Public Health England

Protecting and improving the nation's health

HCAI Data Capture System Stakeholder Engagement Forum: 11th September 2019

Attendees:

- Zoe Green (Head of Infection Prevention and Control at West Leicestershire CCG)
- Sharon Stuart (Infection Prevention Lead for South Warwickshire CCG)
- Michael Fleming (Department of Health and Social Care)
- Sally Bestwick (NHS Derby and Derbyshire Clinical Commissioning Group)
- Vicky Gentry (Infection Prevention Nurse Consultant)
- David Jones (Infection prevention Nurse at Birmingham and Solihull CCG)
- Archie Atack (Infection Prevention Administration and Surveillance Analyst at Birmingham and Solihull CCG)
- Helen Bagnall (Epidemiological Scientist – Field Epidemiology West Midlands)
- Kelly Marshall (Senior Infection Control Nurse at The Hillingdon Hospitals NHS Foundation Trust)

PHE Mandatory Surveillance Team:

- Simon Thelwall
- Dimple Chudasama
- Shreya Lakhani
- Olisa Nsonwu
- Graeme Rooney

Welcome and Introduction

This session of the Stakeholder Engagement Forum is to seek feedback on the mandatory surveillance of bacteraemia and *C. difficile* infection, making sure that we are meeting your needs for data analysis and for entering the cases, as well as looking for ways to improve the system for the users.

Minutes from last meeting

Correct the previous meetings attendees list on the minutes to include Sally Bestwick instead of Sally Webster.

Changes implemented on the HCAI DCS

Prior Trust Exposure – change of questions, retrospective

The Prior Trust Exposure tab has been changed so that it asks one question to indicate whether the patient has been discharged from an elective or emergency hospital admission in the reporting trust in the last 84 days as opposed to 3 questions. If 'Yes' is answered for this first question, a date picker is generated asking for the date of the last hospital discharge.

The 'Counts and Rates Report' now reports *C. difficile* cases by Prior Trust Exposure. There are some data discrepancies between National Statistics and what is displayed on the HCAI DCS. This is because CGI (the developers of the HCAI DCS) did not followed the requirements PHE gave them. As a result, there are a small number of cases on the HCAI DCS that don't give the expected results. PHE are working on getting this corrected on the DCS too.

Search screen optimisation

CGI have been asked to develop the 'Search' screen so that results are returned faster when searching for cases.

Timeliness of CEO Sign Off reporting correctly for CCG and LAs

The CEO Sign-off report has been corrected so that it returns the expected results for CCG and LA's for sign-off.

Planned improvements to the HCAIDCS

Data Enrichment Tab

This will be used to show information on the way a case is attributed to a CCG. It will also display the GP practice code and the GP practice name for each case.

Ability to amend/copy saved mappings for DUW

Changes are being made to the DUW so that users can amend and copy saved mappings on it to make it easier to use.

ACTION: Update the paper Gram-Negative Form.

Changes to line listings download to allow download to continue after log off

Changes are being made so that the Line Listings reports will continue to be generated even after being logged off. This means that if a large extract is being taken, even if the DCS times out, the user will be able to log back into the system to access the most recent Line Listings report.

We expect the Data Enrichment tab to be added some time in the new calendar year.

Request made to have a function to allow the Line Listings Report to be exported in other formats apart from a Text Document. There are no plans to this as of yet but we can see if we can squeeze this in the new changes we request the Developers to make if budget is available to make this change.

Preliminary results of analysis of prior trust exposure data from HES

The Prior Trust Exposure questions for *C. difficile* were introduced in 2017 and were also recently added to the Gram-negative reporting questions to support the ambition to reduce the number of Healthcare Associated Gram-negative BSI. The groupings Community Onset Healthcare Associated (COHA) and Hospital Onset Healthcare Associated (HOHA) were implemented to reflect the healthcare-associated infections. These were thought to be easier to capture then determine cases that were healthcare-associated on the basis of the risk factor data for Gram-negative infections, where data completion is only about 30%.

