

Health Care Associated Infection Operational Guidance and Standards for Health Protection Units







Healthcare-Associated Infection Operational Guidance and Standards for Health Protection Units

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1. Healthcare-associated infections

Healthcare-associated infections (HCAIs) can develop either as a direct result of healthcare interventions such as medical or surgical treatment, or from being in contact with a healthcare setting.

The term HCAI covers a wide range of infections. The most well known include those caused by meticillin-resistant *Staphylococcus aureus* (MRSA), meticillin-sensitive *Staphylococcus aureus* (MSSA), *Clostridium difficile* (*C.diff*) and *Escherichia coli* (*E. coli*). HCAIs cover any infection contracted:

- as a direct result of treatment in, or contact with, a health or social care setting
- as a direct result of healthcare delivery in the community
- as a result of an infection originally acquired outside a healthcare setting (for example, in the community) and brought into a healthcare setting by patients, staff or visitors and transmitted to others within that setting (for example, norovirus).

HCAIs pose a serious risk to patients, clients, staff and visitors to health and social care premises. They can incur significant costs for the NHS and others, and cause significant morbidity and mortality for those infected.

As a result, infection prevention and control is a key priority for the NHS, and the Health Protection Agency (HPA) has a responsibility to advise and support the NHS and others in their efforts to prevent HCAIs and any associated risks to health.

For the purpose of this guidance the term 'healthcare provider' includes all health and social care providers. (This includes nursing and residential care homes and healthcare given in the community).

The HCAI & AMRS Programme Board provides strategic direction nationally for the HCAI programme and is the focal point for communication and leadership across the HPA and to stakeholders on HCAI and AMRS issues.

2. Background and purpose of this guidance

The responsibilities of Health Protection Units (HPUs) in contributing to the prevention and reduction of healthcare-associated infections (HCAIs), agreed by the Health Protection Services Senior Management Team, HPA Executive Group, HCAI & AMRS Programme Board and the Department of Health (DH), have already been comprehensively described in the HPA Services

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Framework Agreement¹ (and a more detailed HCAI specific annexe) and a DH agreement on the health protection role of HPUs in community settings.²

The HPA Business Plan (2011/12) identified the need to "review and revise, if appropriate, the 2007 standards for HPU involvement in HCAIs taking account of resource constraints and HPA priorities". A number of staff from the HPA HCAI & AMRS Leads Group has worked together over the previous several months to produce this guidance.

The HPA Board action plan, following the Francis Report into care provided by Mid Staffordshire NHS Foundation Trust (January 2005 - March 2009), identified actions required to: clarify the HPA's monitoring role in the NHS early warning system; and to agree lines of reporting of HPA concerns in circumstances where there is an absent or inappropriate response by a trust or other external partner. This guidance has also taken account of these requirements in section 5.3.3.

This guidance, for HPUs and other regional and national HPA staff, describes:

- Actions that HPUs and others need to undertake to help reduce the risks of HCAIs in local health and social care settings (core HPU responsibilities).
- The HPA governance framework required to underpin these responsibilities in partnership with their local health and social care economy (of health and social care providers, commissioners, regulators and performance managers).

It should provide HPUs with a clear indication of the steps they will need to take in ensuring they meet their new HCAI standards.

A standardised approach to risk assessments to inform HPU advice and actions is presented, based on an assessment of multiple sources of local and other intelligence.

Through a more risk- based approach, HPUs should be enabled to provide more consistent and targeted advice and support to providers and other organisations; and escalation of HPA concerns (regarding provider management of HCAI related threats) to commissioners, performance managers and regulators when required.

In particular, the guidance focuses on the effective delivery of high quality HPU advice and action to provider organisations (NHS and independent health and social care settings) in the following areas:

• Prevention of HCAIs through proactive encouragement and promotion of best practice in Infection Prevention and Control (IPC) by providers and others.

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¹ Health Protection Agency (August 2008), Framework Specification for local and Regional Services Provision 2008-2010.

² HPA Roles in respect of health care associated infections and infection prevention and control in community care homes (22 April 2009).

- Provision of high quality surveillance and timely feedback of HCAI-related threats and information to support actions to reduce HCAIs and their consequences.
- Support, coordination and leadership of HCAI related outbreaks and incidents.

The guidance (in section 6) also describes what local actions HPUs should expect of their health and social care providers to underpin the effectiveness of the delivery of the HPU's core responsibilities (e.g. through timely reporting of HCAI incidents and collaborative working).

Recommended standards for best practice for HPUs are presented in the guidance (and Appendix 3), and these will now replace the previously agreed 2007 LaRS HCAI standards for HPUs. These standards represent the full range of activities by HPUs, and others, to reduce HCAIs in local acute and community health and social care settings. It is recognised that the full achievement of these standards by HPUs may require further local and national developments and support to enable their delivery over the next few years.

3. Aim and objectives of the guidance

Aim

To improve the quality and consistency of HPU support and advice to provider organisations' Infection Prevention and Control Teams, and others, reducing preventable HCAIs and their public health impact.

Objectives

- To clarify the operational expectations of HPUs as described in existing national policy documents and agreements.
- To provide additional guidance on key risk assessment and decision-making processes, and arrangements for escalating public health concerns to commissioners, regulators and performance managers.
- To clarify responsibilities of the HPS Field Epidemiology Service and HPA Microbiology Services in providing specialist support for HPU service delivery (e.g. through provision of specialist expert advice and support for outbreak investigation and peer support visits).
- To clarify HPA expectations of actions by other organisations (providers, commissioners, regulators and local authorities) to enable HPUs to fulfil their HCAI-related roles effectively.
- To provide HPUs with a quality improvement tool and a revised set of national HCAI standards.

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4. Core HPU responsibilities and supporting governance framework, and risk assessment model

4.1. Core HPU responsibilities and supporting governance framework

The HPA is an expert and proactive organisation, providing advice and support to providers of health and social care in reducing HCAIs and their health consequences, in as cost effective a way as possible.

HPUs work in partnership with other local health and social care organisations to ensure that the individual needs of patients/service users are properly managed and met and harm minimised. HPUs need to organise their efforts so that everything they do is designed to provide the best outcomes for the population (i.e. that "the right person does the right thing at the right time in the right place").

Table 1 summarises the core HCAI responsibilities delivered by an HPU, and the supporting governance framework that underpins their effective delivery.

Core HPU HCAI responsibilities	Prevention of H through proact encouragemen promotion of b practice in Infe Prevention and (IPC) by provid commissioners	ve feedback of HCAI-related t and risk assessments and information to support actions to reduce HCAIs Control and their consequences ers and		Support, coordination and leadership of HCAI related outbreaks and other situations			
Supporting governance framework	HPU clinical leadership and accountability	Training and development for HPU st to fulfil HC related responsibi	ent aff AI-	Good record keeping (underpinning service delivery and enabling clinical audit)	the bas gui und cos	llation of evidence se and dance to derpin st-effective ivery	Specialist HPA advice and support (underpinning the quality and cost- effectiveness of core HCAI responsibilities)

The core responsibilities are outwardly focused and relate to the HPU advice given and actions taken within trusts and other health and social care settings to ensure the effective identification and management of HCAI related risks. Together these actions should all be designed to have maximum impact on helping to keep patients, staff and visitors safe by reducing the risk of acquiring HCAIs, and any public health consequences.

The actions associated with the governance framework are generally inwardly focused (i.e. within the HPA) and should be designed to underpin the effectiveness of HPA advice and actions.

4.2. HCAI risk assessment model

The following HCAI-related risk assessment model (see Table 2) is proposed for use throughout this guidance, which is based on the risk categories within the generic HPZone risk assessment framework for 'situations' (and which HPUs will already be familiar with) and expands the HCAI specific elements of this:

HPZone generic risk assessment criteria	HCAI related risk assessment criteria		
Severity			
Uncertainty	Seriousness of threat (epidemiological characteristics and		
Spread	likelihood of causing significant morbidity or mortality).		
Intervention	HPU assessment of actions required (or already taken) by provide to manage outbreak/situation or improve organisational safety:		
	 Coordination, strategy and action planning by providers to reduce HCAIs 		
	 Provider engagement of HPU and cooperation with our advice 		
	 Provider senior management and clinical engagement in risk assessment and response to threat 		
	 Investigation and intelligence gathering to better understand the threat 		
	Control measures to reduce spread or consequences.		
Context	Consistency of longer term pattern of organisational behaviour (by providers), and		
	Potential for media/public interest and concern		

Table 2. HCAI risk assessment criteria

It is proposed that this risk model, albeit with slightly modified and context-specific questions for differing applications (see Appendix 1 for details), can be applied across the full range of our three HCAI core responsibilities in this guidance, in particular for:

- Assessing, prioritising and setting the development agenda for our proactive engagement with providers (e.g. through attendance at Infection Prevention and Control committees (IPCC) and other partnership groups);
- Deciding what incident response and coordination arrangements are required (by the HPU and providers) for particular HCAI related outbreaks and incidents; and
- Assessing the adequacy of a provider's response to a HCAI-related outbreak, or situation where there is a significant risk of transmission to others; and in deciding when to escalate any concerns we might have regarding this to commissioners, regulators and performance managers (as per the escalation algorithm).

