

2020/21 National cost collection guidance

Volume 3: National Cost Collection – acute, mental health and improving access to psychological therapies (IAPT)

March 2021

Contents

| | |
|--|----|
| 1. Introduction | 5 |
| 1.1 Collection overview | 5 |
| 1.2 Reasons for changes for the 2021 National Cost Collection | 6 |
| 1.3 Main areas of change for 2021 | 6 |
| 1.4 Changes between IAPT dataset (v1.5 and v2.0 technical output specification) | 10 |
| 1.5 Cost Classification..... | 11 |
| 2. Medicines in 2021 | 12 |
| 3. PLICS extract matching identifier..... | 14 |
| 4. Preparing PLICS files..... | 15 |
| 4.1 Patient level costing collection activity count..... | 15 |
| 4.2 Integrated extract specification..... | 15 |
| 4.3 Admitted patient care | 16 |
| Collection scope..... | 16 |
| Incomplete patient episodes | 17 |
| Ordinary non-elective short stays and long stays..... | 17 |
| Regular day or night admissions | 17 |
| Excess bed days for PLICS submission..... | 18 |
| 4.4 Outpatients | 19 |
| Collection scope..... | 19 |
| General outpatients..... | 19 |
| Maternity | 20 |
| Paediatrics | 21 |
| Therapy services..... | 22 |
| 4.5 Emergency care | 22 |
| Collection scope..... | 22 |
| Exceptions | 23 |
| Implementation of the Emergency Care Data Set..... | 23 |
| 4.6 Specialised ward care (SWC)..... | 24 |
| Flowing adult, paediatric and neonatal critical care in PLICS..... | 24 |
| Adult Critical Care | 27 |
| Paediatric Critical Care | 28 |
| Neonatal Critical Care | 28 |

| | |
|---|-----------|
| 4.7 Supplementary information..... | 30 |
| High-cost drugs and blood products and devices | 30 |
| High-cost devices..... | 31 |
| Unbundled diagnostic imaging | 33 |
| 4.8 Cystic fibrosis | 35 |
| Flowing cystic fibrosis in PLICS | 36 |
| High-cost drugs for patients with cystic fibrosis..... | 37 |
| 4.9 Mental health provider spells..... | 39 |
| Collection scope..... | 39 |
| Incomplete hospital provider spells | 40 |
| 4.10 Mental healthcare contacts (MHCC) | 42 |
| Collection scope..... | 42 |
| 4.11 Improving Access to Psychological Therapies (IAPT) | 46 |
| 5. Preparing aggregated data | 48 |
| 5.1 Cancer multidisciplinary meetings | 48 |
| 5.2 Direct access..... | 50 |
| 5.3 Unbundled aggregated activity – rehabilitation and specialist palliative care | 50 |
| Rehabilitation | 51 |
| Specialised palliative care..... | 52 |
| 5.4 Renal dialysis for chronic kidney disease and acute kidney injury | 53 |
| Renal dialysis medicines..... | 54 |
| Renal patient transport services..... | 54 |
| 5.5 Chemotherapy..... | 55 |
| Ordinary admissions | 57 |
| Daycase and regular day or night admissions | 57 |
| Chemotherapy outpatients..... | 58 |
| Other settings for chemotherapy | 59 |
| Additional guidance on chemotherapy | 59 |
| 5.6 Radiotherapy | 61 |
| 5.7 Mental Health non-cluster activity..... | 64 |
| Settings for non-cluster activity | 65 |
| Mental health outpatient attendances | 66 |
| Community mental health teams..... | 66 |
| Mental health specialist teams | 68 |
| 6. Treatment of specific scenarios | 69 |
| 6.1 Sensitive/legally restricted data in PLICS 2021 | 69 |

| | |
|--|-----------|
| Submitting cost data for sensitive/legally restricted data..... | 70 |
| 6.2 Unmatched pathology and radiology data | 72 |
| 6.3 Miscellaneous scenarios – excluded TFCs | 72 |
| 6.4 Zero cost HRGs in PLICS..... | 73 |
| 7. Submitting PLICS files | 74 |
| 7.1 Submitting data to NHS Digital | 75 |
| 7.2 Submission rules | 75 |
| 8. Data validation tool for PLICS files | 77 |
| Annexes..... | 79 |
| Annex 1: Medicines flowchart..... | 80 |
| Annex 2: PLEMI – Examples of patient journey | 81 |
| Annex 3: Patient level costing collection activity count..... | 83 |
| Annex 4: Trusts providing ECMO and ECLS, and a dedicated PCU service | 85 |
| Annex 5: Adult critical care – patient journey scenarios | 86 |
| Annex 6: Example paediatric critical care calculation..... | 87 |
| Annex 7: Legally / Sensitive Restricted Data..... | 88 |

1. Introduction

1. This document forms part of the 2021 National Cost Collection (NCC) guidance which is being published in five volumes. Volumes 1 and 2 are integrated and should be reviewed by all trusts. Volume 3, 4 and 5 are sector specific.
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. NHS England and NHS Improvement are producing an NCC workbook in 2021.
5. For your main support contacts during the collection, please refer to *Volume 1: Overview*.
6. In addition if you would like an informal chat with a member of the NHS England and NHS Improvement costing team, you can join our weekly 'coffee and connect' sessions by contacting costing@improvement.nhs.uk.

1.1 Collection overview

7. The 2020 pause on the mandate will cease for 2021 meaning:
 - i) Providers designated as acute but having mental health or IAPT services will be required to submit PLICS XMLs files for in-scope mental health or IAPT services.
 - ii) Providers designated as mental health but having acute services will be required to submit PLICS XMLs files for in-scope acute services.
8. The PLICS extracts that should be reported at patient level for this collection (if your trust provides the relevant services) 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 (emergency care) accident and emergency attendances
 - SWC (specialised ward care) adult, paediatric and neonatal critical care bed days
 - SI (supplementary information) high-cost drugs, blood products and devices, and unbundled imaging
 - MHPS (mental health provider spells) complete and incomplete spells
 - MHCC (mental healthcare contacts) non-admitted patient care (NAPC)
 - IAPT (Improving Access to Psychological Therapies) care contact (attendances)
9. The collection year begins on 1 April 2020 and ends on 31 March 2021.

1.2 Reasons for changes for the 2021 National Cost Collection

10. Our aim for the 2021 collection is ‘minimum change’ to give trusts the best chance of success in submitting their mandated PLICS collection where the costs and activity they are submitting has been affected by the COVID-19 pandemic.
11. Changes implemented or introduced as soft implementation in 2020 do not classify as a change in 2021 and will not be listed in the main changes table.
12. Where changes are introduced for the 2021 collection it will either be as required fields or implemented under soft implementation (non-mandatory to be submitted as an XML file). This reduces provider burden and the timeline for turning off the NCC workbook.

1.3 Main areas of change for 2021

13. Table 1 highlights the main changes to how costing data is collected in 2021.

Table 1: Main changes to the 2021 national cost collection

| Change for 2021 collection | Sector(s) Affected | Detail |
|---|--------------------|---|
| <p>PLICS data submission where feed type exists should be submitted for all services.</p> | <p>All</p> | <p>In 2020, trusts were only asked to submit patient-level data for their main services (the sector they were mandated under). In 2021, it is expected that where an extract specification for the feed exists, trusts must submit this PLICS information. Aggregate-level submissions are not allowed if a PLICS feed exists unless the guidance states the implementation is a 'soft implementation' or a member of the NCC team grants permission.</p> |
| <p>Data extract specification for acute, mental health and IAPT providers is integrated</p> | <p>All</p> | <p>To reduce the burden on costing practitioners of integrated trusts in completing multiple reconciliation documents, the extract specification and workbook has been integrated for acute, mental health and IAPT providers in 2021.</p> <p>This means integrated trusts will only have to complete one reconciliation template for their NCC.</p> <p>Where providers are concerned that they are unable to comply with this please contact costing@improvement.nhs.uk as soon as possible.</p> |

| | | |
|---|---------------|---|
| Inclusion of PLICS extract matching identifier (PLEMI) ¹ | Mental Health | <p>This attribute will enable data linkage across all the activity feed types from one organisation.</p> <p>As more of the aggregate-level collections from the NCC workbook move into PLICS, the PLEMI will link all costed activities matched to a particular episode/attendance/event with a unique ID.</p> <p>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.</p> <p>See Annex 2.</p> |
| PLEMI data item structure | Acute | <p>The PLEMI will no longer act as a method of sequencing and therefore the suffix count will be removed and will not be replaced.</p> <p>This means the PLEMI will only act as a linkage field across data types in 2021.</p> |
| Continuous positive airway pressure (CPAP) and bilevel positive airway pressure (BiPAP) devices | Acute | <p>Up until 2020 CPAP and BiPAP have been excluded from PLICS despite them being included on the unbundled currency scheme for high cost devices.</p> <p>In 2021, these devices are to be collected. The cost of these machines should flow into PLICS as part of the SI feed type.</p> |
| Paediatric and neonatal critical care | Acute | <p>In 2021 trusts that can are encouraged to submit paediatric and neonatal critical care using the SWC feed in the same way adult critical care is collected via the Specialised Ward Care feed.</p> <p>Submitting paediatric and neonatal critical care in PLICS is a soft implementation and therefore is not mandated for 2021. Where submission at SWC feed level is not possible, trusts may submit at aggregate level similar to 2020.</p> |

¹ The PLEMI in 2021 will remain as a required field for all feed types. This will become a mandatory field in 2022.