The introduction of the new Prior Health Exposure questions raised questions on what was meant by prior discharge and whether day case patients and regular attenders should be included in this prior discharge. In response to this, PHE have been analysing some data available in the Hospital Episodes Statistics (HES) database and linked this with the data available in the DCS looking at the effect of excluding day case patients and regular attenders on the number of HOHA cases. It was found that excluding day case patients makes a substantial difference in reducing the number of COHA cases. This was followed up with some work looking at the sort of patients that come in as day cases and from preliminary work it was found that these cases mostly come from haemodialysis and chemotherapy patients. This data has been fed back to NHS Improvement and NHS England to inform how they want to approach the setting of target of the objective to reduce the number of Gram-negative infections. One of the complicating factors around including or excluding the day cases or regular attenders (based on HES data) is that trusts code the same patient

differently i.e. some trusts code their dialysis patients as day cases and other trusts as regular attenders, so it is not possible to exclude one or the other.

Stakeholders concerned that there has been and will be some discrepancy in the reporting of data until a clear definition has been provided of the type of cases which should been included as a discharge. Once PHE have got feedback from NHS Improvement and NHS England they will strengthen the definitions for Prior Trusts Exposure making sure that this is communicated with everybody so that it is clear what to report.

Comment 1: It seems logical to include everything as any cases that occur in a NHS trust as an exposure to the healthcare setting and because it is difficult to separate regular attenders and outpatients from day-case patients.

Comment 2: Often day cases are not classed as an admission as they are not admitted to as such. Suggestion to look back at the relative volumes of healthcare associated cases reported by trusts and contact those trusts whose reporting rates look particularly low.

Comment 3: For Gram-negative BSI, it is unusual to get intravenous line infections and often the day case attendance and frequently out-patients attendance has nothing to do with the subsequent infection i.e. a patient comes in for a particular procedure but end up being admitted a couple of weeks later with a biliary sepsis which has nothing to do with the out-patient appointment or day case appointment.

Comment 4: Patients undergoing chemotherapy may be going in the day case unit where they are not admitted onto a bed because they receive treatment whilst seated but medications are managed by the acute trusts with the consultant whose care they are under but equally any antibiotic usage in that time is overseen by the acute trust so there is potential there with the CDI to have an impact on. If there are lessons to be leant for patients in for dialysis with MRSA bacteraemia management has come frequently under the discussion which is an acute trust management point of view. However, these cases are reported as a Community-Onset case as there has not been an admission despite the patient going to the acute trust for care and dialysis 3 times a week. this is something that needs to be considered when deciding the definition for what an admission is.

PHE are also going to review the hospital denominator data on overnight bed days as well as Day Case denominators as a proxy for patients that are at risk of a Hospital-Onset infection.

This analysis has been restricted to the HES Admitted Patient Care which is a mixture of inpatients, day cases and regular attenders so does not include outpatients.

If day patients were to be exclude this would be excluding chemotherapy and dialysis patients too who undergo invasive procedures that increase the risk of them getting Blood Stream Infections.

This is not something that PHE want to run in parallel to the Data Capture System as they are conscious that this will increase the burden of people doing data entry and create inconsistencies over time in the data reported by PHE.

One question that arises is that are patients going to hospital more likely to be colonised by more virulent forms of *E. coli*, *P. aeruginosa, Klebsiella* spp. etc.… which may go from causing a UTI to causing a Blood Stream Infection (BSI), then strains in the community?

A suggestion was made to have the ability to add in details as to whether the organism is an ESBL producer on the HCAIDCS. It links in quite well to when you are providing information about previous antibiotics patients have been on, because for most of the cases for which data is entered on the reporting trust can say that they have been on antibiotics but there is nothing to state whether these where the right antibiotics

PHE are thinking of linking the DCS with the voluntary laboratory reporting system that PHE have as a longer-term project. This could bring in resistance data.

The denominator data that PHE use are the overnight beds days provided by NHS Digital. NHS Digital also however also provide data for 'day' cases so PHE are looking to add this into their denominator data.

Feedback on annual epidemiological commentary and notification of upcoming publications

An email with a Link to the latest AEC published on the 12th July this year was sent out the 11th September 2019.

Users thought the AEC and tables were valuable.

The quarterly commentary on the mandatory pathogens came out on 12th September 2019.

A report on mortality rates 30 days following an infection of a mandatory pathogens will be published on the 10th October 2019.

AOB

Videos of functionality of system

NHSI have requested that PHE produce video's demonstrating how the HCAI Data Capture System works. The aim is to release these before next year.

Next meeting to be scheduled for: TBC