5. Core and supporting HPU responsibilities and risk assessment framework in relation to HCAI

This section will consider each of the above three core responsibilities and five supporting governance framework elements separately and identify:

- The essential risk assessment and decision-making processes and other actions that HPUs (and others) need to consider, in delivering each of the core responsibilities, and in implementing a local governance framework.
- The expert support and advice that HPUs should expect from HPA specialist regional and national staff (i.e. epidemiological, microbiological and IPC experts) in helping them to address local HCAI-related risks.

For each section the new national HPU HCAI standards are also highlighted.

5.1 Prevention of HCAIs through proactive encouragement and promotion of best practice in Infection Prevention and Control (IPC) by providers and commissioners (including routine communications and engagement through IPC Committees and Partnership Groups)

As part of their responsibilities under the Health and Social Care Act (2008), all health and social care providers must ensure that they have systems in place to monitor and manage the risks from HCAIs. A comprehensive organisational risk assessment should consider how susceptible service users are and any risks posed by their care environment to users, staff and others. They must also provide and maintain a clean and appropriate environment in managed premises that facilitate the prevention and control of infections.

It is recognised that much of the expertise in infection prevention and control lies within the NHS. This expertise may not always be available to a consistently high standard in all NHS premises. Furthermore, even where a high level of expert advice is available within an NHS setting, senior management may not always act on it appropriately. HPUs are well placed (with more specialist regional and national expert support and advice when necessary) to provide proactive advice and support to providers in reducing risks of HCAIs and their public health consequences, especially in relation to epidemiological aspects.

HPUs also have a responsibility to promote a whole health economy wide and partnership approach to reducing HCAIs and related risks, by working in partnership with other healthcare providers and organisations. This type of partnership working demonstrates best practice.

HPU staff do not routinely have specialist expertise in IPC, however they do have considerable knowledge and skills to undertake public health risk assessments and in the investigation, management and epidemiology of diseases, outbreaks and other health protection incidents. They can also, where necessary, facilitate and be a channel for more specialist expert advice (in microbiology, epidemiology and IPC) to local providers from other HPA divisions (via regional and national staff) when required.

5.1.1 Trust Infection Prevention and Control Committees and other health economy HCAI partnership groups

HPU staff need to develop good professional working relationships with individual staff in trusts, local commissioning groups and local authorities (such as trust microbiologists, Infection Prevention and Control Teams, Directors of Infection Prevention and Control and Directors of Public Health).

They also need to seek opportunities to influence the development of IPC systems and arrangements through local engagement with healthcare providers/trust IPC committees and other HCAI-related health economy wide partnership groups.

The HPU should work in partnership with healthcare providers (at times it may need to act as a 'critical friend' to providers, challenging IPC practices where these are considered unsafe or inappropriate), and providing support and expert advice where any improvements might be made.

In general, the HPA needs to focus its attention on those healthcare settings that are most in need of support. HPUs need to identify what are the health protection development priorities (or systems risks) for each of their trusts and which the HPU might particularly focus their advice and support on through attendance at meetings and other routes. In particular HPUs, working with their local providers, need to ensure that there are robust local systems in place to ensure that:

- The HPU shares health intelligence and outputs from their surveillance systems, alerting providers and other social care partners to any adverse epidemiological trends and significant public health risks, and informing efforts to reduce these risks through appropriate investigation and control measures. Surveillance ('information for action') is a key strength of the HPA.
- Healthcare providers (particularly acute and foundation trusts) have internal surveillance systems in place to detect HCAI-related clusters and outbreaks.
- All healthcare providers alert HPUs to any significant infections or suspected clusters and outbreaks, and any significant lapses in IPC arrangements that might put service users, patients or the wider public at risk, and engage the HPU in a shared risk assessment of these.
- Providers have appropriate outbreak and health protection incident plans in place (which appropriately engage HPU support as necessary).
- Providers have access to national evidence-based HPA and other IPC and microbiologyrelated guidance.

With the increasing plurality and complexity of the provider landscape inherent in the recent NHS changes, and limited HPU resources, HPUs will need to decide where best to focus their efforts to achieve maximum impact through their proactive engagement with trusts and other healthcare providers.

It is recognised that formal trust IPC meetings may not be an effective substitute for regular, informal discussions with DsIPC. HPUs may need to assess and decide which (higher risk) IPC meetings and groups they particularly need to attend regularly; which ones they might reasonably attend less frequently or receive papers and minutes from without attending regularly.

Appendix 1 provides a checklist to support this prioritisation process and should also help HPUs to decide what development issues to focus on for particular healthcare providers.

This checklist could be used as a tool to support a discussion between the HPU and local DsIPC/microbiologists/IPC teams, and leading to a shared agreement about how frequently the

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HPU might need to attend IPCC meetings, and what development support the HPU might offer the trust through the coming year (with more specialist HPA support and input where required).

5.1.2 HPU Standards for Best Practice

1) All HPUs will provide guidance to local acute trusts and community healthcare providers for what HCAIs or other infection prevention and control related risks should be routinely reported to the HPU.

2) An HPU representative will attend all high priority acute and community healthcare provider strategic IPC committee meetings with partners (as informed by a documented local risk assessment by the HPU of their need to attend).

3) An HPU representative will routinely attend all relevant strategic IPC committees (e.g. Whole Health Economy meetings (WHE) or equivalents).

5.2. HCAI surveillance and timely feedback of HCAI-related risk assessments and information to support actions to reduce HCAIs and their consequences

HPA and healthcare provider HCAI-related surveillance systems should be developed and employed:

- To ensure the early detection of HCAI-related 'situations' requiring further investigation or control (this would include both situations where the surveillance system has detected an 'adverse trend' or where a critical event gives rise to concerns that action might need to be taken to reduce the risk of exposure of infection).
- To assess the effectiveness of interventions employed to reduce HCAIs and their public health consequences and to ensure that the systems/interventions are fit for purpose.

5.2.1 Importance of providers' internal surveillance systems

The effectiveness of HPA surveillance systems to support the above functions depends entirely on the ability of providers to:

- Systematically identify cases of infection (and any spatial, i.e. time/place person relationships, between them); and any events which might pose a significant risk of infection, and
- Routinely report these to the HPA.

A useful checklist for assessing the effectiveness of acute trust internal surveillance systems is provided in Appendix 2. This is extracted from the recently published guidance aimed at hospital trust boards by the National Institute for Clinical Excellence (NICE) and the HPA at:

http://www.nice.org.uk/guidance/phg/hcai/QualityImprovementGuide.jsp

5.2.2 Defining HCAI situations

The HPU will need to proactively support providers in the detection, investigation and management of a wide range of HCAI-related situations (as defined and described in HPZone) which might come to light through local, regional or national surveillance systems. Table 3, summarises the various types of situations that might be detected.

Table 3. Classification of HCAI situations on HPZone

HPZone situation category	Examples or situation requiring HPU advice and/or management
Clusters	Where a number of cases have a possible but as yet unconfirmed epidemiological link.
	This would include suspected outbreaks or clusters reported to the HPU by the provider, or situations where the HCAI surveillance suggests this might be the case. In all these cases the HPU would need to establish with the provider whether there are spatial links between cases.
Outbreaks	Where a number of cases have a highly probable or confirmed epidemiological link.
Exposures	Where a person or a number of people have been exposed to a potentially harmful infection.
	This would include situations where a healthcare worker has contracted a serious communicable disease and might have exposed others to significant risk of transmission (e.g. HIV infected surgeons, open TB on a ward), or where there has been a serious lapse in IPC arrangements (e.g. a serious decontamination failure).
Issues	Where there is a local situation that requires monitoring and ongoing action.
	This might include situations where an adverse epidemiological trend requires further investigation (e.g. from mandatory surveillance), or a provider has consistently higher levels of infection than other similar providers, but no outbreak is necessarily suspected.
	This might also include situations where the HPU has any serious concerns about a provider's IPC arrangements, which are putting patients/clients at significant risk of infections.

