Agenda

10:00 – 10:15  Chair’s introduction
10:15 – 10:30  NHS Improvement update
               Jack Hardman, Costing Lead, NHS Improvement
10:30 – 11:15  Putting the ‘I’ in PLICS
               Tim Edmondson, Costing Improvements Manager, NHS Improvement
11:15 – 11:45  Break – refreshments served in the break out area
11:45 – 12:15  Case study: Scan4Safety, learning from a Site of Excellence
               Stuart McMillan, Programme Manager for Scan4Safety, NHS West Yorkshire Association of Acute Trusts.
12:15 – 13:15  Lunch - refreshments served in the break out area
13:15 – 13:45  Structured networking session
13:45 – 14:30  EY Audit session: Improving the Quality of your Costing
               Muhammad Amanji, Advisory Services, Ernst & Young
14:30 – 14:45  Comfort break - refreshments served in the break out area
14:45 – 15:15  Q&A session
               Jack Hardman, Costing Lead, NHS Improvement
15:15 – 15:30  Closing remarks
15:30          Close
Welcome, introduction and housekeeping

Stephen Lowis, Finance Manager, Benchmarking & Efficiency
Bradford Teaching Hospitals NHS Foundation Trust
NHS Improvement update

Jack Hardman, Costing Lead
NHS Improvement
Putting the ‘I’ in PLICS

Tim Edmondson, Costing Improvement Manager
NHS Improvement
Changes between draft and final cost collection guidance

**Episodes collected for acute PLICS submissions**

- Feedback supported the change for acute trusts to submit complete and incomplete episodes in 2019.
- The standards process explains how to cost the 4 episode types
- All 4 types will be collected in 2019
- The field named ‘Consultant episode completed indicator code’ detailed in IR1.2 in the technical document will be collected. This field is a year 1 requirement.
- Community and Mental Health trusts should continue to cost completed episodes only

**Legally sensitive data**

- The guidance on how to identify legally sensitive data in PLICS is still being worked through by NHS Improvement and NHS Digital.
- Once we are certain there will be no changes to the legal restrictions around coding of episodes we will produce a technical update.
- Legally restricted codes lie in sensitive services
  - Gender reassignment
  - Sexual health services
  - HIV/AIDS patients
  - Reproductive medicine

**Chemotherapy**

- There is no change to the collection of chemotherapy delivery or procurement for 2019
Submission schedule

Reference cost only submissions

- The deadline for Community, Mental health and Ambulance Reference Costs return is the week ending 26\textsuperscript{th} July 2019.

PLICS and Reference Costs submission

- For the acute sector, we will be scheduling your submissions in weekly slots
- You will be asked to select a week in which you wish to submit on a first come, first served basis
- You will be expected to submit your PLICS XML files and your final signed off National Cost Collection workbook on the same day within your chosen week.
- If you submit your signed off PLICS and NCC workbook early, you will have the option to request to submit again within the collection window, if you find a substantial error when internally validating your submission.
- The resubmission period will be between the 14\textsuperscript{th} and the 25\textsuperscript{th} of October 2019.
- Resubmissions will be on request by NHS Improvement only.
- Non acute sector TBC.
National Cost Collection Support

Call Surgeries

In 2019 the National Cost Collection Team will support practitioners by holding a call surgery to help with queries on the cost collection

- Weekly on Wednesdays up to and including 12\textsuperscript{th} June, 2-5pm
- Then daily from 17\textsuperscript{th} June 2-3pm
- The telephone number to use will be announced from the cost collection OLP course next week.

OLP

The National Cost Collection Team will launch the 2019 National Cost Collection course on the OLP on the 4\textsuperscript{th} March.

If you were enrolled on the 2018 course you will be automatically enrolled on the 2019 course.

If you need to be enrolled on the course please email your request to costing@improvement.nhs.uk
New PLICS portal launched
V2 to launch summer 2019

- Matches Trust mean at selected HRG level
- User can click to view and download the full activity and resource metrics

Click the activity to view key metrics analysis
Contents

• National Cost Collection PLICS – a brief overview
• Identifying efficiencies using the NCC PLICS data
• The power of NCC PLICS
• Any questions?
NCC PLICS – A brief overview

• Patient level costing (PLICS) has existed for a long time in the NHS.

• The NHS I costing transformation programme (CTP) is working towards producing a full, standardised national collection of cost and activity data for the whole of the NHS by summer 2020/21.

• Reference Costs (RC), will be phased out over the next 4 years.

• We will refer to this collection as the National Cost Collection, this will be the name from 2018-19 and includes reference costs and PLICS data until the reference costs data is phased out.