| | | |
|---|----------------------|--|
| <p>Mental health trusts will be required to submit the 'Supplementary Information' feed. This includes 'High-cost drugs and unbundled imaging' brought into PLICS</p> | <p>Mental Health</p> | <p>In 2020 Mental health trusts were able to duplicate their High-cost drugs costs in the NCC (being submitted in both workbook and PLICS). To avoid this in 2021, their costs are collected only under a feed type in the extract specification, called 'supplementary information' (SI).</p> <p>As per the mandate unbundled imaging is also being collected.</p> <p>These items are not to be submitted in the NCC workbook.</p> |
| <p>Child and Adolescent Mental Health Services (CAMHS) will flow into PLICS</p> | <p>Mental Health</p> | <p>In 2020 CAMHS were submitted at aggregate level in the workbook. For 2021 trusts who have the ability to flow CAMHS in their PLICS XML files are encouraged to do so providing this will not incur additional burden.</p> <p>This is a soft implementation meaning if trusts are unable to provide CAMHS at PLICS level they can submit at aggregate level in workbook.</p> |
| <p>Transition from IAPT v1.5 to v2.0 technical output specification</p> | <p>IAPT</p> | <p>From September 2020 IAPT v2.0 technical output specification was introduced. The change brings one new data item into the collection. Please see section 1.4 for further details.</p> |
| <p>COVID-19 costs²</p> | <p>All</p> | <p>In 2020 trusts were requested to exclude the impact of COVID-19 using the recommendations document published on the Open Learning Platform (OLP). For 2021 NCC it is expected for all costs of the provider's 'own patient care' to flow into PLICS.</p> <p>The cost of exceptional units and services will remain excluded from the national cost collection patient level and workbook costs. This includes Nightingale units, regional testing centres and vaccination programmes.</p> |

² For 20/21 the COVID-19 recommendations document will be available on the NHS England and NHS Improvement website at <https://www.england.nhs.uk/approved-costing-guidance/>.

1.4 Changes between IAPT dataset (v1.5 and v2.0 technical output specification)

14. IAPT v2.0 technical output specification was published in September 2020; costing practitioners should check with their informatics team that v2.0 is being used (for activity data from September 2020 onwards) before completing their trust's National Cost Collection.
15. Although the IAPT collection version change was introduced during the financial year, there will be a single PLICS specification which aligns to v2.0 IAPT dataset for data items collected as part of the PLICS collection.
16. Table 2 shows the data extract detail for v1.5 versus v2.0 to highlight where data item names have changed between versions.

Table 2: IAPT dataset (v1.5 vs v2.0)

| Data item - IAPT v1.5 and PLICS extract specification 2019/20 | Data item - IAPT v2.0 and PLICS extract specification 2020/21 | Note |
|---|---|---|
| APPOINTMENT DATE | CARE CONTACT DATE | Requires mapping - see paragraph 16 below |
| APPOINTMENT TIME | CARE CONTACT TIME | |
| N/A | CARE CONTACT IDENTIFIER | New in IAPT v2.0 and new in PLICS (required for activity data from Sep-20 onwards only) |

17. Care contact date and care contact time will show in the extract specification for the full financial year, costing practitioners should map their part-year appointment date and time field to these new fields.
18. Care contact identifier is a new data field for v2.0, this field won't be required for the start of the year, but it is expected that this will be required (for activity data from September 2020 onwards). This is a mandatory field in IAPT

dataset v2.0, but for 2021 in the PLICS extract specification it will be a required field due to the mid-year change of IAPT dataset.

1.5 Cost Classification

19. For the 2021 NCC there has been a request from executive finance colleagues, pricing and economics to collect costs at a fixed, semi-fixed and variable level.
20. NHS England and NHS Improvement understand, at the current time, collecting this at patient-level this would add burden onto costing practitioners as well as significantly increasing the number of rows collected in PLICS.
21. In order to fulfil the need to understand the cost profile, we are proposing to use a mix of weighting tables and statistics collected in the Exceptional Quarterly Collection (EQC) to be able to calculate a national proportion to apply across the data centrally, after the PLICS data is submitted by trusts.
22. An additional tab will be provided in the workbook to allow trusts to provide their own cost profiling of fixed, semi-fixed and variable costs by point of delivery (POD). This would be voluntary in 2021 but NHS England and NHS Improvement may consider making this mandatory in future years.
23. This would allow us to breakdown costs into fixed, semi-fixed and variable while limiting the burden on trusts and resulting in no additional increase to the file size of PLICS.
24. NHS England and NHS Improvement acknowledges that this will not be as accurate collecting the cost profile via the PLICS submission however, at the current time this is a pragmatic solution which enables all stakeholders to be considered.
25. Further information on how to complete this table will be included in the NCC workbook user guide.

2. Medicines in 2021

26. For 2021 the guidance on recording the cost of medicines is split between the workbook and the SI feed see Table 3. This table applies to all trusts required to implement this document.

Table 3: Collection method for medicines

| Medicine type | 2021 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. Where a drug is both chemotherapy or high cost drugs AND homecare, treat it as homecare first, so the cost of all homecare drugs is excluded from the collection. |
| 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 | 2021 collection method | Comment |
|----------------|---|---------|
| Any other drug | Should be flowed as part of the cost of the clinical event it was issued. | |

27. 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.

3. PLICS extract matching identifier

28. The PLICS extract matching identifier (PLEMI) is an attribute that enables data linkage across all the activity feed types from one organisation.
29. As NHS England and NHS Improvement move more of the aggregate-level collections from the NCC workbook into PLICS, this will enable linkage across 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.
30. 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.
31. The identifier format is: alphanumeric (including special characters) and maximum length 50.
32. Annex 2 explains an inpatient journey using the PLEMI, but this identifier can be applied to all extracts collected at PLICS level.
33. 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.
34. The PLEMI will remain as required field for 2021. It should only be created where matching already exists or this is simple to introduce and should not add burden to costing practitioners.

4. Preparing PLICS files

4.1 Patient level costing collection activity count

35. In the extract specification for feed types APC, EC, OP, SWC, SI, MHPS, MHCC and IAPT you are required to submit the number or duration of activities undertaken, e.g. number of tests or duration in theatre.
36. In previous years the data quality of this field has been poor due to multiple pre-collection allocation drivers being assimilated into one count on the XML file.
37. For two worked examples of how to complete the activity count field please refer to Annex 3.

4.2 Integrated extract specification

38. For the 2021 National Cost Collection the extract specification for acute, mental health and IAPT services have been integrated.
39. This means that there will be a single patient-level reconciliation for trusts submitting to these data feeds. There will still be a reconciliation statement in the NCC workbook.³
40. The individual data feeds remain split by the type of care being delivered. For example, APC collects admitted patient care for acute services (episodes) and MHPS collections admitted patient care for mental health services (spells).
41. This change has been introduced to reduce the number of documents required but also to reduce the burden of completing multiple patient level reconciliations for integrated trusts with acute, mental health and IAPT services.

³ Please see volume 2 reconciliation and exclusions for more information.

42. The extract specification document will now contain tabs for each of the four acute data feed types, as well as two for mental health and one for IAPT. The supplementary information (SI) feed type will allow data for both acute and mental health services where relevant. All of the other tabs in the document will comprise of information that impacts any or all of the individual data feeds and is clearly defined on the reference document worksheets.
43. The separately published extract specification⁴ sets out the exact structure of the XML or CSV files you need to produce for the collection: the field names and formats, along with valid codes for certain fields where applicable.

4.3 Admitted patient care

Collection scope

44. 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.
45. The National Costing Grouper 2020/21 attaches a core HRG to every finished consultant episode (FCE). Providers only report core HRGs in APC.
46. 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 4.7: Supplementary information).
47. Adult, paediatric and neonatal 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 4.6: Specialised ward care).

⁴ <https://www.england.nhs.uk/approved-costing-guidance/>

48. 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

49. 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

50. 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.
51. 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.
52. 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.
53. For example, the admission of a patient as an emergency on 31/3/2021 at 14:40 and their discharge on 10/04/2021 should be recorded as non-elective (NEL) not non-elective short stay (NELST).

Regular day or night admissions

54. Regular day or night admissions⁵ are reported in the APC collection for PLICS. Admissions for specialist care, chemotherapy, radiotherapy or renal dialysis, should be reported against the relevant sections of the collection, not under regular day or night admissions.

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

Excess bed days for PLICS submission

55. Trusts are not required to calculate the cost and activity for excess bed days in 2021.

4.4 Outpatients

Collection scope

56. 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.
57. Outpatient attendances and procedures in outpatients should be reported by HRG and treatment function code (TFC) currencies at patient level.
58. 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.
59. Unbundled imaging HRGs should be reported on the SI feed.
60. Missed appointments (did not attend – DNAs) should not be recorded and their cost should be treated as an overhead.

General outpatients

61. 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.
62. The above terms are defined in the *Costing glossary*⁶.
63. 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

⁶ <https://www.england.nhs.uk/approved-costing-guidance-2021-guidance-and-tools/>

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.⁷

64. The NCC does not distinguish between attendances that are pre-booked and those that are not.
65. 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.
66. 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

67. 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
68. They should not include midwifery community care contacts with patients in their own home.
69. 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.
70. Within the appointment (regardless of whether this has included a consultation) there may be costs for:
 - routine scans

⁷ Exclusions apply. See *Volume 2: National Cost Collection reconciliation and exclusions*.

- routine screens and tests

71. 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.
72. 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.
73. 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.
74. 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.⁸

Paediatrics

75. 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".
76. 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.

⁸ For more detail. See *Volume 2: National Cost Collection reconciliation and exclusions*.

Therapy services

77. Where patients have been referred directly to a therapy service⁹ 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.
78. 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.