5.2.3 HPA surveillance systems

There are a number of HPA surveillance systems (mandatory, enhanced and voluntary) designed to capture all this information which operate at local, regional and national levels. HPA staff, at all these levels, have a shared responsibility to keep each other informed of the results and implications of any findings, and to undertake a shared risk assessment of any consequences and required actions.

It is unlikely, that any one surveillance system will detect, or provide all the relevant intelligence, on the full range of healthcare-associated infection outbreaks or other situations.

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Table 4, summarises the primary usefulness of a number of these systems in detecting particular HCAI situations.

Surveillance system	Primary usefulness in detecting particular HCAI situations	Comments
Local reporting of cases and events (including through COSURV, SUIs and other direct local contact)	Early detection of clusters and outbreaks. Early detection of exposures.	Depends on good local reporting arrangements. Reporting of spatial links between cases depends on adequacy of provider internal surveillance system and assessment/interpretation by HPUs.
Mandatory HCAI surveillance	Retrospective detection of clusters. Detection of issues (e.g. in relation to trends against targets and relative performance compared to other trusts.	Designed to support DH monitoring of targets. May reflect differences in case mix and laboratory testing and reporting of cases between trusts. Future assessment of significance of trends in MSSA and <i>E. Coli</i> .
Mandatory SSIS scheme	Detection of issues (e.g. relative performance of trusts in IPC for particular operations)	May reflect differences in case mix and laboratory testing and reporting of cases between trusts. Limited surgical procedures covered. Only mandatory for one quarter per year. Multiple infections collated. Small numbers.
Bacteraemia exceedance reporting	Detection of clusters	Still under development nationally. May reflect differences in laboratory testing and reporting arrangements.

Table 4. HCAI surveillance systems and detection of situations
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5.2.4 Detection of outbreaks

Outbreaks may be identified either through case-based surveillance that is based on the analysis, typically using statistical tools, of collated reports of individual cases, or through event-based surveillance that is based on the direct reporting, typically by clinical staff, of outbreaks or exceptional events. Event reporting by alert clinicians is the most common mechanism of detection of locally confined, acute onset outbreaks, particularly point source outbreaks, and most emerging disease problems. Case-based surveillance systems are more suited to the detection of more geographically dispersed outbreaks and 'slow-burn' outbreaks, such as continuous source outbreaks or person-to-person outbreaks with lower rates of transmission.

A common feature of all outbreak definitions is that the observed number of cases exceeds the number expected for a given time and place. The HPA has developed analytical systems that make use of this common feature to aid the detection of clusters of cases that may represent outbreaks,

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e.g. through analysis of COSURV, mandatory HCAI surveillance and the Surgical Site Infection Surveillance scheme (SSIS).

However, it is important to note that there may be other reasons for apparent clustering of cases, such as 'batching' of reports to the surveillance system or increased ascertainment of cases as a result of changes in diagnostic protocols or technology. Such apparent clusters need to be investigated further locally before they can be declared as outbreaks.

It is therefore important that HPUs (supported by regional and national staff) assess the possible effects of these other issues before concluding that a local outbreak has been detected.

5.2.5 HPU Standards for Best Practice

4) All HPUs should have direct access to, and should understand the web-based mandatory surveillance data.

5) Regional Epidemiology Units (REUs) will produce a monthly standard package of charts for HPUs, showing the mandatory surveillance data for each acute trust in their area, and providing information for action to NHS trusts, commissioners, providers and regulatory bodies.

• These charts will be based on a standard protocol agreed by Health Protection Services and may be supported by other locally agreed time series analyses presented as graphics and by exceedance algorithms (as these become available).

6) HPUs will undertake and document a shared monthly risk assessment together with their REUs/surveillance and epidemiology teams (SET) of all mandatory and other locally relevant intelligence on HCAIs.

• Identifying adverse trends on a trust-by-trust basis by visual inspection of the data and agreeing any need for further local investigation and management.

6a) Where providers are identified as being a cause for concern, as detected through standard 6, the nominated HPU representative will discuss the situation with the trust infection prevention and control team, or relevant provider service manager, and agree and document an appropriate action plan and timeline.

• Implement steps as outlined in the exceedance algorithm, if necessary.

5.3. Support, coordination and leadership of HCAI-related outbreaks and other situations

5.3.1 Risk assessment and appropriate HPU response to outbreaks and other situations

For every HCAI situation identified the HPU will need to decide both:

- a. What the health protection significance of this situation is to the clients, patients and the wider public health, and
- b. What is the appropriate HPU response required in terms of whether the HPU should:
 - Keep a watching brief (assuming a predictable rapid resolution within the provider) and request progress reports from the provider, or
 - Provide proactive engagement and support for investigation and control through the acute desk, or
 - Convene (or recommend that the provider convenes with HPU support) an Incident Management Team.

If the HPU considers that an Incident Management Team (IMT) is required (and that the HPU should lead, or be represented on this) then the HPU should, by default, declare this as an Incident Emergency Response Plan IERP level 1 (or greater) situation and the HPU director should agree who will lead the HPU response.

HPUs should routinely inform local commissioners and other health economy stakeholders where outbreaks and incidents might have an impact on them or the wider community.

5.3.2 Complex and protracted outbreaks and other situations

For some situations it may not be clear, to either the provider or the HPU, why the situation is not resolving despite seemingly appropriate control measures being applied. In these situations (and indeed others at an earlier stage), the HPU will need to consider seeking more specialist expert HPA support and advice from regional and/or national HPA staff.

Ideally, these staff should be co-opted into the HPU (or provider) led IMT to ensure a coordinated HPA input, although this might need to be done via a teleconference link. There should be a clear record kept by the HPU of what advice has been sought and given by other HPA staff in all such situations and what (if any) actions they have agreed to undertake.

In complex situations (particularly within acute and foundation trusts), consideration may need to be given to arranging a dedicated review of the provider's arrangements for managing the situation, e.g. through a HPA-led peer support visit to the provider (see section 5.8).

5.3.3 Assessing the adequacy of response of providers to HPA advice, and escalation of any serious concerns about a provider's management of an outbreak or other situation

The HPA is not responsible for performance management of, or regulation of, the adequacy of a provider's IPC arrangements. However, the HPA does have an important role to play as part of the 'early warning system' by alerting other organisations (commissioners, performance managers and regulators) to serious problems and lapses in safety when they become aware of these.

HPUs should review all their IERP level 1 (or greater levels) HCAI-related situations in health and social care settings on at least a weekly basis (e.g. through their weekly clinical review meetings) and specifically ask themselves:

- a. Is the HPU's advice clear in this situation?
- b. Has this advice has been clearly offered to the provider?
- c. Is the provider largely following this advice (as far as the HPU can ascertain)?
- d. Has an action plan with specific timelines been agreed by all parties?

This assessment should be documented on HPZone as well as the details of any particular concerns the HPU might have at that time, and any steps taken by the provider to address them. This assessment might also be reported routinely through any regional health protection teleconferences between HPUs and their REUs.

HPUs may find the risk assessment within the escalation algorithm (Table 5) and the checklist in Appendix 1 helpful in categorising these concerns.

The HPA will also need to consider whether they are offering the best possible support and advice to the provider in this situation or whether for instance a more direct approach to an acute trust by the Regional Microbiologist (or other senior regional/national specialist HPA staff member) or the offer of a peer support visit might be helpful in resolving the issues.

In all situations where there are significant concerns, or an action plan cannot be agreed, or there is a continuing public health risk, the HPU should make it clear to the provider at an early stage by letter or email (to the healthcare provider manager or the IP&C team including the DIPC), and document:

- What the HPU concerns are.
- The expected process/actions by the provider for resolving these, and
- How the HPA will escalate these concerns, if they are not adequately addressed, to commissioners, performance managers and regulators (within clearly agreed timescales depending on the situation).

If the situation is still not resolved following this communication, and where a significant public health risk continues, the HPU should follow the steps outlined in Table 5 the '**HPA escalation** steps for informing commissioners, performance managers and regulators about concerns regarding the management of HCAI related situations by providers'.

The Care Quality Commission would normally be informed of these concerns if this escalation reached step 2. However, the HPU should consider informing them at step 1 if the following criteria apply:

- There are concerns that the incident management team is not applying an appropriate level of resources/interventions to control the situation (e.g. adequacy of isolation facilities, PPE, enhanced cleaning capacity, staffing etc), or
- The situation is associated with a longer-term pattern of recurrent problems of a similar nature in this organisation, or systemic failings in management of such situations in the past.
- There is the potential for a wider public health risk (including potential media interest).
- An action plan can not be agreed by the parties involved.

