Monitor

Making the health sector work for patients

Patient-level cost collection: Follow-up review and recommendations for 2014/15

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About Monitor

As the sector regulator for health services in England, our job is to make the health sector work better for patients. As well as making sure that independent NHS foundation trusts are well led so that they can deliver quality care on a sustainable basis, we make sure: essential services are maintained if a provider gets into serious difficulties; the NHS payment system promotes quality and efficiency; and patients do not lose out through restrictions on their rights to make choices, through poor purchasing on their behalf, or through inappropriate anti-competitive behaviour by providers or commissioners.

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1. Why we are publishing this document

Monitor aims to continue to assess the patient-level information and costing systems (PLICS) collection to explore ways to reduce cost variations from inconsistent methodology and deviations from the current costing standards and guidance. Following visits to a number of sites we are publishing this document during the 2014/15 PLICS collection window to provide clear guidance on areas we feel have the potential to generate inconsistent costs across organisations. These areas are:

1. indirect costs

2. data matching.

We are aware that organisations are at an advanced stage in the process of preparing for the 2014/15 PLICS collection and so, while we recommend that trusts make as many improvements as is practical up to the submission close, we appreciate that some of our suggestions may require longer to implement.

2. Key messages

Indirect costs are costs related to the delivery of patient care and:

> Should **not be reported as an overhead** within the PLICS collection.
>
> Should be reported across **all relevant cost pools.**

Data matching is the process that links patient care resources, which are typically held in many different feeder systems, to the patient episode. Organisations should aim to:

> **Track** levels of unmatched activity for each activity source.
>
> **Understand** the cause of unmatched activity.
>
> Address the impact of **work in progress (WIP)**.
>
> **Allocate** the cost associated with significant levels of unmatched activity using a methodology that does not inflate the costs of patients who have been matched.

3. Indirect costs

3.1. How indirect costs affect the PLICS collection

The PLICS collection is structured in a way that enables us to analyse the cost of individual patient episodes using a range of cost pools. This allows comparisons to be made across patients and across organisations which help identify possible

reasons why trusts report different costs for similar treatment. For this to be a meaningful comparison we need to ensure as far as possible that all trusts are including the same cost elements in each of the cost pools in the PLICS collection.

The Healthcare Financial Management Association's (HFMA) 2015/16 Acute Health Clinical Costing Standards define indirect costs as those that are indirectly related to the delivery of patient care, and overheads as those of the support services that contribute to the effective running of an NHS provider.

Our *Approved costing guidance*[1] recommends that costing practitioners pay particular attention to classifying indirect costs, as per HFMA Acute Health Clinical Costing Standard 1, ensuring these costs are reported in the relevant cost pools along with the direct costs.

3.2. What we learned from our site visits

Our site visits, which involved tracking costs from the ledger to the PLICS return, identified that some indirect costs as defined in the clinical costing standards are being treated inconsistently. This means indirect costs are either being incorrectly reported as overheads or are being included in the wrong cost pools.

In practice, some cases of inconsistency are because of a lack of awareness of the requirement, but the allocation methodology used contributes to others.

3.3. Our recommendations for the 2014/15 PLICS collection and beyond

> The indirect costs listed in Table 1 **should not be included in the 'Overhead' column** of the 2014/15 PLICS collection template, but instead are required to be included in **one or more relevant cost pools**.

There are two areas where organisations appear to be deviating from this requirement:

1. where an indirect cost is allocated to a direct cost centre, we have seen examples of this incorrectly defaulting to inclusion in the 'Overhead' column of the PLICS collection template unless specific steps are taken
2. where an indirect cost is allocated using a patient feed, some organisations are selecting one direct cost pool to report the indirect cost against even if the indirect cost relates to more than one cost pool.