4.5 Emergency care¹⁰

Collection scope

79. Emergency department (ED) attendances are categorised as:
 - department type:¹¹
 - EDs (national code 01)
 - consultant-led monospecialty A&E services (national code 02)¹²
 - 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.

⁹ For example, physiotherapy (TFC 650), occupational therapy (TFC 651), speech and language therapy (TFC 652), dietetics (TFC 654) or orthotics (TFC 658).

¹⁰ Formally Accident and Emergency

¹¹ https://www.datadictionary.nhs.uk/data_dictionary/attributes/a/acc/accident_and_emergency_department_type_de.asp

¹² May be 24-hour or non 24-hour.

Exceptions

80. Emergency Care Data Set (ECDS) streaming attendances should not be counted and costed.
81. 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.
82. Patients brought in dead (A&E patient group code 70)¹³ should be coded, costed and submitted against HRG VB99Z – patient dead on arrival.

Implementation of the Emergency Care Data Set

83. 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.
84. We will continue to collect the data as we have previously using National Costing Grouper 2020/21 This means that trusts have to map their data back to the old treatment codes for the grouper.
85. NHS Digital has released mapping guidance to help with mapping back to the investigation and treatment codes for grouping purposes.¹⁴

¹³www.datadictionary.nhs.uk/data_dictionary/attributes/a/a_and_e_patient_group_de.asp?shownav=1

¹⁴<https://digital.nhs.uk/Emergency-care-data-set-ECDS-technical-and-implementation-guidance>

4.6 Specialised ward care (SWC)

Flowing adult, paediatric and neonatal critical care in PLICS¹⁵

86. Adult critical care submitted via the SWC feed is now mandatory for providers already mandated for their APC patient events.
87. Community providers not yet mandated to provide APC patient level data, should submit adult critical care activity in the workbook.
88. Paediatric and neonatal critical care costs can be submitted by the SWC feed as part of the soft implementation.¹⁶
89. If you are unable to submit paediatric and neonatal critical care costs at patient level, you should submit aggregate costs in the workbook. You should not submit costs for paediatric and neonatal critical care in both the SWC feed and the workbook.
90. The PLICS feed type requires all costs to be submitted on a calendar bed day basis within the costing period.
91. Patients 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, PCCMDS or NCCMDS) record. The records are captured in critical care mandated dataset as follows:
 - CCMDS – per period
 - PCCMDS or NCCMDS – per bed day
92. The grouper produces an unbundled critical care HRG regardless of the mandated dataset it is submitted to.
 - For adults, the HRG shows the highest level of care for that patient during the CCMDS period. For the adult critical care collection, this HRG will be shown on each submitted day of critical care.

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

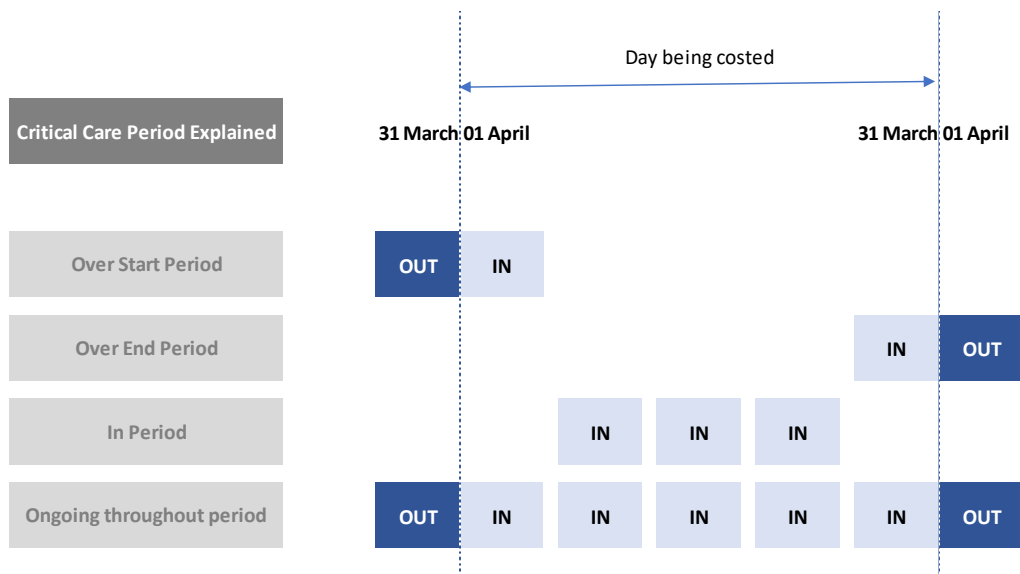
¹⁶ You do not have to apply to be part of the pilot collection.

- For paediatric and neonatal the grouper calculates a separate HRG for each bed day. These patient bed days may therefore have a different HRG shown on each submitted day of the critical care period and you do not have to submit the level of organs supported for those bed days.
93. A patient of any age 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.
 94. All critical care submitted via SWC is linked to APC using the PLEMI. Where the patient spent their whole admission in the critical care unit, the result of unbundling cost is an episode with 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.
 95. In 2021, all critical care periods should be costed per day of the critical care period against the unbundled critical care HRG, and each day should have a separate record submitted in the SWC.
 96. Part day costs can be applied to the critical care HRG if the patient is discharged directly from critical care or dies while in critical care. For patients discharged from the critical care bed to a non-critical care ward, the costs relating to the non-critical care ward should be bundled into the cost of the critical care bed day. Please refer to ACG standards IR1 and CM6, where explanation is given in detail on how a critical care record should be created and costed.
 97. Critical care units may be discrete or in a specific area on a general ward, defined in the CCMDS, PCCMDS or NCCMDS as non-standard location using a ward area. The unit function code determines the type of ward. It is important to use the full range of unit function codes to ensure the data is accurate and comparable.
 98. 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.¹⁷ In the same way as the part of a calendar day is included in the critical care period for the CCMDS PCCMDS and NCCMDS¹⁸.

99. All collection resources and activities (including the general ward costs) should be linked to the SWC feed for the calendar day of discharge from the critical care area.
100. 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



101. The critical care period is calculated by including the critical care local identifier. Therefore, the critical care length of stay (number of bed days) 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.
102. 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

¹⁷ In terms of length of stay, the day of transfer from critical care should be counted as a critical care bed day.

¹⁸ All trusts must comply with this even if submitting aggregate critical care costs.

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.

103. The costs of relevant high-cost drugs or high-cost blood products should be included in the supplementary information feed only.
104. Costs for critical care periods, or part thereof, that produce an unbundled HRG of UZ01Z should be reported against UZ01Z and not apportioned elsewhere.
105. A list of Trusts providing ECMO and ECLS services and a dedicated PCU service are given in Annex 4.

Adult Critical Care

106. For the 2021 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.
107. The grouper will only output one adult critical care HRG code per critical care period. Adult critical care HRG codes reflect the number of organs supported over the critical care period.
108. For 2021, providers should submit the HRG calculated by the grouper for the period, against each bed day record in the SWC feed. If possible, providers should submit the number of organs supported per day in field 'ORGSUPP'.
109. Adult critical care outreach teams who operate outside the parameters of the adult critical care unit should be reported as a cost component of the core HRG of the patient, and **not** be reported as a separate total cost or as part of critical care. These patients will not have a CCMDS record.

110. Example patient journey scenarios illustrating the treatment of adult critical care in 2021 are shown in Annex 5.

Paediatric Critical Care¹⁹

111. Data supplied to the Paediatric Critical Care Minimum Data Set (PCCMDS) version 2.0 must be used to inform the reporting of costs against the unbundled HRGs XB01Z to XB09Z, which are supported by version 2.0 of the PCCMDS.²⁰

112. Paediatric critical care HRGs are each grouped to show the cost of a single bed day.

113. For 2021 the costs per bed day per patient can be submitted within the SWC feed.

114. Where trusts are not submitting using the SWC feed, the 2021 NCC requires paediatric critical care costs to be submitted in the NCC workbook showing the average cost per unit by unit function code and HRG.

Neonatal Critical Care

115. Data supplied to 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 XA05Z.

116. Neonatal critical care HRGs are each grouped to show the cost of a single bed day.

117. For 2021 the costs per bed day per patient can be submitted within the SWC feed.

118. Where trusts are not submitting using the SWC feed, the 2021 NCC requires neonatal critical care costs to be submitted in the NCC workbook showing the average cost per unit by unit function code and HRG.

¹⁹ Annex 6 gives an example of how paediatric intensive care cost can be calculated.

²⁰ <http://content.digital.nhs.uk/media/22151/00761132015spec/pdf/00761132015spec.pdf>

119. HRG XA06Z relates to neonatal critical care transport and should be submitted in the NCC workbook at average unit cost per patient journey.

120. The HRGs are based on the British Association of Perinatal Medicine's categories of care 2011 standards²¹ 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,²² 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.

²¹ <https://www.bapm.org/resources/categories-care-2011>

²² 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/

4.7 Supplementary information

121. Supplementary information will capture costs of elements that go alongside the package of care.
122. This extract should therefore include:
- high-cost drugs and blood products
 - high-cost devices (formally excluded devices)
 - unbundled diagnostic imaging.
123. High-cost drugs, high-cost blood products and high-cost devices are only submitted in the SI feed. This means no high-cost items are in any other PLICS feed.
124. 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'.
125. 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.
126. 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

127. This section covers the submission of the following drug elements:
- high-cost drugs
 - high-cost blood products.
128. 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.

