**INTEGRATING PRIOR HEALTHCARE EXPOSURE INTO NATIONAL MANDATORY CLOSTRIDIUM DIFFICILE INFECTION SURVEILLANCE**

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**HCAI DCS/Hospital Episode Statistics (HES) Linkage:**
- Reducing the number of days used in the time to onset algorithm from 3 to 2 days serves to reduce the number of cases among the three CO categories (COHA, COIA and COCA).
- Options for public health at community level.

**HCAI DCS System Updates:**
- This has resulted in marked changes in the distribution of cases across algorithm categories.
- Stakeholder Engagement:
  - Since FY 2010/11, there have been a greater number of CO CDI cases than HOHA CDI cases (Figure 1).

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**METHODS**

**1. HCAI DCS/HES Linkages**:
- Results of the DCS/HES analysis used to inform adapted question structure on the DCS.

**2. HCAI DCS System Updates**:
- Mechanism for the routine/timely capture of prior healthcare interactions is a key component of the surveillance update process. This is not possible using DCS/HES linkage due to inherent delays in availability of HES data (subject to delays of up to six months).

**3. Stakeholder Engagement:**
- A self report approach facilitates the more timely collection of surveillance data than using DCS/HES linkage.
- Mechanism to ascertain historical trends at national, regional and acute Trust (local) level and to provide data on where prior interactions occur.

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**RESULTS**

**1. HCAI DCS/HES Linkages**:
- Between FY 2007/08 and FY 2015/16, there has been a 74% decrease in counts of CDI (Figure 1).
- Reducing the number of days used in the time to onset algorithm from 3 to 2 days serves to increase the number of CDI cases by approximately 5%.

**2. HCAI DCS System Updates**:
- A comparison of HCAI/COHA cases from existing versus updated ‘Time to Onset’ algorithm using FY 2015/16 data was undertaken (from 2 to 12 days following admission).
- Future linkage with HES will produce data which can be used for validation of ongoing surveillance.

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**CONCLUSIONS**

- As a greater percentage of CDI Cases in England and CO, the new algorithm categorisation will provide a clearer picture of current epidemiology to allow for the design and implementation of new interventions to further reduce CDI in England.
- While HES data represent the ‘gold standard’ for information on patient activity across the whole of England, it is subject to a lag of up to six months. This makes the data from such linkage data less suitable for prospective, near real-time surveillance, associated public reporting and local investigations into cases of CDI.

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**REFERENCES**