisciplinary and, similarly, cancer MDTs can address one type of cancer or a group of different cancers.

155. We are aware that cancer MDTs may no longer discuss outpatients exclusively. We will continue to collect activity and costs for all patients discussed in cancer MDTs in 2020.

156. The unit cost is per individual patient treatment plan discussed. Cancer MDTs always have a defined consultant lead who chairs the meeting and ensures treatment decisions are recorded.

157. Include consultant costs based on job plans, preparation for peer review, support staff costs and administration costs, such as arranging cancer MDT-initiated investigations and follow-up clinics. Exclude costs for follow-up actions such as communicating the cancer MDT outcome by phone to the patient.

158. Although the members of a cancer MDT may be drawn from several NHS providers, only the organisation hosting the meeting must report the costs, including its own team and support costs. The counted ‘activity unit’ becomes the host organisation’s ‘activity’.

6.2 Direct access

159. This section covers the following direct access services:

- diagnostic services
- pathology services.

160. Diagnostic and pathology services undertaken during APC, OP or ED are included in the composite cost of this care, unless they are unbundled imaging which should be flowed into PLICS in the SI feed.

161. Where these services have been requested directly from a GP, they should be submitted at aggregate level in the NCC workbook DA tab.

162. Costs and activity for the direct access services should be submitted based on the number of tests.

163. You may submit costs against integrated blood sciences, or separately against clinical biochemistry, haematology and immunology, but not both.

6.3 Unbundled aggregated activity – rehabilitation[28] and specialist palliative care

164. Where zero or minimal cost is to be allocated against a core HRG as a result of unbundling costs, you should exclude the core HRG and include all costs against the unbundled HRGs in the NCC workbook.

165. Unbundled rehabilitation or specialist palliative HRGs are only generated where care is identified as taking place under a specialist consultant or within a discrete unit.

166. The grouper outputs a core HRG and an unbundled rehabilitation HRG accompanied by a multiplier showing the days of rehabilitation within the FCE. The grouper adjusts the core length of stay for this activity.

Rehabilitation

167. You should not attempt to separately identify non-discrete rehabilitation costs during an APC stay. You should not use unbundled rehabilitation HRGs to describe the cost of activity beyond an HRG trim point for any acute or non-specified HRG.

168. Rehabilitation enables a patient to improve their health status, involves the patient actively receiving medical attention and results in an unbundled HRG from an admission or outpatient attendance.

169. Unbundled rehabilitation should be reported under one of the following settings:

- APC: average unit cost per occupied bed day
- outpatient: average unit cost per attendance
- other (regular day attenders): average unit cost per day.

[28] This section does not cover intermediate care, single condition community rehabilitation or care that is part of a mental health event.

170. Each setting is further divided as follows:

- complex specialised rehabilitation services (CSRS) – level 1:
  - delivered by specialist NHS providers
  - increased use of resources and longer length of stays
  - CSRS that fall within this definition set and contain components relating to admitted patient rehabilitation are:
    (1) specialised spinal services (all ages)
    (2) specialised rehabilitation services for brain injury and complex disability (adult)
    (3) specialised burn care services (all ages)
    (4) specialised pain management services (adult)
- specialist rehabilitation services – level 2:
  - not designated as level 1
  - British Society of Rehabilitation medicine (BSRM) has developed criteria and checklists for identifying level 2 services that conform to the standards required of a specialist rehabilitation service
  - have the following characteristics:
    (1) multidisciplinary team of staff
    (2) consultant with specialist accreditation
    (3) more complex caseload
    (4) meets the national standards for specialist rehabilitation laid out by the appropriate royal college and specialist societies
    (5) serves a recognised role in education, training and published research for development of specialist rehabilitation in the field
- non-specialist rehabilitation services – level 3:
  - any service that is not level 1 or 2.

Specialised palliative care

171. The unbundled specialist palliative care HRGs should be reported against the following settings:

- ordinary elective or non-elective admissions, including support hospital teams

- day cases and regular day or night admissions
- outpatients
- other.

172. This care should usually be reported using main specialty codes for palliative medicine (315), nursing episode (950) or allied health professional episode (960).

173. Bereavement counselling should only be included in specialist palliative care or other HRGs in the unusual circumstance it is provided directly to the patient or, where the patient is a child, to the carer as a proxy for the child. In all other situations, it should be treated as a support cost.

174. You need to talk to your specialist palliative care team to acquire local data feeds or contact information where this is not collected by the informatics department.

175. Table 5 defines the HRG codes to be used in the NCC workbook.

Table 5: Specialist palliative care currencies

SPC currency code	Currency description
SD01*	Specialist palliative care for ordinary elective or non-elective admissions should be reported per bed day.
SD02*	Same-day specialist palliative care; it may be day case or regular day or night attenders. The grouper automatically adds one bed day.
SD03*	If a patient is not admitted under the care of a specialist palliative medicine consultant but is receiving support from a member of a specialist palliative care team. The activity and costs submitted should be for face-to-face and non face-to-face support contacts between the specialist palliative care team and the patient, including any advice and guidance contacts between the specialist palliative care team and the doctor or nurse responsible for the patient's care.
SD04*[29]	Consultant-led non-admitted patient care (NAPC).
SD05*[29]	Non consultant-led NAPC.

6.4 Renal dialysis for chronic kidney disease and acute kidney injury[30]

176. For PLICS, renal dialysis should be identified and excluded from APC and OP patient-level extracts and reported on the NCC workbook under worksheet RENAL.

177. Where zero or minimal cost is to be allocated against a core HRG as a result of unbundling costs in PLICS, you may exclude the core HRG from your PLICS return and include all costs against the renal dialysis HRGs in the NCC workbook.

[29] An additional core outpatient attendance should not be reported when a patient attends for specialist palliative care only.
[30] Acute standard CA3: Renal dialysis includes information about renal dialysis and should be read alongside this section.

178. APC costs for renal medicine should be mapped according to APC cost pools and not to renal dialysis, except where these costs directly relate to dialysis during APC.

179. Outpatient activities associated with each dialysis modality should be separately recorded and linked to the outpatient point of delivery, eg pathology testing or medicine prescriptions issued in clinics. The outpatient attendance HRGs should not be reported for patients attending for renal dialysis only.

180. For dialysis using a hub and spoke configuration, the activity and costs should be recorded in the submission from the NHS provider with contractual responsibility for the delivery of the care.

Renal dialysis medicines

181. Renal dialysis medicines are now included on worksheet 13b of Annex A to the proposed 2020/21 National Tariff.

182. Patients sometimes require medicines to treat associated conditions. These medicine costs should be treated in the same way as any other treatment cost and be attributed at the point of delivery, or the point of commitment in outpatients, unless separately identified.

Renal patient transport services

183. Patient transport services, which are a significant cost in haemodialysis services, are excluded from the NCC and therefore must be excluded from costs reported for renal dialysis services.

6.5 Paediatric and neonatal critical care

Paediatric intensive care[31]

184. The 2020 NCC requires aggregated paediatric critical care costs to be submitted in the NCC workbook.

[31] Annex A1.3 gives an example of how paediatric intensive care cost can be calculated.

185. The collection requires cost to be reported by the following critical care unit functions, in accordance with the NHS Data Dictionary:[32]

- 04 Paediatric intensive care unit (paediatric critical care patients predominate)
- 16 Ward for children and young people
- 17 High dependency unit for children and young people
- 18 Renal unit for children and young people
- 19 Burns unit for children and young people
- 92 Non-standard location using the operating department for children and young people.

186. Trusts that cannot differentiate these costs should use national code 04.

187. Costs should be reported against the unbundled HRGs XB01Z to XB09Z, which are supported by version 2.0 of the PCCMDS.[33] Details of these HRGs are:

- **XB01Z** is solely for use for extracorporeal membrane oxygenation (ECMO) or extracorporeal life support (ECLS), both of which are nationally commissioned from the designated providers[34]
- **XB02Z to XB05Z** relate to intensive care by a subset of providers.[34] These providers are expected to return aggregated costs for HRGs XB02Z to XB07Z, and XB09Z, and not to assign costs to a limited number of HRGs. However, any provider whose data generates these HRGs should report activity and costs
- **XB06Z to XB07Z** relate to high dependency care. This care can be delivered on children's wards and in designated high-dependency (HDU) and intensive care units. All providers whose PCCMDS data generates these HRGs should submit these costs
- **XB08Z** relates to paediatric critical care transport
- **XB09Z** relates to paediatric critical care, enhanced care. It represents the resources involved in providing critical care in a paediatric intensive care

[32] www.datadictionary.nhs.uk/data_dictionary/attributes/c/cou/critical_care_unit_function_de.asp?shownav=1
[33] http://content.digital.nhs.uk/media/22151/00761132015spec/pdf/00761132015spec.pdf
[34] See Annex A1.4.

unit (PICU) or HDU to children who do not trigger any of the PCCMDS activity codes required for grouping to XB01Z to XB07Z.

188. XB06Z to XB07Z and XB09Z can be derived in a variety of settings. Therefore, costs for delivery of critical care on children's wards should be included and underpinned by the completion of a PCCMDS record. Take care to ensure these costs are not double-counted against the APC core HRG.

189. Unit costs for XB01Z to XB07Z and XB09Z are per occupied bed day with each occupied bed day producing an HRG (ie one HRG per day).

190. Unit costs for XB08Z are per patient journey.

191. You can find an example of how to cost paediatric critical care in Annex 3.

Neonatal Intensive care

192. Data from the Neonatal Critical Care Minimum Data Set (NCCMDS) version 2.0 (2016 release) must be used to inform the reporting of costs against the unbundled HRGs XA01Z to XA06Z.

193. The collection requires cost to be reported by critical care unit function, in accordance with the NHS Data Dictionary.[35]

194. Cost and activity must be submitted by the following three facility types:
    - 13 Neonatal intensive care unit
    - 14 Facility for babies on a transitional care ward
    - 15 Facility for babies on a maternity ward.

195. If you are unable to differentiate between the facility types, you must submit data as unit 13, Neonatal intensive care.

196. Unit costs for XA01Z to XA05Z are per occupied bed day with each occupied bed day producing an HRG (ie one HRG per day).

[35] www.datadictionary.nhs.uk/data_dictionary/attributes/c/cou/critical_care_unit_function_de.asp?shownav=1

197. XA06Z relates to neonatal critical care transport. The unit cost is per patient journey.

198. The HRGs are based on the British Association of Perinatal Medicine's categories of care 2011 standards[36] and use minimum required staffing levels to differentiate the anticipated resource intensiveness of the care delivered. Costs (particularly staffing) should be apportioned to reflect the requirements of the different neonatal HRGs. As a guide,[37] you can expect that the cost of:

- XA01Z is at least four times that of XA03Z
- XA02Z is at least twice that of XA03Z
- XA03Z and XA04Z are similar
- XA05Z is less than that of XA03Z/XA04Z but not less than that of providing a standard paediatric/neonatal bed day.

6.6 Chemotherapy

199. Chemotherapy is referred to as an unbundled service.

200. For the NCC, the unbundled elements of chemotherapy delivery and procurement will only be collected in the NCC workbook.

201. When the patient data is run through the grouper, patients receive a core HRG and one or more extra unbundled chemotherapy HRGs that divide into two categories:

- HRGs for procurement of chemotherapy regimens according to cost band
- HRGs for the delivery of chemotherapy regimens.

202. The activity measure for the chemotherapy procurement HRGs is the number of cycles[38] of treatment, and the unit cost is per average cycle.

203. Chemotherapy procurement HRGs are designed to cover the cost of the entire procurement service and therefore, in contrast to unbundled high-cost

[36] https://www.bapm.org/resources/categories-care-2011
[37] The NCC team also produced a collaborative paper with NHS England and NHS Improvement commissioning colleagues for neonatal care: https://www.openlearning.com/nhs/courses/costing-improvement/neonatal_critical_care/
[38] www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/a/anti-cancer_drug_cycle_de.asp?shownav=1

drugs, the cost of each HRG should include pharmacy on-costs (including indirect costs and support costs) as well as all other costs associated with procuring each drug cycle. The cost of supportive drugs on the single, national list of drugs funded through the Cancer Drugs Fund[39] should also be included in these HRGs.

204. The definitions in Table 6 may assist with costing the chemotherapy delivery HRGs.

Table 6: Chemotherapy delivery definitions

Definition	Explanation
Simple parenteral chemotherapy	Overall nurse time of 30 minutes and 30 to 60 minutes of chair time for the delivery of a complete cycle.
More complex parenteral chemotherapy	Overall nurse time of 60 minutes and up to 120 minutes of chair time for the delivery of a complete cycle.
Complex chemotherapy, including prolonged infusion treatment	Overall nurse time of 60 minutes and over 2 hours of chair time for the delivery of a complete cycle.
Subsequent elements of a chemotherapy cycle	Delivery of any pattern of outpatient chemotherapy regimen, other than the first attendance, ie day 8 of a day 1 and 8 regimen, or days 8 and 15 of a day 1, 8 and 15 regimen.

205. In addition to these unbundled chemotherapy HRGs, the grouper generates a core HRG (SB97Z) for a same-day chemotherapy admission or attendance if:

- chemotherapy has been given
- length of stay for the activity is less than one day
- no major procedures have taken place and the core HRG that would otherwise be generated is diagnosis driven.

206. SB97Z attracts a zero national price to ensure appropriate overall reimbursement where a patient is admitted or attends solely for delivery of chemotherapy and no additional activity has taken place. SB97Z is supplied

[39] www.england.nhs.uk/ourwork/pe/cdf/

with a mandatory zero cost in the NCC workbook, so providers should include any notional costs against the unbundled chemotherapy delivery HRGs.

207. Core SB97Z HRG activity must not be included in the PLICS return.

208. Supportive care costs for cancer patients receiving chemotherapy should be allocated according to the matching principle. Therefore:
    - the costs of services directly related to the treatment of cancer, before and after surgery, should be allocated to the appropriate surgical HRG
    - supportive care costs not associated with the surgical procedure should be allocated to the appropriate non-surgical cancer HRG which, if this is SB97Z, would be the unbundled chemotherapy delivery HRG assigned to that episode.

209. Chemotherapy should be reported on the NCC workbook under one of the following categories, to reflect differences in clinical coding guidance between these settings:
    - ordinary elective or non-elective admissions
    - daycase and regular day or night attendances
    - outpatients
    - other.

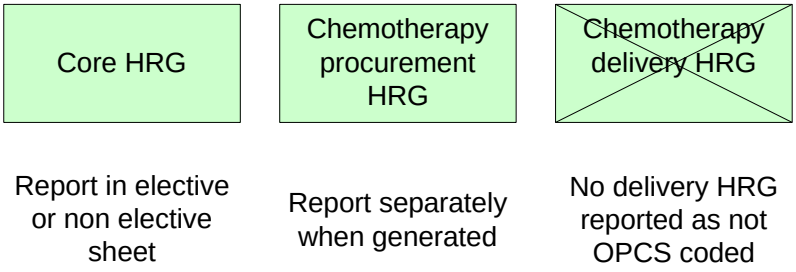
Ordinary admissions

210. The reporting of ordinary elective or non-elective admissions should include the core HRG and the relevant chemotherapy procurement HRGs where generated. Chemotherapy delivery HRGs will not be generated because OPCS chemotherapy delivery codes are not recorded for ordinary admissions (see Figure 2). Delivery of chemotherapy is expected to be part of routine care on a ward and, therefore, costs should be reported as a support cost to the core HRG.