129. The list of blood products and drugs are defined in worksheet 13b of Annex A to the National Tariff document.
130. In 2020 a number of requests were received for cost exclusions for high cost drugs found on the specialised commissioning drugs list, where the drugs differed from drugs in the national tariff list.
131. NHS England and NHS Improvement costing team considered either including the drugs from that list in our collection or allowing automatic exclusions for any drugs on the Specialised commissioning list.
132. The list from specialised commissioning is not published as a national document and is inappropriate to be used for anything other than the reimbursement of the cost of the drugs on that list to providers.
133. For any specific high cost drugs you would like to be considered for exclusion from your NCC submission, please contact us at costing@improvement.nhs.uk and consideration of the request will be made on a case by case basis.
134. 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.
135. You should not match high-cost drugs and blood products to patient in the EC, APC, OP, SWC, MHPS, MHCC or IAPT feeds.
136. 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

137. 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.

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

- transactional model²³ 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.

139. 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.

140. 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.

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

142. Each item should have a separate record and the number issued (activity count) should be included in the extract under the relevant XML field.

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

144. 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

145. Cardiology **loop recorders** are 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

²³ 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.

to the patients who had HRG EY12A or EY12B and not be included in the SI feed.

Unbundled diagnostic imaging

146. 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.
147. 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.
148. On collection however, the cost of the unbundled HRG needs to flow as part of the SI feed.
149. Diagnostic imaging should not be reported separately when occurring in APC or MHPS, as part of an ED or outpatient procedure (OPPROC) attendance or as part of an IAPT contact. The 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.
150. 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.
151. Plain film X-rays have no unbundled HRG. When occurring in APC, MHPS, OP, MHCC or IAPT 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 in the workbook.

152. Diagnostic imaging should be linked to the outpatient event in which the imaging was requested.
153. If you are unable to accurately assign a PLEMI, the cost should be treated as unmatched and record under 812 on the DA worksheet.
154. The unit cost is per examination.

4.8 Cystic fibrosis

155. This section covers the cystic fibrosis year-of-care banding²⁴ that adult and paediatric cystic fibrosis centres²⁵ and other providers with network care arrangements should use for their NCC.
156. We no longer collect full or part year of care and adult/child splits are derived centrally.
157. The grouper generates HRGs for cystic fibrosis (DZ13*, PD13*) and their costs should be linked to a year-of-care currency.
158. The Cystic Fibrosis Trust²⁶ informs trusts how each patient will be categorised for the coming year.
159. To help improve the quality of these year-of-care costs, providers should:
- calculate costs against the 2021 calendar year bands, with no further local adjustment
 - ensure the data from network care providers conforms with this banding before submission.
160. 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.²⁷ Providers should access their banding data from the registry through their lead clinician.
161. Band allocations are based on data from the calendar year before the next financial year and are issued each February. The 2020 calendar year bands issued by the Cystic Fibrosis Trust in February 2021 should be used for the 2021 NCC.

²⁴ Within organisations currency may be used instead of the term banding.

²⁵ www.cysticfibrosis.org.uk/about-cf/cystic-fibrosis-care/uk-specialist-cf-centres.aspx

²⁶ www.cftrust.org.uk/

²⁷ 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.

162. 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

163. The costs submitted against the bands issued in February 2020 should cover all cystic fibrosis-related care for the 2020/21 financial year.

164. 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 Dictionary²⁸
- a primary diagnosis of cystic fibrosis may also be a useful way to identify cystic fibrosis-specific care.

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

- home care support,²⁹ 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.

166. We are aware the very small number of severely ill band 5 patients will have highly variable costs. Some requiring continuous intravenous antibiotics can manage their care at home with the support of the specialist team. Others

²⁸www.datadictionary.nhs.uk/web_site_content/supporting_information/main_specialty_and_treatment_function_codes_table.asp?shownav=1

²⁹ 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.

may require prolonged (six months or more) hospitalisation for their administration. Such costs should nevertheless be included.

167. 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;³⁰ this is assigned to the relevant HRG or TFC³¹
- 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

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

169. 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

³⁰ Cystic fibrosis ICD10 codes are included in HRG complication and co-morbidity lists, and recognised in HRG4+ output.

³¹ For example, obstetric care for a pregnant woman with cystic fibrosis, or ear, nose and throat (ENT) outpatient review for nasal polyps.

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.

4.9 Mental health provider spells

Collection scope

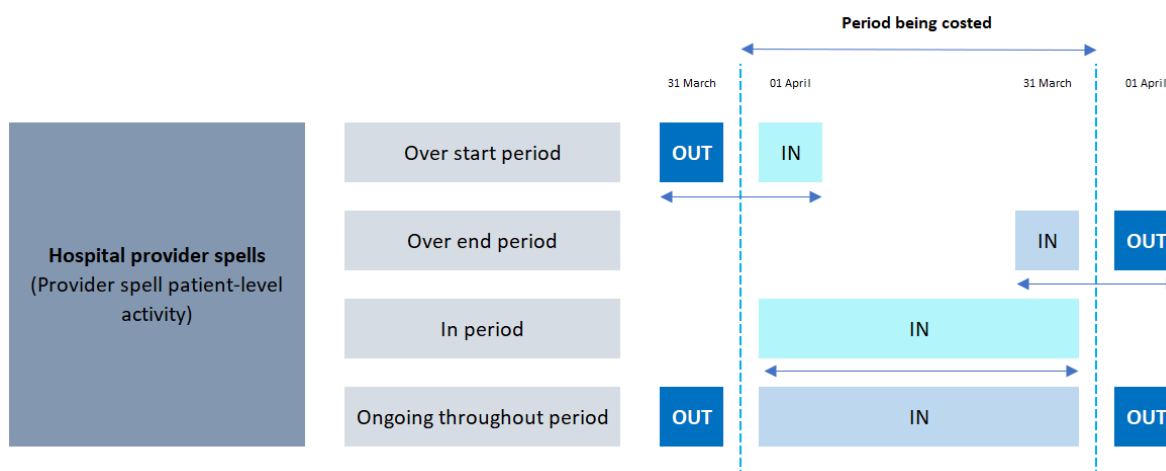
170. This section covers mental health provider spells (MHPS) and admitted patient care which are the basis of the spells collected in the MHPS PLICS data feed.
171. All MHPS completed within the collection year, or hospital provider spells still open at the end of the collection year, are in scope of this collection.
172. Mental health trusts will submit both complete and incomplete costed spells for admitted patient care. You should follow the below guidance for costing and submitting your mental health inpatient spells.
173. A spell that is unfinished at the end of the financial year must be collected as part of the month 12 XML file.
174. Only resources used and activities undertaken within the collection year should be included, regardless of when the hospital provider spell started or ended. For example, only costed ward care bed days that are within the collection year should be reported.
175. In some circumstances a patient may:
- take home leave or mental health leave of absence for a period of 28 days or less
 - have a current period of mental health absence without leave of 28 days or less which does not interrupt the hospital provider spell.
176. The cost of these items must be reported using the appropriate collection resource and collection activity at a patient level in the PLICS XML files. Costs and activity should be submitted by occupied bed day.
177. Providers 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.

Incomplete hospital provider spells

178. Figure 2 shows which part of a spell should be costed in the collection year.

Figure 2: incomplete hospital provider spells



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

180. There are four types of event:

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

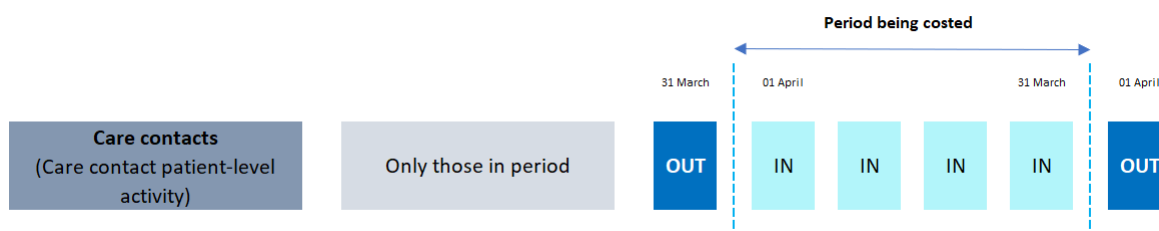
4.10 Mental healthcare contacts (MHCC)

Collection scope

181. This section covers MHCC/non-admitted patient care which are the basis of the contacts collected in the MHCC PLICS data feed.

182. All MHCC completed within the collection year are in scope of this collection as shown in Figure 3.

Figure 3: Scope of care contacts collected



183. Only adult mental healthcare cluster codes are submitted within the PLICS XML feeds, not:

- the forensic mental healthcare cluster code³²
- the forensic pathway
- the learning disabilities care cluster codes³³
- Child and Adolescent Mental Health needs based grouping code.

184. Therefore, for these activities we would expect the records to be PatCAS 04 (with relevant PatCAS date ranges provided) and the adult mental healthcare cluster code and dates to be left blank.

185. For non-admitted patient care – covering outpatients, day care and community – costs and activity should be reported for attendances and non face-to-face contacts.

³²https://www.datadictionary.nhs.uk/data_dictionary/attributes/f/forensic_mental_health_care_cluster_code_de.asp?shownav=1

³³https://www.datadictionary.nhs.uk/data_dictionary/attributes/l/le/learning_disabilities_care_cluster_code_de.asp?shownav=1

186. Where integrated teams include social workers, their costs and activity should only be included in the MHCC feed if they are NHS-funded posts. All providers should include the costs of community teams' contacts with inpatients within the MHCC feed.
187. 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 mental health nurses, occupational therapists, psychiatrists, psychologists, counsellors and community support workers (eg home helps).
188. Missed appointments (DNAs) should not be recorded and the cost should be treated as an overhead. Only attended appointments are in scope for the PLICS collection.
189. It is rare for patients to see more than one discipline (ie qualified professional staff group within each CMHT) at a time. When this does occur, the attendance should be costed in line with Standard CM14: Group sessions (see Figure 3 below).
190. Costs and activity for mental health services provided in daycare facilities³⁴ should be submitted on the same basis as for other patients using these facilities.
191. Daycare facility contacts are usually considered to have consultant input and to involve patient assessments, whereas CMHT group contacts do not necessarily involve a consultant and patient assessments.