Clearly, individual incidents will have varying timescales in terms of what is a reasonable period for providers to respond to any concerns that HPUs might have conveyed to them, and before HPUs decide to escalate to the next steps in the escalation algorithm. This will often depend on a shared risk assessment and judgement call between the HPU director and regional director.

5.3.4 HPU Standards for Best Practice

7) HPUs will respond, or arrange for a response, to all health and social outbreaks and incidents within the same working day.

8) HPUs will agree and assign an HPA IERP incident level, and HPU incident lead, for all HCAIrelated situations and record this on HPZone.

9) Where an Incident Management Team (IMT) is required (usually an IERP level 1 or greater), an HPU representative will attend these meetings. These meetings must agree, review and update an Action Plan.

• If the HCAI incident crosses organisational boundaries, and the HPU representative is asked to chair the meeting, they should do so.

10) For all IERP level 1 (or greater) situations, the HPU will assess, at least weekly, whether the provider is delivering the Action Plan agreed at the IMT meetings.

12) Where an outbreak/incident is not being controlled and/or where trusts/ provider services are not delivering the agreed Action Plan, HPUs will follow the steps identified in the Health Protection Services escalation algorithm.

• This will be documented on HPZone

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Table 5. HPA escalation steps for informing commissioners, performance managers and regulators about concerns regarding the management of HCAI related situations by providers

Algorithm for the escalation of HCAI situations, incidents and outbreaks where the response to or management of a situation/incident/outbreak does not follow the agreed Action Plan¹



HPA to provide enhanced discussion and agree with the Provider of Health, the IP&C team including the DIPC (and if necessary OCT) process for actions and escalation of situation/incident/outbreak within a clear defined timescale which has been agreed by both parties. HPA to document.⁴

Timeframe Timescales to be agreed locally by both parties according to risk assessmen and individual situation	HPA actions HPA communication would normally be verbal first followed up by confirmation in writing ⁴	Communication with the healthcare Provider ⁵	Escalation to other local stakeholders	Escalation to Department of Health
Step 1. INFORM Highlighting the issue in writing Within same day recognisin advice and support not beir followed (or other defined timescale).		 HPU to notify in <u>writing</u> specific concerns (if not already notified); DPH DIPC (with the expectation that the DIPC or manager will notify CEO according to internal protocol) Community IP&C Team (if involved). 	No unless risk assessment indicates the need to raise the issue with CQC.	No
Step 2. ENGAGE Engaging with various stakeholders If actions from step 1 have not been delivered within t specified and agreed timeframe. Timeframe will be depende on type of outbreak and loo situation.	of support is needed. Consider: • formal offer of peer support team • telephone conversations or face to face conversations are	 RD (or delegate) to notify in writing CEO / MD of healthcare organisation or Manager of Care Home making clear what response is required for example: a written response with action plan or a meeting with HPA to discuss action plan include timeframe for expected response. 	 Notify CQC if risk assessment indicates. HPA to copy the CEO letter to; CEO of Commissioning body Responsible Director in NHS commissioning PCT/ SHA/Local Authority (they commission Care Home services) DIPC, Manager Chair of affected healthcare provider (if appropriate) Regional Communications Manager 	No
Document reasons for long responses.	RD to provide briefing for Divisional Director			
Step 3. ADVISE If no response from healthcare provider (CEO/MD/Manager) within timescale requested or if response is inadequate. Timeframe will be depende on type of outbreak and loo situation. Must be within a specified timeframe of moving to step 2. Documer reasons for longer response	HPA risk assessment to consider action plan and timelines.	 Regional Director to: Notify performance managers and commissioners in writing. Outline actions needed, expected response and timeline Document all discussions and decisions⁴ Record in HP-Zone⁴ 	Regional Director to discuss and notify in writing ⁴ the nature of concerns and an indication of likely health impact: • CQC • Monitor • CEO performance management body (SHA), Local Authority, Commissioning clusters • Regional Director of Public Health	HPA to discuss internally with Director HPS, Exec Lead HCAI & AMR PB and CEO. Notify DH HCAI team and CMO in writing.

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Footnotes:

- 1. This document is focused on situations, incidents and outbreaks of infection; however, the process of escalation is applicable to other public health incidents or outbreaks. For the process relating to care homes, please refer to the algorithm for the steps in escalating situations, incidents and outbreaks in care homes.
- 2. This algorithm is for the steps in escalating serious concerns about management of a HCAI situation/incident/outbreak. It is expected that the majority of situations will be addressed <u>before</u> Step 1 is reached. The emphasis is on working collaboratively with healthcare providers to ensure that situations are addressed in mutually agreeable and reasonable timeframes. At each point in the process the HPU should exercise judgement and work with trusts to address the issues and meet timelines, e.g. issue reminders that responses are due etc. However, where the escalation point has been reached (Step 1), the HPA has a duty of care to escalate concerns to protect patient, staff and public safety.
- 3. Risk assessment see Chapter 5 of the operational guidance. Brief outline of how risk assessment will be conducted is outlined below.
- 4. Feedback from the Mid Staffordshire Inquiry has highlighted that the HPA needs to ensure concerns are documented (e.g. minutes) and stored appropriately. All documentation can be stored in HPZone according to the standard operating procedure, which has been included in the operational guidance for this purpose. NOTE: HPZone users should not put personal identifiable information (PII) into the free text boxes marked Diagnostic Notes and Briefing Notes (see HPA briefing Note 2012/022).
- 5. The HPA should form a view about whether the agreed Action Plan has been accepted and delivered/not delivered, with evidence to support this view. Evidence could include a record of a phone conversation, meeting or email or documented Action Plan. Similarly, it should be documented that the HPA has informed the health provider of the view that the agreed Action Plan has not been accepted or delivered.
- 6. All escalation communication should be confirmed in writing (either email or formal letter) depending on the degree of escalation.

Risk Assessment

Risk assessment needs to be conducted at all steps in this process and will be dictated by risks to public health, the risk posed to patient safety, infection prevention and control and epidemiological expertise, understanding the local situation and local HCAI intelligence. In conducting the risk assessment, refer to HPA HCAI & AMR operational guidance.

Consider the following when conducting the risk assessment

1. Professional public health and epidemiological expertise and judgement around the public health risk assessment, which should be based on the normal HPZone risk assessment matrix that contains the following five risk criteria (each scored 1 to 5):

- Severity (type of threat)
- Spread (real or potential)
- Confidence (we know what we are dealing with)
- Complexity (of intervention)
- Situation (level of concern, media interest etc).

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2. The public health risk assessment should indicate that the issue is 'significant' enough for the HPA to consider escalating the problem as far as its poor management might be concerned.

3. Where there is a significant public health risk, a decision to escalate to others should be based on an assessment of the criteria below. Consider escalation when HPA colleagues have concerns in any one or more of the 10 risks listed below, particularly where the provider/home is not seeking to address them with our help or patient safety is at risk.

Risk identified	Yes/ No / Partial	Comments and actions for HPA to take. Yes should flag a concern.
Patient Safety		
 Will implementing the HPA advice/agreed Action Plan reduce the risk to patients? 		
2. By failing to follow this advice/agreed Action Plan, is the health provider putting patients/staff/public at significant risk?		If yes, notify CQC
HCAI data and local intelligence		
3. Does the mandatory surveillance analysis combined with other local intelligence (e.g. CoSurv) indicate there is an ongoing problem?		Consider notifying CQC
Leadership and organisational management of infection prevention		
and control		
4. Are there concerns about the organisational arrangements of the healthcare organisation/care home to ensure a coordinated response or agree an Action Plan to the investigation and management of the incident—for example, declaring an incident/outbreak and activation an OCT/IMT with a clear incident management strategy?		Consider notifying CQC
5. Are there concerns about the engagement of the health and social care provider in the investigation and management of the incident—for example, cooperating with HPA advice and documentation of agreeing action plans?		Consider notifying CQC
6. Are there concerns about the provider of health and social care incident management/lead actively engaging its own senior management/clinicians in the response—for example, CEO/director, medical director, home manager, GPs?		Consider notifying CQC
7. Are there concerns about the incident management team collating appropriate intelligence to support the investigation and response—for example, epidemiological, root cause analysis, HII audits, prescribing data?		Consider notifying CQC
8. Are there concerns about the incident management team applying an appropriate level of resources/interventions to enable the control of the threat—for example, isolation facilities, PPE, enhanced cleaning capacity, staffing?		If yes, notify CQC
 Is this outbreak/incident associated with a longer term pattern of recurrent problems of a similar nature in this organisation, or systemic failings in management of such 		If yes, notify CQC

incidents in the past?	
Public health risk and potential media implications	
10. Is there a potential for a wider public health risk (including potential media interest)?	If yes, notify CQC

Notifying the Care Quality Commission

The CQC should be notified where there are concerns that a provider:

- 1. Is failing to engage with and follow good practice and management advice.
- 2. Is engaging in a superficial rather than meaningful way.
- 3. Does not have the organisational attributes and practice skills to properly deal with the incident/outbreak.
- 4. Is not acquiring/is not able to acquire those organisational attributes and practice skills.
- 5. Does not have the resources to properly deal with the incident/outbreak
- 6. Is not deploying available resources to properly deal with the incident/outbreak.