• There will be challenges along the way, but they are outweighed by the potential benefits of having this dataset.
### NCC PLICS – A brief overview

<table>
<thead>
<tr>
<th>Sector</th>
<th>2016-17</th>
<th>2017-18</th>
<th>2018-19</th>
<th>2019-20</th>
<th>2020-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td>Voluntary</td>
<td>Voluntary</td>
<td>Mandatory</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Ambulance</td>
<td>Pilot</td>
<td>Voluntary</td>
<td>Voluntary</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Mental Health</td>
<td>Pilot</td>
<td>Voluntary</td>
<td>Voluntary</td>
<td>Mandatory</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Community</td>
<td>Pilot</td>
<td>Voluntary</td>
<td>Voluntary</td>
<td>Mandatory*</td>
<td></td>
</tr>
</tbody>
</table>

*Still undergoing consultation

- We will still be carrying out a full national cost collection of the non-mandated services/sectors, via reference costs, throughout this period.
Identifying efficiencies using the NCC PLICS data

- The tables below are from 2017-18 NCC PLICS data and are the basis of the first case study that I am developing to identify efficiencies and data quality improvements in hip replacements.

<table>
<thead>
<tr>
<th>Point of Delivery</th>
<th>Treatment Function Code</th>
<th>Healthcare Resource Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEL</td>
<td>110</td>
<td>HT12D and HT13D</td>
</tr>
<tr>
<td>Non-Elective, Long Stay</td>
<td>Trauma and Orthopaedics</td>
<td>Major and Very Major Hip Procedures with Trauma, CC score 3-5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>All trusts</th>
<th>Trust A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Cost (£)</td>
<td>66,101,325</td>
<td>518,198</td>
</tr>
<tr>
<td>Total Episodes</td>
<td>8,181</td>
<td>56</td>
</tr>
<tr>
<td>Unit Cost (£)</td>
<td>8,080</td>
<td>9,254</td>
</tr>
</tbody>
</table>

- At the highest level, this shows a potential recurrent saving of £1,174 per episode, or £65,718, for trust A.
- Using NCC PLICS data we can dig deeper into the possible reasons for this inefficiency.

<table>
<thead>
<tr>
<th>NCC Resources</th>
<th>All trusts</th>
<th>Trust A</th>
<th>Potential saving (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Costs (£)</td>
<td>%age of costs</td>
<td>Costs (£)</td>
</tr>
<tr>
<td>Devices, implants and prostheses</td>
<td>3,103,899</td>
<td>4.7%</td>
<td>34,980</td>
</tr>
<tr>
<td>Supplies and services</td>
<td>5,762,456</td>
<td>8.7%</td>
<td>39,836</td>
</tr>
<tr>
<td>Support costs</td>
<td>16,772,914</td>
<td>25.4%</td>
<td>142,067</td>
</tr>
</tbody>
</table>

- This table suggests that the biggest areas for potential savings are in prosthesis and support cost resources.
Identifying efficiencies using the NCC PLICS data

- Focussed on the cost per unit of activity or resource in NCC PLICS and found that the highest potential savings in trust A were in the ward care activity and the nurses resource.

<table>
<thead>
<tr>
<th>NCC Activity</th>
<th>All trusts</th>
<th>Trust A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>Ave Cost (£) per unit</td>
</tr>
<tr>
<td>Ward Care</td>
<td>61,339</td>
<td>467.83</td>
</tr>
<tr>
<td>NCC Resource</td>
<td>Count</td>
<td>Ave Cost (£) per unit</td>
</tr>
<tr>
<td>Nurses</td>
<td>71,027</td>
<td>273.77</td>
</tr>
</tbody>
</table>

- The high overall cost could therefore be attributed primarily to the care given by nurses on wards as each instance of these activities and resources cost more than the national average.

<table>
<thead>
<tr>
<th></th>
<th>All trusts</th>
<th>Trust A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Episodes</td>
<td>8,181</td>
<td>56</td>
</tr>
<tr>
<td>Age data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Quartile</td>
<td>77</td>
<td>7</td>
</tr>
<tr>
<td>Median</td>
<td>84</td>
<td>10</td>
</tr>
<tr>
<td>Upper Quartile</td>
<td>89</td>
<td>15</td>
</tr>
</tbody>
</table>
Identifying efficiencies using the NCC PLICS data

• We looked, on request from a trust, at Geriatric NCC PLICS data as they had found via the model hospital that they were a high cost trust.

• On looking at the data we found that their greatest opportunity was in the setting, TFC and HRG as per the table below

<table>
<thead>
<tr>
<th>Setting</th>
<th>Treatment Function Code</th>
<th>Healthcare Resource Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEL</td>
<td>430</td>
<td>WJ06H</td>
</tr>
<tr>
<td>Non-Elective, Long Stay</td>
<td>Geriatric Medicine</td>
<td>Sepsis without interventions, with CC score 5-8</td>
</tr>
</tbody>
</table>

• We identified 5 trusts with a reasonable amount of data in a similar geographical location.

• The graphs on the next slide show some of the views of data we can generate using NCC PLICS data and are all based on the setting, TFC and HRG as per the table above.
Identifying efficiencies using the NCC PLICS data

**Trust cost per episode**
- **NCC Ave cost**
- Average (5 trusts)
- Average (national)

**Age of patients**
- Nat Ave. age - 85

**Length of Stay**
- Nat Ave. LoS – 6 days

**Multiple episodes per patient**
- Nat Ave. 21%
Identifying efficiencies using the NCC PLICS data

- We found that the 2 closest trusts, in terms of activity were trust A and trust B and trust B was a significantly lower cost per episode so we did some more deep dive analysis into these two trusts.