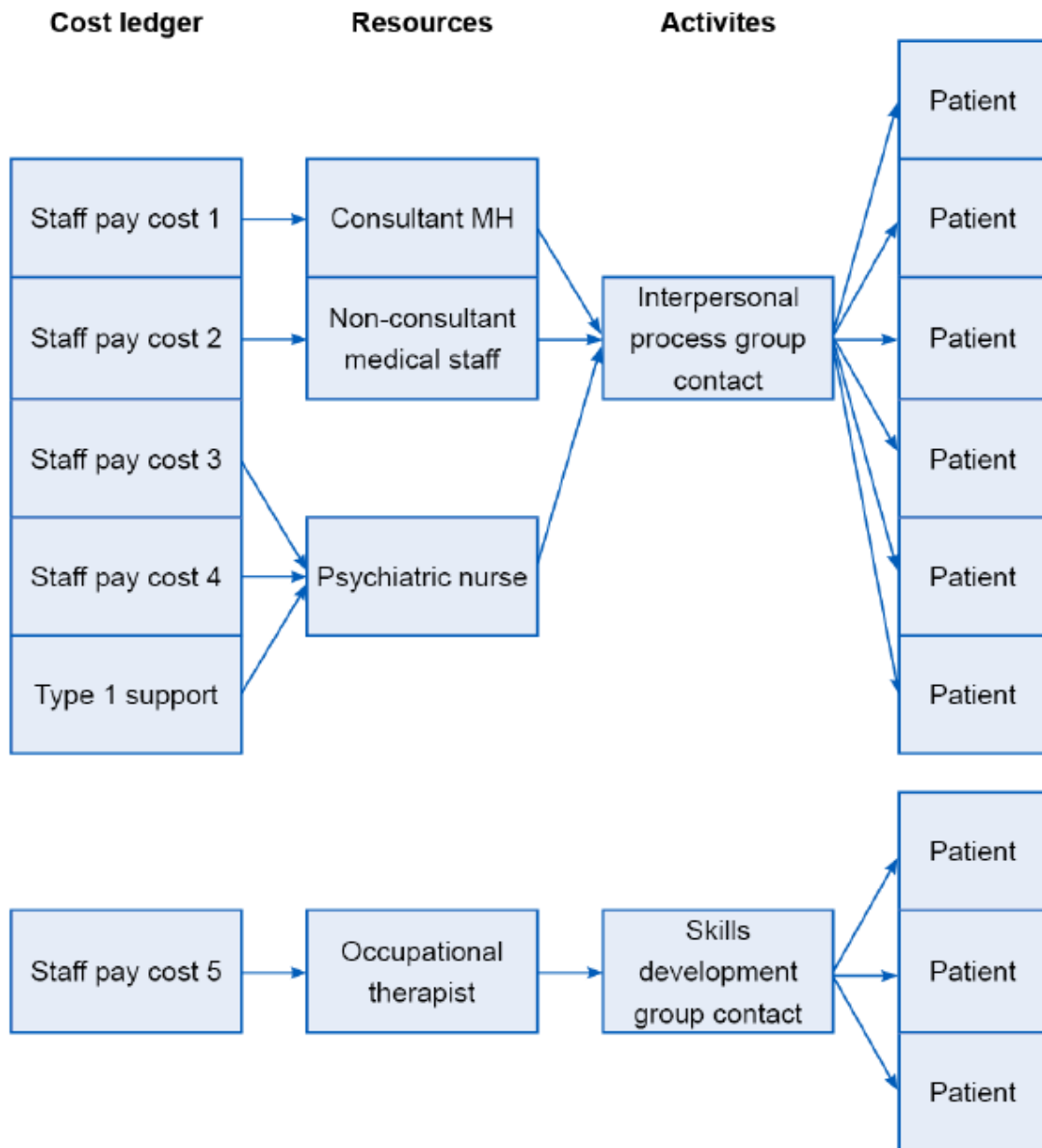
Where consultants have a clinical caseload within a specialist team, the costs and activity should be reported against the specialist team currencies in the NCC workbook mental health other services (MH) tab.

192. The requirement to submit data in some fields is dependent on the data submitted in the patient cluster assessment status field. The relationship between those fields is as follows:

³⁴www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/d/day_care_facility_de.asp?shownav=1

- If PatCas equals 01 then data should be submitted in PatCas, PatCASStDte, PatCASEndDte, Cluster, StartDateCareClust and EndDateCareClust
- If PatCas equals 02, 03, 04 then data should ONLY be submitted in PatCas, PatCASStDte and PatCASEndDte”

Figure 4: Attribution of multiple or single staff members to resources, activities and patients



4.11 Improving Access to Psychological Therapies (IAPT)

193. IAPT providers should not use NCC workbook worksheets 'MHIAPT' unless agreed in advance with the National Cost Collection team. All IAPT care contacts (attendances) should be submitted in the PLICS files as noted below.
194. The currency for IAPT clusters is cost per completed referral.
195. The PLICS IAPT collection continues to be on a separate feed to the main PLICS mental health feeds because IAPT services are distinct mental health services and in some areas are delivered by different organisations³⁵.
196. All IAPT activity recorded through the IAPT dataset v2.0 should be reported on the IAPT feed³⁶. IAPT care contacts (attendances) use the same cluster definitions as other mental health contacts but we expect most IAPT patients to fall into clusters 01 to 08.
197. Some IAPT activity may:
- be patients who are not assessed or clustered³⁷ (use 'Patient cluster assessment status' (Code 02 and leave 'Adult mental health care cluster code' blank)
 - be patients where a 'Adult mental health care cluster code' cannot be assigned (use 'Patient cluster assessment status' Code 01 and 'Adult mental health care cluster code' 00)
198. All appointments attended within the collection year are in scope of this collection. To separate the data extract into appropriately sized files, it must be split into 12 monthly files which cover the reporting period, using the 'Care Contact Date' field.³⁸

³⁵ This is under review for the next annual collection FY21-22

³⁶ All attended IAPT appointments within the collection year are in scope of this collection. Data for Long Term Care/IAPT integrated services pilots and Employment Advisor pilots is not in scope.

³⁷ Formally submitted in XML Field 'Cluster' code 99

³⁸ See 'Section 7 - Submitting PLICS files' for further details

199. All costs that occur for open referrals in the collection year must be reported, regardless of whether they relate to patients whose referrals have not started or have not been completed within the collection year. In addition, referrals that have started and finished in a previous reporting period and have follow up appointments in the current collection year should also flow.
200. The number of attendances relates to appointments with the patient only – either face-to-face, by telephone³⁹ or other methods such as email where appropriate.
201. Where a patient attends a group appointment, each patient counts as one attendance for that group session.
202. Where more than one staff member runs or participates in a group the number of attendances for that group remains as per paragraph 200 i.e. each patient counts as one attendance for that group session. You should ensure that where:
- the professionals fall into the same collection resource that the aggregate cost of the staff members is submitted per attendance
 - the professionals fall into different collection resources that the individual costs are submitted on the appropriate resource per attendance
203. Only attendances with staff members within your cost quantum should be counted.
204. Missed Appointments (DNA's) should not be recorded and the cost should be treated as an overhead.
205. We do not anticipate that the IAPT cluster costs will include any inpatient costs. Where a patient moves between mental health and IAPT, a new mental health spell / mental health care contact should be created in the MHSDS dataset.

³⁹ Telephone contact must replace a face to face contact.

5. Preparing aggregated data

206. In 2021, all trusts should submit any aggregated data in the NCC workbook. The user guide can be found on the open learning platform (OLP)⁴⁰.

5.1 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 gynaecological⁴¹
- specialist gynaecological⁴²
- 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

⁴⁰ <https://www.openlearning.com/nhs/courses/costing-improvement>

⁴¹ Local teams diagnose most cancers, provide treatment for some types of cancer and refer women to the specialist teams if necessary.

⁴² Specialist teams provide specialist care and treatment for women with less common cancers or who require specialist treatment for other reasons.

role of the cancer MDT is to resolve difficulties in diagnosis and staging, and to agree a management plan.⁴³

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 2021.
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'.

⁴³ Other roles of cancer MDTs can be found in NICE's improving outcomes guidance <https://www.nice.org.uk/guidance/published?type=csg>.

5.2 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.

5.3 Unbundled aggregated activity – rehabilitation⁴⁴ 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.

⁴⁴ This section does not cover intermediate care, single condition community rehabilitation or care that is part of a mental health event.

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. This paragraph refers to discrete specialist rehabilitation collected in the workbook on the REHAB tab. Excess bed days for data submitted anywhere in the NCC workbook should be included in the FCE. No excess bed days will be separately collected in 2021.
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.
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 4 defines the HRG codes to be used in the NCC workbook.

Table 4: 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* ⁴⁵ | Consultant-led non-admitted patient care (NAPC). |
| SD05* ²⁹ | Non consultant-led NAPC. |

5.4 Renal dialysis for chronic kidney disease and acute kidney injury⁴⁶

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 should exclude the core HRG from your PLICS return and include all costs against the renal dialysis HRGs in the NCC workbook.

⁴⁵ An additional core outpatient attendance should not be reported when a patient attends for specialist palliative care only.

⁴⁶ 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.