211. The costs for chemotherapy delivery in ordinary admissions, elective or non-elective, should be reported on the APC extract with the collection activity chemotherapy delivery. Costs for the chemotherapy procurement must be

excluded from the APC extract for PLICS and reported on the NCC workbook only.

Figure 2: Reporting chemotherapy ordinary admissions



Daycase and regular day or night admissions

212. The reporting of daycase and regular day or night admissions solely for the delivery of chemotherapy should include an unbundled chemotherapy delivery HRG, and may include an unbundled chemotherapy procurement HRG where the procurement of a cycle is recorded.

213. The core HRG SB97Z will be generated for patients admitted for same-day chemotherapy if no other significant procedure has taken place (see Figure 3).

214. Daycase and regular day or night admissions coded as SB97Z should not form part of your APC submission for PLICS but instead be submitted on the CR worksheet in the NCC workbook.

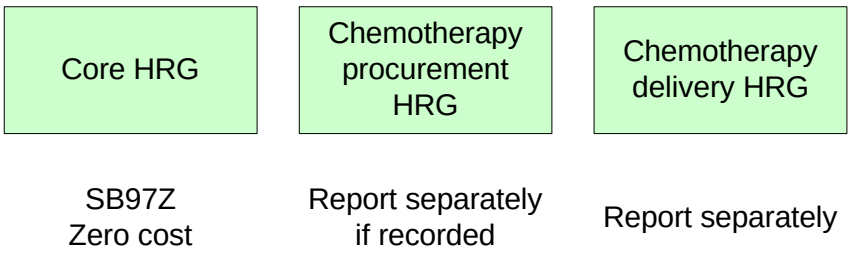
Figure 3: Reporting chemotherapy daycase and regular day or night attendances

Chemotherapy outpatients

215. Outpatients attending solely for the delivery of chemotherapy should be reported as an unbundled chemotherapy delivery HRG, and may be reported as an unbundled chemotherapy procurement HRG where the procurement of a cycle is recorded. The core HRG SB97Z will also be generated for patients attending for same-day chemotherapy treatment (see Figure 4).

216. These outpatient attendances should not form part of your NAPC submission for PLICS but should be recorded on the CR worksheet in the NCC workbook. Where a zero or minimal cost is to be allocated against a core HRG as a result of unbundling costs in PLICS, providers may exclude the core HRG from their PLICS return and include all costs against the unbundled HRGs in the NCC workbook.

Figure 4: Reporting chemotherapy outpatients



Other settings for chemotherapy

217. A category ‘other’ (which we have also provided for diagnostic imaging, high-cost drugs, radiotherapy, rehabilitation and specialist care) recognises that unbundled HRGs are independent of setting.

218. This category can be used where the service is delivered outside a hospital or cancer centre, eg at home or in a GP surgery. Care should be taken to avoid submitting APC or outpatient care as ‘other’ due to miscoding or software issues.

Additional guidance on chemotherapy

219. Although rare, some patients may have two regimens delivered at one attendance, resulting in two delivery HRGs. An example is a patient receiving

an intrathecal component of a regimen which generates a separate procurement and delivery regimen alongside any other regimen they may be receiving.

220. Further guidance on how to treat regimens not on the national list can be found in the OPCS-4 clinical coding instruction manual.[40]

221. Patients receiving both an infusion and oral treatment as part of a single regimen on the same day are considered to have received one delivery and this is coded to an intravenous delivery code. Patients may also receive other intravenous and oral drugs for their cancers on the same day as their chemotherapy regimen, eg administration of bisphosphonates. The costs of these should be attributed to the relevant core HRG and not included with the chemotherapy delivery HRG.

222. To maintain consistency with national coding guidance, the OPCS procurement and delivery codes for chemotherapy should only be used where the treatment is for systemic anti-cancer therapy, ie malignancy, and not for non-malignant conditions. Certain drugs appear in both the chemotherapy regimens list and high-cost drugs list as they can be used to treat neoplasms as well as a range of other non-neoplastic conditions, eg rheumatology. These should be coded using the OPCS high-cost drug codes and not the OPCS procurement and delivery codes.

223. Current clinical coding guidance stipulates when to code delivery of oral chemotherapy (SB11Z). If a regimen includes oral and parenteral administration, the parenteral administration determines the delivery code. SB11Z is assigned to regimens made up of orally administered drugs only, and the costs should reflect current practice in light of recommendations in the National Patient Safety Agency (NPSA) report on oral chemotherapy.[41]

224. We are aware that some supportive drugs may have a disproportionately high cost compared to the other expected costs of care within the unbundled

[40] https://isd.digital.nhs.uk/trud3/user/guest/group/0/pack/10
[41] www.nrls.npsa.nhs.uk/resources/?entryid45=59880

chemotherapy procurement HRG, and that some hormonal drugs may similarly have a disproportionately high cost within the core HRG.

225. However, the cost of supportive and hormonal drugs – which are any drugs given to prevent, control or relieve complications and side-effects and to improve the patient's comfort and quality of life – should also be included in these HRGs, as outlined in **Error! Reference source not found.**7.

Table 7: How to treat hormone and supportive drug costs in chemotherapy

Method of delivery	Hormone treatments	Supportive drugs
As an intrinsic part of a regimen	If included in a regimen, ignore because the costs are already included in the chemotherapy procurement HRGs.	
By itself	Code to the relevant admitted patient or outpatient core HRG generated (not chemotherapy specific).	Apportion over procurement bands, potentially extra delivery time and costs.
As part of supportive drug	Include costs within supportive drug costs.	N/A

6.7 Radiotherapy

226. The unbundled radiotherapy HRGs are similar in design to the unbundled chemotherapy HRGs, in that an attendance may result in two extra HRGs: one for pre-treatment planning and one for radiotherapy treatment. The radiotherapy dataset should be used as a source of data for submitting aggregated costs. This will result in the vast majority of activity being reported as outpatient attendances, although the collection offers the following settings for consistency:

- ordinary elective or non-elective admissions
- daycase and regular day or night attendances
- outpatients
- other.

227. As well as these HRGs, a core HRG (SC97Z) for a same-day external beam radiotherapy admission or attendance is generated by the grouper if:

- external beam radiotherapy has taken place
- the activity has a length of stay of less than one day
- no major procedures have taken place and the core HRG which would otherwise be generated is diagnosis-driven.

228. The principles described in for SB97Z also apply to SC97Z.

229. For PLICS, radiotherapy costs and activity must be identified and excluded from APC and OP patient-level extracts and reported on the NCC workbook only, as per the guidance in this section.

230. Where zero or minimal cost is to be allocated against a core HRG as a result of unbundling costs in PLICS, providers may exclude the core HRG from their PLICS return and include all costs against the unbundled HRGs in the NCC workbook.

231. Activity should be allocated for each fraction of radiotherapy delivered and only one fraction per attendance should be coded. The intention in HRG4+ is that each fraction is separately counted, rather than the number of courses of treatments. However, clinical coding guidance states that only one delivery fraction should be recorded per inpatient stay.

232. Therefore, the unit of activity for ordinary admissions is per admission. However, if the patient has treatment to more than one body site, recording a delivery fraction for each area treated is permitted if a difference in resources from those for treatment of a single site can be identified. This will not be an issue for activity recorded in the radiotherapy dataset as outpatient.

233. **Error! Reference source not found.**8 clarifies the grouper output for different patient settings (if providers have followed coding guidance) and the treatment of the data for NCC average costs.

Table 8: Radiotherapy outputs

Setting	HRG output from the grouper	Treatment of HRG in reference costs

Ordinary elective or non-elective admission	Core HRG + Planning HRG (one coded per admission) + Delivery HRG (one coded per admission)	Report core HRG costs separately from radiotherapy costs Report planning costs using planning HRGs Report all delivery costs for the admission using delivery HRG
Daycase, regular day or night attendance, and outpatients	SC97Z same-day external beam radiotherapy + Planning HRG (one coded per course of treatment) + Delivery HRG (one coded per fraction delivered every appointment)	Report SC97Z at zero cost (all radiotherapy costs are reported in planning or delivery activity) Report unit cost of planning HRG per course of treatment Report average cost per fraction and number of attendances
Other (for any activity not included above)		Report planning per course and delivery per fraction

234. A first outpatient attendance may result in the two HRGs described (one planning HRG and one delivery HRG), with the follow-up attendances only resulting in the delivery HRGs and SC97Z being assigned.

235. An average unit cost per treatment course should not be reported for delivery costs in daycase, regular day or night attendance, or outpatient settings. Instead, cost per fraction should be reported by HRG.

236. Supportive care costs for cancer patients receiving radiotherapy in an ordinary elective or non-elective setting should be allocated as set out above.

237. Advice from the National Cancer Action Team (NCAT)[42] highlights the need to allocate costs according to the type of radiotherapy being delivered. There are two main types of radiotherapy:

[42] http://webarchive.nationalarchives.gov.uk/20130513211237/http:/www.ncat.nhs.uk/

- external beam radiotherapy
- brachytherapy and liquid radionuclide administration.

238. Work to develop the brachytherapy classification is ongoing. Until it is complete, brachytherapy costs are only reported within the current set of brachytherapy HRGs, not within the external beam HRGs.

7. Preparing aggregated data for community health services

239. This section focuses on those services that are submitted on the CHS worksheet.

7.1 Activity estimation in community sector

240. Not all community providers have fully automated systems. Therefore:

- they may use appropriate sample data to ascertain annual activity when reporting information in this section
- no minimum sample time is stipulated but the sample should reflect annual activity in a service area
- if this is not feasible, providers may use informed clinical estimates.[43]

241. The services described in this section may be provided in various locations/settings in the community, such as a patient's home, clinics, community hospitals, GP practices or health centres.

242. Where a care contact starts in one costing period and ends in another (eg for night care), the start date determines if it should be included in the cost collection, not the end date.

7.2 Community care in an acute setting

243. Some services may be provided in or by acute hospitals. All costs should be submitted under CHS unless these services are provided as part of an admitted patient care (APC) episode or outpatient attendance. If the latter, the

[43] Evidence of the data source should be retained.

costs should be reported within the composite cost of the APC or outpatient attendance HRG.

244. Specialist or acute staff may attend patients in community settings. This reflects the less clearly defined service boundaries in the new models of health service delivery. For several services, this can mean staff who provide services on wards in acute hospitals also do so in other settings to give patients continuity of care. You should work towards using the dataset recorded as the defining location for the activity – as within the Community Services Data Set (CSDS)/Commissioning Data Set (CDS) description in Volume 6.

7.3 Definition of outpatient versus community care contact

245. There is no Information Standard Notice (ISN)[44] defining the difference between an outpatient attendance and a community care contact. As defined in Community standard CM3: Non-admitted patient care,[45] a healthcare professional travelling to a community location (eg the patient's home) to see one patient should be treated as a community contact for costing. This is recorded on the CSDS. Where a clinician travels to a community location to see more than one patient in a planned session, this should be treated as one of the following:

- if recorded on the CSDS: a community care contact and reported on the CHS worksheet
- if recorded on the CDS: an outpatient attendance and reported on the OPATT worksheet.

7.4 Community services definitions

246. The currency for community services is the number of care contacts[46] within the costing period unless otherwise stated.

[44] Issued by NHS Digital, ISNs are published to announce new or changes to information standards published under section 250 of the Health and Social Care Act 2012.
[45] https://improvement.nhs.uk/resources/approved-costing-guidance-2020/
[46] www.datadictionary.nhs.uk/data_dictionary/classes/c/care_contact_de.asp?shownav=1

247. The following should be treated as an overhead to the service, and therefore not counted:

- did not attend (DNA)
- meetings held between clinical staff about the patient but not involving the patient or their proxy
- telephone contacts and telemedicine messages solely to inform a patient of their results.

248. Where both the patient and relative/carer are present, one patient contact should be recorded.[47]

249. Only non face-to-face contacts[48] by care professionals that directly support diagnosis and/or care planning and replace a face-to-face contact should be included in the collection.

250. The activity measure for group sessions is the number of patients in the group. If two clinicians deliver a group session for 10 patients, each clinician records 10 contacts for that group, and 20 contacts should be reported for that session.

7.5 Allied health professionals

251. The 2020 NCC will cover activity provided by the following allied health professionals (AHPs), subdivided into adult/child and group/one-to-one currencies:[49]

- dietitians
- occupational therapists
- physiotherapists
- podiatrists
- speech and language therapists

[47] For example, if a health visitor sees the parent, child or both; this should be recorded as one contact.

[48] www.datadictionary.nhs.uk/data_dictionary/attributes/c/cons/consultation_medium_used_de.asp?shownav=1

[49] www.datadictionary.nhs.uk/data_dictionary/attributes/c/card/care_professional_staff_group_for_community_care_de.asp?shownav=1

- other therapists not listed above.[50]

7.6 Podiatry

252. The currencies for community podiatry services are:[51]
    - tier 1: General podiatry
    - tier 2: Minor surgery
    - tier 3: Complex foot disease
    - specialist care 1
    - specialist care 2
    - other non-core podiatry.

253. Podiatry services provided in a hospital outpatient setting or another acute provider setting should be recorded on the CHS worksheet using the more descriptive currencies above, and not on the OPATT worksheet. This makes the costing of podiatry services consistent and comparable irrespective of the sector providing them.

254. Nail procedures performed by a podiatrist in an outpatient setting and grouping to the JC43 HRGs should be reported on the OPROC worksheet and not the OPATT worksheet or the CHS worksheet.

7.7 Audiology

255. This section covers audiology attendances[52] and services delivered within discrete audiology departments.[53] Audiology costs in 2020 will be collected on a single worksheet in the NCC workbook.

