North West Hospital Onset COVID Infection

Standard Operating Procedure

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Document management

Revision history

Version	Date	Summary of changes
1.6	08/06/2020	Addition of Appendix 7 Flowcharts provided by National team
1.5	05/06/2020	Addition of Aide Memoire and Glossary of Terms Appendix 5 & 6
1.4	04/06/2020	IIMARCH Template appendix 4 and some changes to content

Approved by

The following people must approve this document:

Name	Post	Date	Version
Dr David Levy	Medical Director NHS England/Improvement	09/06/20	1.7
Jackie Hanson	Director of Nursing – Professional & System Development	09/06/20	1.7
Graham Urwin	NW Region Incident Director for COVID-19	09/06/20	1.7

Related documents

Title	Owner	Location
North West Regional Guidance on the Principles for Infection Prevention and Control In the context reducing the risks to patients and staff due to COVID-19 when delivering planned and emergency care in Hospital settings	NHSE/I	

Document control

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1. Primary function and Purpose

The Primary function of the North West Response to Hospital Onset of COVID-19 infections (HOCI) is to have systems and processes in place to enable prompt recognition and response to any identified increasing incidents. Effective monitoring and surveillance will be central to understanding COVID-19 transmission within hospitals, providing transparency on performance and supporting a focus on continuous improvement. There is an expectation that organisations will utilise their established incident management and governance processes.

The purpose of the document is to be supportive and to provide a clear process to aid the identification, management and reporting of HOCI cases including those of Health care worker's in the region.

The process set out in this Standard Operational Procedure (SOP) must be adhered to ensuring that:

- COVID-19 cases are reported accurately via the daily covid sitrep for both patients and staff
- All potential outbreaks are escalated to North West Incident Coordination Centre (ICC) (Outbreak procedures in line with covid guidance should be followed)
- Processes for management of COVID 19 cases are in line with national guidance
- Patient Safety Incident Analysis or alternative investigation process, for post day 8 and day 15 are completed, with lessons learned identified
- All actions are logged with completion dates

It is acknowledged that within the many specialist services (i.e. paediatrics, cancer care, mental health), offered within the region, local adaptations may be required.

2. Information and Data Flow

2.1 National Daily SITREP

Organisations should provide daily information via the daily covid sitrep to include

- COVID 19 positive cases
- Staffing levels
- Staffing sickness absence
- Staff isolating due to being identified as contacts

2.2 National nosocomial SITREP

Since 18th May 2020 a weekly nosocomial SITREP has been required to identify the numbers of HOCI occurring within organisations. It is acknowledged nationally that

this information will require analysis and triangulation with a range of other information to inform the process, determine the problems and inform the solution.

Data was submitted on Thursday each week, with the commitment from PHE for central analysis to be provided back the following Monday. From 5th June 2020, this data is captured as part of the daily covid sitrep collected via SDCS.

2.3 Integrated Care Systems (ICS)

The Three ICS's; Cheshire & Merseyside, Greater Manchester, Lancashire & South Cumbria will have access to the relevant data for their area to enable analysis against other parameters relevant in their area including health inequalities, BAME considerations and levels of deprivation. This information will be invaluable in establishing any factors involved in increased cases within the community.

2.4 Public Health England

Public Health England is the repository for all the positive laboratory results sent by the laboratories commissioned by NHS organisations. They do not, at present, have access to the test results provided from the Test and Trace process as part of the independent testing centres.

3 Roles and Responsibilities

3.1 NW Incident Coordination Centre (ICC)

The North West ICC will be responsible for the collation of all the relevant information required and the process is to be disseminated vertically and horizontally.

3.2 NW Head of Infection Prevention Control

Where concerns are escalated to the North West Head of Infection Prevention and Control from the ICC, they will review of information and surrounding narrative and use that to inform its analysis of the situations. The Head of Infection Prevention and Control will provide support to the systems as required.

3.3 Provider organisation

To be formally registered with the Care Quality Commission each organisation should be compliant with the Health and Social Care Act 2008: Code of Practice on the prevention and control of infections and related guidance. The ten-criteria outlined includes having systems in place to identify, manage and report transmissions of infection both internally and externally as required.

The Trust will use Infection Prevention and Control Guidance and will establish their own outbreak control team in line with their policies. They will be responsible for the

ongoing management and reporting of their outbreaks ensuring information is provided to include: the areas affected; timelines; numbers of cases; staffing concerns; IPC local issues; testing; communications processes; and the analysis of their own data including staff and patient COVID-19 cases. The Trust will escalate information about their outbreaks to the PHE, CCG, CQC, and NHSE/I.