5.5 Chemotherapy

184. Chemotherapy is referred to as an unbundled service.
185. For the NCC, the unbundled elements of chemotherapy delivery and procurement will only be collected in the NCC workbook.
186. 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.
187. The activity measure for the chemotherapy procurement HRGs is the number of cycles⁴⁷ of treatment, and the unit cost is per average cycle.
188. Chemotherapy procurement HRGs are designed to cover the cost of the entire procurement service and therefore, in contrast to unbundled high-cost 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 Fund⁴⁸ should also be included in these HRGs.
189. The definitions in Table 5 may assist with costing the chemotherapy delivery HRGs.

Table 5: 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. |

⁴⁷ www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/a/anti-cancer_drug_cycle_de.asp?shownav=1

⁴⁸ www.england.nhs.uk/ourwork/pe/cdf/

| Definition | Explanation |
|---|--|
| 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. |

190. 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.

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

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

193. 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.

194. Chemotherapy should be reported on the NCC workbook under one of the following categories, to reflect differences in clinical coding guidance between these settings:

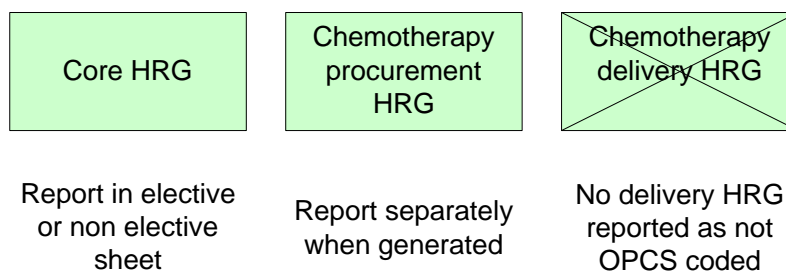
- ordinary elective or non-elective admissions
- daycase and regular day or night attendances
- outpatients
- other.

Ordinary admissions

195. 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.

196. 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 5: Reporting chemotherapy ordinary admissions

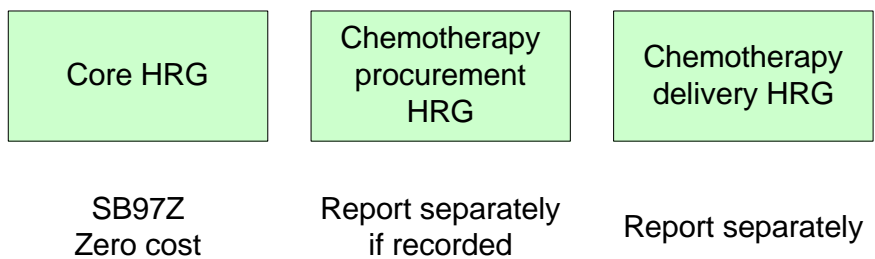


Daycase and regular day or night admissions

197. 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.

198. 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).
199. 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.

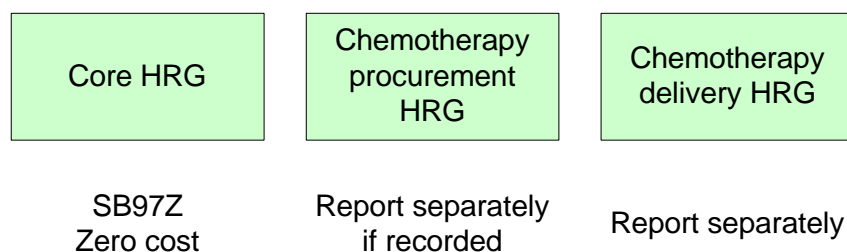
Figure 6: Reporting chemotherapy daycase and regular day or night attendances



Chemotherapy outpatients

200. 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).
201. 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 should exclude the core HRG from their PLICS return and include all costs against the unbundled HRGs in the NCC workbook.

Figure 7: Reporting chemotherapy outpatients



Other settings for chemotherapy

202. 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.

203. 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

204. 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.

205. Further guidance on how to treat regimens not on the national list can be found in the OPCS-4 clinical coding instruction manual.⁴⁹

206. 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.

⁴⁹ <https://isd.digital.nhs.uk/trud3/user/guest/group/0/pack/10>

207. 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.
208. 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.⁵⁰
209. We are aware that some supportive drugs may have a disproportionately high cost compared to the other expected costs of care within the unbundled chemotherapy procurement HRG, and that some hormonal drugs may similarly have a disproportionately high cost within the core HRG.
210. 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 Table 6.

Table 6: 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. |

⁵⁰ www.nrls.npsa.nhs.uk/resources/?entryid45=59880

| Method of delivery | Hormone treatments | Supportive drugs |
|----------------------------|---|------------------|
| As part of supportive drug | Include costs within supportive drug costs. | N/A |

5.6 Radiotherapy

211. 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.

212. 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.

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

214. 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.

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

216. 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.

217. 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.

218. Table 7 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 7: 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 |
|--|--|--|

219. 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.
220. 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.
221. Supportive care costs for cancer patients receiving radiotherapy in an ordinary elective or non-elective setting should be allocated as set out above.
222. Advice from the National Cancer Action Team (NCAT)⁵¹ highlights the need to allocate costs according to the type of radiotherapy being delivered. There are two main types of radiotherapy:
- external beam radiotherapy
 - brachytherapy and liquid radionuclide administration.
223. 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.

⁵¹ <http://webarchive.nationalarchives.gov.uk/20130513211237/http://www.ncat.nhs.uk/>

5.7 Mental Health non-cluster activity

Table 8: Non-cluster activity for all submitters

| Service | Settings | Subcategories |
|---|---|--|
| Drug and alcohol services for patients without a significant mental health need | <ul style="list-style-type: none"> Admitted patient care Outpatient attendances Community contacts | |
| Specialist mental health services | <ul style="list-style-type: none"> Admitted patient care Outpatient attendance Community contacts | <ul style="list-style-type: none"> 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 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 |

Table 9: Non-Cluster Activity for not submitting PLICS level detail

| Service | Settings | Subcategories |
|---|--|--|
| Child and adolescent mental health services ⁵² | <ul style="list-style-type: none"> Admitted patient care Daycare facilities on a patient-day basis Outpatient attendances Community contacts | <ul style="list-style-type: none"> CAMHS, admitted patients, psychiatric intensive care unit CAMHS, community contacts, crisis resolution home treatment |

Settings for non-cluster activity

Ordinary elective and non-elective admissions (APC)

224. 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%.

225. 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.

226. Costs and activity for mental health services provided in daycare facilities⁵³ should be submitted on the same basis as for other patients using these facilities.

⁵³www.datadictionary.nhs.uk/data_dictionary/nhs_business_definitions/d/day_care_facility_de.asp?shownav=1

227. 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

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

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

230. 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.

231. 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.

232. 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) 2003⁵⁴). Please contact costing@improvement.nhs.uk for guidance on this.

Community mental health teams

233. 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

⁵⁴http://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).

234. 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 6 describes this process.

235. 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 7).

Figure 6: Reporting patient contacts with multidisciplinary community mental health teams

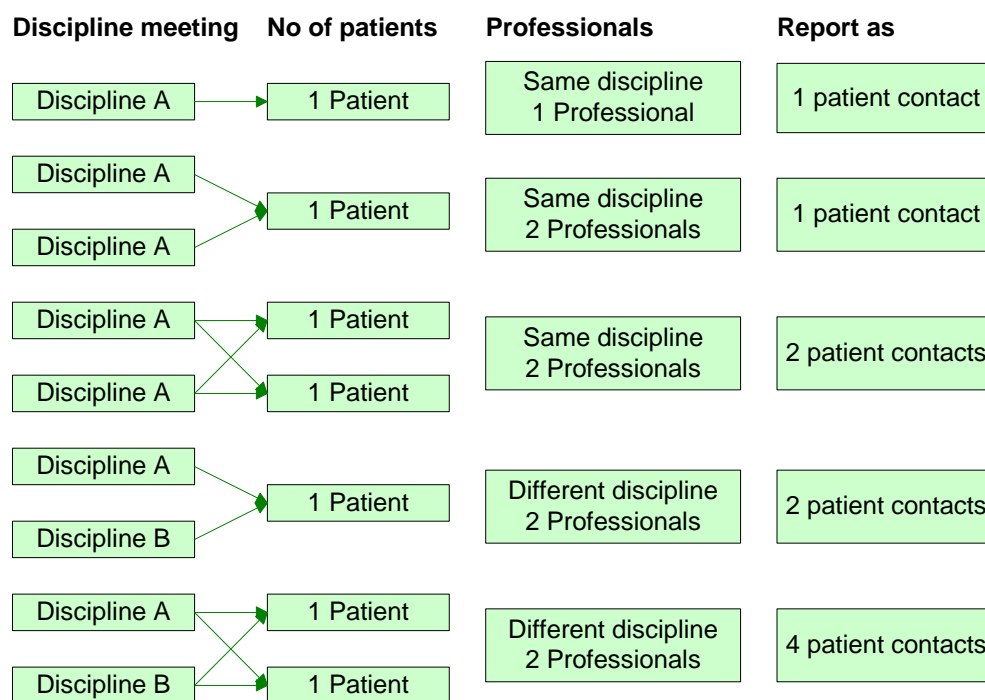
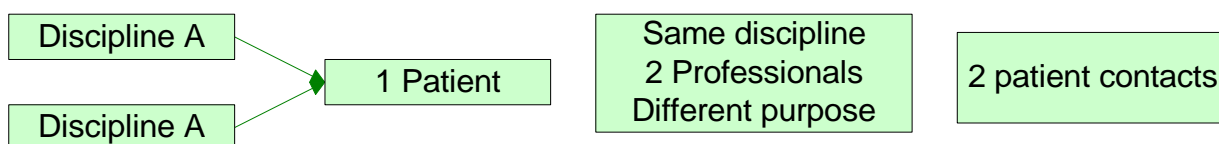


Figure 7: Reporting patient contacts with two or more professionals from the same discipline



Mental health specialist teams

236. 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,⁵⁵ 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
- forensic liaison services
- other psychiatric liaison services
- criminal justice liaison
- forensic community
- psychosexual services
- prison health
- other mental health specialist teams.