[1] Available from: www.gov.uk/government/uploads/system/uploads/attachment_data/file/404708/Approved_costing_guidance_-_17_Feb_2015.pdf

Table 1: Indirect costs

- CNST premium
- Capital charges (depreciation and cost of capital) – medical and surgical equipment that can be allocated to clinical departments
- Clinical coding
- Clinical safety, quality and audit
- Consultancy costs if for a specific department or service (new for the 2015/16 update)
- Divisional managers and operational managers
- Medical records
- Patient catering and linen
- Pharmacy services (managing and running costs)
- Patient transport (new for the 2015/16 update)
- Portering
- Specimen collection
- Sterile services
- Training – departmental (new for the 2015/16 update)

Source: 2015/16 HFMA Acute Health Clinical Costing Standards (Standard 1).

These points are further highlighted by looking at the cost of a directorate manager for surgery who may have responsibility for both ward areas and operating theatres. For the PLICS collection we would expect this cost to appear in both the 'Ward' and 'Operating theatres' cost pools. This can be done in one of two ways depending on the allocation methodology adopted.

The 2015 MAQS template lists the methodologies in Table 2 for directorate management costs.

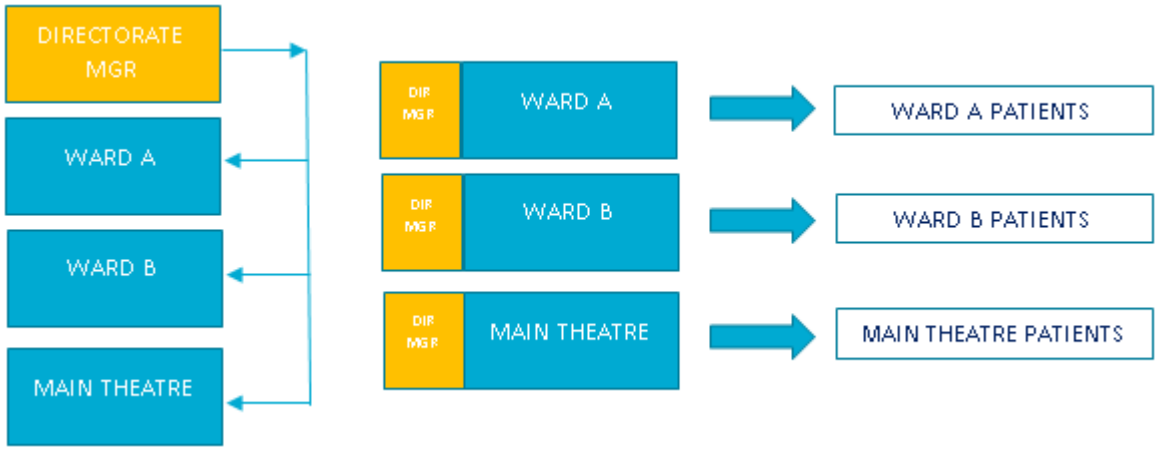
Table 2: MAQS allocation methodology for directorate management costs

Number of inpatient finished consultant episodes (FCEs) and outpatient attendance (and emergency department attendances if appropriate) weighted by recommended point of delivery weightings	1
Number of inpatient FCEs and outpatient attendances (and emergency department attendances if appropriate)	0.75
WTE by cost centre	0.5
Overhead to all clinical services	0.25

Source: HFMA 2015 Acute MAQS Allocation look up.

If the allocation methodology is '**Overhead to all clinical services**' or '**WTE by cost centre**', then the directorate manager's cost will be allocated to ward cost centres **and** operating theatre cost centres. As shown in Figure 1, the element of the directorate manager's cost that falls into the ward cost centres will then be assigned to the patients seen on those wards; similary, the element that falls into the operating theatre cost centres will be assigned to the patients seen in theatre.