4 Escalation Process

4.1 Identification of a Hospital Onset COVID infection (HOCI)

There are three categories for determining Hospital Onset covid infections:

- Hospital-Onset Indeterminate Healthcare-Associated (HO-iHA) – First positive specimen date 3-7 days after admission to trust
- Hospital-Onset Probable Healthcare-Associated (HO-pHA) – First positive specimen date 8-14 days after admission to trust
- Hospital-Onset Definite Healthcare-Associated (HO-dHA) – First positive specimen date 15 or more days after admission to trust.

For this purpose, only probable (HO-pHA) and definite (HO-dHA) cases of HOCI will be considered. The process suggests that each case falling within these categories will undergo a rapid Root Cause Analysis (RCA), (example in Appendix 1) to establish how the transmission has occurred and whether there are any other linked cases that might indicate ongoing transmission within an area.

4.2 Identification of COVID-19 and Notification of Outbreak

An outbreak is defined as two or more people experiencing a similar illness that are linked in time and or place. Where there are endemic rates of a specific infection it can also be considered to be where there is an greater than expected incidence of infection compared to the background rate for the infection.

For the purposes of HOCI, the definition is for two or more cases to occur within the same ward environment within 14 days

COVID-19 is a notifiable organism and as such Public Health England (PHE) is made aware via laboratory reporting as routine.

PHE should be notified promptly of COVID-19 Outbreaks by the Trust and this will be communicated to the Consultant in Communicable Disease Control (CCDC). In addition, due to the additional pressures of the pandemic, the Trust should escalate information about their outbreaks to the CCG, CQC and NHSE/I as soon as they themselves are aware of a potential issue via the mechanisms outlined within the algorithm in Appendix 3.

4.3 Management of COVID incident or Outbreak

Local providers to follow their established methodology for managing an outbreak, in addition there is an expectation that:

- A post infection review or concise RCA is completed on patients where a transmission has occurred.
- Staff contacts will be identified and managed in line with Trust occupational health processes.
- Regular meetings take place where minutes are recorded and at the end of the outbreak a report is provided, in line with established PHE guidance on outbreak management
- There is evidence that the Infection Prevention and Control Board Assurance Framework is completed https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/04/C0542-IPC-Board-Assurance-Framework-v1-2.pdf
- There is evidence that the Infection Prevention and Control COVID-19 Management Checklist, version 1.2 has been used in conjunction with an incident investigation tool. https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/04/C0542-IPC-Management-checklist-v1-2.pdf
- Evidence of completed actions are recorded on action plan template, with identified action owners and dates of completion
- Lessons learned are collated and disseminated within the organisation and regionally

4.4 Identification of Staff Outbreaks

With the increase of Test and Trace processes for staff there is increased likelihood that asymptomatic staff will be detected. Guidance is outlined in the recently updated document.
https://www.gov.uk/government/publications/covid-19-management-of-exposed-healthcare-workers-and-patients-in-hospital-settings/covid-19-management-of-exposed-healthcare-workers-and-patients-in-hospital-settings

In addition, consideration needs to be taken with regards to BAME staff and relevant risk assessments put in place as outlined in the document.
https://www.nhsemployers.org/covid19/health-safety-and-wellbeing/risk-assessments-for-staff

4.5 Governance Weekly Panel

At the time of publication, the country is responding to a tier 4 challenge to our services. This requires absolute clarity in the ongoing management and recognition of Hospital Onset COVID-19 infection incidents.
All COVID-19 outbreak incidents must be escalated through the standard organisational governance processes up to Trust Board level. In addition, these incidents will be escalated to NHSE/I via the agreed EPRR command and control

arrangements through NW ICC Single Point of Contact as illustrated in the algorithm within Appendix 3.

A weekly panel aims to provide an opportunity for discussion for the purpose of both moderating and validating the incidents escalated nationally.

The panel will consist of:

- The NHSE/I Infection Prevention and Control Nurse
- The NHSE/I Clinical Quality Director
- Representation from Medical directorate
- Representation from Public Health England
- A virologist/ microbiologist
- Representation from ICS
- Quality and Safety manager

4.6 Serious Incident Reporting

Serious incidents can extend beyond incidents that affect patients directly and include incidents, which may indirectly impact patient safety or an organisation's ability to deliver ongoing healthcare. In terms of Patient safety incident reporting during the COVID-19 Pandemic, organisations should continue to report anything of concern. Clinical and professional judgement should be when considering what to identify as a Serious Incident (SI). The 2015 SI Framework promotes identification and reporting of SIs based on the potential for learning, future risk reduction and the consequences of any recurrence of the incident.