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

⁵⁵www.gov.uk/government/uploads/system/uploads/attachment_data/file/140098/FinMap2012-NatReportAdult-0308212.pdf

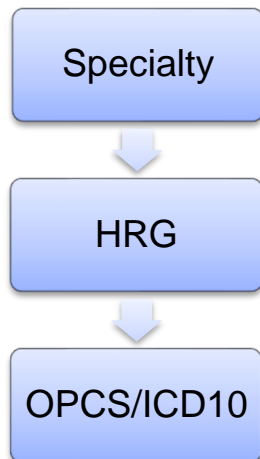
6. Treatment of specific scenarios

6.1 Sensitive/legally restricted data in PLICS 2021⁵⁶

238. Trusts will not be able to submit data at PLICS level for patients receiving services or treatments for which data is sensitive/legally restricted.
239. For APC, EC and OP, this process is unchanged for the 2021 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 2021.
240. The list of excluded local specialty codes, HRGs, OPCS and ICD10 codes can be found in Annex 7.
241. Sensitive/legally restricted data covers the following treatment and diagnosis categories:
- HIV and AIDS
 - sexually transmitted disease
 - gender reassignment
 - reproductive medicine.
242. 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.
243. 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 2021 PLICS collection (see Figure 7).

Figure 8: Capturing records excluded from PLICS

⁵⁶ Including HIV and AIDS.



244. 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.
245. 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.
246. You should check all OPCS and ICD10 codes in the record, not just the primary codes.
247. 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.
248. In the event any extract file includes a restricted HRG for the 2021 collection, the DVT validation process will fail.
249. 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

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

251. We are developing a 'legally sensitive' worksheet in the NCC workbook to be used for the submission of legally sensitive data.
252. 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.
253. 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.
254. 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).
255. In the event any A&E attendances contain restricted codes, the data relating to it should also be excluded from the submission of EC PLICS data and included in the NCC workbook.
256. 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

257. The full mandated guidance for how to treat these currencies is available on the GOV.UK website.⁵⁷ 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).^{58,59}

⁵⁷ See www.gov.uk/government/publications/hiv-outpatient-pathway-updated-guidance-available and www.gov.uk/government/publications/payment-by-results-hiv-outpatients-currencies

⁵⁸ www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/HIV/HIVAndAIDSReportingSystem/

⁵⁹ All providers providing the HIV outpatient pathways must submit data to HARS. The dataset supports commissioning and epidemiology of HIV adult outpatient activity.

258. We are not collecting pathway costs for the HIV adult outpatient services in 2021. However, we are collecting the unit cost of attendances for patients with HIV or AIDS against these three categories:⁶⁰

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

259. 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 procuring and prescribing these drugs should be included in the HIV currencies.

260. Some providers may not have these categories available locally. The attendance data by category can be requested directly from PHE via HARS.⁶¹

6.2 Unmatched pathology and radiology data⁶²

261. 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.

6.3 Miscellaneous scenarios – excluded TFCs

262. 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.

⁶⁰ See the *Costing glossary* for definitions at <https://www.england.nhs.uk/approved-costing-guidance/>.

⁶¹ The data request form is available from: www.gov.uk/government/publications/hiv-and-aids-reporting-section-hars-data-request-form

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

6.4 Zero cost HRGs in PLICS

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

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

266. 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 10.

Table 10: Zero cost HRGs

| HRG | Description | Rationale |
|-------|-----------------------------|--|
| PB03Z | Healthy baby | 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. |
| 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. |

7. Submitting PLICS files

267. The extracted CSV/XML files must be passed through the NHS England and NHS Improvement data validation tool (DVT) before being submitted to NHS Digital in the collection window.
268. The DVT converts the CSV files to XML format and will compress each monthly file. Only XML files can be submitted to NHS Digital.
269. 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.
270. 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.
 - discharge date for MHPS
 - care contact date for MHCC
 - appointment date/care contact date for IAPT
271. For APC and MHPS, an episode or spell that is unfinished at the end of the financial year must be collected as part of the month 12 file.
272. Each trust needs to make a full submission, defined as 12 monthly files per feed for all required activity data and one reconciliation file.
273. A calculation tool will be published on the open learning platform (OLP for trusts to calculate which files they need to submit⁶³.

⁶³ https://www.openlearning.com/nhs/courses/costing-improvement/what_xml_files_do_organisations_need_to_submit/?cl=1

7.1 Submitting data to NHS Digital

274. You must submit your PLICS files via secure electronic file transfer (SEFT) to NHS Digital.
275. For this you need to ensure you are set up as a SEFT user.
276. Each organisation needs a SEFT account and the current allowance is one user per organisation. SEFT-related queries can be sent to seft.team@nhs.net.
277. You should test your SEFT connectivity at least three months before the window opens. More details on SEFT, including the contact details for queries, are on the NHS Digital website [here](#).⁶⁴
278. 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. Please check your junk mailbox folder if notifications are not received within 15 minutes.
279. 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.

7.2 Submission rules

280. There is a tool published on the Open Learning Platform which provides detail on the files that make up a full submission.⁶⁵
281. 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.
282. The submitted files must contain the header message and be populated with data as specified in the specification.

⁶⁴ <https://digital.nhs.uk/services/transfer-data-securely>

⁶⁵ https://www.openlearning.com/nhs/courses/costing-improvement/what_xml_files_do_organisations_need_to_submit/?cl=1

283. Your file will fail validation if any mandatory data items are not populated as defined in the extract specification.
284. 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.
285. You should review and correct any files that fail validation.
286. 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).
287. Trusts that successfully submit their files early in the submission window may wish to improve their data and make a second submission before the window closes. This will be permitted in 2021 subject to availability of slots⁶⁶ .
288. As there is no resubmission window, the NCC team may request a subsequent submission later in the planned submission window⁶⁷ , where NHS England and NHS Improvement costing team identify serious data quality issues.
289. Once you have submitted your files, and they have passed validation, you should not attempt to upload your files again in the collection window unless requested by NHS England and NHS Improvement.

⁶⁶ See ACG Volume 1 for details to request an additional submission slot

⁶⁷ 18 October 2021 to 29 October 2021

8. Data validation tool for PLICS files

290. You should only use the NHS England and NHS Improvement Data Validation Tool (DVT).⁶⁸
291. 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.
292. Before submitting files to NHS Digital, you must pass them through our DVT. The exact validation checks involved will be published on our website.⁶⁹
293. 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 specification discrepancies that need to be amended before submission.
294. The tool first produces an output file, identifying any 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.
295. To use the DVT your files need to be in CSV or XML format. If this is not your software's normal submission process, please contact your software provider and NHS England and NHS Improvement costing team as soon as possible to make alternative arrangements.

⁶⁸ You can find the DVT user guide at <https://www.england.nhs.uk/approved-costing-guidance/>

⁶⁹ <https://www.england.nhs.uk/approved-costing-guidance/>

429. The NCC workbooks we are designing for the 2021 collection will include the existing validations.
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.

Annexes

[Annex 1: Medicines flowchart](#)

[Annex 2: PLEMI – Example patient journey](#)

[Annex 3: Patient level costing collection activity count](#)

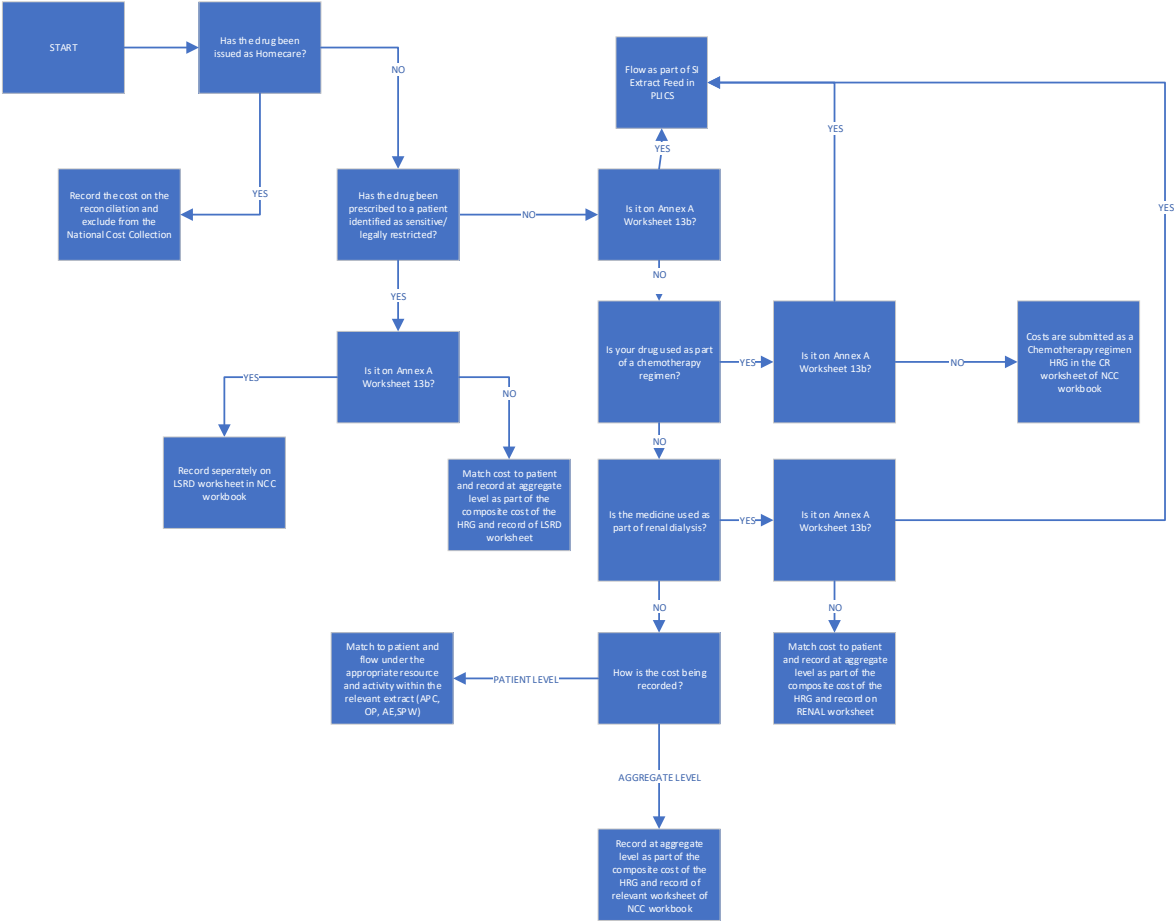
[Annex 4: Trusts providing ECMO and ECLS, and a dedicated PCU service](#)