Figure 1: Allocating indirect costs to other cost centres



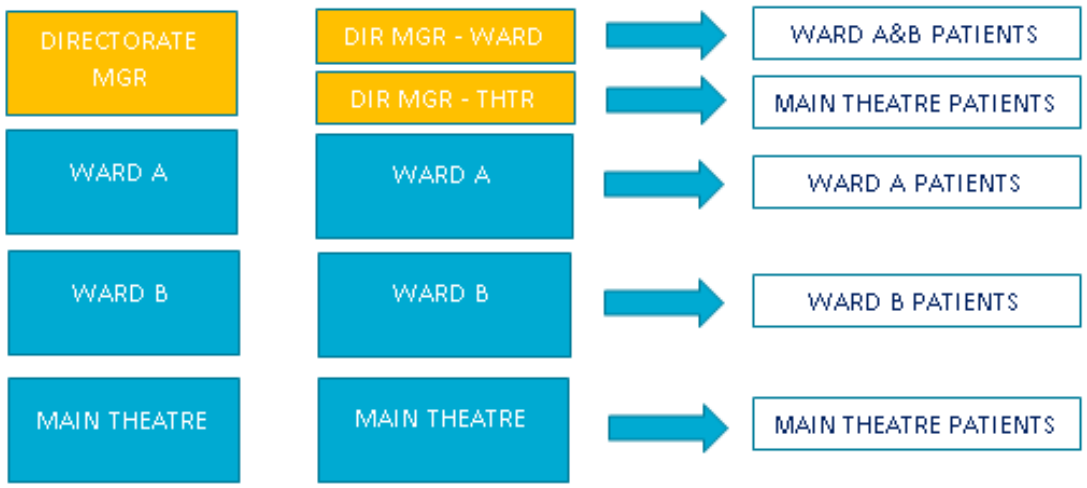
If you adopt either of these methods, please ensure the indirect cost is reported along with the direct cost it has been apportioned to and is not indadvertently reported in the 'Overhead' column.

Where a trust adopts one of the higher scoring methods in Table 2, such as '**number of inpatient FCEs and outpatient attendances (and emergency department attendances if appropriate)**', we have seen that this poses a different challenge: a cost centre allocated directly to a patient in some cases can be reflected in one cost pool only.

> When using a patient feed to assign an indirect cost, take specific action to ensure the cost flows through to **all relevant cost pools**.

Figure 2 illustrates how this may be achieved by splitting the indirect costs into separate elements before attributing the cost to patients.

Figure 2: Allocating indirect costs directly to patients



4. Data matching

4.1. How data matching affects the PLICS collection

Matching departmental data to the main patient episodes to create cost drivers is one of the fundamental features of patient-level costing. Successful matching ensures the costs assigned to individual patients reflect the actual treatment they received.

However, data quality issues and disparate systems within healthcare organisations can lead to resources that cannot be linked to a relevant hospital episode and unless these are dealt with appropriately, they can significantly distort individual patient costs and undermine the validity of the process.

Standard 8a of the HFMA's Acute Health Clinical Costing Standards specifically states that unmatched activity:

- should not be allocated as an overhead to the matched activity and
- needs to be costed to prevent the matched activity from attracting higher costs.

There is however still no consensus as to what to do with a cost that may be associated with unmatched activity.

4.2. What we learned from our site visits

We found a range of methodologies being used to handle the cost of unmatched activity, with the majority treating it as an overhead to the matched activity. There was also variation in the use of date ranges and the inclusion of activity from previous periods when searching for matches.