256. This section should be read alongside the new Standard CM22: Audiology services within the integrated costing methods.[54]

[50] A full list of therapist types can be found in the NHS Data Dictionary: www.datadictionary.nhs.uk/data_dictionary/attributes/c/card/care_professional_type_de.asp?shownav=1
[51] A full definition of the currencies can be found in the *Costing glossary*.
[52] www.datadictionary.nhs.uk/version2/data_dictionary/classes/a/amb/audiology_attendance_de.asp?sho
[53] See Standard CM22: Audiology services for more information.
[54] https://improvement.nhs.uk/resources/approved-costing-guidance-2020/

257. The currencies are outlined in 9 below.

Table 9: Audiology currencies

Audiology currency code	Currency description	Comments
AS01	Fitting of hearing aid, adult	The unit cost is per fitting.
AS02	Fitting of hearing aid, child	
AS03	Fitting of hearing aid, child, specialist audiology services	
AS04	Fitting of hearing aid or device for tinnitus	
AS05	Hearing aid, adult, any qualified provider contract	Costs of repairs, moulds, tubes, etc should be included in the fitting or aftercare services rather than against the actual hearing aid.
AS06	Hearing aid, adult, other contract	
AS07	Hearing aid, child	
AS08	Follow-up, adult, face to face	AS08
AS09	Follow-up, child, face to face	AS09
AS10	Follow-up, non face to face	AS10
AS11	Implant aftercare	The unit cost is per event of aftercare.[55]
AS12	Maintenance and programming, bone anchored hearing aid	
AS13	Maintenance and programming, cochlear implant	

[55] The cost may include cleaning advice; cleaning aids; battery removal or replacement for patients with limited dexterity; replacement of tips, domes, wax filters and tubing; required replacement or modification of ear moulds; repair or replacement of faulty hearing aids on a like-for-like basis; and provision of patient information. The separate currencies covering the maintenance and programming of bone-anchored hearing aids (BAHAs) and cochlear implants are not part of the CA39*, CA40* or CA41* HRG costs, which are the HRGs for surgical implantation.

Audiology currency code	Currency description	Comments
AS14	Rehabilitative audiology service, one to one	
AS15	Rehabilitative audiology service, group	
ASNNS	Newborn hearing screening programme attendance	
CA37A	Audiometry or hearing assessment, 19 years and over	Providers should report activity using these codes as cost per hearing assessment.
CA37B	Audiometry or hearing assessment, between 5 and 18 years	
CA37C	Audiometry or hearing assessment, 4 years and under	
CA43Z	Balance assessment	

Newborn hearing screening

258. You should report the unit cost per NHS newborn hearing screening programme attendance.

259. The costs of interventions resulting from these screening attendances should be included as part of the composite APC or outpatient cost against the appropriate HRG and **not** in the CHS worksheet.

Other audiology services

260. Audiology departments provide a range of rehabilitative services, eg auditory processing disorders, communication groups, environmental aids sessions, lip reading, relaxation classes and vestibular rehabilitation therapy. If their costs do not fit with any of the other currencies in this section, they should be included against one of the following currencies:

- rehabilitative audiology services (one-to-one) – the unit cost per care contact
- rehabilitative audiology services (group) – the unit per group session.

261. The following HRGs should be reported on the new AUD worksheet only:
    - CA38A Evoked potential recording, 19 years and over
    - CA38B Evoked potential recording, 18 years and under
    - CA39Z Fixture for bone-anchored hearing aids
    - CA40Z Fitting of bone-anchored hearing aids
    - CA41Z Bilateral cochlear implants
    - CA42Z Unilateral cochlear implant.

7.8 Daycare facilities

262. Daycare facilities[56] for older, stroke and other patients are included in the NCC. Facilities for patients with learning disabilities are excluded for community and acute service providers in 2020.[57]

263. The unit cost is per patient day, counted to half days where applicable.

264. Often patients attend these facilities for a number of days each week, but the number will vary with the of their conditions. Generally, the number of places each day is fixed, eg 20 patients each day over five days equates to 100 patient days, or one patient attending one day per week for 20 weeks equates to 20 patient days. When summing your total activity, you need to make a conversion from a part day attendance to a patient day for patients attending for only part of a day, eg a morning only attendance equals 0.5 patient days (see example in Table 10).

[56] www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/d/day_care_facility_de.asp?shownav=1

[57] See Volume 5: National Cost Collection Guidance – mental health sector for the inclusion of day care for patients with learning disabilities in the NCC.

Table 10: Summing daycare attendance activity

Patient A	Attends 3 half days in financial year 2019/20	1.5
Patient B	Attends 1 full day in financial year 2019/20	1
Patient C	Attends 1 full day and 5 half days in financial year 2019/20	3.5
	TOTAL	**6**

* Therefore, the total activity to be submitted in the NCC workbook is six days. Totals with half days (eg 6.5) should rounded up to the nearest full day.

7.9 Single condition community rehabilitation teams

265. This section is for single condition community rehabilitation teams (such as stroke or neuro rehabilitation teams), which are excluded from intermediate care and do not meet the definitions for the unbundled rehabilitation HRGs.

266. Community rehabilitation teams usually include healthcare professionals providing ongoing care to patients in a community setting. The services include nursing and a range of therapy services, but exactly which are provided will depend on a patient's needs. Teams may operate from both hospital and community bases, but this has no relevance to the submission. Care must be taken not to double-count any activity reported using the unbundled rehabilitation HRGs.

267. The activity measure is the number of team contacts in a financial year – for example, one patient seen by a nurse for three days, twice by a physiotherapist and twice by a speech and language therapist represents seven team contacts.

268. This example assumes that team members only see patients on a team basis. Therefore, regardless of which members of the team (even if only one team member) are present for the attendance, in terms of activity the attendance counts as one team attendance.

269. Where members of a clinical team also see patients in another capacity (eg as a speech and language therapist), costs and activity should not be reported as part of the community rehabilitation team activity but elsewhere in the collection using the relevant currency, eg community speech and language therapy.

270. The collection for community rehabilitation teams is categorised as one of:

- stroke community rehabilitation teams
- neuro community rehabilitation teams
- other single condition community rehabilitation teams.

7.10 Intermediate care

271. Intermediate care[58] is a range of integrated services for adults aged 19 and over that are time-limited to six weeks maximum. The services promote faster recovery from illness/surgery; prevent unnecessary acute hospital admission and premature admission to long-term residential care; support timely discharge from hospital; and maximise independent living.

272. Services are predominantly provided by healthcare professionals in multidisciplinary teams (led by a senior clinician) who develop an intermediate care plan for each patient.

273. Services that can contribute to the intermediate care function include:

- rapid response teams including admission avoidance schemes[59]
- residential rehabilitation in a setting such as a residential care home or community hospital
- supported discharge or support in a patient's own home
- day rehabilitation.

[58] http://webarchive.nationalarchives.gov.uk/20130107105354/http:/www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@pg/documents/digitalasset/dh_103154.pdf

[59] Admission avoidance schemes regardless of location should be included in crisis response.

274. Where a service is provided to patients with conditions covered by the mental healthcare clusters (MHCCs), the costs and activity should be included in the MHCCs.[60]

275. The intermediate care currencies are:

- crisis response services
- home-based services[61]
- bed-based services.

276. These currencies **exclude** the following services which should be reported on the reconciliation statement[62] and their activity ignored:

- NHS continuing healthcare and NHS-funded nursing care
- reablement services
- intermediate care delivered to children aged under 18.

277. These currencies also exclude the following services which should be submitted elsewhere in the community NCC workbook as described:

- early supported discharge in hospital – as an overhead to the appropriate APC HRGs
- single condition rehabilitation (eg stroke) – on the REHAB worksheet in the NCC workbook
- non-specialist stroke and neuro rehabilitation services – under the relevant community rehabilitation category
- mental health crisis resolution services, rehabilitation or intermediate care – on the MH worksheet in the NCC workbook
- general community hospital beds not designated as intermediate care – on the APC worksheet in the NCC workbook
- general district or specialist nursing services[63] – on the CHS worksheet in the NCC workbook.

[60] See Mental Health
[61] Early supported discharge in the home should be included in home-based services.
[62] See *Volume 2: National Cost Collection reconciliation and exemptions*.
[63] Including community matrons or active case management teams.

278. Intermediate care services are typically jointly commissioned by the clinical commissioning group and local authority. Pooled or unified budgets are sometimes excluded from the NCC average costs (see Annex 1 in *Volume 1: Overview*), but you are encouraged to identify and include activity and costs for all the discrete healthcare elements of the intermediate care service the NHS provides.

7.11 Medical and dental services

Community dental

279. Community dental services are for patients who have difficulty getting treatment in their 'high street' dental practice and who need to be referred for treatment. The currencies for community dental services are:

- **Community dental services:** community dentistry for patients who are unable to access NHS dentistry locally, require specialist intervention or need a home visit. Include here the costs and activity of face-to-face dental officer activity in clinics and the screening contacts that these officers carry out in schools (each screened child constitutes a contact since each requires one-to-one activity). The unit cost is per care contact.
- **General dental services:** some community providers provide a full range of NHS dental treatment for patients in a high street setting. The unit cost is per attendance.
- **Emergency dental services:** also known as dental access services. The unit cost is per attendance.

280. In each case the unit is per care contact – regardless of the units of dental activity (UDA) that may be counted in that contact.

7.12 Health visitors and midwifery

281. Table 10 lists the currencies for health visitors and midwives.

282. Currencies for health visitors are consistent with the Healthy Child Programme.[64]

283. N03G and N03J include safeguarding, child assessment frameworks, child protection meetings, children in need, looked-after children, serious case reviews and supporting families with complex needs. They also include public health contacts (clinics, children's centres and early-years settings).

284. Family nurse partnership (FNP) programmes will be collected separately to other health visitor contacts. You should continue to report immunisations separately at full cost (including travel costs), on the same basis as they report school-based children's services.

285. **Note:** Home births should be submitted using the relevant HRG in the CHS worksheet in the NCC workbook.

Table 11: Health visitor and midwifery currencies

Health visitor and midwifery currency codes	Currency description
N03A	Health visitor, antenatal review (1h)
N03B	Health visitor, new baby review (2h)
N03C	Health visitor, 6 to 8 week check (1h)
N03D	Health visitor, 1 year review (1h)
N03E	Health visitor, 2 to 2.5 year review (2h)
N03F	Health visitor, other clinical intervention (to provide parenting support on specific issues, eg breast feeding, postnatal depression)
N03G	Health visitor, other statutory contact, face to face
N03J	Health visitor, other statutory contact, non-face to face
N03N	Health visitor, immunisation

[64] www.gov.uk/government/publications/healthy-child-programme-0-to-19-health-visitor-and-school-nurse-commissioning

Health visitor and midwifery currency codes	Currency description
N03P	Family nurse partnership programme visit
N03PC	Parentcraft
N01A	Community midwife, antenatal visit
N01P	Community midwife, postnatal visit
NZ16Z	Antenatal routine observation
NZ17A	Antenatal false labour, including premature rupture of membranes, with CC score 2+
NZ17B	Antenatal false labour, including premature rupture of membranes, with CC score 0–1
NZ18A	Antenatal complex disorders with CC score 2+
NZ18B	Antenatal complex disorders with CC score 0–1
NZ19A	Antenatal major disorders with CC score 2+
NZ19B	Antenatal major disorders with CC score 0–1
NZ24A	Antenatal therapeutic procedures, including induction, with CC score 2+
NZ24B	Antenatal therapeutic procedures, including induction, with CC score 0-1
NZ25Z	Labour without specified delivery
NZ30A	Normal delivery with CC score 2+
NZ30B	Normal delivery with CC score 1
NZ30C	Normal delivery with CC score 0
NZ31A	Normal delivery with epidural or induction, with CC score 2+
NZ31B	Normal delivery with epidural or induction, with CC score 1
NZ31C	Normal delivery with epidural or induction, with CC score 0
NZ32A	Normal delivery with epidural and induction, or with post-partum surgical intervention, with CC score 2+

Health visitor and midwifery currency codes	Currency description
NZ32B	Normal delivery with epidural and induction, or with post-partum surgical intervention, with CC score 1
NZ32C	Normal delivery with epidural and induction, or with post-partum surgical intervention, with CC score 0
NZ33A	Normal delivery with epidural or induction, and with post-partum surgical intervention, with CC score 2+
NZ33B	Normal delivery with epidural or induction, and with post-partum surgical intervention, with CC score 1
NZ33C	Normal delivery with epidural or induction, and with post-partum surgical intervention, with CC score 0
NZ34A	Normal delivery with epidural, induction and post-partum surgical intervention, with CC score 2+
NZ34B	Normal delivery with epidural, induction and post-partum surgical intervention, with CC score 1
NZ34C	Normal delivery with epidural, induction and post-partum surgical intervention, with CC score 0
NZ40A	Assisted delivery with CC score 2+
NZ40B	Assisted delivery with CC score 1
NZ40C	Assisted delivery with CC score 0
NZ41A	Assisted delivery with epidural or induction, with CC score 2+
NZ41B	Assisted delivery with epidural or induction, with CC score 1
NZ41C	Assisted delivery with epidural or induction, with CC score 0
NZ42A	Assisted delivery with epidural and induction, or with post-partum surgical intervention, with CC score 2+
NZ42B	Assisted delivery with epidural and induction, or with post-partum surgical intervention, with CC score 1

Health visitor and midwifery currency codes	Currency description
NZ42C	Assisted delivery with epidural and induction, or with post-partum surgical intervention, with CC score 0
NZ43A	Assisted delivery with epidural or induction, and with post-partum surgical intervention, with CC score 2+
NZ43B	Assisted delivery with epidural or induction, and with post-partum surgical intervention, with CC score 1
NZ43C	Assisted delivery with epidural or induction, and with post-partum surgical intervention, with CC score 0
NZ44A	Assisted delivery with epidural, induction and post-partum surgical intervention, with CC score 2+
NZ44B	Assisted delivery with epidural, induction and post-partum surgical intervention, with CC score 1
NZ44C	Assisted delivery with epidural, induction and post-partum surgical intervention, with CC score 0

7.13 Parentcraft

286. Parentcraft classes are multidisciplinary and may include health visitors, community midwives and other healthcare professionals. The cost should include that for all staff present. Parentcraft classes are group sessions and the unit of activity is the number of pregnant women attending the group.[65]

[65] Fathers and birthing partners should not be counted in the number attending.

7.14 Nursing

Specialist nursing services[66]

287. Specialist nursing services are disaggregated by the bands in Table 12, split further by adult or child and face-to-face or non face-to-face.

Table 12: Specialist nursing service bands

National code	Description	Comment
N06	Active case management (community matrons)	
N07	Arthritis nursing/liaison	
N08	Asthma and respiratory nursing/liaison	
N09	Breast care nursing/liaison	
N10	Cancer related	
N11	Cardiac nursing/liaison	
N12	Children's services	See paragraph 60
N14	Continence services	Exclude costs relating to regular delivery of supplies (eg continence pads, stoma bags) direct to the patient. These should be reported on the reconciliation template.
N15	Diabetic nursing/liaison	
N16	Enteral feeding nursing services	
N17	Haemophilia nursing services	

[66] You should make every effort to map district nursing services to the appropriate specialist nursing bands. Only if this is not possible, or the care provided is standard district nursing, should you report against district nursing, split by face-to-face and non face-to-face.