<table>
<thead>
<tr>
<th>Trust</th>
<th>NCC Activity</th>
<th>NCC unit cost</th>
<th>Total Cost</th>
<th>Total cost at Trust B UC</th>
<th>Potential opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust A</td>
<td>348</td>
<td>6,182</td>
<td>2,151,246</td>
<td>1,086,134</td>
<td>1,065,112</td>
</tr>
<tr>
<td>Trust B</td>
<td>432</td>
<td>3,121</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NCC Activity - Resource combination</th>
<th>Trust A Ave Cost</th>
<th>Trust B Ave Cost</th>
<th>Opportunity vs Trust B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ward care - Consultants</td>
<td>366.88</td>
<td>153.02</td>
<td>74,424</td>
</tr>
<tr>
<td>Ward care - Nurses</td>
<td>2,423.61</td>
<td>1,209.14</td>
<td>422,637</td>
</tr>
<tr>
<td>Ward care - Other doctors</td>
<td>496.66</td>
<td>147.95</td>
<td>121,351</td>
</tr>
<tr>
<td>Ward care - Support costs</td>
<td>1,303.98</td>
<td>1,164.51</td>
<td>48,534</td>
</tr>
</tbody>
</table>

Potential opportunity vs Unit cost – NCC activities and resources
Identifying efficiencies using the NCC PLICS data

- A couple of quick examples that highlight some other types of analysis that can be done using NCC PLICS data.
- The following examples are from two different trusts, and relate to the setting, TFC and HRG combination shown below.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Treatment Function Code</th>
<th>Healthcare Resource Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC</td>
<td>130</td>
<td>BZ34C</td>
</tr>
<tr>
<td>Day Case</td>
<td></td>
<td>Cataract extraction and lens implant, CC score 0-1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Trust A</th>
<th>Trust B</th>
<th></th>
<th>Trust A</th>
<th>Trust B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity</td>
<td>Average Cost</td>
<td>Activity</td>
<td>Average Cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midweek</td>
<td>1,986</td>
<td>576</td>
<td>2,298</td>
<td>881</td>
<td></td>
</tr>
<tr>
<td>Weekend</td>
<td>22</td>
<td>428</td>
<td>107</td>
<td>622</td>
<td></td>
</tr>
</tbody>
</table>

![Activity vs Unit Cost - Consultant level](image1)

![Average cost - Midweek vs Weekend](image2)
Identifying efficiencies using the NCC PLICS data – next steps

• Even with the initial areas I’ve looked at (Hips, Cataracts and COPD) I have seen patterns emerging in the data that point to clinical variance or differing costing practices across trusts.

• I have lined up conversations with clinicians across the country to look at the following areas in the next few months:
  • Cataracts
  • Breast Surgery
  • Pneumonia
  • Interventional Radiology and
  • Diabetes (secondary care pathway costing)

• I’ve also been able to identify areas of poor data quality, this is being fed back into collections and standards colleagues in NHS I to improve future collections.
The power of NCC PLICS

- Scope of data for an individual patient:
  - 39 trusts and 113 interventions between 06/04/17 & 13/03/18
  - A&E - 61, admitted patient care - 48 and outpatient appointments - 4
  - A number of A&E attendances led to a non-elective admission
  - Total cost (for the 80 trusts that submitted NCC PLICS data) £78,325

- The general pattern seems to be that this patient visits multiple A&E departments (with low levels of investigations and treatments) in a short number of days until being admitted, in most cases for 'unspecified chest pain' and for one day.

<table>
<thead>
<tr>
<th>Trust</th>
<th>Dept</th>
<th>Treatment Type</th>
<th>Cost</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust A</td>
<td>AE</td>
<td>Emergency Medicine, Category 2 Investigation with Category 1 Treatment</td>
<td>131.12</td>
<td>12/7/17</td>
</tr>
<tr>
<td>Trust B</td>
<td>AE</td>
<td>Emergency Medicine, Category 2 Investigation with Category 2 Treatment</td>
<td>164.17</td>
<td>13/7/17</td>
</tr>
<tr>
<td>Trust C</td>
<td>AE</td>
<td>Emergency Medicine, Category 1 Investigation with Category 1-2 Treatment</td>
<td>138.61</td>
<td>13/7/17</td>
</tr>
<tr>
<td>Trust C</td>
<td>NES</td>
<td>Unspecified Chest Pain with CC Score 0-4</td>
<td>152.57</td>
<td>13/7/17</td>
</tr>
<tr>
<td>Trust D</td>
<td>AE</td>
<td>Emergency Medicine, Category 2 Investigation with Category 1 Treatment</td>
<td>191.27</td>
<td>13/5/17</td>
</tr>
<tr>
<td>Trust E</td>
<td>AE</td>
<td>Emergency Medicine, Category 2 Investigation with Category 2 Treatment</td>
<td>217.61</td>
<td>17/5/17</td>
</tr>
<tr>
<td>Trust F</td>
<td>AE</td>
<td>Emergency Medicine, Category 2 Investigation with Category 1 Treatment</td>
<td>134.29</td>
<td>18/5/17</td>
</tr>
<tr>
<td>Trust F</td>
<td>NEL</td>
<td>Personality Disorders, treated by a Non-Specialist Mental Health Service Provider</td>
<td>371.17</td>
<td>18/5/17</td>
</tr>
</tbody>
</table>