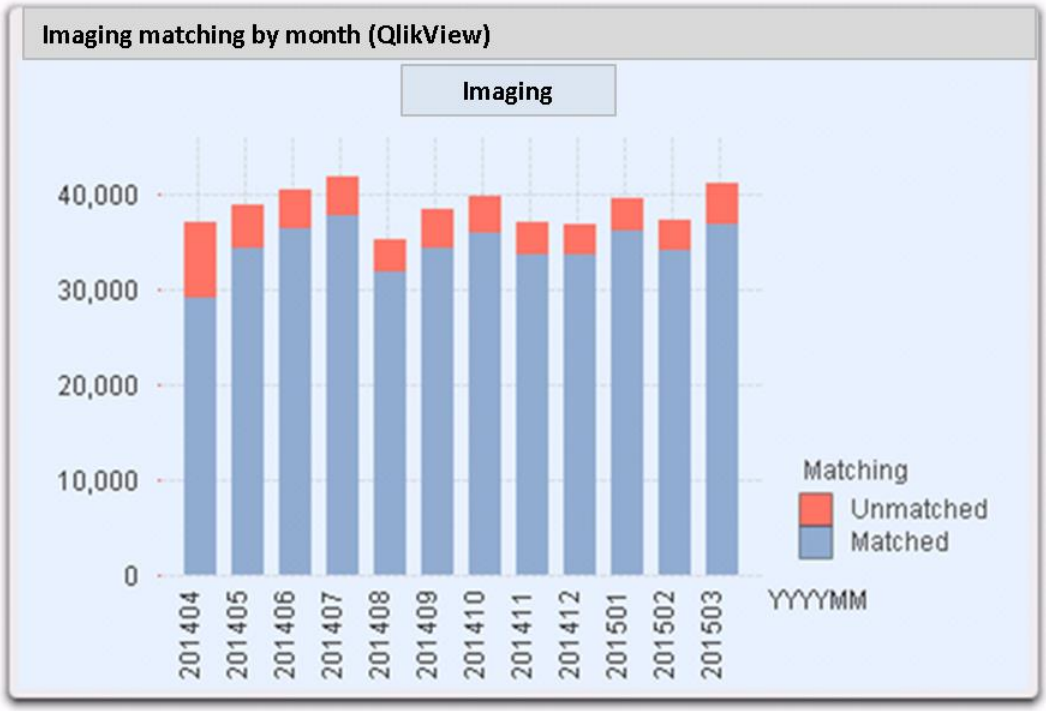
4.3. Our recommendations for the 2014/15 PLICS collection and beyond

> Actively **track** the levels of unmatched activity for every data source used to assign costs to the main hospital episode.

This means the percentage of activity that has not been matched to a patient event should be calculated and reviewed periodically, as illustrated in Figure 3.

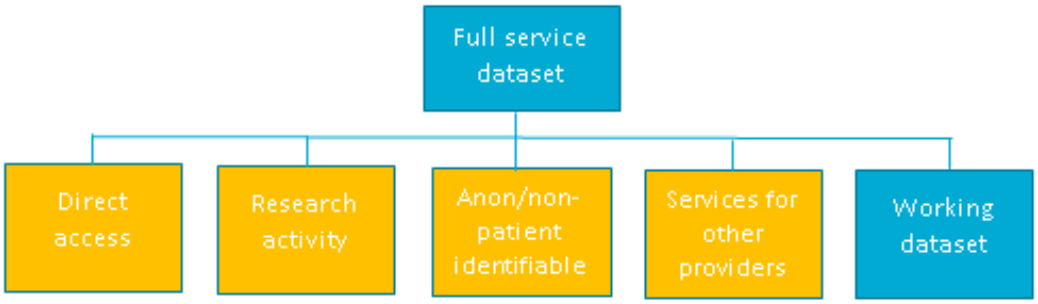
For the unmatched percentage to be a meaningful value, it is necessary to ring fence all activity that can't be matched for known reasons and to discount it from the unmatched percentage calculation; this leaves the working dataset, as shown in Figure 4.

Figure 3: Example unmatched monitoring report



Source: Imperial College Healthcare NHS Trust.