[Annex 5: Adult critical patient journey scenarios](#)

[Annex 6: Example paediatric critical care calculation](#)

[Annex 7: Legally / Sensitive Restricted Data](#)

Annex 1: Medicines flowchart



Annex 2: PLEMI – Examples of patient journey

| | | | | | | | | | |
|--|--|--|--------------------|--|--|-------------------|--|---|---|
| <p>Example Patient Synopsis:</p> <p>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.</p> | 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. | A&E (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 | | |
| <p>You may not have a PLEMI for EC activity and therefore this is identified in grey.</p> <p>Creating the PLEMI:</p> <p>To create the PLEMI: 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.</p> <p>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.</p> | 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 POD Extract Spec. HRG Cost (£) | ABC12345620-01 A&E SI PHCD0001 - Blood A £600 | ABC12345620-03 ACC SI PHCD0002 - Drug B £500 | | | | | | ABC12345620-07 NEL SI PHCD0003 - Drug C £300 | | | | | | ABC12345620-09 ACC SI PHCD0004 - Drug D £500 | | | | | ABC12345620-11 NEL SI PHCD0005 - Drug E £500 | | | | | | | |
| A&E | PLEMI POD Extract Spec. Time HRG Service Code/Setting Additional Info Cost (£) Cost in POD (£) | ABC12345620-01 A&E AE (EC) 2 Hours V002 T01A N/A 330 £730 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ACC | PLEMI POD Extract Spec. Time HRG Service Code/Setting Additional Info Spell Number Cost (£) Cost in POD (£) | ABC12345620-02 ACC SWC 1 Day KC05Z CCU06 2 Organs supported IP12345 £2,000 | ABC12345620-03 ACC SWC 1 Day KC05Z CCU06 2 Organs supported IP12345 £1,800 | ABC12345620-04 ACC SWC 1 Day KC05Z CCU06 1 Organs supported IP12345 £1,600 | ABC12345620-05 ACC SWC 1 Day KC05Z CCU06 1 Organs supported IP12345 £1,400 | ABC12345620-06 ACC SWC 1 Day KC05Z CCU06 1 Organs supported IP12345 £1,200 | | | | ABC12345620-08 ACC SWC 1 Day KC04Z CCU03 3 Organs supported IP12345 £3,000 | ABC12345620-09 ACC SWC 1 Day KC04Z CCU01 2 Organs supported IP12345 £2,000 | ABC12345620-10 ACC SWC 1 Day KC04Z CCU01 1 Organs supported IP12345 £1,000 | | | | | | | | | | | | | | | |
| APC | PLEMI POD Extract Spec. Time HRG Service Code/Setting Spell Number Cost (£) Cost in POD (£) | ABC12345620-07 NEL APC 7 Days (16 midnight counts - 8 occupied bed days) EB03C - Heart Failure or Shock, with CC Score 8-10 TFC320 - Cardiology IP12345 | | | | | | | | | | | | | | | | | | | ABC12345620-11 NEL APC 8 Days (7 midnight counts) W06B - Sepsis with Multiple Interventions, with CC Score 5-8 TFC430 - Geriatric Medicine IP12345 £2,500 | | | | | | £7,000 £2,800 |

Annex 3: Patient level costing collection activity count

| | COLLECTION | | | PRE-COLLECTION | | COLLECTI ON |
|----------------------------------|------------------------|---|---|---|---------------------------|----------------------|
| | Collection Activity ID | Collection Activity Description | ActCnt Description for PLICS Collection ID | Example Allocation Driver Description (Costing Resources into Costing Activities) | Count for Cost Allocation | Count for PLICS Feed |
| EXAMPLE 1 – THEATRES (PATIENT X) | THR001 | Anaesthesia | Time into anaesthetic to time out of recovery by episode in minutes | Anaesthesia and theatre duration in hours and minutes | 02:30 | 02:30 (150 minutes) |
| | | | | Based on duration of the operation in minutes | 01:00 | |
| | | | | Relative weight value or fixed cost | £4.50 | |
| | THR002 | Surgical care | Procedure start to procedure end in minutes | Anaesthesia and theatre duration in hours and minutes | 02:30 | 01:00 (60 minutes) |
| | | | | Procedure duration in hours and minutes | 01:00 | |
| | | | | Recovery duration in hours and minutes | 00:30 | |
| | | | | Actual cost as a weighting | £30.00 | |
| | | | | Duration in theatre in hours and minutes when perfusion performed | 00:05 | |
| | | | | Relative weight value based on actual cost of consumables | £2.50 | |
| | THR003 | Prosthesis, implant or device insertion | Number of issues | Actual cost as a weighting | £500 | 1 |

| | COLLECTION | | | PRE-COLLECTION | | COLLECTION |
|--|------------------------|---------------------------------|--|---|---------------------------|----------------------|
| | Collection Activity ID | Collection Activity Description | ActCnt Description for PLICS Collection ID | Example Allocation Driver Description (Costing Resources into Costing Activities) | Count for Cost Allocation | Count for PLICS Feed |

| EXAMPLE 2 – OTHER DIAGNOSTIC TESTING | ODT001 | Other diagnostic testing | Number of tests | Duration of photography contact in minutes | 00:15 | 1 | |
|--------------------------------------|--------|---------------------------|---|--|--|----------|----|
| | | | | Fixed cost | £40 | | |
| | | | | Relative weight value | 0.15% | | |
| | | ODT002 | Screening | Number of tests | Relative weight value | 0.69% | 2 |
| | | | | | Relative weight value | 2/5,000 | |
| | | ODT003 | Respiratory investigations | Number of tests | Relative weight value for type of investigation | 6/10,000 | 1 |
| | | ODT004 | Other cardiac non-invasive investigations | Number of tests | Duration of contact or attendance in hours and minutes | 01:00 | 10 |
| | | | | | Relative weight value for type of investigation | 1% | |
| | | ODT005 | Neurophysiology investigations | Number of tests | Relative weight value for type of investigation | 2% | 1 |
| | ODT006 | Echocardiogram (ECHO) | Number of tests | Relative weight value for type of investigation | 5/10 | 1 | |
| | ODT007 | Audiology assessments | Number of tests | Duration of contact or attendance in hours and minutes | 03:00 | 5 | |
| | ODT008 | Urodynamic investigations | Number of tests | Relative weight value for type of investigation | 4/7000 | 1 | |

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 ⁷⁰ |
| | 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 and Weston 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 |
| | R0A | 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 and Weston NHS Foundation Trust |
| RWE | University Hospitals of Leicester NHS Trust | |

⁷⁰ Guys and St Thomas' NHS Foundation Trust is merging with Royal Brompton and Harefield NHS Foundation Trust on 1 February 2021 and from this date will be known as RJ1 Guys and St Thomas' NHS Foundation Trust.

Annex 5: Adult critical care – patient journey scenarios

| Scenario A - Patient admitted to ACC unit for 3 days with no breaks - Same HRG - reducing 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 | | | | | |
| Field Name | XML Field Name | Day 1 | | Day 2 | |
| Unbundled Activity Type | UnAct | ACC | Time during the day spent in a non-ACC ward | ACC | ACC |
| Critical Care Local Identifier | CCLI | ABC23456 | | CDE23456 | CDE23456 |
| Critical Care Unit Function | CCUF | 05 | | 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 | 09 | 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 6: 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 7: Legally / Sensitive Restricted Data⁷¹

Table 11: 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. |

Table 12: 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 |

⁷¹ A excel version of these tables can be found on the OLP here https://www.openlearning.com/nhs/courses/costing-improvement/sensitive_legally_restricted_data_coding/

| HRG | Description |
|--------|---|
| 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 |

Table 13: 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 |

| OPCS code | Description |
|-----------|--|
| 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 |

| OPCS code | Description |
|-----------|--|
| 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 |

Table 14: 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 |

| ICD10 code | Description |
|------------|---|
| 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 |

| ICD10 code | Description |
|------------|--|
| 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 |

| ICD10 code | Description |
|------------|---|
| 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 |

| ICD10 code | Description |
|------------|---|
| 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 |

| ICD10 code | Description |
|------------|---|
| 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) |

| ICD10 code | Description |
|------------|--|
| 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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