5.4. HPU clinical leadership and accountability

Leadership and governance arrangements for HCAIs need to provide a robust framework for local HPUs, allowing the HPUs and their partners to ensure that:

- Clear lines of responsibility and accountability are identified.
- Procedures for all local organisations are identified to remedy poor performance.
- A comprehensive programme to improve quality an safeguard high standards of care is established.

HPU directors (and their regional and HPU HCAI Leads) should be proactive in ensuring continuous quality improvement, including regularly monitoring (through audit) compliance with the HPUs objectives, policies and procedures for reducing HCAIs. In practice this means that all staff should be up-to-date with all these, and operate within a clear framework of accountability.

Each local HPU should have a named competent local lead for HCAIs who will have responsibility for addressing local issues in relation to HCAI, data, incidents and the provision of advice and audit. This must be an appropriately qualified and experienced person who undertakes ongoing training and continuous professional development (CPD) to develop and maintain their HCAI skills and knowledge. They will be directly accountable to their unit director, and to the regional director, via the established local accountability structures.

HPUs should have a nominated information lead (this may be a member of the regional epidemiology team, or suitable other) for collating surveillance data and reports, and for disseminating these appropriately to local providers, commissioners and performance managers.

For every HCAI-related incident and outbreak there should be a nominated competent HPU clinical lead. The management responsibility ultimately lies with the Unit Director (UD) and Regional Director (RD).

HPUs will provide a nominated competent HPU clinical lead for proactive engagement with every local acute and community trust, and health economy wide IPC group (although, as explained in section 5.1, a risk-based approach can be taken when deciding which meetings they need to attend or provide input for).

All HPU staff should have appropriate knowledge and skills, and undertake ongoing CPD to develop and maintain their HCAI /IPC-related roles and responsibilities.

5.4.1 HPU standards for Best Practice

12) All HPUs and regions will have an identified local HCAI Lead (with their HCAI responsibilities clearly identified in their job plan) and nominated clinical leads for each of their acute trusts and

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healthcare provider services and whole health economy IPC groups.

13) All HPUs will have a nominated lead for collating surveillance data and reports, and for disseminating these appropriately to local healthcare providers, commissioners and performance managers.

• This may be from REUs/SET or HPUs.

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5.5. Training and development of HPU staff to undertake core HCAI responsibilities

HPUs need to ensure that any advice offered to provider organisations to support the prevention and reduction of HCAIs in health and social care settings is evidence-based, designated best practice and authoritative.

It is therefore important that they ensure that all staff have appropriate IPC/HCAI and epidemiological knowledge and skills, and that they support this through appraisal and ongoing continuous professional development and mandatory training requirements (to comply with CQC requirements).

In particular, they need to consider this for the following functions and roles within the HPU and supporting regional team:

- Unit HCAI Lead
- Senior/consultant level response to situations
- Proactive engagement through attendance at IPC and other local groups
- Routine response to enquiries (duty desk)
- Surveillance and epidemiology teams (SET).
- Information officers.
- Administration and secretarial support, such as loggists etc.

HPUs should undertake a local assessment (supported by their local and regional HCAI leads) of the following range of competencies within the HPU.

- Programme management, including communication and admin support.
- HCAI/AMR surveillance and investigation of HCAI outbreaks.
- Principles of infection prevention and control.
- Healthcare structures, functions, networks, legislation and performance management arrangements.
- Important healthcare-associated infections.
- Principles of antimicrobial resistance.
- Healthcare epidemiology.
- Report writing, incident logging and data collection.
- Leadership, advocacy, negotiating and influencing, provision of independent peer support HPA functions, structures, networks and resources available to support the HCAI function across the agency.

5.5.1 Key Documents

The HPA and other have produced a number of documents to support this assessment and development process. However, it is recognised nationally that there is a considerable gap in training opportunities for HPA staff in these areas, which needs further consideration and identification of resources.

• Healthcare Epidemiology Competencies (HPA, June 2010)

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- UK Field Epidemiology Training Programme, Core Competencies (HPA, July 2011)
- Outcome Competencies for Practitioners in Infection Prevention and Control (Infection Prevention Society, February 2011)
- NHS Knowledge and Skills Framework (DH, 2004)
- Infection Prevention and Control National Occupational Standards (Skills for Health, consultation paper <u>http://www.skillsforhealth.org.uk/about-us/consultations/infection-prevention-control-nosreview/</u>)

5.5.2 HPU Standards for Best Practice

Training and development of HPU staff to undertake core HCAI responsibilities

14) Infection prevention and control and HCAI learning needs are discussed, acted on and documented in personal development plans (PDPs) for all local and regional HCAI leads. IPC and HCAI learning needs should be included in PDPs of all other HPU staff commensurate with their role.

5.6. Good record keeping (underpinning service delivery and enabling clinical audit)

Good record keeping is important. A careful record needs to be kept of important information received, risk assessments undertaken, actions taken and advice given to providers.

This record is needed to:

- Support local decision-making and management of HCAI cases and situations.
- Record individual cases of particularly serious or unusual HCAIs so that links to particular settings may be identified.
- Provide surveillance and epidemiological data that can be transformed into intelligence to support the work of HPUs and their partners and to identify areas for action.
- To support audit and any other review of local actions required by an investigation (this need was particularly highlighted by the Francis Inquiry).

As far as is possible, HPZone should be the HPU's most comprehensive and contemporaneous record for all these functions. However, it is recognised that for complex and protracted situations, HPZone is not always the easiest system to use (for example, uploading of multiple communications and documents as 'events' is a slow process). In these situations the HPU will need to agree an internally consistent, robust and secure system to support HPZone for record keeping, for example through the use of shared secure drives and incident folders on their servers.

In the meantime, further developments to HPZone are being considered nationally to address this issue.

5.6.1 Recommended HPZone record keeping for HCAI cases and situations

- Record all reported outbreaks of HCAI onto HPZone as a Situation [Outbreak].
- Record all reported HCAI clusters as a Situation [Cluster].
- Record ongoing significant situations that are being managed by the healthcare provider as a Situation [Issue] e.g. serious increase in *C. difficile* cases or exceedance of target figure where not an outbreak situation.
- HPZone risk assessment must be completed for each of the situations recorded and revised appropriately when the situation alters.
- Contexts should be recorded on the HPZone record.
 - Specific Context field the name of the hospital or care home affected
 - Principal Context field under Key Details type of context, i.e. hospital/care home.
 NB: Principal Context field is not available when recording an [Issue].
- Records should include all incident/outbreak meetings attended, agreed action plans, formal advice given to the healthcare provider and copies of minutes and data received from the

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healthcare provider. There should be accurate date and time recordings of all advice given and meetings attended.

- Personal identifiable information must NOT be entered into free text fields in HPZone.
- Numbers of hospital admissions and fatalities should be recorded in the Metrics section.
- Any actions taken in line with the HPA escalation steps need to be recorded explicitly. Once the escalation process has been implemented, tick "Requires Special Management" field on the HPZone record, under the Key Details section.
- The specific risk/s identified as outlined in the escalation steps need to be recorded within the free text field in HPZone (this can be one or more).
- NB: HPZone will record the "lead" professional and the name of the person recording information. Units need to check that the designated professional has been recorded accurately.
- Situations on HPZone will be included routinely in daily clinical team hand-overs and review meetings.

5.6.2 HPU standards for Best Practice

15) All HPU staff will be appropriately trained and receive at least annual updates on the use of HPZone.

• Specifically for minimum data set requirements for HCAI outbreaks, clusters and recording of escalation incidents.

16) For all IERP level 1 (or greater) HCAI incidents and outbreaks, there will be a comprehensive and retrievable HPZone (or other electronic) record documenting the risk assessment, advice given and action plans in the provider organisation to manage the incident, and an outbreak report available.