National code	Description	Comment
N18	HIV/AIDS nursing services	Includes follow-up of HIV care, psychosocial support, treatment support for individuals starting or switching therapy, etc.
N19	Infectious diseases	
N20	Intensive care nursing	
N21	Palliative/respite care	
N22	Parkinson's and Alzheimer's nursing/liaison	
N24	Stoma care services	See comment against N14: Continence services.
N25	Tissue viability nursing/liaison	
N26	Transplantation patients nursing service	Includes patients on pre and post-transplantation programmes.
N27	Treatment room nursing services	To be used by nursing staff based in GP surgeries.
N28	Tuberculosis specialist nursing	
N29	Other specialist nursing	Eg sickle cell

7.15 Community services for children, including nursing[67]

288. As well as specialist nursing services, the NHS provides a range of other nursing services for children, including:

- vulnerable children support, including child protection and family therapy
- development services for children, including psychology
- paediatric liaison

[67] Community consultant-led paediatric services should be reported on the OPATT worksheet in the community NCC workbook under TFC 290, not in the CHS worksheet.

- other child nursing services not included in specialist nursing and school-based child health services, including looked-after children nurses.

289. These services should be reported as one composite group using the activity measure of total community contacts in the NCC average cost year.

7.16 Child protection services[68]

290. The following should be noted for child protection services:[69]

- the cost of child protection is a support cost to all services for children
- included activity should relate to the number of total face-to-face contacts, not the number of children on the register
- funding from non-NHS bodies should be netted off incurred expenditure
- the cost of advisory services where there is no contact with children should be apportioned between the service areas that receive advice
- activity relating to meetings about the patient is not counted for NCC average costs and should be treated as an overhead.

7.17 School-based children's health services

291. Several health services and checks are delivered in educational facilities. School-based children's health services include all services provided in the school setting, not just school-based nurses. Community paediatricians may also contribute to these. For NCC average costs, school-based services are spilt into:

- **core services**[70] which are divided into one-to-one, group single professional and group multiprofessional
- **other services** which are divided into one-to-one, group single professional, group multiprofessional
- **vaccination programmes:** the unit cost is average per vaccination. Two vaccinations from a course of three given in the year counts as two, which

[68] This applies to all child protection teams, including those with consultants and nurses as members.
[69] These services are separate from those performed by community paediatricians.
[70] Including school entry review and year 6 obesity monitoring.

allows incomplete courses to be recorded. You need to appreciate that the average costs of at least four different vaccination programmes are collected[71]

- **special schools nursing:** the unit of activity is a patient contact.

7.18 Wheelchair services[72]

292. Wheelchair services are spilt into two categories:

    - needs-based currencies for non-complex wheelchair services covering assessment, equipment, review, and repair and maintenance
    - specialised complex wheelchair services commissioned by NHS England and NHS Improvement, which should be separately reported on the basis of unit cost per registered user.

293. They are further spilt between adults (aged 19 and over) and children (up to and including 18 years).

294. Table 13 explains the currencies and gives definitions and examples.

[71] Fluenz, Men ACWY, school leaver booster and HPV.
[72] Please see Community standard CM19: Wheelchair services for more information.

Table 13: Wheelchair currencies, definitions and examples

Cat code	Unit	Activity	Definition	Examples
WC01	Per episode of care	Low need – assessment	Limited need allocation of clinical time. Most of the activity expected to fall into this category. Can be met through telephone triage or review of referral materials provided by a competent referrer.	Occasional user of wheelchair user with relatively simple needs that can be readily met. Do not have postural or special seating needs. Physical condition is stable or not expected to change significantly. Assessment does not typically require specialist staff (generally self-assessment or telephone triage supported by health/social care professional or technician). Limited (or no) requirement for continued follow-up/review.
WC02		Medium need – assessment	A higher allocation of clinical time to conduct a comprehensive assessment for the prescription of a manual chair, including an allocation of time to both therapist and rehabilitation engineer.	Daily user of wheelchair or use for significant periods on most days. Have some postural or seating needs. Physical condition may be expected to change (eg weight gain/loss, some degenerative conditions). Comprehensive, holistic assessment by skilled assessor required. Regular follow-up/review.
WC03		High need – manual assessment	This currency involves a higher allocation of clinical time than the medium currency. This also	Permanent users who are fully dependent on their wheelchair for all mobility needs.

Cat code	Unit	Activity	Definition	Examples
WC04		High need – powered assessment	includes the use of staff who have a higher and more specialist skill set. A longer assessment to allow a comprehensive assessment for the prescription of a power chair, including an allocation of time for both therapist and rehabilitation engineer.	Physical condition may be expected to change/degenerate over time. Very active users requiring ultra-lightweight equipment to maintain high level of independence. Initial assessment for all children. Comprehensive, holistic assessment by skilled assessor required. Regular follow-up/review with frequent adjustment required/expected.
WC05	Per chair issued (delivery of a complete 'equipment package' of the wheelchair, necessary cushions, seating systems, belts or harnesses, modifications and accessories with activity selected based on the highest level of accessory issued)	Low need – equipment	A basic wheelchair package that includes a standard cushion and one accessory and modification.	Equipment requirements – basic wheelchair (self or attendant propelled. Standard cushion, up to one accessory and up to one modification.
WC06		Medium need – equipment	A higher allocation of equipment and modifications.	Equipment requirements – configurable, lightweight or modular wheelchair (self or attendant propelled). Low-to-medium pressure-relieving cushions, basic buggies, up to two accessories and up to two modifications.
WC07		High need – manual equipment	More complex and customised.	Equipment requirements – complex manual or powered equipment including tilt-in-place or fixed-frame chairs, seating systems of different chassis, high pressure-relieving cushions, specialist buggies, multiple accessories, multiple and/or complex modifications and needs are met by customised equipment.
WC08		High need – powered equipment		

Cat code	Unit	Activity	Definition	Examples
WC09	Per registered user per year	All needs – manual repair and maintenance (R&M)	The tariff has assumed that services will be outsourced to another organisation.	The unit cost for each chair can be calculated using the total R&M budget against activity for the period. Allocation of costs to these currencies should be made on the basis of: • parts and labour for repair of wheelchairs • delivery or collection of chairs to or from users • costs associated with scrapping chairs at end of their useful life • annual planned preventive maintenance for power-chair users. In calculating the average R&M unit cost per chair, use a combination of low, medium and high needs categorisation. This only applies to manual wheelchairs.
WC10		All needs – powered R&M		
WC11	Per review	All needs – review	This involves the review of a patient.	This could be planned or via an emergency route when the patient's condition or equipment changes. A review that results in the patient being provided with additional equipment or modification incurs a separate charge.
WC12	Per item	All needs – review substantial	A review following a modification/new accessory or resulting in a completely new follow-up assessment if a new wheelchair is required. These specialist modifications (without supply of the chair) should be included in this category. The unit of activity should be the	All needs – review substantial accessory (a review of existing equipment issued to the service user followed by a minor modification/onward referral to R&M/new accessory – cushion or seat backs). If (as arising from the review) a completely new assessment or new wheelchair is required, this is recorded in the assessment and equipment pathways as a new episode of care. It may include: • chair

Cat code	Unit	Activity	Definition	Examples
			number of chairs modified (regardless of the number of modifications included).	• cushioning • accessories • wheelchair therapies and/or rehabilitation engineer/technician time to perform modifications to the chair and fitting of accessories • clinical time associated with checking of modifications and handover of equipment.
WC13	Per review	Specialised complex wheelchair services	More complex and customised.	A higher allocation of equipment modifications. Cost per chair, not per modification.
WC14		Equipment, specialist modification without supply	This involves a review of the patient.	A higher allocation of equipment and modifications. Seating systems on different chassis/high pressure-relieving cushions/specialist buggies/multiple accessories/multiple and/or complex. Wheelchair not supplied.

8. Preparing aggregated data for mental health services

295. This section covers:

- adult (working-age and older people) mental health services
- children and adolescent mental health services (CAMHS)
- drug and alcohol services
- secure mental health services
- specialist mental health services.

296. The currencies for most mental health services for working-age adults and older people are mental healthcare clusters (MHCCs). This guidance should be read alongside Monitor and NHS England's *Guidance and mental health currencies and payment*.[73]

297. To understand what allocation of mental health services should be included in the NCC average costs, see Annex 1.5.

8.1 Adult mental health services

Mental healthcare clusters

298. The MHCCs for working-age adults and older people focus on the characteristics and needs of a patient under the three broad diagnostic categories of organic, psychotic and non-psychotic, rather than the individual interventions they receive or their specific diagnosis. The patient's cluster is

[73] www.gov.uk/government/uploads/system/uploads/attachment_data/file/300864/Guidance_to_mental_health_currencies_and_payment.pdf

derived from a mental health professional's code using the mental healthcare clustering tool (MHCT).[74]

299. The clusters cover extended time periods that often contain multiple different care interventions. Each cluster has an associated review period, defined as the time between reassessments. You should take this as a **maximum rather than a minimum** period. However, if there is to be a reassessment before the maximum review period ends, because the patient's condition changes, this becomes the actual cluster review period for that patient.

Table 14: Cluster maximum review period

Code	Cluster label	Cluster review period (maximum)
00	Variance – unable to assign MHCC code	6 months
01	Common mental health problems (low severity)	12 weeks
02	Common mental health problems (low severity with greater need)	15 weeks
03	Non-psychotic (moderate severity)	6 months
04	Non-psychotic (severe)	6 months
05	Non-psychotic (very severe)	6 months
06	Non-psychotic disorders of over-valued ideas	6 months
07	Enduring non-psychotic disorders (high disability)	Annual
08	Non-psychotic chaotic and challenging disorders	Annual
09	Blank cluster[75]	Not applicable
10	First episode in psychosis	Annual
11	Ongoing recurrent psychosis (low symptoms)	Annual
12	Ongoing or recurrent psychosis (high disability)	Annual

[74] Providers must use the MHCT and corresponding MHCT booklet to help inform the clustering decision. The information captured must be returned with other data as part of the monthly submission to the Mental Health Minimum Data Set (MHSDS).
[75] Cluster 09 is not in the NCC workbook.

Code	Cluster label	Cluster review period (maximum)
13	Ongoing or recurrent psychosis (high symptom and disability)	Annual
14	Psychotic crisis	4 weeks
15	Severe psychotic depression	4 weeks
16	Dual diagnosis (substance abuse and mental illness)	6 months
17	Psychosis and affective disorder (difficult to engage)	6 months
18	Cognitive impairment (low need)	12 months
19	Cognitive impairment or dementia (moderate need)	6 months
20	Cognitive impairment or dementia (high need)	6 months
21	Cognitive impairment or dementia (high physical need or engagement)	6 months
IA98	Patient assessed but not accepted into service	N/A
99	Patients not assessed or clustered	N/A

300. The MHCC worksheet includes separate lines for:

- Unable to assign MHCC code (cluster 00): record costs for a patient who has been assessed and accepted for treatment but has not been allocated to a cluster, including the cost of their initial assessment on the initial assessment worksheet.
- Patients not clustered or assessed (cluster 99): record costs incurred for treatment before a patient has been fully assessed and allocated to a cluster. This will include costs close to the year-end where the initial assessment costs fall into both years and the cluster is allocated after the year-end. We do not want to include part-year costs in initial assessments, so initial assessment costs before and after the year-end will remain in cluster 99 in service code MHCCIA.
- IA98: patient assessed but not accepted into service: this line should be used for patients whose assessment has been completed and they have

been discharged without treatment. These patients may have been inappropriately referred to mental health services or referred for a clinical opinion only.

Costing mental healthcare clusters

301. Mental health providers should cost their services using the costing principles set out in the *Approved Costing Guidance*[76] and the mental health costing standards.[77]

302. The key to accurate costing at cluster level is having the activity and interventions recorded by patient and the cluster allocated appropriately. This means costs can be built up by patient and then by cluster.

303. Where integrated teams include social workers, their costs and activity should only be included in the cluster costs if they are NHS-funded posts. All providers should include the costs of community teams' contacts with inpatients within the non-admitted cluster costs.

304. The initial assessment period begins when a mental health provider receives a new referral from a GP or elsewhere. The activity count for initial assessments is number of patients assessed.

305. Experience to date suggests that the initial assessment is normally completed within two contacts or on admission to an inpatient setting. The assessment is completed when the individual is either allocated to a cluster, admitted to a ward or not allocated – for example, discharged (cluster IA98). Therefore, we do not expect providers to have any inpatient costs within the initial assessment charge; however, we are aware that in some providers, initial assessment does occur in an inpatient setting. While a patient would normally be allocated to a cluster within two community contacts, this is not always the case and providers should include in the initial assessment charge all the costs of contacts up to and including the contact where the cluster is allocated, regardless of how many contacts this may be.

[76] See *The costing principles*: https://improvement.nhs.uk/resources/approved-costing-guidance/
[77] https://improvement.nhs.uk/resources/approved-costing-guidance-2019/

306. Once a patient has been assessed and placed in a cluster, the cost of the initial assessment is coded to the correct cluster in service code mental healthcare contact initial assessment (MHCCIA), not MHCC.

307. Clusters in service code MHCC should only include costs and activity incurred for a patient who has been allocated to a cluster. Costs and days incurred before clustering are allocated to the appropriate cluster in service code (MHCCIA).

308. The cost of reassessment should be included in the cluster the patient is assigned to, at the time of the reassessment, rather than the new cluster if the cluster changes. Reassessment that does not result in a change of cluster is recorded as a new review period.

309. Information on patients who did not attend (DNA) is not collected separately. Therefore, the costs, but not the activity, associated with DNAs should be included as support costs within the relevant cluster pathway. The same approach to DNAs applies to the non-cluster currencies.

Days in the cluster

310. Unit costs are per cluster per day, not per completed cluster, due to the length of time a patient may be within a cluster.[78]

311. The clusters are designed to be independent of setting. However, we will continue to collect initial assessments separately, and memorandum costs and activity for:

- APC
- NAPC, covering outpatients, day care and community, and defined as the difference between the total number of cluster days and the number of cluster days in APC. To avoid double-counting, each cluster day can only be counted in one location for that day.

312. You should take care to ensure that the quantum is equal to the total cluster day costs and the initial assessment costs.

[78] Produced using the length of clusters falling in the costs year, expressed in days, similar to an acute spell or episode, and the costs of interventions within them.

313. Annex 6 summarises the data we will collect for the MHCCs and an example cluster cost calculation is given in Annex 7.

314. The count of days in the cluster begins from the day the patient is allocated to a cluster and continues through to the date the patient is discharged from the services or is allocated to another cluster on review. It includes days on a waiting list for treatment.

315. The number of occupied bed days in the cluster includes days when an inpatient may be on leave in the community.

316. The number of complete review periods and their average length should be returned in the memorandum columns. Where a review period is part-completed during the year, it should not be included. The intention is not to remove work in progress from the cluster cost, and you must provide costs for the full period of care in the financial year. A review period of 12 months (clusters 07 to 13) is likely to cross two financial years, and should be reported as one review of 365 days unless the patient is discharged or changes cluster within the year, in which case the actual length of time on the cluster (since first cluster or last review) should be included.

8.2 Improving Access to Psychological Therapies (IAPT)

317. The currency for IAPT clusters is cost per completed episode. The IAPT collection continues to be on a separate sheet to the main MHCC costs because IAPT services are distinct mental health services and in some areas are delivered by different organisations.

