



Public Health
England

Protecting and improving the nation's health

Surveillance of Healthcare Associated Infection (HCAI)

Change Request

About Public Health England

Public Health England exists to protect and improve the nation’s health and wellbeing, and reduce health inequalities. We do this through world-leading science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health, and are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner.

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Data Coordination Board

This information standard (DCB0134) has been approved for publication by the Department of Health under [section 250 of the Health and Social Care Act 2012](#).

Assurance that this information standard meets the requirements of the Act and is appropriate for the use specified in the specification document has been provided by the Data Coordination Board (DCB), a sub-group of the Digital Delivery Board.

This information standard comprises the following documents:

- Specification
- Implementation Guide
- Change Request.

An Information Standards Notice ([DCB0134 Amd 18/2017](#)) has been issued as a notification of use and implementation timescales. Please read this alongside the documents for the standard.

The controlled versions of these documents can be found on the NHS Digital website. Any copies held outside of that area, in whatever format (e.g. paper, email attachment), are considered to have passed out of control and should be checked for currency and validity.

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0.2	19.09.17	Second draft following NHS Digital comments
0.3	08/11/17	Final Version
1.0	20/12/2017	Publication Copy

Approvals:

Name	Organisation	Version	Date
Linda Dempster	NHS Improvement	0.3	23/11/2017
Alan Johnson	Public Health England	0.3	23/11/2017

Glossary of Terms:

Term	Acronym	Definition
Public Health England	PHE	Public Health England (PHE) is an executive agency of the Department of Health in the United Kingdom that began operating on 1 April 2013. PHE exists to protect and improve the nation's health and wellbeing and reduce health inequalities.
Healthcare Associated Infections	HCAI	Healthcare associated infections are infections that are acquired in hospitals or as a result of healthcare interventions.
HCAI Data Capture System	HCAI DCS	The HCAI Data Capture System is the real time, web enabled surveillance system used for the capture/reporting of mandatory HCAI Surveillance data.
Meticillin resistant <i>Staphylococcus aureus</i> / Meticillin susceptible <i>Staphylococcus aureus</i>	MRSA/ MSSA	<i>Staphylococcus aureus</i> is a bacterium that is a common coloniser of human skin and mucosa. <i>Staphylococcus aureus</i> can cause disease, particularly if there is an opportunity for the bacteria to enter the body. Most strains of <i>S. aureus</i> are sensitive to the more commonly used antibiotics, and infections can be effectively treated. Some <i>S. aureus</i> bacteria are more resistant. Those resistant to the antibiotic meticillin are termed meticillin-resistant <i>Staphylococcus aureus</i> (MRSA) and often require different types of antibiotic to treat them. Those that are sensitive to meticillin are termed meticillin-sensitive <i>Staphylococcus aureus</i> (MSSA). MRSA and MSSA only differ in their degree of antibiotic resistance: other than that there is no real difference between them.
Data Coordination Board	DCB	The Data Coordination Board is committed to ensuring the quality of standards, to ensure effective implementation, full realisation of benefits and minimal disruption for staff, patients and care users. Assurance Certificates are issued to confirm that a standard has been through assessment and is demonstrated to meet the DCB quality assurance criteria.
Anti-Microbial Resistance	AMR	Antimicrobial resistance describes the ability of a micro-organism to resist the action of antimicrobial drugs.

Term	Acronym	Definition
Surgical Site Infection	SSI	A surgical wound infection occurs when micro-organisms from the skin or the environment enter the incision that the surgeon makes through the skin in order to carry out the operation.
Surgical Site Infection Surveillance Scheme	SSISS	A PHE managed service supporting both the mandatory surveillance of SSI in orthopaedics and voluntary surveillance in other categories of surgical procedures.
<i>Clostridium difficile</i> Infection	CDI	<i>Clostridium difficile</i> (also known as 'C. difficile' or 'C. diff') is a bacterium that can be found in people's intestines. <i>Clostridium difficile</i> causes diarrhoea (mild to severe) and, unusually, life-threatening inflammation of the intestines. Other symptoms can include fever, loss of appetite, nausea and abdominal pain or tenderness. A person can become infected with <i>Clostridium difficile</i> if he/she ingests the bacterium.
<i>Escherichia coli</i>	<i>E. coli</i>	<i>Escherichia coli</i> (commonly referred to as <i>E. coli</i>) is a species of bacteria commonly found in the intestines of humans and animals. There are many different types of <i>E. coli</i> , and while some live in the intestine quite harmlessly, others may cause a variety of diseases. The bacterium is found in faeces and can survive in the environment.
Glycopeptide resistant enterococci	GRE	Enterococci are bacteria that are commonly found in the bowel of normal healthy individuals. They can cause a range of illnesses including urinary tract infections, bacteraemia (blood stream infections) and wound infections. The two most common species of enterococci are <i>E. faecalis</i> and <i>E. faecium</i> . During the mid-1980s enterococci with resistance to glycopeptide antibiotics such as vancomycin and teicoplanin emerged, termed glycopeptide-resistant enterococci (GRE). Most GRE are <i>E. faecium</i> .
<i>Klebsiella</i>	<i>Klebsiella</i>	<i>Klebsiella</i> species belong to the family Enterobacteriaceae. <i>Klebsiella</i> species are a type of Gram negative rod shaped-bacteria that are found everywhere in the environment and also in the human intestinal tract (where they do not cause disease). Within the genus <i>Klebsiella</i> , 2 common species are associated with the majority of human infections: <i>Klebsiella pneumoniae</i> and <i>Klebsiella oxytoca</i> Both species are commonly associated with a range of healthcare-associated infections, including pneumonia, bloodstream infections, wound or surgical site infections and meningitis. In healthcare settings, <i>klebsiella</i> infections are seen in vulnerable, immunocompromised and unwell patients who have other co-morbidities and who are receiving treatment for other conditions.
<i>Pseudomonas Aeruginosa</i>	<i>P. aeruginosa</i>	<i>Pseudomonas aeruginosa</i> is a Gram-negative bacterium often found in soil and ground water. <i>P. aeruginosa</i> is an opportunistic pathogen and it rarely affects healthy individuals. It can cause a wide range of infections, particularly in those with a weakened immune system eg cancer patients, newborns and people with severe burns, diabetes mellitus or cystic fibrosis. <i>P. aeruginosa</i> infections are sometimes associated with contact with contaminated water. In hospitals, the organism can contaminate devices that are left inside the body, such as respiratory equipment and catheters. <i>P. aeruginosa</i> is resistant to many commonly-used antibiotics.