• HPZone users should not put Personal Identifiable Information (PII) into the free text boxes marked Diagnostic Notes and Briefing Notes.

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5.7. Collation of the evidence base and guidance to underpin cost-effective delivery of HCAI interventions

HPUs need to keep abreast of any nationally agreed evidence-based guidance, disseminated by the HCAI and AMRS Programme Board and Department of Health, and to ensure that local systems are developed to implement this through agreed HPU standard operating procedures (SOPs). They also need to support their local providers in implementing such guidance appropriately.

Where educational events and training are arranged to support the implementation of any new guidance HPUs should ensure that their staff (in particular local HCAI Leads) are given the opportunity to attend these.

HPUs need to ensure that they have local systems to:

- Capture the learning from any significant local incidents they are involved in.
- Share this with others in their regions, or nationally where there are wider implications for other HPA staff.
- Take account of the learning from incidents, and any learning disseminated from incidents in other areas, e.g. ensuring that any necessary changes to SOPs are made locally.

HPU staff should be encouraged to present and publish the results of any local research, and other local studies and audits, at meetings and conferences.

5.8. Specialist HPA advice underpinning the quality and cost-effectiveness of core HCAI responsibilities

HPA staff need to ensure as far as possible that they provide consistent and coordinated advice to health and social care providers and others. This is a critical and shared governance responsibility, to ensure patient and client safety and to maintain the reputation of the HPA as an integrated expert organisation.

Health and social care providers have access to the full range of HPA regional and national specialist expertise accessed through their local HPUs.

However, we need to recognise that providers might sometimes approach regional and national staff directly for this advice. In this situation regional and national staff should ensure that the local HPU is informed of any requests for advice and information and any actions taken must be shared with the local HPU to enable this to be recorded.

The same principles should apply to the collation and dissemination of surveillance and other intelligence, where the HPU has an important role, together with their providers, in interpreting any risks identified in the local context.

The HPU may require specialist epidemiological, microbiological, clinical scientist and IPC advice to support their:

- Prevention of HCAIs through proactive encouragement and promotion of best practice in Infection Prevention and Control (IPC) by providers, commissioners and others.
- Surveillance and timely feedback of HCAI-related risks and information to support actions to reduce HCAIs and their consequences.
- Investigation and control of HCAI outbreaks and other situations.

5.8.1 Ensuring a shared approach to risk assessment and management of complex HCAI situations

The HPU, REUs and national epidemiology teams should work together to undertake a shared risk assessment and interpretation of any surveillance data, transforming it into information for action in health and social care settings to reduce HCAIs and related risks.

Where the HPU seeks specialist advice and support for the investigation and control of HCAI situations, it needs to be agreed at the outset what level of engagement and support is required, and this needs to operate within the governance framework of the relevant IERP level at that time. It may be, for instance, that other staff will need to be co-opted onto an HPU-led IMT for IERP level 1 situations.

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A written record of any advice given to the HPU, and the rationale for this, should be provided to the HPU to keep as part of their overall record within HPZone.

It is recognised that further work needs to be undertaken nationally (across HPA teams and divisions) to develop and publicise a more standardised approach to how HPUs access specialist regional and national HCAI expert HPA advice and support, both within and out of hours.

However, pending this, the recommended route for HPUs obtaining specialist HPA advice for complex and protracted situations is as follows:

- For epidemiological advice through their Regional Epidemiologists.
- For microbiological advice through their Regional Microbiologist.
- For IPC advice through their Regional Microbiologist or (particularly for care home settings) through the proposed HPS HCAI/IPC lead.

These staff can then make an assessment of the resource implications for ongoing specialist support and ensure that the relevant regional and national experts are engaged appropriately in the response.

6. Roles and responsibilities of the HCAI and AMRS Programme Board

The HPA's HCAI and AMRS Programme Board has a national responsibility to:³

- Provide strategy and leadership to the HPA on HCAI and AMR.
- Co-ordinate the implementation of the HPA programme and ensure consistency in delivery.
- Perform an assurance role against the commitments of the HPA to the national DH programme on HCAI and AMR.

The vision of the HCAI & AMRS Programme is to work in collaboration with the DH, NHS, healthcare providers and others to protect the public against infectious diseases by reducing the incidence and consequence of HCAIs and other relevant infections by contributing to the development of a scientifically sound evidence base which is used to inform advice, support and guidance. This includes improving prudent antimicrobial prescribing to help reduce antimicrobial resistance.

The HCAI & AMRS Programme is accountable to the HPA Board through the Board's Technical Committee on Infections. The work of the Programme is guided by government and NHS priorities, the Operating Framework for the NHS in England and the Code of Practice for health and adult social care on the prevention and control of infections and related guidance.

The HCAI & AMRS Programme of work focuses on providing strategic direction and being the focal point for communication and leadership across the HPA and to stakeholders on HCAI and AMRS. The Programme Board ensures consistency of delivery of the HCAI & AMRS strategic plan across the HPA and to the NHS and wider healthcare economy. The Programme Board also provides an assurance role against the commitments of the HPA to the national DH Programme on HCAI and AMRS discussed at its Advisory Committee on Antimicrobial Resistance and Healthcare Associated Infection (ARHAI). The Devolved Administrations are represented on the HCAI & AMRS Programme Board ensuring collaboration across the UK. The HCAI & AMRS Programme will work with collaboratively with other Key Health Protection Programmes, on areas of shared interest to ensure a co-ordinated whole-of-agency approach to these issues.

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³ Excerpt from HCAI and AMRS terms of reference at:

http://hpanet/Content/ProgrammesProjects/HPAProgrammes/HPAKeyHealthProtectionProgrammes/HealthcareAssoci atedInfectionAntimicrobialResistanceAndSt/#terms_of_reference

The HPA HCAI & AMRS Programme provides national leadership in surveillance, healthcare epidemiology, antimicrobial stewardship, outbreak investigation and management, laboratory diagnosis, research and development and education and training in the prevention and control of HCAI and AMRS. In partnership with the DH and other stakeholders, the HPA uses the best evidence available to inform the actions necessary to drive down HCAI and AMR and minimise incidents and outbreaks of HCAI. The Programme provides expert support and advice to government. It is also crucial that the HPA continues to provide "fit for purpose" agreed data from validated surveillance systems so that progress on HCAI and AMRS can be monitored.
7. Responsibilities of healthcare and social care providers and commissioners to prevent infections and outbreaks

The DH, the HPA, and the CQC have all produced guidance for healthcare providers on how to prevent infections and outbreaks in healthcare institutions. This guidance includes:

- The Health and Social Care Act 2008: Code of practice for health and adult social care on the prevention and control of infections and related guidance (DH, 2009).
- Delivery Programme to Reduce Healthcare Associated Infections, 2006. Includes: Essential steps in safe clean care, Going further faster (DH, 2006)
- Board to Ward: How to embed a culture of HCAI prevention in acute trusts (DH, 2008).

These policy documents provide detailed guidance on the day-to-day prevention and control of HCAI, outlining the roles and responsibilities of all healthcare providers 'from board to ward'. Each healthcare provider has to identify a lead for Infection Prevention and Control (IPC). The appointed Director of Infection Prevention and Control (DIPC) provides leadership to the IPC team and assurance to the respective Board that a risk and assurance framework is followed and reported regularly to the Board and the SHA as appropriate. The commissioning teams will also expect assurance from healthcare providers that they are delivering a safe and effective IPC service.

Social care providers also have to comply with the requirements of the Health and Social Care Act 2008, and many of the general principles of IPC in the other guidance above apply to them too.

In order to achieve compliance, providers need to demonstrate that they have policies and procedures in place to meet each criterion and can access specialist advice, including 24-hour access to a nominated, qualified infection control doctor or consultant in health protection/communicable disease control.

The following core activities of infection prevention and control need to be included in the infection prevention and control annual report for the provider:

- Surveillance (often alert system)
- Education
- Expert clinical advice (formal/ad hoc)
- Cleaning and decontamination
- Policy/guidance development
- Outbreak management
- Assurance monitoring/audit.

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In November 2011, guidance aimed at hospital trust boards was published by NICE and the HPA.

http://www.nice.org.uk/guidance/phg/hcai/QualityImprovementGuide.jsp

It offers advice on management or organisational actions to prevent and control healthcareassociated infections (HCAIs) in secondary care settings and is aimed at board members working in (or with) secondary care.