318. All IAPT activity recorded through the IAPT minimum dataset should be reported on the MHCCIAPT worksheet. IAPT contacts use the same cluster definitions as other mental health contacts but we expect most IAPT patients to fall into clusters 01 to 08 (with some falling into 00 or 99).

319. Like the main MHCC collection, we will collect separate costs for the initial assessment of a patient before their acceptance into services and the costs of

treatment by cluster. The definition of the initial assessment period is the same as for the main collection.

320. All costs that occur in the financial year must be reported, regardless of whether they relate to patients whose episodes have not started or have not been completed within the financial year.

Table 15: Summary of data collected for IAPT services

Field	Comments
Cluster costs IAPT mental healthcare cluster (service code IAPTMHCC)	
Unit cost per completed episode	The average unit cost of providing treatment to patients on the cluster (including the costs of episodes either not started or not completed in the financial year).
Total number of completed episodes	The total number of episodes of care completed (closed) during the financial year.
Memorandum information	
Number of contacts – high intensity	The total number of high intensity contacts provided to patients on the cluster (including the contacts relating to episodes either not started or not completed in the financial year). The definition of high intensity/low intensity contacts is taken from the IAPT Minimum Data Set (high intensity – therapy types 40 to 51).
Number of contacts – low intensity	The total number of low intensity contacts provided to patients on the cluster (including the contacts relating to episodes either not started or not completed in the financial year). The definition of high intensity/low intensity contacts is taken from the IAPT Minimum Data Set (low intensity – therapy types 20 to 29).
Total number of cluster days	The total number of days spent on IAPT care clusters completed (closed) during the financial year.
Average length of episode[79]	The average length of episode in days from first cluster to discharge. For a completed episode that began in the previous

[79] The method for calculating the average length of an episode is the same as that for calculating the average time in a cluster

Field	Comments
	financial year, this will include the number of days in the cluster in the previous financial year as well as those in the current one.
Average number of contacts per episode	The average number of contacts in each episode.

IAPT mental healthcare cluster initial assessment (service code IAPTMHCCIA)

Unit cost per initial assessment	This covers the costs and activity associated with initial assessments of patients, which helps clinicians to allocate them to clusters. Initial assessment and clustering of patients can require significant professional resource, and are therefore identified separately rather than included as a support cost for patients who are clustered.
Number of initial assessments	

321. The total number of completed episodes is made up of those episodes where the patient was discharged during the financial year, including episodes started in the previous financial year.

322. The number of contacts relates to contacts with the patient only – either face-to-face or by telephone[80] where appropriate.

323. Where a patient attends a group, each patient counts as a contact for that group session. Where two staff members run a group, each patient counts as two contacts for that group session. Only contacts with staff members within your cost quantum should be counted.

324. We do not anticipate that the IAPT cluster costs will include any inpatient costs. Where a patient transitions between mental health and IAPT, a new cluster should be counted at the point the patient moves between services. It initiates an initial assessment in the receiving service.

325. We are aware that some providers cannot accurately cost the initial assessments for IAPT and that recording movement between IAPT clusters is difficult. Please record this information to the best standard that you can.

[80] Telephone contact must replace a face-to-face contact.

326. As we need to maintain the contact information, please ensure you still accurately record it on the MHCCIAPT worksheet, including a unit cost for your activity.

8.3 Non-cluster activity (CAMHS, drug and alcohol, specialist mental health)

Table 16: Non-cluster activity (CAMHS, drugs and alcohol, specialist mental health)

Service	Settings	Subcategories
Child and adolescent mental health services[81]	• Admitted patient care • Daycare facilities on a patient-day basis • Outpatient attendances • Community contacts	• CAMHS, admitted patients, psychiatric intensive care unit • CAMHS, community contacts, crisis resolution home treatment
Drug and alcohol services for patients without a significant mental health need	• Admitted patient care • Outpatient attendances • Community contacts	
Specialist mental health services	• Admitted patient care • Outpatient attendance • Community contacts	• Adult specialist eating disorder services • Child and adolescent eating disorder services • Gender identity disorder services • Mental health services for deaf children and adolescents • Mental health services for veterans

[81] Child and adolescent, drug and alcohol, IAPT, eating disorder and secure services are reported separately.

Service	Settings	Subcategories
		• Specialised services for Asperger's syndrome and autism spectrum disorders (all ages) • Specialist mental health services for deaf adults • Specialist perinatal mental health services (inpatient mother and baby units and linked outreach teams) • Other specialist mental health inpatient services

Settings for non-cluster activity

Ordinary elective and non-elective admissions (APC)

327. For ordinary elective and non-elective admissions, costs and activity should be submitted by occupied bed day. Some APC within mental health services includes trial periods of time where patients are on home leave. They are not discharged but sent on leave to return as an admitted patient at a future date. This sometimes creates an anomaly where their beds may be used for other admitted patients, resulting in bed occupancy levels of over 100%.

328. You should ensure that the reported total number of occupied bed days for a ward does not include any leave-day activity unless the bed is held open for that patient to return to, ie that no other patient uses the bed in their absence. This rule also applies to patients transferred temporarily to an acute provider for treatment.

329. Costs and activity for mental health services provided in daycare facilities[82] should be submitted on the same basis as for other patients using these facilities.

[82] www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/d/day_care_facility_de.asp?shownav=1

330. Daycare facilities usually have consultant input and undertake patient assessments, whereas a community mental health team group contact does not necessarily involve a consultant and patient assessments.

Mental health outpatient attendances

331. Costs and activity should be reported for attendances and non face-to-face contacts.

332. Where consultants have a clinical caseload within a specialist team, the costs and activity should be reported against the specialist team currencies.

333. The key to determining whether activity should be reported on an outpatient or community setting is:

- if the appointment is booked into a clinic list for a specific clinic session (including clinics in a residential home) where a consultant sees more than one patient in that clinic and location, then report it in an outpatient setting
- otherwise, it should be reported in a community setting, eg a home or domiciliary visit, or a visit to a single client in a residential home.

334. Primary consultations before the patient attends for a traditional first appointment should not be recorded as an attendance. Rather, the cost of such contacts should form part of the unit costs of contacts with service users once accepted for treatment by the relevant service.

335. Payments for domiciliary visits are now only made in limited circumstances, or to consultants who have chosen to retain the old consultant contract (Section 12(2) 2003[83]). Please contact costing@improvement.nhs.uk for guidance on this.

Community mental health teams

336. Costs and activity should be reported for face-to-face and non face-to-face patient contacts with consultant-led community services or community mental health teams (CMHTs). CMHTs are teams of variable sizes and include staff from qualified and unqualified disciplines, including social workers, community

[83] http://www.nhsemployers.org/~/media/Employers/Documents/Pay%20and%20reward/Consultant_Contract_V9_Revised_Terms_and_Conditions_300813_bt.pdf

mental health nurses, occupational therapists, psychiatrists, psychologists, counsellors and community support workers (eg home helps).

337. It is rare for patients to meet more than one discipline (ie qualified professional staff group within each CMHT) at a time. When this does occur, you should record the attendance as two separate contacts for NCC average cost collection purposes. Figure 5 describes this process.

338. The exception to this general principle is when two or more professionals from the same discipline meet a single patient at the same time but for a different purpose (see Figure 6).

Figure 5: Reporting patient contacts with multidisciplinary community mental health teams

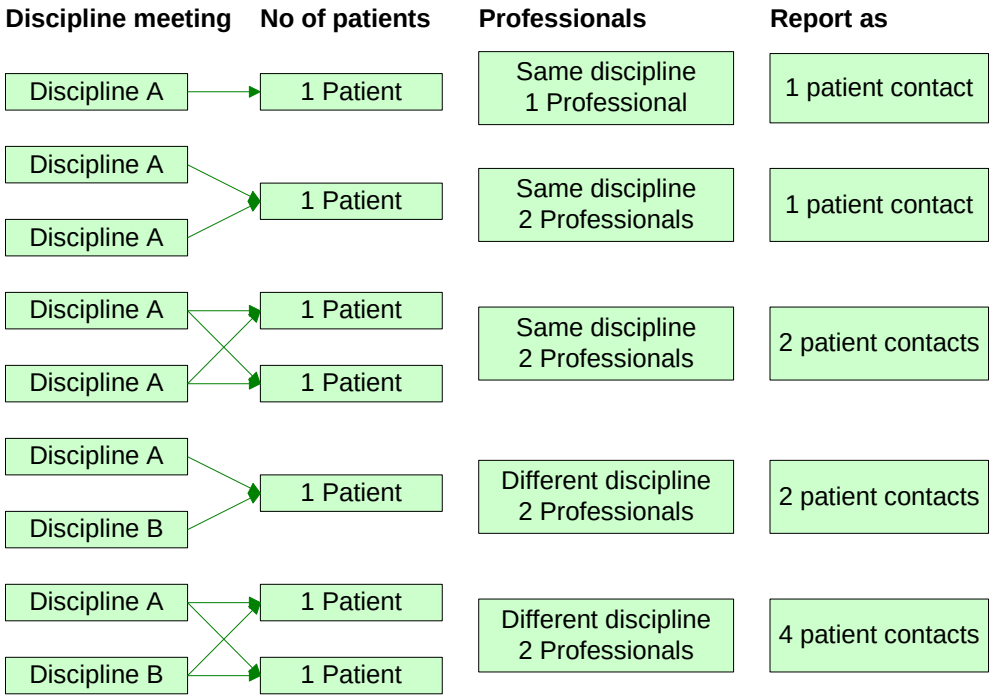
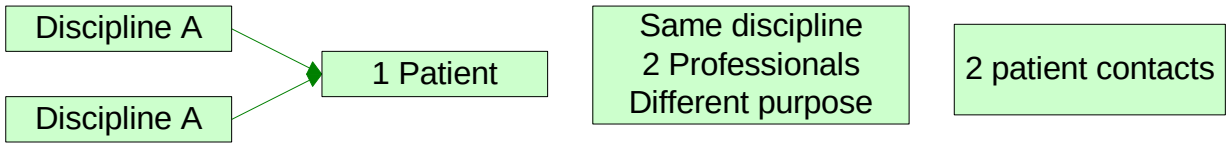


Figure 6: Reporting patient contacts with two or more professionals from the same discipline



Mental health specialist teams

339. Most cost and activity data for services undertaken by mental health specialist teams (MHSTs), using currencies based on the annual national survey of investment in adult mental health services,[84] should be included in the care clusters. Remaining costs and activity should be reported on a patient contacts basis for:

- A&E mental health liaison services
- psychiatric liaison: acute hospital/nursing homes

[84] www.gov.uk/government/uploads/system/uploads/attachment_data/file/140098/FinMap2012-NatReportAdult-0308212.pdf

- forensic liaison services
- other psychiatric liaison services
- criminal justice liaison
- forensic community
- psychosexual services
- prison health
- other mental health specialist teams.

340. Where consultants have a clinical caseload within an MHST, their costs and activity should be reported with the team.

Adult forensic and secure mental health services

341. Secure mental health inpatient services costs are collected in two ways: by cost per assessment and by occupied bed day for each cluster and pathway combination.

342. Pathway and cluster information has been collected centrally through CQUIN since 2012/13 and the NHS England contract since 2013/14 on admitted and reviewed patients.

343. The currencies of adult forensic mental health services are based on both:

- clusters developed for working-age adults and older people (Table 13)
- the five pathways (Table 17).

Table 17: Five pathways

Number	Description
1	Treatment responsive
2	Treatment-resistant challenging behaviours
3	Treatment-resistant continuing forensic care
4	Prison transfer: personality disorder
5	Personality disorder co-morbid

344. NHS England and NHS Improvement have developed a cluster and pathway combination matrix, which creates the proposed currencies for submission of costs.

345. Templates have been designed to capture the data consistently for all APC security levels broken down into 18 currency groupings:

- one initial assessment currency (this relates to the period – normally 12 weeks – at the beginning of the patient's care when they are allocated a cluster and a pathway); costs should be submitted **per initial assessment**
- 16 dominant cluster and pathway combination currencies; costs should be submitted **per occupied bed day**
- one 'other' currency for those clusters and pathways which do not fit into the dominant 16 combination currencies.

346. See Annex 6 for more detail.

347. Since 1 April 2017, providers of these services have been required to collect and submit cluster–pathway data to MHSDS v2.0, which is held by NHS Digital as set out in contracts between NHS England Specialist Commissioning and providers.

9. Treatment of specific scenarios

9.1 Sensitive/legally restricted data in PLICS 2020[85]

348. Trusts will not be able to submit data at PLICS level for patients receiving services or treatments for which data is sensitive/legally restricted.

349. For APC, EC and OP, this process is unchanged for the 2020 collection. The requirements regarding the speciality codes, HRGs, OPCS and ICD10 codes are set by NHS Digital. We do not expect any changes to this list but will alert practitioners if there are before the start of the collection in 2020.

350. The list of excluded local specialty codes, HRGs, OPCS and ICD10 codes can be found on the *Approved Costing Guidance* webpage.

351. Sensitive/legally restricted data covers the following treatment and diagnosis categories:

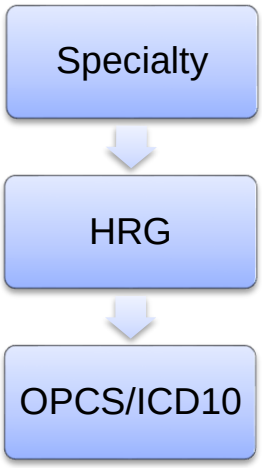
- HIV and AIDS
- sexually transmitted disease
- gender reassignment
- reproductive medicine.

352. The safeguards described in this guidance are implemented so that identifiable data does not flow for patients receiving sensitive/legally restricted treatments or with sensitive/legally restricted diagnoses.

353. You should filter out data from the highest (specialty) to the most granular level (OPCS/ICD10 code) to ensure you capture all attendances and episodes that are excluded from the 2020 PLICS collection (see Figure 7).

Figure 7: Capturing records excluded from PLICS

[85] Including HIV and AIDS.



354. For supplementary information (SI), only those high-cost drugs and blood products that are not indicated for treatment of a sensitive/legally restricted patient can be submitted via the SI feed. The remainder should be submitted on the LRSD worksheet of the NCC workbook.

355. By identifying the records labelled with the specialties and HRGs listed in Annex 10 you will capture most of the excluded data, but we ask that you also check your episode and attendance records for the OPCS and ICD10 codes.

356. You should check all OPCS and ICD10 codes in the record, not just the primary codes.

357. The data validation tool (DVT) will check that your PLICS data does not contain any of the HRGs excluded from the PLICS return, as part of the schema validation process prevents the flow of excluded codes.

358. In the event any extract file includes a restricted HRG for the 2020 collection, the DVT validation process will fail.

359. NHS Digital will reject any acute PLICS XML file if it contains any of the excluded HRGs in Annex 10 as part of the file validation process.

Submitting cost data for sensitive/legally restricted data

360. The cost and activity for these patients should be included at average HRG level on the LSRD worksheet in the NCC workbook.

361. We are developing a ‘legally sensitive’ worksheet in the NCC workbook to be used for the submission of legally sensitive data.