Term	Acronym	Definition
Burden Advice and Assessment Service	BAAS	NHS Digital's Burden Advice and Assessment Service (BAAS) offers advice, guidance and support for the health and social care system (both nationally and locally) on minimising the burden and bureaucracy of data collection, freeing up staff time to care.
Department of Health	DH	The Department of Health (DH) is a department of State responsible for government policy on health, social care and the National Health Service (NHS) in England. The DH carries out some of its work through "arm's length bodies".
NHS Improvement	NHSI	NHS Improvement is responsible for overseeing NHS foundation trusts, NHS trusts and independent providers, helping them give patients consistently safe, high quality, compassionate care within local health systems that are financially sustainable. NHS Improvement works with the Department of Health.
Patient Information Advisory Group	PIAG	The Patient Information Advisory Group (PIAG) was established in the United Kingdom under section 61 of the Health and Social Care Act 2001 and the Patient Information Advisory Group (Establishment) Regulations 2001 to provide advice on issues of national significance involving the use of patient information and to oversee arrangements created under section 60 of the Act. Its membership was drawn from patient groups, health care professionals and regulatory bodies. PIAG is enshrined in law but the duties are now administered by the Confidentiality Advisory Group.
National Information Governance Board	NIGB	The NIGB was established under the Health and Social Care Act 2008 with a range of advisory functions on information governance. This included taking over responsibility for the functions under section 251 of the NHS Act 2006. PIAG was superseded by NIGB. NIGB closed in 2013 and was replaced by the National Information Governance Committee (NIGC) managed through the Care Quality Commission.
Health Research Authority	HRA	The Health Research Authority (HRA) was established to promote and protect the interests of patients, streamline regulation and promote transparency in health and social care research. The major aim is to make the UK a great place to do health research, to build confidence and participation and so improve the nation's health. They also provide approvals for the processing of confidential information relating to patients through the Confidentiality Advisory Group (CAG).
Confidentiality Advisory Group	CAG	The Confidentiality Advisory Group provides independent expert advice on the appropriate use of confidential patient information. It advises under two separate legal frameworks: <ul style="list-style-type: none"> • The Health Service (Control of Patient Information) Regulations 2002 • The Care Act 2014
Coronary Artery Bypass Graft surgery	CABG	CABG surgery is advised for selected groups of patients with significant narrowings and blockages of the heart arteries (coronary artery disease). CABG surgery is an open chest procedure to perform direct revascularization of heart, for example, using a vein graft.

Term	Acronym	Definition
Care Quality Commission	CQC	<p>The CQC is the independent regulator of all health and social care services in England.</p> <p>From 1 April 2013, the NIGB's functions for monitoring and improving information governance practice transferred to the Care Quality Commission that established the National Information Governance Committee (NIGC) to oversee this work.</p> <p>The role of NIGC is to provide advice and assistance to CQC in relation to exercising its functions to monitor and seek to improve registered providers' IG practices.</p>
Clinical Commissioning Group	CCG	<p>A CCG is part of the National Health Service in England. CCGs are clinically-led statutory NHS bodies responsible for the planning and commissioning of health care services for their local area.</p>