Figure 4: Ring fencing data that can't be matched

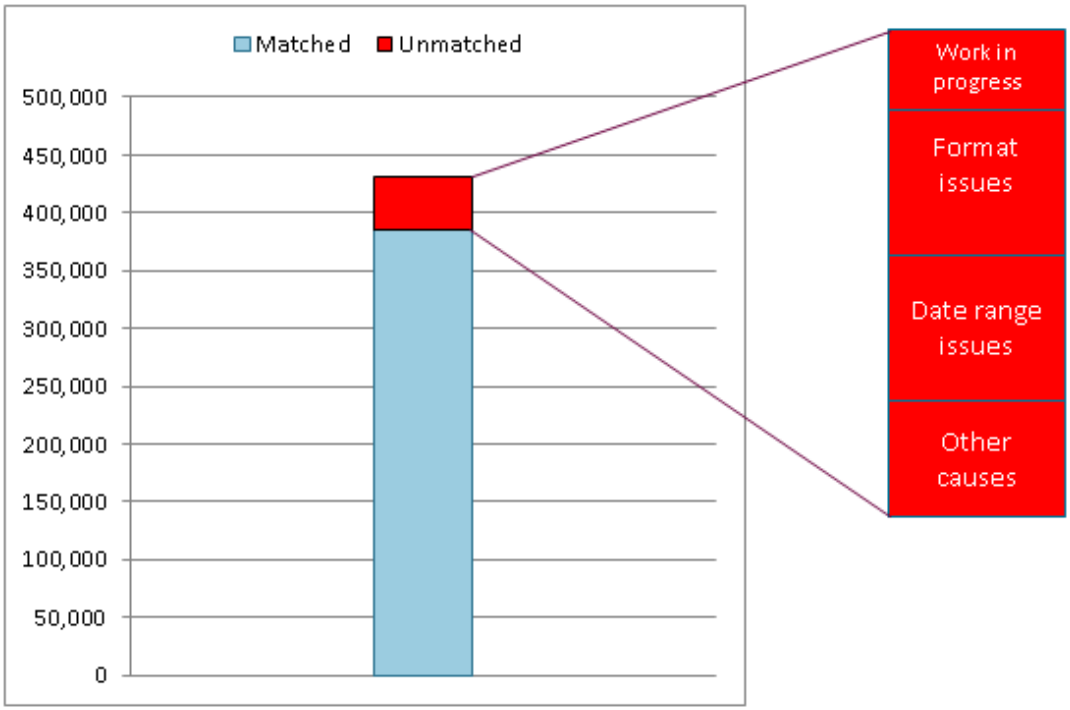


Any data you isolate at this stage that represent real work must have an associated cost. It is important to identify and separate this cost on the ledger so that appropriate allocation methods can be applied.

Understand the cause of unmatched activity.

Organisations need to perform regular spot checks on their levels of unmatched activity in order to understand the causes (Figure 5). In collaboration with the data providers and the services, you need to refine the matching methodology and iterate the process to remove as many of the causes of unmatched activity as possible. Pay particular attention to matching percentages by month to ensure there have been no changes to the structure of the supplied data.