The NICE guidance aims to build on advice given in the code and elsewhere to improve the quality of care and practice in these areas over and above current standards. The quality improvement statements contained in this guidance (see below) describe excellence in care and practice to prevent and control healthcare-associated infections. NICE and the HPA recognise that a range of factors associated with infection prevention and control have the potential to impact on health inequalities (for example, in relation to age, ethnicity, gender and disability). However, the relative impact of different factors will vary for different organisations. NICE and the HPA expect trusts and other secondary care organisations to consider local issues in relation to health inequalities when implementing this guidance:

1. Trust boards demonstrate leadership in infection prevention and control to ensure a culture of continuous quality improvement and to minimise risk to patients.

2. Trusts use information from a range of sources to inform and drive continuous quality improvement to minimise risk from infection.

3. Trusts have a surveillance system in place to routinely gather data and to carry out mandatory monitoring of HCAIs and other infections of local relevance to inform the local response to HCAIs.

4. Trusts prioritise the need for a skilled, knowledgeable and healthy workforce that delivers continuous quality improvement to minimise the risk from infections. This includes support for staff, volunteers, agency/locum staff and those employed by contractors.

5. Trusts ensure standards of environmental cleanliness are maintained and improved beyond current national guidance.

6. Trusts work proactively in multi-agency collaborations with other local health and social care providers to reduce risk from infection.

7. Trusts ensure there is clear communication with all staff, patients and carers throughout the care pathway about HCAIs, infection risks and how to prevent HCAIs, to reduce harm from infection.

8. Trusts have a multi-agency patient admission, discharge and transfer policy that gives clear, relevant guidance to local health and social care providers on the critical steps to take to minimise harm from infection.

9. Trusts use input from local patient and public experience for continuous quality improvement to minimise harm from HCAIs.

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10. Trusts consider infection prevention and control when procuring, commissioning, planning, designing and completing new and refurbished hospital services and facilities (and during subsequent routine maintenance).

11. Trusts regularly review evidence-based assessments of new technology and other innovations to minimise harm from HCAIs and antimicrobial resistance (AMR).

The NICE guidance makes the following specific recommendations in relation to HPUs:

- Trusts should report all outbreaks, serious untoward incidents (SUIs) and any other significant HCAI-related risk and incident to the local HPU.
- Trusts should develop, and regularly review, a hospital-wide incident plan to investigate and manage major infection outbreaks and HCAI incidents. This should ensure that high-level managerial and clinical mechanisms are in place for coordinating, communicating (including with other agencies) and deploying adequate resources.
- Trusts should work collaboratively with the local HPU and other health partners to investigate and manage HCAI outbreaks and incidents. Evidence is particularly needed of collaboration to deal with incidents that might impact on the health of the wider community.
- Trusts should works with local health partners (including HPUs) to capture and learn lessons from the management of major infection outbreaks and other HCAI-related incidents.

HPU partnership working with commissioners and performance managers

The HPU will routinely inform commissioners (and performance managers and regulators where appropriate) about the following situations and outbreaks:

- where there is likely to be a significant public health threat, or
- where an impact on wider trust/community services is likely, or
- where there is likely to be significant public concern or media interests.

The HPU will inform commissioners (and performance managers and regulators where appropriate) where the HPU would value their active support in managing an HCAI situation (e.g. through membership of an Incident Management Team).

The HPU will inform commissioners (and performance managers and regulators where appropriate) of all situations where there are ongoing concerns about a provider's management of a situation, despite HPU advice and support to address this. In these situations, the HPU will actively seek support from commissioners in addressing the risks.

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Commissioners should ensure that provider services conform to the compliance criteria for the Health and Social Care Act 2008 (detailed compliance criteria in Appendix) and the Code of Practice.

The overarching purpose of the IPC commissioning role should be to ensure that the infection prevention and control elements of patient safety, quality and experience are embedded within the commissioning process. In particular:

- Development and leadership of the health and social care HCAI economy by supporting all healthcare providers to develop and own a collaborative approach to the prevention and management of HCAIs.
- Ensure contracts set clear expectations and achievable goals in complying with the code of practice for infection prevention and control.
- Ensure that national and local IPC standards are set at the correct level and included in all contracts with provider organisations.
- To monitor performance against all shared objectives and Key Performance indicators (KPIs) from all providers. Performance monitoring against contracts.
- Identify local needs, develop capabilities and ensure providers have capacity and capability to provide the service requirements.
- Ensure that IPC is on the correct agendas and robust board accountability, governance and assurance is demonstrated.

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Appendix 1. HCAI risk assessment checklist for HPUs

This risk assessment checklist provides HPUs with a set of standard questions to address with their local providers when:

- Assessing, prioritising and setting the development agenda for our proactive engagement with providers (e.g. through Infection Prevention and Control committees (IPCC) and other partnership groups);
- Deciding what incident response and coordination arrangements are required (by the HPU and providers) for particular HCAI-related outbreaks and incidents (e.g. whether an OCT/IMT is required); and
- Assessing the adequacy of a provider's response to a HCAI-related outbreak or other situations where there is a significant risk of transmission to others; and in deciding when to escalate any concerns we might have regarding this to commissioners, regulators and performance managers (where necessary and as per the HPA escalation algorithm).

HCAI-related risk assessment criteria	Prioritising NHS providers for attendance at IPC and other HCAI related partnership meetings	Assessing whether an OCT/IMT might be required to manage an outbreak or other situation	Assessing level of concern about a provider's response to an outbreak or other situation
Seriousness of risk (epidemiological/ microbiological characteristics and likelihood of causing significant morbidity or mortality).	Has mandatory surveillance and/or other intelligence data identified this provider as having high levels of HCAI cases or outbreaks during the previous year compared to other local providers?	Is this a serious public health risk in terms of the likelihood of severe morbidity or mortality in those affected or exposed? (Consider transmission routes, pathogenicity, herd immunity, vaccine preventable diseases, and vulnerability of the population at risk, robustness of this provider's existing	Does the mandatory surveillance analysis combined with other local intelligence (e.g. CoSurv and other soft data) indicate there is an ongoing problem of a serious nature?

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HPU assessment of actions			
required (or already taken) by provider to manage outbreak/situation or improve organisational safety:			
 Coordination, strategy and action planning by providers to reduce HCAIs 	Does this provider have good infection prevention and control systems in place, including senior management input to ensure a coordinated response to HCAI outbreaks and incidents? Does the provider have effective protocols/action plans in place both for the prevention of and for the response to HCAI-related outbreaks and incidents, including business continuity plans?	Is this provider clear about what investigation and control measures are needed and taking all reasonable steps to ensure a coordinated response? Is this provider following a recognised protocol/action plan in responding to this outbreak/incident?	Are there concerns about the organisational arrangements within the provider to ensure a coordinated response to the investigation and management of the situation (e.g. declaring an incident/outbreak and activation an OCT/IMT with a clear incident management strategy)?
 Provider engagement of HPU and 	Does this provider have good reporting and communication arrangements for	Is this provider communicating effectively with the HPU and taking into	Are there concerns about the engagement of the HPU by the

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cooperation with our advice	effectively engaging the HPU in the response to HCAI risks and outbreaks? Does this provider cooperate with the HPU and take adequate account of HPA advice when given?	account and providing evidence that they have acted upon HPA advice when given?	provider in the investigation and management of the incident? (E.g. cooperating with HPUs/HPA and listening to our advice?)
Provider senior management and clinical engagement in risk assessment and response to HCAI-related risks	Is the provider engaging its own senior managers and clinicians (hospital or GPs) in the assessment and response to HCAI-related risks?	Is this provider engaging its own senior managers and clinicians (hospital or GPs) in the assessment and response to the risks?	Are there concerns that the provider's incident management/lead is not actively engaging his/her own senior management/clinicians in the response (e.g. CEO/director, medical director, home manager, GPs)?
Investigation and intelligence gathering to better understand threat(s) from HCAIs	Is the provider collecting and analysing the right information to enable a full understanding of HCAI-related threats, (e.g. specimen collection, epidemiological information, root cause analysis, prescribing data etc.)? Does this trust have effective internal surveillance systems to enable the timely detection of adverse epidemiological trends?	Is this provider collecting and analysing the right information to enable a full understanding of the outbreak/incident (e.g. epidemiological information, root cause analysis, prescribing data, microbiological specimen collection for typing etc.)?	Are there concerns about the incident management team collating appropriate intelligence to support the investigation and response (e.g. epidemiological, Root Cause Analysis', HII audits, prescribing data etc)?