362. APC average unit episode costs should be submitted on the SLRD worksheet, at department code (DC, EL, NEL, etc), service code (TFC) and currency code (HRG) level in the NCC workbook. You do not need to calculate or submit the excess bed days for long-stay patients.

363. Outpatient average unit costs should be submitted on the SLRD as appropriate. The data should be submitted as an average cost by TFC and (HRG) level, and further defined as consultant led or non consultant-led.

364. For HIV/AIDS outpatient attendances, please submit your data using the HARS categories on the OPATT worksheet of the NCC workbook (see below paragraph 388).

365. In the event any A&E attendances contain restricted codes, the data relating to it should also be excluded from the submission of A&E PLICS data and included in the legally sensitive table of the NCC workbook.

366. For all legally sensitive episodes, costs for unbundled services should be submitted on the HCD and OPIMAG worksheet of the NCC workbook as appropriate

HIV and AIDS

367. The full mandated guidance for how to treat these currencies is available on the GOV.UK website.[86] The currencies are a clinically designed year-of-care pathway for three categories of HIV adult patients (19 years and over). To support the currencies, Public Health England (PHE) has introduced the HIV and AIDS reporting system (HARS).[87,88]

[86] See www.gov.uk/government/publications/hiv-outpatient-pathway-updated-guidance-available and www.gov.uk/government/publications/payment-by-results-hiv-outpatients-currencies
[87] www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/HIV/HIVAndAIDSReportingSystem/
[88] All providers providing the HIV outpatient pathways must submit data to HARS. The dataset supports commissioning and epidemiology of HIV adult outpatient activity.

368. We are not collecting pathway costs for the HIV adult outpatient services in 2020. However, we are collecting the unit cost of attendances for patients with HIV or AIDS against these three categories:[89]

- category 1 (new patients)
- category 2 (stable patients)
- category 3 (complex patients).

369. The currencies do not include the provision of any antiretroviral (ARV) medicines. The medicines costs should be included in the unbundled high-cost drug HRGs. The cost of precuring and prescribing these drugs should be included in the HIV currencies.

370. Some providers may not have these categories available locally. The attendance data by category can be requested directly from PHE via HARS.[90]

9.2 Unmatched pathology and radiology data[91]

371. For the 2017/18 NCC, PLICS and reference costs were reconciled to assure the users of the data that the HRG could be replicated from PLICS data. This enabled the decision to discontinue the HRG-level collection for 2019.

372. To reconcile PLICS standards processes had to be changed for collection purposes. Unmatched radiology and pathology costs can now be allocated to patients proportionate to the matched data.

373. Allocating unmatched data to patients goes against the costing principles, but currently no technical elements enable identification of the unmatched costs on collection.

374. Therefore, in 2019 we recognised that it was unclear what should be done with unmatched pathology and radiology costs, and we issued instructions to submit unmatched pathology and radiology data in the DA worksheet and the IMAG worksheet in the NCC workbook as appropriate.

[89] See the *Costing glossary* for definitions.
[90] The data request form is available from: www.gov.uk/government/publications/hiv-and-aids-reporting-section-hars-data-request-form
[91] Treat all other unmatched data in the same way as in previous collections.

375. This data has now been analysed and totals £97.4 million for pathology and £115.5 million for radiology.

376. We aim to publish the unmatched data submitted in 2019 and use it together with the CAT submissions and the assurance programme to work with trusts that have high levels of unmatched costs to ensure improvements are made. We will build unmatched data validations into our analysis in 2020.

377. Trusts should continue to work towards improving their matching rates by determining what further information fields they can use to match data to the lowest level possible before submitting it as unmatched.

Submitting cost data for unmatched pathology and radiology

378. In 2020, all unmatched pathology and imaging should follow the process outlined in Standard CP4: Matching costed activities to patients: allocate any remaining unmatched activity to 'unmatched' using the TFC from the diagnostic imaging feed; if there is no TFC, use '812' for reporting. For:

- radiology – use the IMAG worksheet and department IMAGUM and submit using the appropriate radiology HRG including plain film. Only TFC 812 should be used
- pathology – use the DAPS worksheet and DAPSUM service code and submit the activity by lab type.

9.3 Miscellaneous scenarios – excluded TFCs

379. The costs relating to TFC 424 (well babies) should be reported under TFC 501 (obstetrics) or TFC 560 (midwife episodes). The activity should be excluded.

380. The costs and activity relating to TFC 700 (learning disability) should be excluded.

9.4 Zero cost HRGs in PLICS

381. Zero cost HRGs are those clinical events that are counted in the absence of cost because their cost is linked to an unbundled HRG.

382. Activity relating to the same patient episode is linked through the core EC/APC/OP PLICS activity records.

383. The flow of the activity records for these zero cost HRGs enables the demographic information to be taken from HES data, as shown for the examples in Table 18.

Table 18: Zero cost HRGs

HRG	Description	Rationale
PB03Z	Healthy baby	Costs should be reported as part of the maternity delivery episode. PB03Z should be flowed within the relevant extract as a count of the clinical event activity.
RD97Z	Diagnostic imaging core HRG	Costs should be reported under the unbundled radiology HRG. RD97Z should be flowed within the relevant OP extract as a count of the clinical event activity.
RN97Z	Nuclear medicine core HRG	Costs should be reported under the unbundled HRG. RN97Z should be flowed within the relevant OP extract as a count of the clinical event activity.

10. Submitting PLICS files

402. The extracted files must be passed through the data validation tool (DVT; see Section 11) before being submitted to NHS Digital in the relevant collection window.

403. This DVT converts the CSV files to **XML** format and will compress each monthly file. Only XML files can be submitted to NHS Digital..

404. File names must comply with the convention set out in the extract specification document; if they do not, your file will fail NHS Digital validation.

405. To separate the data extracts into appropriately sized files, they must be split into 12 monthly files using the:
    - discharge date for APC and EC
    - attendance date for OP
    - issue date or scan date for SI
    - day being costed for the SWC.

406. An episode that is unfinished at the end of the financial year must be collected as part of the month 12 file.

407. Each trust needs to make a full submission, defined as 12 monthly files per feed for all required activity data and one reconciliation file.

408. Table 19 outlines the files each provider should submit.

Table 19: Number of PLICS files to be submitted

Services delivered			Files to be submitted						
A&E	Adult Critical Care	High Cost Drugs, High Cost Devices or Diagnostic Imaging	APC x 12	Op x 12	EC x 12	SWC x 12	SI x 12	Rec x 1	Total Files
Yes	Yes	Yes	X	X	X	X	X	X	61
Yes	Yes	No	X	X	X	X		X	49
Yes	No	Yes	X	X	X		X	X	49
No	Yes	Yes	X	X		X	X	X	49
Yes	No	No	X	X	X			X	37
No	Yes	No	X	X		X		X	37
No	No	Yes	X	X			X	X	37
No	No	No	X	X				X	25

10.1 Submitting data to NHS Digital

409. You must submit your PLICS files via secure electronic file transfer (SEFT) to NHS Digital.

410. For this you need to ensure you are set up as a SEFT user.

411. Each organisation needs a SEFT account and the current allowance is one user per organisation.[92]

412. You should test your SEFT connectivity at least three months before the window opens.

413. On uploading your files via SEFT, a green tick indicates successful transfer, not that your files have passed NHS Digital's validations. You receive the latter in an email notification from NHS Digital.

[92] We have asked NHS Digital to investigate if SEFT could support multiple users within one organisation. If this is found to be possible, we will let you know through our normal communication channels.

414. Only XML files are to be submitted via SEFT to NHS Digital in the collection window, and only when all mandatory validations have been passed in the DVT.

10.2 Submission rules

415. The files that make up a full submission are outlined in Table 19 above.

416. The submission file names must comply with the file naming convention set out in the extract specification; if they do not, your files will fail validation.

417. The submitted files must contain the header message and be populated with data as specified in the specification.

418. Your file will fail validation if any mandatory data items are not populated as defined in the extract specification.

419. The data validation outcome is determined at file level, not record level. A whole file is classified as passed or failed when submitted to NHS Digital.

420. You should review and correct any files that fail validation.

421. If you submit the same file multiple times, NHS Digital will **only** use the **last** good file (ie the latest submitted file to pass validation).

422. NHS Digital only accepts files in the resubmission window if you have uploaded at least **one** valid file in the initial submission period. If you have not, you will not be able to resubmit your data in the resubmission window.

423. Once you have submitted your files, and they have passed validation, you should not attempt to upload your files again in the initial submission period.

11. Data validation tool for PLICS files

424. You should only use our DVT. Please refer to the release notes if you are unsure if this is the DVT you are using. If you are having problems using this tool, please contact costing@improvement.nhs.uk and attach your log file and validation report.

425. Before submitting files, you must pass them through our DVT. The exact validation checks involved will be published on our website.[93]

426. The DVT checks the files are in the correct format for submission, mandatory fields are populated and valid codes are entered in fields where applicable. The tool produces an output file listing any file specification discrepancies that need to be amended before submission.

427. The tool first produces an output file, identifying any file specification discrepancies where data quality is outside reasonable parameters. These are classified as:

    - 'submission failure' – errors that must be amended before submission. Only then will the file pass the required mandatory validations to create an XML file ready for submission to NHS Digital
    - 'warning' – for areas where data quality requires review. However, without correction the file will still create an XML file ready for submission.

428. To use the DVT your files need to be in CSV format. If this is not your software's normal submission process, please contact your software provider and us as soon as possible to make alternative arrangements.

429. The NCC workbooks we are designing for the 2020 collection will include the existing validations. A full review of the existing validations within the

[93] https://improvement.nhs.uk/resources/approved-costing-guidance-2020/

workbook will be carried out, and details of current validations and any changes will be published in *Volume 7: Data submission*.[94]

430. Errors picked up by the validation checks that would otherwise result in a submission failure are restricted to file structures, field formats, population of mandatory fields and ensuring that valid codes have been used where applicable. Blank fields are accepted for non-mandatory fields. We may bring in further quality validations in 2020 as part of the DVT; you should refer to the DVT business rules for clarification.

[94] https://improvement.nhs.uk/resources/approved-costing-guidance-2020/

Annexes

Annex 1: Medicines flowchart

Annex 2: PLEMI – Example patient journey

Annex 3: Example paediatric critical care calculation

Annex 4: Trusts providing ECMO and ECLS, and a dedicated PCU service

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Annex 7: Example mental healthcare cluster calculation

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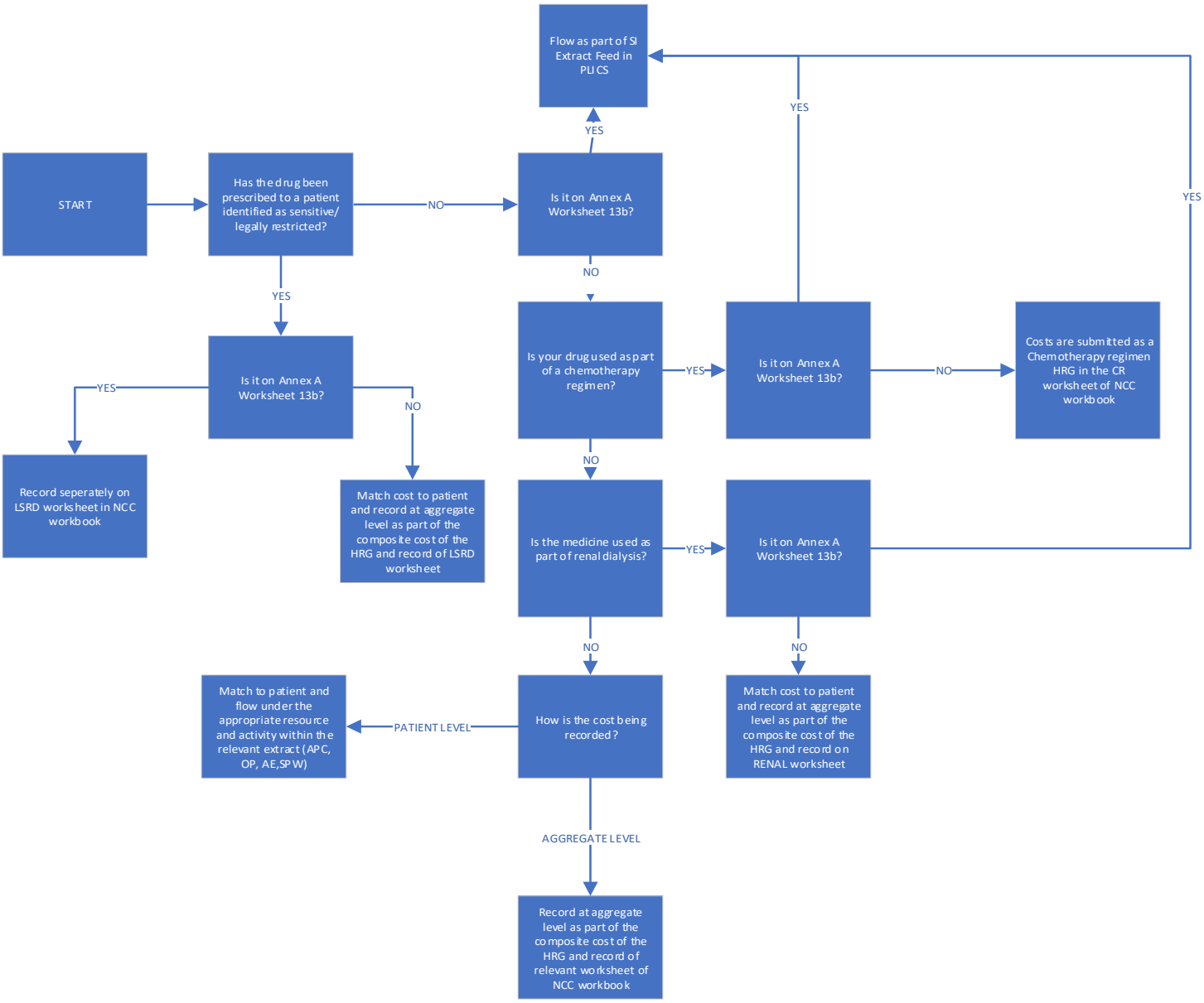
Annex 10: Legally / Sensitive Restricted Data

Annex 1: Medicines flowchart



Annex 2: PLEMI – Examples of patient journey

Example Patient Synopsis:

Patient attends A&E suffering with heart problems and admitted straight to Critical Care where they spend 5 days with Heart and Lung problems. On stabilising they are admitted to a Cardiac Ward for another 7 days. Whilst on the ward they contract Sepsis and are re-admitted to Critical Care for 3 days followed by another 8 days on a specialist Sepsis ward.

You may not have a PLEMI for EC activity and therefore this is identified in grey.

Creating the PLEMI:

To create the PLEMK: When a clinical event starts the patient will get a unique inpatient episode or spell ID eg BD123456/19 and there would be a suffix eg -01 to indicate the episode.

