

From the Chief Medical Officer
Dr Michael McBride

HSS(MD)11/2014



Chief Executives, Public Health Agency/Health &
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Our Ref: HSS(MD)11/2014

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Dear Colleague

Carbapenamase Producing Enterobacteriaceae (CPE) Toolkit for Acute Trusts

ACTION REQUIRED

Chief Executives should ensure that:

- **this letter is circulated to all frontline clinical staff who may be admitting patients;**
- **this letter is circulated to all Infection Prevention and Control staff;**
- **local risk assessment is undertaken;**
- **the actions required to address any risks are incorporated into ongoing Board to Ward assurance of the prevention of HCAIs.**

Summary

1. The purpose of this letter is to alert you to publication of the *Carbapenamase Producing Enterobacteriaceae (CPE) Toolkit for Acute Trusts* recently published by Public Health England. Given the significant infection prevention and control challenge presented by these organisms, the Public Health Agency (PHA) has already circulated this toolkit to Trusts with a covering email on 10th December 2013.
2. **The toolkit clearly sets out best practice in identifying, controlling current transmission problems, and preventing further spread of *Carbapenamase Producing Enterobacteriaceae*. Trusts should undertake local risk assessment to determine the appropriate action for the early detection, management and control of *Carbapenamase Producing Enterobacteriaceae*, and follow the steps outlined in the toolkit where relevant. If further**

specialist advice is required, this can be sought from the Public Health Agency in the first instance.

Background

3. Enterobacteriaceae are a large family of bacteria that usually live harmlessly in the gut of all humans and animals, but in the wrong place can cause serious infections.
4. Worldwide a small but increasing number of strains of enterobacteriaceae have become resistant to carbapenem antibiotics, which have been defined by WHO as critically important antibiotics. Carbapenemases are enzymes made by some strains of these bacteria which allow them to destroy carbapenem antibiotics and cause resistance.
5. Increasing trends in sporadic infections, clusters and outbreaks of carbapenemase-producing Enterobacteriaceae (CPE) have been observed in a number of NHS trusts in England and also in the Republic of Ireland. There is a high risk of this problem becoming more widespread unless early and decisive action is taken by HSC Trusts locally.
6. These bacteria represent a significant challenge in terms of prevention, treatment and control. Inadequate measures to prevent and control transmission can have serious consequences, both for patients, who may require more complex treatment to manage their infection, and for hospitals in terms of ward closures, service disruptions and protracted patient stays.
7. Public Health England (PHE) has recently published a toolkit for acute trusts to assist them with the early detection, management and control of carbapenemase-producing Enterobacteriaceae. A key aspect of the control measures is to take special precautions for patients who have received care in countries known to have high levels of CPE and/or in UK or RoI hospitals with recent clusters or outbreaks of CPE. The CPE toolkit along with 'UK Standards for Microbiology Investigations: Laboratory Detection and Reporting of Bacteria with Carbapenem-Hydrolysing β -lactamases (Carbapenemases)' can be found at:
www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317140378529

CPE in Northern Ireland

8. PHA currently maintains a core dataset for CPE cases reported through the Health Protection Duty Room as part of routine case assessment and risk management. As of 22 May, 20 isolates of CPE have been reported to PHA since 2011, the majority being *Klebsiella species* (13 isolates). Within the 13 *Klebsiella* isolates, the mechanisms of resistance include 5 NDM's, 4 KPC's, 2 VIM, 1 OXA-48 and 1 unknown. PHA is aware that CPE isolates were also identified in HSC prior to 2011, this includes a small number of *Klebsiella species* with OXA-48 resistance during 2010.

9. PHA continues to update data relating to CPE isolates in NI as it becomes available. Refreshed information on CPE in NI will be shared with Lead Directors and Lead IPC staff in Trusts following this correspondence. PHA will also share a confidential summary of information relating to CPE in the UK and Ireland with Trust colleagues. Information relating to CPE continues to change. Relevant Trust staff should ensure that they are aware of the current position and should check further updates as required.

Action required

10. Chief Executives should ensure that this letter and accompanying toolkit is circulated to frontline clinical staff who may be admitting patients, and all infection prevention and control staff. Trusts and clinical services should undertake local risk assessment and identify any necessary actions. These should in turn be incorporated into Board to Ward assurance for the prevention of HCAs.
11. Every effort should be made to prevent these carbapenamase-producing organisms from being introduced to healthcare settings in NI in the first place and particularly to prevent onward transmission within services, units and wards.

Yours sincerely



Dr Michael McBride
Chief Medical Officer



Mrs Charlotte McArdle
Chief Nursing Officer



Dr Mark Timoney
Chief Pharmaceutical Officer

This letter is available on the DHSSPS website at
www.dhsspsni.gov.uk/index/phealth/professional/cmo_communications.htm

Circulation List:

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