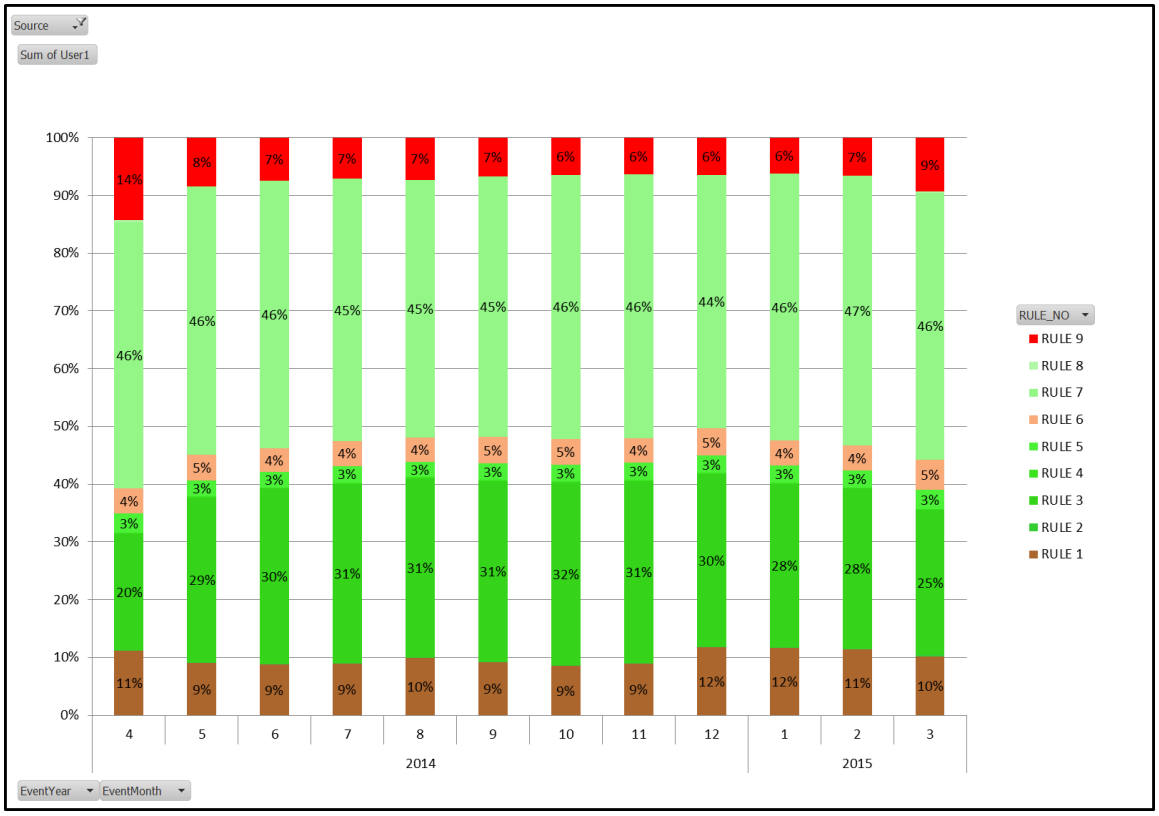
Figure 5: Understanding the cause of unmatched activity



Rectifying unmatched activity at this stage may involve:

- correcting the data (or adjusting scripts) to account for formatting differences between the datasets
- adjusting date ranges in line with working practices – speak to the service managers or other organisations to get a sense of an appropriate date range to match across; consider whether some patient groups should be handled differently from others
- adopting an iterative matching approach whereby you gradually expand the dataset you match against by reducing the number of fields used to identify a match; Figure 6 gives an example of this.

Figure 6: Example of iterative matching rules



Rule	Description
Rule 1	PAS NO,REQ BY,TEST CARRIED OUT DATE BTWN EPI START/END DATE
Rule 2	PAS NO,REQ BY,TEST REQ DATE BTWN EPI START/END DATE
Rule 3	PAS NO,TEST CARRIED OUT DATE BTWN EPI START/END DATE
Rule 4	PAS NO,TEST REQ DATE BTWN EPI START/END DATE
Rule 5	PAS NO,TEST REQ DATE BETWEEN ATTEND DATE +/-5
Rule 6	N/A '0%
Rule 7	DIRECT ACCESS
Rule 8	N/A '0%
Rule 9	UNMATCHED