During the adult critical care episode you may increment the episode either per day or episode. The example included here increments the PLEMI per day.

Date	1st May	1st May	2nd May	3rd May	3rd May	4th May	5th May	6th May
PLEMI	BD123457/19-01	BD123457/19-01	BD123456/19-02	BD123456/19-03	BD123456/19-03	BD123456/19-04	BD123456/19-05	BD123456/19-06
POD	A&E	A&E	CC	CC	CC	CC	CC	CC
Extract Spec.	AE (EC)	SI	SWC	SWC	SI	SWC	SWC	SWC
Time	2 Hours		1 Day	1 Day		1 Day	1 Day	1 Day
HRG	VB03Z - Emergency Medicine, Category 3 Investigation with Category 1-3 Treatment	HICD0001 - Blood A	XC05Z - Adult Critical Care, 2 Organs Supported	XC05Z - Adult Critical Care, 2 Organs Supported	HICD0002 - Drug B	XC05Z - Adult Critical Care, 2 Organs Supported	XC05Z - Adult Critical Care, 2 Organs Supported	XC05Z - Adult Critical Care, 2 Organs Supported
Service Code/Setting	T01A - Type 1 A&E, admitted		CCU06 - Cardiac surgical adult patients predominate	CCU06 - Cardiac surgical adult patients predominate		CCU06 - Cardiac surgical adult patients predominate	CCU06 - Cardiac surgical adult patients predominate	CCU06 - Cardiac surgical adult patients predominate
Additional Info	N/A	N/A	2 Organs supported	2 Organs supported		2 Organs supported	1 Organs supported	1 Organs supported
Cost (£)	330	400	2000	1800	600	1600	1400	1200
Cost in POD (£)	730		8,600					

Date	7th - 13th May	09th May	14th May	15th May	15th May	16th May	17th - 24th May	20th May
PLEMI	BD123456/19-07	BD123456/19-07	BD123456/19-08	BD123456/19-09	BD123456/19-09	BD123456/19-10	BD123456/19-11	BD123456/19-11
POD	NEL	NEL	CC	CC	CC	CC	NEL	NEL
Extract Spec.	APC	SI	SWC	SWC	SI	SWC	APC	SI
Time	7 Days		1 Day	1 Day		1 Day	8 Days	
HRG	EB03C - Heart Failure or Shock, with CC Score 8-10	HICD0003 - Drug C	XC04Z - Adult Critical Care, 3 Organs Supported	XC04Z - Adult Critical Care, 3 Organs Supported	HICD0004 - Drug D	XC04Z - Adult Critical Care, 3 Organs Supported	WJ06B - Sepsis with Multiple Interventions, with CC Score 5-8	HICD0005 - Drug E
Service Code/Setting	TFC320 - Cardiology		CCU01 - Non-specific, general adult critical care patients predominate	CCU01 - Non-specific, general adult critical care patients predominate		CCU01 - Non-specific, general adult critical care patients predominate	TFC430 - Geriatric Medicine	
Additional Info	N/A		3 Organs Supported	2 Organs Supported		1 Organs Supported	N/A	
Cost (£)	2,500	300	3,000	2,000	500	1,000	7,000	500
Cost in POD (£)	2,800		6500				7,500	

Total Cost of Stay Able to calculate using the POD	CC (£)
Cost in A&E	£330
Cost in SWC (2 periods)	£14,000
Cost in APC (2 periods)	£9,500
Cost of High Cost Drugs (SI)	£2,300
	£26,130

	Date	01-May	02-May	03-May	04-May	05-May	06-May	07-May	08-May	09-May	10-May	11-May	12-May	13-May	14-May	15-May	16-May	17-May	18-May	19-May	20-May	21-May	22-May	23-May	24-May
Support	**PLEMI**	ABC12345620-01		ABC12345620-03						ABC12345620-07						ABC12345620-09					ABC12345620-11				
	POD	A&E		ACC						NEL						ACC					NEL				
	Extract Spec.	SI		SI						SI						SI					SI				
	HRG	PHCD0001 - Blood A		PHCD0002 - Drug B						PHCD0003 - Drug C						PHCD0004 - Drug D					PHCD0005 - Drug E				
	Cost (£)	£400		£600						£300						£500					£500				
A&E	**PLEMI**	ABC12345620-01																							
	POD	A&E																							
	Extract Spec.	AE (EC)																							
	Time	2 Hours																							
	HRG	VB03Z																							
	Service Code/Settin	T01A																							
	Additional Info	N/A																							
	Cost (£)	330																							
	Cost in POD (£)	**£730**																							
ACC	**PLEMI**		ABC12345620-02	ABC12345620-03	ABC12345620-04	ABC12345620-05	ABC12345620-06								ABC12345620-08	ABC12345620-09	ABC12345620-10								
	POD		ACC	ACC	ACC	ACC	ACC								ACC	ACC	ACC								
	Extract Spec.		SWC	SWC	SWC	SWC	SWC								SWC	SWC	SWC								
	Time		1 Day	1 Day	1 Day	1 Day	1 Day								1 Day	1 Day	1 Day								
	HRG		XC05Z	XC05Z	XC05Z	XC05Z	XC05Z								XC04Z	XC04Z	XC04Z								
	Service Code/Setting		CCU06	CCU06	CCU06	CCU06	CCU06								CCU01	CCU01	CCU01								
	Additional Info		2 Organs supporte	2 Organs supporte	2 Organs supporte	1 Organs supporte	1 Organs supported								3 Organs Supporte	2 Organs Supporte	1 Organs Supported								
	Spell Number		IP12345	IP12345	IP12345	IP12345	IP12345								IP12345	IP12345	IP12345								
	Cost (£)		£2,000	£1,800	£1,600	£1,400	£1,200								£3,000	£2,000	£1,000								
	Cost in POD (£)		**£8,600**												**£6,500**										
APC	**PLEMI**	ABC12345620-07																			ABC12345620-11				
	POD	NEL																			NEL				
	Extract Spec.	APC																			APC				
	Time	7 Days (16 midnight counts - 8 occupied bed days)																			8 Days (7 midnight counts)				
	HRG	EB03C - Heart Failure or Shock, with CC Score 8-10																			WJ06B - Sepsis with Multiple Interventions, with CC Score 5-8				
	Service Code/Setting	TFC320 - Cardiology																			TFC430 - Geriatric Medicine				
	Spell Number	IP12345																			IP12345				
	Cost (£)																	£2,500			£7,000				
	Cost in POD (£)																	**£2,800**			**£7,500**				

Annex 3: Example paediatric critical care calculation

HRG	Paediatric critical care description	A Cost ratio	B Bed days	C = A x B Weighted bed days	D = C/ Sum C x £10 million Total cost of weighted bed days (£)	E = D/B Average unit cost per bed day (£)
XB01Z	Advanced critical care 5	**3.06**	100	306	546,233	5,462
XB02Z	Advanced critical care 4	**2.12**	150	318	567,654	3,784
XB03Z	Advanced critical care 3	**1.40**	500	700	1,249,554	2,499
XB04Z	Advanced critical care 2	**1.22**	1,000	1,220	2,177,794	2,178
XB05Z	Advanced critical care 1	**1.00**	2,000	2,000	3,570,154	1,785
XB06Z	Intermediate critical care	**0.91**	750	683	1,219,207	1,626
XB07Z	Basic critical care	**0.75**	500	375	669,404	1,339
	Total		**5,000**	**5,602**	**10,000,000**	

Annex 4: Trusts providing ECMO and ECLS, and a dedicated PCU service

Service	Code	Name
ECMO and ECLS service	RBS	Alder Hey Children's NHS Foundation Trust
	RQ3	Birmingham Women's and Children's NHS Foundation Trust
	RP4	Great Ormond Street Hospital for Children NHS Foundation Trust
	RJ1	Guy's and St Thomas' NHS Foundation Trust
	RR8	Leeds Teaching Hospitals NHS Trust
	RT3	Royal Brompton and Harefield NHS Foundation Trust
	RTD	The Newcastle upon Tyne Hospitals NHS Foundation Trust
	RHM	University Hospital Southampton NHS Foundation Trust
	RA7	University Hospitals Bristol NHS Foundation Trust
	RWE	University Hospitals of Leicester NHS Trust
Dedicated PCU	RBS	Alder Hey Children's NHS Foundation Trust
	R1H	Barts Health NHS Trust
	RQ3	Birmingham Women's and Children's NHS Foundation Trust
	RGT	Cambridge University Hospitals NHS Foundation Trust
	RW3	Manchester University NHS Foundation Trust
	RP4	Great Ormond Street Hospital for Children NHS Foundation Trust
	RJ1	Guy's and St Thomas' NHS Foundation Trust
	RYJ	Imperial College Healthcare NHS Trust
	RJZ	King's College Hospital NHS Foundation Trust
	RR8	Leeds Teaching Hospitals NHS Trust
	RX1	Nottingham University Hospitals NHS Trust
	RTH	Oxford University Hospitals NHS Foundation Trust
	RT3	Royal Brompton and Harefield NHS Foundation Trust
	RCU	Sheffield Children's NHS Foundation Trust
	RTR	South Tees Hospitals NHS Foundation Trust
	RJ7	St George's University Hospitals NHS Foundation Trust
	RTD	The Newcastle upon Tyne Hospitals NHS Foundation Trust
	RHM	University Hospital Southampton NHS Foundation Trust
	RJE	University Hospitals of North Midlands NHS Trust
	RA7	University Hospitals Bristol NHS Foundation Trust
	RWE	University Hospitals of Leicester NHS Trust

Annex 5: Allocation of mental health services within NCC average costs

Service	Included in cluster cost collection	Included in non-cluster cost collection	Excluded from cost collection
Approved social worker services*	Yes		
Assertive outreach teams	Yes		
Counselling and therapy**	Yes	Yes	
Crisis accommodation services	Yes		
Carer support services (if costs cannot be separately allocated to individual patients, this cost should be treated as a support cost)	Yes		
Crisis resolution and home treatment teams	Yes		
Early intervention in psychosis services from age 14	Yes		
Eating disorder services (adult, excluding specialised eating disorders)	Yes		
Emergency clinics or walk-in clinics	Yes		
Emergency duty teams (which are not emergency assessments, eg for sectioning under the Mental Health Act)*	Yes		
Homeless mental health services	Yes		
Local psychiatric intensive care units	Yes		
Psychology**	Yes	Yes	
Psychotherapy**	Yes	Yes	
Psychiatric liaison services including A&E liaison, acute hospital liaison, nursing home liaison, etc		Yes	
Adult specialist eating disorder services		Yes	

Service	Included in cluster cost collection	Included in non-cluster cost collection	Excluded from cost collection
Autism and Asperger's syndrome		Yes	
CAMHS		Yes	
Drug and alcohol services		Yes	
Eating disorder services (children and adolescents)		Yes	
Forensic and secure mental health services: inpatients	Yes		
Forensic outpatients		Yes	
Gender identity disorder services		Yes	
Improving Access to Psychological Therapies (IAPT)	Yes		
Learning disability services in high dependency or high secure units		Yes	
Mental health services for deaf children and adolescents		Yes	
Mental health services for military veterans		Yes	
Mental health services provided under a GP contract		Yes	
Perinatal mental health services (mother and baby units)		Yes	
Primary diagnosis of drug or alcohol misuse		Yes	
Specialised addiction services		Yes	
Specialist mental health services for deaf adults		Yes	
Specialist psychological therapies (admitted patients and specialised outpatients)		Yes	
Acquired brain injury			Yes

Service	Included in cluster cost collection	Included in non-cluster cost collection	Excluded from cost collection
Learning disability services not provided in high dependency or high secure units			Yes
Neuropsychiatry			Yes

* These services are only included in clusters where NHS funded; otherwise they are excluded.

** Where the service is provided to a clustered user, the cost is included in the cluster. Where the service is provided to a non-clustered user, the cost is included in a non-cluster currency.

Annex 6: Data we will collect for the mental healthcare clusters

Field	Comments
Cluster costs (service code MHCC)	
Unit cost per day per cluster	Average/weighted cost per day per patient per cluster. This is a calculated field, equal to: (Unit cost per occupied bed day × Number of cluster days in admitted patient care) + (Unit cost per non-admitted cluster day × Number of cluster days in other settings) / Number of cluster days within the financial year
Number of cluster days within the financial year	Total number of patient days within each cluster within the financial year. This is a calculated field, equal to: Number of cluster days in admitted patient care + Number of cluster days in other settings
Memorandum information	
Unit cost per occupied bed day	This covers admitted patient care on an occupied bed-day basis covering ordinary elective and non-elective activity, including leave days. This is contrary to the guidance for non-cluster mental health activity, which states that the leave beds should be excluded to the extent that this ensures occupancies above 100% cannot be reported;
Number of cluster days in admitted patient care	
Unit cost per non-admitted cluster day	This is the cost per day based on the number of days between the start and finish (or year-end) of the cluster review periods, when the patient was not in admitted patient care. It is not the number of contacts. Refer to the note in the row above if there is an overlap of care.
Number of cluster days in other settings	

Field	Comments
Total number of completed cluster review periods	Total number of review periods in each cluster. If a patient has been allocated to a cluster more than once during the year, each separate time should be counted. A reassessment resulting in the patient remaining in the same cluster does result in a new review period. All review periods which are completed during the year should be counted. Include review periods that started in the previous year and completed in the current year. Exclude review periods that started in the current year and will not complete until next year.
Average review period (days)	Average length of a cluster review period. This is the average interval between review dates for each patient expressed in days. Only completed review periods should be included in the average calculation: part review periods at the beginning and end of the year should not be counted. Where there is an annual review period, record 365 here or actual length if available.
Initial assessments (service code MHCCIA)	
Unit cost per initial assessment	This covers the costs and activity associated with initial assessments of patients, which helps clinicians allocate them to clusters. Initial assessment and clustering of patients can require significant professional resource, and are therefore identified separately rather than included as a support cost for patients who are clustered.
Number of initial assessments	

Annex 7: Example mental healthcare cluster calculations

Error! Reference source not found. describes a patient who changes cluster. The patient is assessed and spends 28 days in cluster 14 at a cost of £10,000. They are reviewed and reallocated to cluster 15, spending 20 days there at a cost of £8,000. They are re-reviewed and returned to cluster 14 where, after being reviewed at 28-day intervals, they spend the remaining 72 days until the end of the year at a cost of £40,000. The 16 days to the year-end are not counted as a review period or in the average review calculation.

Table A7.1: Patient change of cluster

Cluster	Total cost	Number of cluster days within the costing period	Unit cost per day per cluster	Total number of complete review periods	Average completed review period (days)
14	£50,000	28 + 28 + 28 + 16 = 100	£500	3	28
15	£8,000	20	£400	1	20

Error! Reference source not found. describes a patient who is assessed multiple times in-year within a cluster. The patient is allocated to cluster 15 at a cost of £15,000 to the first review after 28 days and is confirmed to remain in cluster 15, where they spend 26 further days at a cost of £15,000. They are re-reviewed and stay in cluster 15, where they spend the remaining eight days until the end of the year at a cost of £1,000. There are two review periods, with an average review period of 27 days (26 + 28/2). The eight days to the year-end are ignored.