- Additionally, there are a few admissions for mental health related issues, both personality disorder and drug and alcohol related.
Total Cost by trust
Timelapse

14/03/2018
The power of NCC PLICS

• Potential uses of this type of data:
  • Better data sharing could lead to reduced re-admissions or offers of more appropriate support
  • Care pathway costing and pricing, particularly if we can eventually add primary care data
  • By working with clinicians to examine the lower level detail we may be able to ‘test’ clinical practices to see if costs are directly linked to patient outcomes
  • Policy decisions – could the current policies (i.e. A&E LoS) be driving perverse behaviours

• Limitations of this data:
  • Currently only held for 80 acute trusts and we won’t have a full national dataset covering all sectors until 2020/21
  • Currently only collected annually, with data available for analysis/sharing around six months after the financial year it relates too
  • It is just data – further local intelligence and clinical support required to truly understand what happened over this year
Any questions?

Is there anything you have seen today that you think would be useful to see in the portal?

Is there anything you’re doing locally that you think it might be useful for us to replicate nationally?

Having submitted NCC PLICS data, are there any way’s you’d like to see us use the data?
Break
(11:15 – 11:45)
Case Study: Scan4Safety, learning from a Site of Excellence

Stuart McMillan, Programme Manager, Scan4Safety
NHS West Yorkshire Association of Acute Trusts.
7 Hospitals
1.5m Patients
17,000 staff
£1.2 bn Turnover

117,000 inpatients
1,100,000 outpatients
263,000 Emergency Department attendees
9,844 babies born

All Patients have a GS1 compliant GSRN

Over 24,000 GLNs

Over 130,000 GTIN

232 Materials Management Areas
28 Inventory Managed locations
£18m Inventory

120 Specialist Services
175 Buildings
114 Wards
135 Departments and Clinical Areas
69 Operating Theatres

790,000 Order lines
630,000 Invoices
300 Systems and Applications

PEPPOL Enabled
What is Scan4Safety?

“The clinically led digital innovation of a Trust through the implementation of standards”

We want the ability to track:

- Our patients
- The products
- The place
- Our involved staff
- The procedure (OPCS)
- The surgical trays & instruments
GS1 and Scan4Safety

- Saving Money
- Elimination of Out of Date products and excess stock
- Improving Patient Safety
- Saving Time
Hospital of needs and wants

To provide the best levels of care in the best surroundings

To receive the best care available in a timely manner

To be the best for specialist and integrated care
Identifying Spaces

22,303 22,303 2,000+

Plus Over 1,400 function GLNs for Stores
Establishing a location
Order Management
Our work with GHX and two other demonstrator sites (Plymouth and Salisbury) has given us access to over 130,000 GTINs.
Inventory Management
Paper Free Inventory
Product Recall

2 months work checking we had no cases

17,000+ patients / 22,000 implanted items checked in under 30 minutes
Streamlined Procurement

Purchase Orders → PEPPOL → Order Response
- Order Acknowledgement
- Order Acceptance/Reject
- Invoice/Credit Notes

PEPPOL → Advanced Shipping Notice (ASN)
Wristbands

Neo-natal

Infant

Adult and Paediatric
How this looks in real life
Patient Journey

First Floor Chancellor’s Wing

First Floor Bexley Wing

Second Floor Chancellor’s Wing

Second Floor Bexley Wing
Real time patient timeline
Combining Standards for success

- GTIN + GSRN + GLN = Recall

194 Books in this slide
800 records per book
Over 155,000 potential records
Benefits - Reduced wastage

Annual Loss
By number of units

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>25</td>
<td>£500,000.00</td>
</tr>
<tr>
<td>2017</td>
<td>8</td>
<td>£1,000,000.00</td>
</tr>
<tr>
<td>2018</td>
<td>2</td>
<td>£1,500,000.00</td>
</tr>
</tbody>
</table>

Product usage

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>1261</td>
<td>£500,000.00</td>
</tr>
<tr>
<td>2017</td>
<td>1256</td>
<td>£1,000,000.00</td>
</tr>
<tr>
<td>2018</td>
<td>1503</td>
<td>£1,500,000.00</td>
</tr>
</tbody>
</table>
Benefits realised