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Control measures to reduce spread or consequences	Is this provider resourcing and applying appropriate control measures to reduce HCAIs and prevent cross infection (e.g. treatment and isolation cases, PPE, hand washing facilities, decontamination, appropriate staffing levels and skill mix)?	Is this provider resourcing and applying appropriate control measures to control the outbreak/incident (e.g. treatment and isolation cases, PPE, hand washing facilities, decontamination, staffing levels and skill mix)?	* Are there concerns about the incident management team applying an appropriate level of resources/interventions to enable the control of the situation (e.g. adequacy of isolation facilities, PPE, enhanced cleaning capacity, staffing etc)?
Consistency of longer-term pattern of organisational behaviour (by providers) and Potential for media/public interest and concern	Has this provider got a recent history of managing HCAIs and outbreaks inadequately (from the HPU's perspective)? Does this provider apply the lessons learned from serious untoward incidents, root cause analysis reports, lessons learnt from debriefs, CQC and other national reports? Is there any recent or ongoing public or media interest in HCAI response arrangements in this trust?	Has this provider got a history (from the HPU's perspective) of managing similar problems inadequately? Is there likely to be significant public or media interest in this outbreak or situation?	 * Is this situation associated with a longer-term pattern of recurrent problems of a similar nature in this organisation, or systemic failings in the management of such situations in the past? * Is there potential for a wider public health risk (including potential media interest)?

* Note: for these particular concerns the HPU should consider notifying the CQC at step 1 in the HPA escalation algorithm.

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Appendix 2. Checklist for acute and foundation trust internal surveillance system (extract from 2011 NICE guidance)⁴

Trusts should have a surveillance system in place to routinely gather data and to carry out mandatory monitoring of HCAIs and other infections of local relevance to inform the local response to HCAIs.

Boards should ensure there is a fully resourced and flexible surveillance system to monitor infection levels in the trust and that outputs are shared across the organisation and used to drive continuous quality improvement.

1. Evidence of an adequately resourced surveillance system with specific, locally defined objectives and priorities for preventing and managing HCAIs. The system should be able to detect organisms and infections and promptly register any abnormal trends.

2. Evidence of clearly defined responsibilities for the recording, analysis, interpretation and communication of surveillance outputs.

3. Evidence of arrangements for regular review of the surveillance programme to ensure it supports the trust's quality improvement targets for infection prevention.

4. Evidence of fit-for-purpose IT systems to support surveillance activity. This includes evidence of validation processes that ensure data accuracy and resources that can analyse and interpret surveillance data in meaningful ways.

5. Evidence of surveillance systems that allow data from multiple sources to be combined in real time (epidemiological, clinical, microbiological, surgical and pharmacy).

6. Evidence that surveillance systems capture surgical-site and post-discharge infections.

7. Evidence that trusts share relevant surveillance outputs and data with other local health and social care organisations to improve their infection prevention and control.

8. Evidence that systems are in place for timely recognition of incidents in different spaces (for example, wards, clinical teams, clinical areas, the whole trust). This includes evidence of regular time-series analyses of data.

9. Evidence that the trust reports all outbreaks, serious untoward incidents (SUIs) and any other significant HCAI-related risk and incident to the local health protection unit.

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⁴ <u>http://www.nice.org.uk/guidance/phg/hcai/QualityImprovementGuide.jsp</u>

10. Evidence that surveillance data in key areas is regularly compared with other local and national data and, where appropriate, is available at clinical unit level.

11. Evidence of a process for surveillance outputs to feed into accountability frameworks, inform audit priorities and be used to set objectives for quality improvement programmes in relation to HCAI prevention.

12. Evidence of surveillance outputs being analysed alongside comparative data to ensure continual improvement.

13. Evidence of surveillance outputs being fed back to relevant staff and stakeholders, including patients, in an appropriate format to support preventive action.

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Appendix 3. HPU Standards for Best Practice

Prevention of HCAIs through proactive encouragement and promotion of best practice in Infection Prevention and Control (IPC) by providers and commissioners (including routine communications and engagement through IPC committees and partnership groups.

1) All HPUs will provide guidance to local acute and community healthcare providers about what HCAIs or other infection prevention and control related risks should be routinely reported to the HPU.

2) An HPU representative will attend all high priority acute and community healthcare provider strategic IPC committee meetings with partners (as informed by a documented local risk assessment by the HPU of their need to attend).

3) An HPU representative will routinely attend all relevant strategic IPC committees, (e.g. whole health economy meetings (WHE) or equivalents).

HCAI surveillance and timely feedback of HCAI-related risk assessment and information to support actions to reduce HCAIs and their consequences.

4) All HPUs should have direct access to, and understand, the web-based mandatory surveillance data.

5) Regional Epidemiology Units (REUs) will produce a monthly standard package of charts for HPUs, showing the mandatory surveillance data for each acute trust in their area, and providing information for action to NHS trusts, commissioners, providers and regulatory bodies.

• These charts will be based on a standard protocol agreed by Health Protection Services and may also be supported by other locally agreed time series analyses presented as graphics and by exceedance algorithms (as these become available).

6) HPUs will undertake and document a shared monthly risk assessment together with their REUs/SET of all mandatory and other locally relevant intelligence on HCAIs.

 Identifying adverse trends on a trust-by-trust basis by visual inspection of the data and agreeing any need for further local investigation and management.

6a) When providers are identified as giving cause for concern, detected through standard 6, the nominated HPU representative will discuss the situation with the trust infection prevention and control team, or relevant provider service manager, and agree and document

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an appropriate action plan and timeline.

• Implement steps as outlined in the exceedance algorithm, if necessary.

Support, coordination and leadership of HCAI related outbreaks and other situations

7) HPUs will respond, or arrange for a response, to all health and social care outbreaks and incidents within the same working day.

8) HPUs will agree and assign an HPA IERP incident level, and HPU incident lead, for all HCAI-related situations and record this on HPZone.

9) Where an Incident Management Team (IMT) is required (usually an IERP level 1 or greater), an HPU representative will attend these meetings. These meetings must agree, review and update an Action Plan.

• If the HCAI incident crosses organisational boundaries, and the HPU representative is asked to chair the meetings, they should do so.

10) For all IERP level 1 (or greater) situations, the HPU will assess, at least weekly, whether the provider is delivering the Action Plan agreed at the IMT meetings.

11) Where an outbreak/incident is not being controlled and/or where trusts/provider services are not delivering the agreed Action Plan, HPUs will follow the steps identified in the Health Protection Services escalation algorithm.

• This will be recorded on HPZone.

HPU clinical leadership and accountability

12) All HPUs and regions will have an identified HCAI Lead (with their HCAI responsibilities clearly identified in their job plan) and nominated clinical HPU leads for each of their acute trusts and healthcare provider services and whole health economy IPC groups.

13) All HPUs will have a nominated lead for collating surveillance data and reports, and for disseminating these appropriately to local providers, commissioners and performance managers.

• This may be from REUs SET or HPUs

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Training and development of HPU staff to undertake core HCAI responsibilities

14) Infection prevention and control (IPC) and HCAI learning needs are discussed, acted on and documented in personal development plans (PDPs) for all local and regional HPU HCAI leads. IPC and HCAI learning needs should be included in the PDPs of all other HPU staff, commensurate with their role.

Good record keeping (underpinning service delivery and enabling clinical audit)

15) All HPU staff will be appropriately trained and receive at least annual updates on the use of HPZone.

• Specifically for minimum data set required for HCAI outbreaks, clusters and recording of escalation incidents

16) For all IERP level 1 (or greater) HCAI incidents and outbreaks, there will be a comprehensive and retrievable HPZone (or other electronic) record documenting the risk assessment, advice given and actions taken in the provider organisation to manage the incident, and an outbreak report available.

• HPZone users should not put Personal Identifiable Information (PII) into the free text boxes marked Diagnostic Notes and Briefing Notes.

Appendix 4

Glossary

CCDC - Consultant in Communicable Disease Prevention and Control CEO - Chief Executive Officer CMO – Chief Medical Officer CQC - Care Quality Commission DH – Department of Health DIPC - Director of Infection Prevention and Control DPH – Director of Public Health HII – High Impact Interventions HPN – Health Protection Nurse HPU – Health Protection Unit HPUD – Health Protection Unit Director HCAI & AMR - Healthcare Associated Infection & Antimicrobial Resistance HCAI & AMRS PB - Healthcare Associated Infection, Antimicrobial Resistance and Stewardship Programme Board IMT – Incident management team IP&C – Infection Prevention and Control MD – Medical Director OCT – Outbreak Control Team PCT – Primary Care Trust **RD** – Regional Director SHA – Strategic Health Authority

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Appendix 5: Members of the HCAI Operational Guidance Working Group

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