Table A7.2: Multiple assessment of patient

Cluster	Total cost	Number of cluster days within the costing period	Unit cost per day per cluster	Total number of service review periods	Average review period (days)
15	£31,000	28 + 26 + 8 = 62	£500	2	27

Annex 8: Dominant pathway and cluster

Dominant pathway	Dominant cluster	Proposed code for each currency	Description
N/A	N/A	IASS	Initial assessment period (normally 12 weeks)
1	10	110	Treatment – shorter term – first episode in psychosis (medium/high risk)
1	11	111	Treatment – shorter term – recurrent psychosis (low symptoms, medium/high risk)
1	12	112	Treatment – shorter term – recurrent psychosis (high disability, medium/high risk)
2	11	211	Treatment – longer term – ongoing psychosis (low symptoms, low/medium risk)
2	12	212	Treatment – longer term – ongoing psychosis (high disability, low/medium risk)
2	13	213	Treatment – longer term – ongoing psychosis (high symptoms and disability, low/medium risk)
2	17	217	Treatment – longer term – psychosis and affective disorder (difficult to engage, low/medium risk)

Dominant pathway	Dominant cluster	Proposed code for each currency	Description
3	11	311	Treatment – longer term – ongoing psychosis (low symptoms, medium/high risk)
3	12	312	Treatment – longer term – ongoing psychosis (high disability, medium/high risk)
3	13	313	Treatment – longer term – ongoing psychosis (high symptoms and disability, medium/high risk)
3	14	314	Treatment – longer term – psychotic crisis (medium/high risk)
3	16	316	Treatment – longer term – dual diagnosis (medium/high risk)
3	17	317	Treatment – longer term – psychosis and affective disorder (difficult to engage, medium/high risk)
4	8b	48b	Personality disorder – non-psychotic (medium/high risk, prison transfer)
5	8	58	Personality disorder and psychosis (medium/high risk)
5	8b	58b	Personality disorder non-psychotic (medium/high risk)
N/A	N/A	OTH	Patients with a cluster and pathway combinations not covered

Annex 9: Adult critical care – patient journey scenarios

Scenario A - Patient admitted to ACC unit for 3 days with no breaks - Same HRG - reducung number of organs supported				
Field Name	XML Field Name	Day 1	Day 2	Day 3
Unbundled Activity Type	UnAct	ACC	ACC	ACC
Critical Care Local Identifier	CCLI	ABC12345	ABC12345	ABC12345
Critical Care Unit Function	CCUF	06	06	06
Unbundled Activity Date	UnActDate	2020-01-08	2020-01-09	2020-01-10
Number of organs systems supported	OrgsSupp	3	2	1
Unbundled HRG	UnHRG	XC04Z	XC04Z	XC04Z
Cost of UBACTDATE		£1,000	£750	£500

Scenario B - Patient In ACC up to 09:00 – then discharged to ward – re-admitted to ACC on same day at 21:00 and stays there for an additional day					
		Day 1			Day 2
Field Name	XML Field Name	09:00		21:00	
Unbundled Activity Type	UnAct	ACC		ACC	ACC
Critical Care Local Identifier	CCLI	ABC23456		CDE23456	CDE23456
Critical Care Unit Function	CCUF	05	Time during the day spent in a non-ACC ward	05	05
Unbundled Activity Date	UnActDate	2020-01-08		2020-01-08	2020-01-09
Number of organs systems supported	OrgsSupp	1		1	1
Unbundled HRG	UnHRG	XC06Z		XC06Z	XC06Z
Cost of UBACTDATE		£250		£500	£1,000

Scenario C - Patient in a renal ACC unit and moved to a Cardiac ACC on the same date – Then stays for two further days					
Field Name	XML Field Name	Day 1	Day 1	Day2	Day 3
Unbundled Activity Type	UnAct	ACC	ACC	ACC	ACC
Critical Care Local Identifier	CCLI	ABC34567	CDE34567	CDE34567	CDE34567
Critical Care Unit Function	CCUF	10	06	06	06
Unbundled Activity Date	UnActDate	2020-01-08	2020-01-08	2020-01-09	2020-01-10
Number of organs systems supported	OrgsSupp	3	2	1	1
Unbundled HRG	UnHRG	XC04Z	XC05Z	XC05Z	XC05Z
Cost of UBACTDATE		£1,000	£750	£500	£250

Scenario D - Patient receiving ACC on a normal ward as no space in ACC - then moved to a Liver ACC on the same date – Then stays for a further 2 days					
Field Name	XML Field Name	Day 1	Day 1	Day2	Day 3
Unbundled Activity Type	UnAct	ACC	ACC	ACC	ACC
Critical Care Local Identifier	CCLI	ABC45678	CDE45678	CDE45678	CDE45678
Critical Care Unit Function	CCUF	90	11	11	11
Unbundled Activity Date	UnActDate	2020-01-08	2020-01-08	2020-01-09	2020-01-10
Number of organs supported	OrgsSupp	3	2	1	1
Unbundled HRG	UnHRG	XC04Z	XC05Z	XC05Z	XC05Z
Cost of UBACTDATE		£1,000	£750	£500	£250

To note - we're not proposing to collect the times - this is purely for illustrative purposes

Annex 10: Legally / Sensitive Restricted Data

Specialty-level exclusions

Specialty	Description
HIV	All HIV outpatient attendances
FPC	Activity that takes place in a sexual and reproductive health clinic[1] is defined by code FPC in reference costs and may not be identifiable in PLICS data.

HRG-level exclusions

HRG	Description
MC07Z	Intrauterine insemination with superovulation
MC08Z	Intrauterine insemination with superovulation, with donor
MC09Z	Intrauterine insemination without superovulation
MC10Z	Intrauterine insemination without superovulation, with donor
MC11Z	Implantation of embryo
MC12Z	Oocyte recovery
MC13Z	Donor oocyte recovery
MC14Z	Oocyte recovery with intracytoplasmic sperm injection
MC15Z	Oocyte recovery with pre-implantation genetic diagnosis
MC20Z	Surgical extraction of sperm

MC21Z	Collection of sperm
WJ10A	HIV disease with multiple interventions
WJ10B	HIV disease with single intervention, with CC score 5+
WJ10C	HIV disease with single intervention, with CC score 0–4
WJ10D	HIV disease without interventions, with CC score 5+
WJ10E	HIV disease without interventions, with CC score 2–4
WJ10F	HIV disease without Interventions, with CC score 0–1
WJ04Z	Genito-urinary medicine (GUM) infections
XD38Z*	Antiretroviral drugs, Band 1

Procedure-level exclusions

OPCS code	Description
N341	Fertility investigation of male NEC
N342	Collection of sperm NEC
N343	Male colposcopy
N344	Microsurgical epididymal sperm aspiration
N345	Percutaneous epididymal sperm aspiration
N346	Testicular sperm extraction
Q131	Transfer of embryo to uterus NEC
Q132	Intracervical artificial insemination

Q133 Intrauterine artificial insemination

Q134 Intrauterine insemination with superovulation using partner sperm

Q135 Intrauterine insemination with superovulation using donor sperm

Q136 Intrauterine insemination without superovulation using partner sperm

Q137 Intrauterine insemination without superovulation using donor sperm

Q138 Other specified introduction of gametes into uterine cavity

Q139 Unspecified introduction of gametes into uterine cavity

Q211 Transmyometrial transfer of embryo to uterus

Q218 Other specified other introduction of gametes into uterine cavity

Q219 Unspecified other introduction of gametes into uterine cavity

Q382 Endoscopic injection into fallopian tube

Q383 Endoscopic intrafallopian transfer of gametes

Q481 Endoscopic transurethral ultrasound directed oocyte recovery

Q482 Endoscopic trans vesical oocyte recovery

Q483 Laparoscopic oocyte recovery

Q484 Transvaginal oocyte recovery

Q488 Other specified oocyte recovery

Q489 Unspecified oocyte recovery

Q561 Fertility investigation of female NEC

Q562 Fertiloscopy

U321 Human immunodeficiency virus blood test

X866 Antiretroviral drugs Band 1

X151 Combined operations for transformation from male to female

X152 Combined operations for transformation from female to male

X154 Construction of scrotum

X158 Other specified operations for sexual transformation

X159 Unspecified operations for sexual transformation

Y961 In vitro fertilisation with donor sperm

Y962 In vitro fertilisation with donor eggs

Y963 In vitro fertilisation with intracytoplasmic sperm injection

Y964 In vitro fertilisation with intracytoplasmic sperm injection and donor egg

Y965 In vitro fertilisation with pre-implantation for genetic diagnosis

Y966 In vitro fertilisation with surrogacy

Y968 Other specified in vitro fertilisation

Y969 Unspecified in vitro fertilisation

Diagnosis-level exclusions

ICD10 code Description

A500 Early congenital syphilis, symptomatic

A501 Early congenital syphilis, latent

A502 Early congenital syphilis, unspecified

A503 Late congenital syphilitic oculopathy

A504 Late congenital neurosyphilis [juvenile neurosyphilis]

A505 Other late congenital syphilis, symptomatic

A506 Late congenital syphilis, latent

A507 Late congenital syphilis, unspecified

A509 Congenital syphilis, unspecified

A510 Primary genital syphilis

A511 Primary anal syphilis

A512 Primary syphilis of other sites

A513 Secondary syphilis of skin and mucous membranes

A514 Other secondary syphilis

A515 Early syphilis, latent

A519 Early syphilis, unspecified

A520 Cardiovascular syphilis

A521 Symptomatic neurosyphilis

A522 Asymptomatic neurosyphilis

A523 Neurosyphilis, unspecified

A527 Other symptomatic late syphilis

A528 Late syphilis, latent

A529 Late syphilis, unspecified

A530 Latent syphilis, unspecified as early or late

A539 Syphilis, unspecified

A540 Gonococcal infection of lower genitourinary tract without periurethral or accessory gland abscess

A541 Gonococcal infection of lower genitourinary tract with periurethral and accessory gland abscess

A542 Gonococcal pelviperitonitis and other gonococcal genitourinary infections

A543 Gonococcal infection of eye

A544 Gonococcal infection of musculoskeletal system

A545 Gonococcal pharyngitis

A546 Gonococcal infection of anus and rectum

A548 Other gonococcal infections

A549 Gonococcal infection, unspecified

A55X Chlamydial lymphogranuloma (venereum)

A560 Chlamydial infection of lower genitourinary tract

A561 Chlamydial infection of pelviperitoneum and other genitourinary organs

A562 Chlamydial infection of genitourinary tract, unspecified

A563 Chlamydial infection of anus and rectum

A564 Chlamydial infection of pharynx

A568 Sexually transmitted chlamydial infection of other sites

A57X Chancroid

A58X Granuloma inguinale

A590 Urogenital trichomoniasis

A600 Herpes viral infection of genitalia and urogenital tract

A601 Herpes viral infection of perianal skin and rectum

A609 Anogenital herpes viral infection, unspecified

A630 Anogenital (venereal) warts

A638 Other specified predominantly sexually transmitted diseases

A64X Unspecified sexually transmitted disease

A65X Non-venereal syphilis

A740 Chlamydial conjunctivitis

A749 Chlamydial infection, unspecified

B171 Acute hepatitis C

B200 HIV disease resulting in mycobacterial infection

B201 HIV disease resulting in other bacterial infections

B202 HIV disease resulting in cytomegaloviral disease

B203 HIV disease resulting in other viral infections

B204 HIV disease resulting in candidiasis

B205 HIV disease resulting in other mycoses

B206 HIV disease resulting in Pneumocystis jirovecii pneumonia

B207 HIV disease resulting in multiple infections

B208 HIV disease resulting in other infectious and parasitic diseases

B209 HIV disease resulting in unspecified infectious or parasitic disease

B210 HIV disease resulting in Kaposi sarcoma

B211 HIV disease resulting in Burkitt lymphoma

B212 HIV disease resulting in other types of non-Hodgkin lymphoma

B213 HIV disease resulting in other malignant neoplasms of lymphoid, haematopoietic and related tissue

B217 HIV disease resulting in multiple malignant neoplasms

B218 HIV disease resulting in other malignant neoplasms

B219 HIV disease resulting in unspecified malignant neoplasm

B220 HIV disease resulting in encephalopathy

B221 HIV disease resulting in lymphoid interstitial pneumonitis

B222 HIV disease resulting in wasting syndrome

B227 HIV disease resulting in multiple diseases classified elsewhere

B230 Acute HIV infection syndrome

B231 HIV disease resulting in (persistent) generalised lymphadenopathy

B232 HIV disease resulting in haematological and immunological abnormalities, not elsewhere classified

B238 HIV disease resulting in other specified conditions

B24X Unspecified human immunodeficiency virus (HIV) disease

F640 Transsexualism

F641 Dual-role transvestism

F642 Gender identity disorder of childhood

F648 Other gender identity disorders

F649 Gender identity disorder, unspecified

F651 Fetishistic transvestism

F656 Multiple disorders of sexual preference

F660 Sexual maturation disorder

F661 Egodystonic sexual orientation

F662 Sexual relationship disorder

F668 Other psychosexual development disorders

F669 Psychosexual development disorder, unspecified

N46X Male infertility

N970 Female infertility associated with anovulation

N971 Female infertility of tubal origin

N972 Female infertility of uterine origin

N973 Female infertility of cervical origin

N974 Female infertility associated with male factors

N978 Female infertility of other origin

N979 Female infertility, unspecified

N980 Infection associated with artificial insemination

O981 Syphilis complicating pregnancy, childbirth and the puerperium

O982 Gonorrhoea complicating pregnancy, childbirth and the puerperium

O983 Other infections with a predominantly sexual mode of transmission complicating pregnancy, childbirth and the puerperium

O987 Human immunodeficiency virus (HIV) disease complicating pregnancy, childbirth and the puerperium

R75X Laboratory evidence of human immunodeficiency virus (HIV)

R762 False-positive serological test for syphilis

Z113 Special screening examination for infections with a predominantly sexual mode of transmission

Z114 Special screening examination for human immunodeficiency virus (HIV)

Z202 Contact with and exposure to infections with a predominantly sexual mode of transmission

Z206 Contact with and exposure to human immunodeficiency virus (HIV)

Z21X Asymptomatic human immunodeficiency virus (HIV) infection status

Z224 Carrier of infections with a predominantly sexual mode of transmission

Z310 Tuboplasty or vasoplasty after previous sterilization

Z311 Artificial insemination

Z312 In vitro fertilization

Z313 Other assisted fertilization methods

Z314 Procreative investigation and testing

Z315 Genetic counselling

Z316 General counselling and advice on procreation

Z318 Other procreative management

Z319 Procreative management, unspecified

Z350 Supervision of pregnancy with history of infertility

Z717 Human immunodeficiency virus (HIV) counselling

Z830 Family history of human immunodeficiency virus (HIV) disease

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Publication approval reference: 001143