<table>
<thead>
<tr>
<th>Soft</th>
<th>Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reputation</td>
<td>Strategic Resourcing</td>
</tr>
<tr>
<td>Hub of Learning</td>
<td>Stock Standardisation</td>
</tr>
<tr>
<td>Workforce Satisfaction</td>
<td>Workforce Productivity</td>
</tr>
<tr>
<td>Patient Satisfaction</td>
<td>Theatre Utilisation</td>
</tr>
<tr>
<td></td>
<td>Upstream Supply Chain Efficiency</td>
</tr>
<tr>
<td></td>
<td>Patient Level Costing</td>
</tr>
<tr>
<td></td>
<td>Clinical Practice analytics</td>
</tr>
<tr>
<td></td>
<td>Demand Aggregation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Recall Staff Time</td>
<td>£84,411</td>
</tr>
<tr>
<td>Inventory Reduction</td>
<td>£1,781,634</td>
</tr>
<tr>
<td>Returned Stock</td>
<td>£159,082</td>
</tr>
<tr>
<td>Efficiency Benefits</td>
<td>£157,645</td>
</tr>
<tr>
<td>Tray Rationalisation</td>
<td>£133,564</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>£2,316,336</strong></td>
</tr>
</tbody>
</table>
10:15 - MHRA Notification Confirmed in Trust

10:28 – Confirmed we have the product in the Trust and that there will be no use of these products in the coming days

11:42 – Confirmation to Medical Director - Operations that all respective products have been removed from the clinical area and are under the control of the appropriate Inventory Manager.

Recall in Figures

839 Product Lines

79 Mandatory Product Lines

62 Product Ranges

124 items removed from St. James’s Site

34 items removed from LGI Site
32 of 69 Theatres fully scanning at Point of Care  
(awaiting a development in PPM+ before further roles out due December 2018)

Reviewing usage information to reduce Inventory further
PLICS – Processing the information

Powergate monthly report

- MDF:HCCPowergate
- LocationName
- EncounterNoOrig
- ConsultantID
- SIDate
- IssuePointDesc
- ProductCode
- Qty
- Cost
- CCNo
- NCACode
- Sub1Code
- EDCatCode
- EncounterNo
- Source
- Serial
- ProductCode
- Cost
- Location Name

PLICS System

- Powergate report processed and matched to patient records using NHS no, date and other rules adding additional information

- Epinum
- MRN
- NHSNumber
- CaseNoteNumber
- EMAttendNo
- Iteration
- Matched
- RVU
- UTILPOD
- UTILTFC
- UTILCONSULT

Patient Bill
VIEWING CONSUMABLES ON THE PATIENT BILL

![Image of a medical billing screenshot showing consumed resources]

<table>
<thead>
<tr>
<th>I&amp;E Classification</th>
<th>Resource Group</th>
<th>Resource Group Description</th>
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<td>12673-05 PERCLOSE PROGLIDE 6F SUTURE MEDIATED CLOSURE (CN:DNWD-96LC7/LA/T/26852)</td>
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<td>21-345 ADVANCED LAPAROSCOPIC CARE KIT BOX OF 10 (CN:CPA_MEDTRONIC_LTD)</td>
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<td>400180 S/SI 8MM TIP COVER ACCESSORY (DISPOSABLE) (CN:CPA_INTUITIVE_SURGICAL)</td>
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<td>402605X INTRODUCER SKEATH 11CM 5F WITH 0.038IN GUIDEWIRE AND DILATOR (CN:DNWD-96LC7/LA/T/29147)</td>
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<td>420006 S/SI 8MM LARGE NEEDLE DRIVER <strong>10 USES</strong> (CN:CPA_INTUITIVE_SURGICAL)</td>
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<td>420093 S/SI 8MM PROGRASP FORCEPS <strong>10 USES</strong> (CN:CPA_INTUITIVE_SURGICAL)</td>
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<td>420179 S/SI 8MM MONOPOLAR CURVED SCISSORS <strong>10 USES</strong> (CN:CPA_INTUITIVE_SURGICAL)</td>
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<td>451443V2 DIAGNOSTIC CATHETER 4F 65CM STANDARD SELECTIVE COBRA 2 CURVE 2 SIDE HOLES (CN:CL00249/NOE)</td>
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<td>45151850 DIAGNOSTIC CATHETER 4F 80CM STANDARD SELECTIVE UNI SELECT II CURVE NO SIDE HOLES (CN:CL00)</td>
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<td>59166 ULTRASOUND PROBE COVERS 150MM X 1.275M</td>
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## PLICS Monitoring