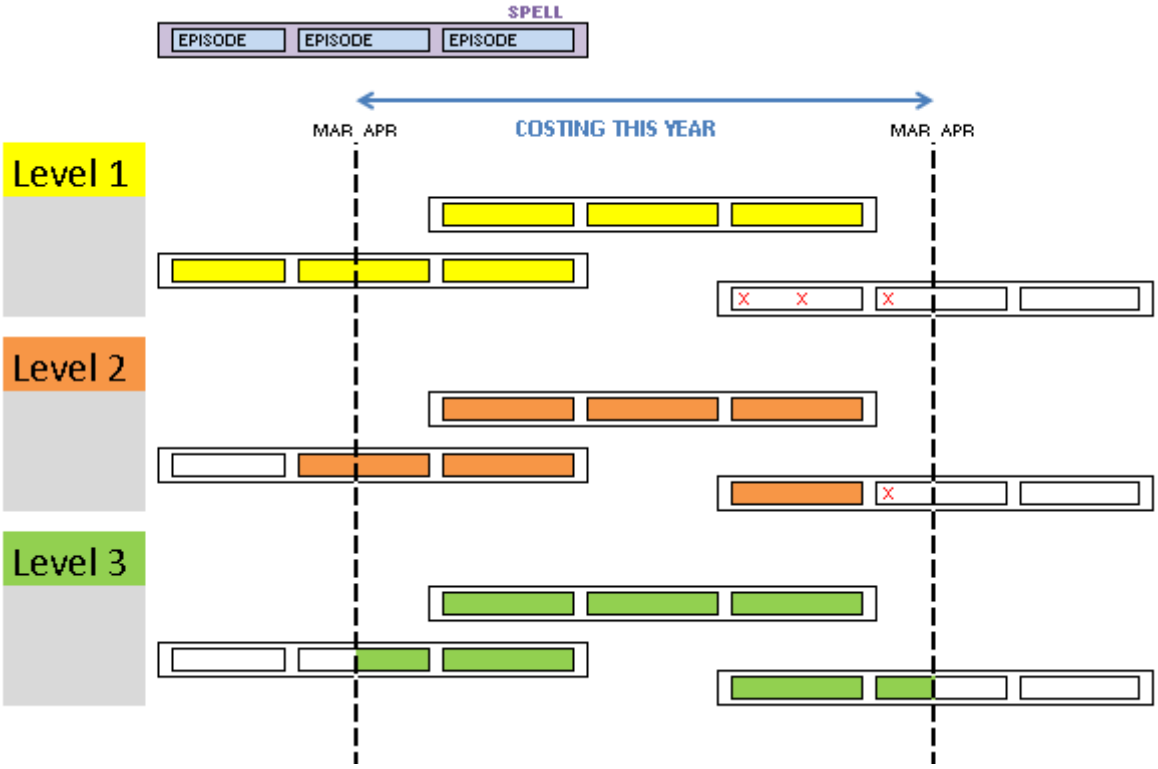
Source: Imperial College Healthcare NHS Trust.

Address the impact of **work in progress (WIP).**

Depending on which level of WIP your organisation adopts, an element of activity will not match simply because the hospital episode that it relates to is not included in the PLICS model.

Figure 7 shows the three levels of WIP (full definitions of these levels are given in Standard 5 of the HFMA Acute Health Clinical Costing Standards). The episodes marked with an X highlight where unmatched service activity will be generated.

Figure 7: Impact of work in progress on unmatched activity



Awareness of WIP activity is important for two reasons:

1. it should be taken into account when assessing the significance of the final unmatched percentage

2. to avoid it distorting the patient level costs, for levels 1 and 2 it is necessary to include activity from the previous period in the matching process so that opening WIP can absorb and offset the costs of closing WIP.

> **Allocate** the cost associated with significant levels of unmatched activity using an appropriate methodology to avoid inflating the costs of matched patients.

If the percentage of unmatched activity for a given source (excluding work in progress) remains significant after isolating all the cost and activity associated with data that legitimately can't be matched, you need to take further action to avoid assigning the cost of the unmatched activity to the matched patients.

At this stage, organisations should make their own assessment of both what a significant level of unmatched activity is and how they should handle the costs associated with it. It is likely that the method of allocating the unmatched cost will vary depending on the service being provided. The key considerations should be:

- avoid inflating costs of patients who have been matched
- where possible, use coding information to identify those patients who should be attributed a cost from a service
- ensure that service costs are not allocated to patients who cannot have been impacted by the service.

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