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1. Overview

1.1 Summary

Standard	
Standard Number	DCB0134
Standard Title	Surveillance of Healthcare Associated Infections (HCAI).
Release	
Release Number	Amd 18/2017
Release Title	Version 3
Description	<p>This Information Standard has been extended to encompass new data collections or existing data collections with an increased frequency of reporting, as outlined below.</p> <p><u>New categories of reporting to existing HCAI surveillance Data Capture Systems</u></p> <ul style="list-style-type: none"> • Mandatory reporting at record level of <i>Klebsiella</i> and <i>Pseudomonas aeruginosa</i> bacteraemia from 1 April 2017. <p><u>Reports/outputs - changes & additions to reporting schedules</u></p> <ul style="list-style-type: none"> • Publication of monthly reporting of <i>Klebsiella</i> and <i>Pseudomonas aeruginosa</i> bacteraemia (October 2017). <p>Note: All mandatory surveillance of MRSA bacteraemia, MSSA bacteraemia, CDI, <i>E. coli</i> bacteraemia and <i>Klebsiella</i> and <i>Pseudomonas aeruginosa</i> bacteraemia reports are published according to an agreed publication schedule available on GOV.UK*</p> <p>(*All mandatory surveillance outputs are National Statistics. The mandatory surveillance data is managed by PHE on behalf of the Department of Health. PHE retains responsibility for publishing the data).</p>
Implementation Completion Dates	This Information Standard is already being applied by those participating in and managing the HCAI Surveillance schemes. Full conformance with the changes is expected by 30/6/18.

1.2 Supporting Products

Reference	Title
HCAI v1.0	Implementation Guide

2. Change Specification

2.1 New Items

The Information Standard is being expanded to include the below data items:

- New mandatory reporting at record level of *Klebsiella* and *Pseudomonas aeruginosa* bacteraemia from 1 April 2017.

New data items are highlighted within PHE Data Dictionary provided as follows:

- PHE Data Dictionary July 2017 for HCAI DCS v4 new data items due to the introduction of mandatory *Klebsiella* and *Pseudomonas aeruginosa* bacteraemia surveillance.

2.2 Amendments

- There are no amendments beyond the additions within 2.1.

2.3 Deletions

There are no deletions from the existing Information Standard, ISB 0134.

3 Supporting Information

3.1 Implementation Guide

Please see communication products for full details of how users have been notified of standard changes. In addition to these communications, the following user guidelines and information is available via the web-based Data Capture System:

- **Mandatory enhanced MRSA, MSSA and Gram-negative bacteraemia, and Clostridium difficile infection surveillance Protocol v4.1**
- **Gram-negative bacteraemia mandatory surveillance reporting aid**
- **Mandatory Health Care Associated Infection Surveillance: Data Quality Statement**
- **Overview of Roles and Permissions User Manual**
- **HCAI Data Capture System User Manual**
- **Data Upload Wizard User Manual**

3.2 Communications Products

Users have already been notified of these changes. The following mechanisms have been employed:-

- Users were originally made aware of the plans for the Gram-negative surveillance at the last HCAI DCS Stakeholder forum (9th February 2017):-
https://app.box.com/s/39ebi243ijuap4fsicf58479oot1ltdj#/s/39ebi243ijuap4fsicf58479oot1ltdj/1/22684483957/152439593881/1?&_suid=149096404547609429425226051391
- NHS Improvement (NHSI) outlines the government ambition to halve the number of Gram-negative bloodstream infections by FY 2020/21 in their 15th March 2017 Provider Bulletin:-
<https://improvement.nhs.uk/news-alerts/provider-bulletin-15-march/#infections>
This includes a link to a letter from the NHS Improvement National Director for Infection Prevention and Control that provides an overview of the intention to mandate the reporting of *Klebsiella* and *Pseudomonas aeruginosa* BSI.
- THE NHSI announcement was then followed up with a direct announcement to data suppliers (30th March 2017). This was communicated via a range of mediums:-
 - Details included on the HCAI Data Capture System (HCAI DCS) homepage to ensure that all system users that log on to the system were made aware of the forthcoming extension to surveillance.

- Granicus (formerly GovDelivery) was used to disseminate information on the forthcoming changes to relevant user groups (e.g. NHS Trusts as data suppliers, CCGs as commissioner etc.).
- NHSI then followed up with additional information in their 28 June Provider Bulletin:- <https://improvement.nhs.uk/news-alerts/provider-bulletin-28-june/#gramnegative>
This includes a joint letter from NHSI's Executive director of Nursing and National Director for Infection Prevention & Control and NHS England's Chief Nursing Officer detailing the specific surveillance requirements.

Users have the opportunity to feedback directly to the HCAI & AMR Department via established service helpdesks. All feedback is assessed by the HCAI & AMR Department and the appropriate action taken.

HCAI surveillance data is provided for patients via PHE website and also, for MRSA and *Clostridium difficile* infections, feeds into the NHS Choices pages on Quality of Service for individual hospitals. Information on the data collection itself is included on the "Indicator Facts" pages on NHS Choices."

References

1. *HM Government. Government response to the Review on antimicrobial Resistance: September 2016. London: HM Government; 2016. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/553471/Gov_response_AMR_Review.pdf [last accessed August 2017].*
2. *Department of Health. Reducing Infections in the NHS. News Story. London: Department of Health; 2016. Available at: <https://www.gov.uk/government/news/reducing-infections-in-the-nhs> [last accessed August 2017].*