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<th>Matching Rate</th>
<th>Total Records</th>
<th>Total Value</th>
<th>Matched</th>
<th>Matching Rate</th>
<th>M9 v M8</th>
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<tr>
<td>620042-LG-TRAUMA THEATRES</td>
<td>21,585</td>
<td>1,259,357.34</td>
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<td>620045-LG-SPINAL THEATRES</td>
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<td>1,458,613.87</td>
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<td>620046-LG-NEURO THEATRES</td>
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<td>62011C-LG-MAX FAX THEATRES</td>
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<td>62018C-LG-GILBERT SCOTT THEATRE</td>
<td>191</td>
<td>45,818.44</td>
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<td>6201AA-LG-AUDIOLOGY PAEDS</td>
<td>324</td>
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<td>380</td>
<td>96.69%</td>
<td>1,752</td>
<td>85,410.48</td>
<td>1,701</td>
<td>97.09%</td>
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<td>623049-WGH-OPHTHALMOLOGY THEATRE</td>
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<td>75,190.08</td>
<td>1,701</td>
<td>97.09%</td>
<td>2,453,211.71</td>
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<td>628927-LG-RADSTOCK</td>
<td>16,383</td>
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<td>1,701</td>
<td>85,410.48</td>
<td>1,701</td>
<td>97.09%</td>
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<td>629020-LG-CATHETER LABS</td>
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<td>91.73%</td>
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<td>48,637</td>
<td>91.99%</td>
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<td>629040-LG-FLUOROSCOPY</td>
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<td>5,849.42</td>
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<td>96.30%</td>
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<td>96.36%</td>
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<td>64002A-SJ-CT SCANNING</td>
<td>108</td>
<td>200,524.20</td>
<td>104</td>
<td>96.30%</td>
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<td>204,508.20</td>
<td>106</td>
<td>96.36%</td>
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<tr>
<td>640079-SJ-MRI</td>
<td>154</td>
<td>17,997.39</td>
<td>141</td>
<td>96.30%</td>
<td>110</td>
<td>204,508.20</td>
<td>106</td>
<td>96.36%</td>
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<td>64007D-SJ-FLUOROSCOPY</td>
<td>896</td>
<td>23,481.57</td>
<td>829</td>
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<td>1,135</td>
<td>137,477.31</td>
<td>883</td>
<td>86.62%</td>
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<td>640159-SJ-OBSTETRIC BREAST THEATRES</td>
<td>78</td>
<td>63,708.84</td>
<td>78</td>
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<td>91</td>
<td>82,423.38</td>
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<td>100.00%</td>
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<tr>
<td>643022-SJ-GYNAE THEATRES</td>
<td>1,120</td>
<td>130,775.96</td>
<td>1,221</td>
<td>97.00%</td>
<td>1,143</td>
<td>130,775.96</td>
<td>1,221</td>
<td>97.00%</td>
<td>↑</td>
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<tr>
<td>643034-SJ-RADSTOCK</td>
<td>11,635</td>
<td>594,553.35</td>
<td>11,298</td>
<td>97.10%</td>
<td>12,148</td>
<td>631,354.10</td>
<td>11,784</td>
<td>97.00%</td>
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<tr>
<td>643039-SJ-DAVID BEEVER THEATRES</td>
<td>413</td>
<td>699,140.27</td>
<td>455</td>
<td>80.86%</td>
<td>772,036.47</td>
<td>367</td>
<td>80.66%</td>
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<tr>
<td>643725-SJ-UROLOGY ROBOTICS</td>
<td>1,762</td>
<td>310,844.60</td>
<td>1,864</td>
<td>96.93%</td>
<td>1,864</td>
<td>336,700.03</td>
<td>1,864</td>
<td>96.93%</td>
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<tr>
<td>644814-SJ-OPHTHALMOLOGY THEATRES</td>
<td>8,951</td>
<td>528,022.70</td>
<td>9,730</td>
<td>98.58%</td>
<td>9,730</td>
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<td>CA3020-CA-ORTHOPAEDIC THEATRES</td>
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<td>1,878,734.83</td>
<td>7,344</td>
<td>96.25%</td>
<td>2,092,375.83</td>
<td>7,344</td>
<td>96.25%</td>
<td>↓</td>
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</tr>
</tbody>
</table>

| Total: 131,577 | £11,965,193.51 | 107,354 | 81.59% | 140,921 | £13,027,889.86 | 115,127 | 81.70% |

Trend: M9 v M8

↓: Decrease; ↑: Increase; ⬛: No Change
PLICS & Scan4Safety

PLICS Benefits

• More accurately costed procedures
• Increased transparency
  • Confidence in the data
  • Highlighted incorrect coding
  • Allows the search for variation in practice
• Captures any item scanned whether 10p or 10k

Caveats to consider

• Doesn’t work for all products, some proxy values have to be set up
• Does not create a list of High Cost Devices and Implants for CTP/RC
• Will need to incorporate NHS Supply Chain zero cost items (nominal value)
Thank you

- Right Patient: Setting standards to make sure we always have the right patient and know what product was used with which patient, when.
- Right Product: Setting standards to make sure our staff have what they need, when they need it.
- Right Place: Setting standards to make sure that patients and products are in the right place.
- Right Process: Setting standards and implementing common ways of working to deliver better and more easily repeatable patient care.

lth.scan4safety@nhs.net
@LTHScan4Safety

- 0113 20 60422
- www.scan4safety.nhs.uk
Lunch
Structured Networking session

Stephen Lowis, Finance Manager, Benchmarking & Efficiency
Bradford Teaching Hospitals NHS Foundation Trust
In your relevant groups, please discuss the below and note down your ideas...you have 30 minutes!!!!

1. With the earlier PLICS presentation in mind, what areas of your organisation would you investigate?

2. With Integrated Care Systems the vision for the NHS in England: a) how do you see your role changing and b) how are you/would you support your ICS?

3. NHSI are considering costing education materials, training and other support for groups such as clinicians, NEDs and CEOs. Which audiences should we prioritise and what do you feel they need to know/need support on?

4. How do you think your PLICS data should be used by the wider NHSI teams (eg Pricing/Model Hospital/Op Prod/GIRFT/Use of Resources) – and what would you hope for from the results?
NHS Improvement

Virtuous Cycle of Improvement: Improving the Quality of Your Costing
Objectives

1. Discuss themes from Costing Assurance Programme Reviews Year 1 to Year 3
2. Highlight trends where we have observed overall improvement
3. Outline remaining common areas of development
4. Discuss other factors that are impacting costing
Year 1 Costing Process and Reference Cost Reviews 2016/17 – Themes Identified

Acute

1
1
11
6
26
23
12
16
0
3

492 Recommendations

68 High Risks
131 Medium Risks
198 Low Risks
95 Improvement Opportunities

Clinical & Wider Team Engagement
Job Plans
Data Matching & Quality
Programme Management
Pharmacy Data
Documentation
Emergency Department
Board Level Advocacy
Year 2 Early Implementers PLICS submissions 2017/18 - Themes Identified

Costing Assurance Programme Reporting Dashboard

30/30 Reports Completed
140 Findings
26 High Risks
41 Medium Risks
67 Low Risks
6 Improvement Opportunity

Limited clinical and wider engagement
Incomplete patient-level information
Limited or incomplete costing documentation
GL to CL mapping not completed, partially completed, or not approved
Allocations based on national tariff
Limited governance around data quality/data matching

CAT Tool Observations
Inconsistent approach in preparing the CAT
Inaccurate completion of the CAT
Lack of uniform understanding of the purpose of the CAT
Year 3 - Non PLICS Providers Review
2018 Themes Identified

YEAR 3 INSIGHT DASHBOARD

- **Emergency Department (ED)**
  Costs are allocated to patients based on time spent in the department with no weightings in place.

- **Critical Care Allocations**
  Weightings often based on national averages rather than a measure of nursing acuity based on treatment procedures.

- **Accuracy of Theatre Costs**
  Costs are based on estimations for session times and resource allocations, and prosthesis costs are based on an average costs.

- **Medical Staffing Costs**
  Medical staffing costs are not appropriately apportioned based on accurate job plans, especially for junior doctors.

- **Non-Admitted Patient Care**
  Allocations are based on estimations for first/follow-up attendances, rather than on actual duration of attendance.

- **Clinical Engagement**
  No processes to obtain clinical engagement at the Trust to validate allocations, inputs or outputs in the costing process.

- **Unmatched Activity**
  High percentage of unmatched activity, and allocation of unmatched activity across all matched activity.

- **Project Management**
  Project plans have not been developed for the 2018/19 CTP submission, especially to address any data quality gaps.

**Report Findings**

- Medium Risk
  - 21
  - 8
  - 1

- High Risk
  - 40

**Reports Drafted**

23/23
2. Improvements observed from Year 1 to Year 3

**Board-level engagement**
- Increased appreciation of the importance of costing.
- Improved desire to use PLICS data to drive strategic and operational decisions.

**Improved relationships with costing system suppliers**
- Greater co-operation between Costing Teams and system suppliers.

**Better understanding of data quality issues**
- Improvements have been made in patient-level matching results – for example, increased proportion of positive matches, and development of more stringent matching rules.
- When data quality issues arise these are investigated and remediated in a timely manner.

**Greater co-ordination between Costing and Information teams**
- Costing and Information teams are increasingly working together to share knowledge and expertise.
- This enhances the accuracy of information used in costing.
3. Common areas for development identified Year 1 to Year 3

Clinical Engagement
• Limited engagement with clinical services across key services.
• Lack of clinical involvement in the validation of cost inputs or outputs.

Data Matching
• Low levels of data matching for Pharmacy, Pathology and Radiology.
• Data quality issues are restricting the ability to accurately allocate costs directly to a patient.

Cost allocations based on National Average and National Tariff
• Cost allocations for A&E, Critical Care and Pathology have been weighted based on National Average or National Tariff.
• Not compliant with the Healthcare Costing Standards; not an accurate reflection of actual resource consumption.

Allocation of Medical Staffing costs
• Use of job plans is not consistently applied, or information contained in them is not up-to-date.
4. Other factors affecting costing

**Quality of costing following transactions**

- Loss of high quality costing processes that have been developed over a number of years.

**Issues faced in promoting costing when operating under a managed service contract**

- Trusts are unable to achieve consistent engagement and support in validating costing information.
- No access to audit trail and system/process notes.

**Material issues identified within Reference Cost Reconciliations**

- Increase in the number of material errors identified within Reference Cost Reconciliations.

**Lack of forward planning to comply with technical standards**

- Insufficient programme management – for example, lack of project plans detailing key milestones and relevant action owners.
Increased stakeholder engagement through the ‘SLR Leadership Programme’

- Introduced the role of ‘Costing Champions’ within each directorate
  - 20 week programme directed at all clinical finance managers

- Developed a robust training schedule
  - Group training sessions on basic principles of costing
  - 1:1 sessions between costing and finance managers
  - Individual objectives and targets, monitored on a weekly basis.

- Utilised reporting tools and dashboards
  - Use of Qlickview reporting across all directorates for costing outputs

- Quantified the measurement of success
  - Implemented a Net Promotor Score amongst finance managers to track overall engagement
  - Realised quantifiable benefits in monetary terms to aid and contribute to the Trusts financial recovery plan
Comfort Break
(2:30 – 2:45)
Desktop review, PLICS timetable and some help from you

Jack Hardman

March 2019
Contents

• Desktop review

• PLICS timetable

• A little help…. 
Desktop review

Looks at a couple of things

• Board Assurance
  – report/s to fulfil

• Previous CAP reports
  – required to be followed up by your Audit Committee
  – Want to see progress is being monitored
Desktop review – the quantum

Quantum review
• Reconciliation to audited accounts
  – Check key entries such as
    • Operating expenses
    • Other operating income
• Exclusions
  – are they reasonable/expected
• Other adjustments
  – Approved
What do we do with this

Write to the trusts and ask

- Evidence of board assurance and follow up
- Ask questions about issues noted in the quantum

The outcome

- Don’t ask for resubmission – obviously too late!
- We look for whether we need to make things even clearer in the cost collection guidance
- Look for other support we can provide – such as quantum to accounts link
- Where errors noted – trusts to agree to address these for the 2018/19 submission
What can you do....

• Make sure specific items agree to audited accounts – especially other operating income!

• Consider getting financial accounts to review and sign off – but take the guidance with you!

• Do this early! If you have questions – ASK!

• Review exclusions and adjustments
# Implementing PLICS - timetable

<table>
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<tr>
<th>Main service</th>
<th>Acute services</th>
<th>Mental Health services (inc IAPT)</th>
<th>Ambulance 999 services</th>
<th>Community services</th>
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<td>2018/19</td>
<td>2019/20</td>
<td>2019/20</td>
<td>2020/21 (TBC)</td>
</tr>
<tr>
<td>Mental Health (inc IAPT)</td>
<td>2019/20</td>
<td>2019/20</td>
<td>N/A</td>
<td>2020/21 (TBC)</td>
</tr>
<tr>
<td>Ambulance</td>
<td>2019/20</td>
<td>N/A</td>
<td>2019/20</td>
<td>2020/21 (TBC)</td>
</tr>
<tr>
<td>Community</td>
<td>2020/21</td>
<td>2020/21</td>
<td>N/A</td>
<td>2020/21 (TBC)</td>
</tr>
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</table>
What this means for trusts…

Trust A - main service is mental health, but also provided some acute and community services, would be expected to start submitting patient-level cost data as follows:

• Mental health services – 2019/20
• Acute services – 2019/20
• Community services – 2020/21 (subject to mandation approval)

Trust B - main service is community health, but also has some mental health and acute services, would be expected to start submitting patient-level cost data as follows:

• Community services – 2020/21 (subject to mandation approval)
• Mental health services – 2020/21
• Acute services – 2020/21
How we identified main service!

Used the 2017/18 reference cost submission

• Used the “mapping” pots
• However we know that this may not reflect actual activity – for instance some trusts are coding community services under acute for APC
• Where you have an issue – come back to us and we can agree when the mandation of MH will apply
  – This is especially true with service changes in MH and CHS
  – Also impact of mergers etc
Implementing PLICS…CHS

Community health services

• Mandation project starting at Easter
• Most acute (131) provide community services
• Therefore we will be looking for acutes, mental health and community providers to be involved in mandation project
• Plan is to undertake and complete with sign off by November/December 2019
• Would then be mandated from 2020/21 (collection in 2021)
A little help…..

Required to follow up impact assessment from 2017/18 on acute

**How accurate were our costs**

- We will be sending a questionnaire on
  - System costs (generic)
  - Cost of any IT upgrades for trusts
  - Staffing and associated costs
  - Both implementation and estimated annual costs

Also be any additional
- Benefits of implementing PLICS
- Threats and issues with/to implementing PLICS
To assess whether we got the “cost” estimated were correct
- Community impact assessment assumptions
- Any future changes around regularity of collection
  - Possible but would require another impact assessment
- Understand any unexpected benefits or issues
  - Also use to support Case for Change 2!
  - Feed into our work for future collections
- Support information standard burden assessment
Closing remarks
Thank you for attending

#ImprovingCosting
Costing@improvement.nhs.net