Where there is any evidence that the COVID-19 infection may have been hospital-acquired and a death from COVID-19 has resulted, then there is clearly scope for learning. This is potentially a Serious Incident if the infection was acquired due to problems in healthcare care provision such as problems with IPC processes.

Whether SJR, RCA or some other method is the right one to generate that learning is dependent on the circumstances and is therefore for local decision. The scale and scope of resultant investigations should be proportionate to ensure resources are effectively used. Organisations will need to be sure that any decision making is defensible and taken openly and transparently, including in discussion with relevant patients' families and the staff involved.

4.7 Communication

Effective communications (internal and external) will be crucial to supporting the management of any outbreak; ensuring accurate information is shared with staff, patients and stakeholders; and that the risk of causing unnecessary alarm is minimised. It is vital therefore that heads of communications from provider organisations are involved in planning any approaches introduced to manage outbreaks.

5 References

1. Operating framework for urgent and planned services in hospital settings during COVID-19 https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/05/Operating-framework-for-urgent-and-planned-services-within-hospitals.pdf

2. Infection Prevention Guidance COVID 19 https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control

3. The Health and Social Care Act 2008 (2015) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/449049/Code_of_practice_280715_acc.pdf

4. Health and Safety at Work Act 1974 http://www.legislation.gov.uk/ukpga/1974/37/contents

5. Infection Prevention and Control Board Assurance framework https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/04/C0542-IPC-Board-Assurance-Framework-v1-2.pdf

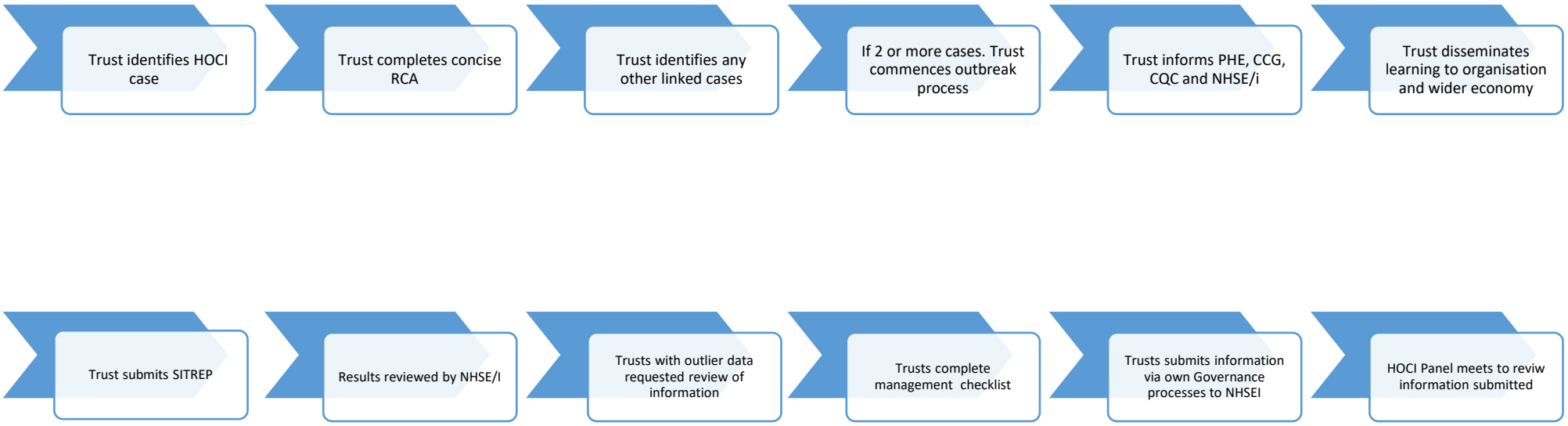
6. PHE (2014) Communicable Disease Outbreak Management Operational guidance https://www.gov.uk/government/publications/communicable-disease-outbreak-management-operational-guidance

Appendix 1 COVID-19 Patient Incident Template

DEMOGRAPHICS											
Organisation Where Specimen Taken			Ward			Date of Positive Specimen			Date of Result		
Patient identifier			Date of Birth		Gender		Date of Admission		Screened on admission		Y/N
Reason for Admission						Past medical History					
Ethnicity											
Date of Discharge/ Death						COVID on death certificate					
COVID infection											
Symptoms:	Y/N	Date started	Cough	Y/N	Temperature	Y/N	Anosmia	Y/N			
Category of Infection		Probable 8-14 days				Hospital Acquired 14+ days					
Risk Factors:											
CHRONOLOGY											
Patient Journey											
Isolation											
Date Isolated					Treatment						
Patient Contacts											

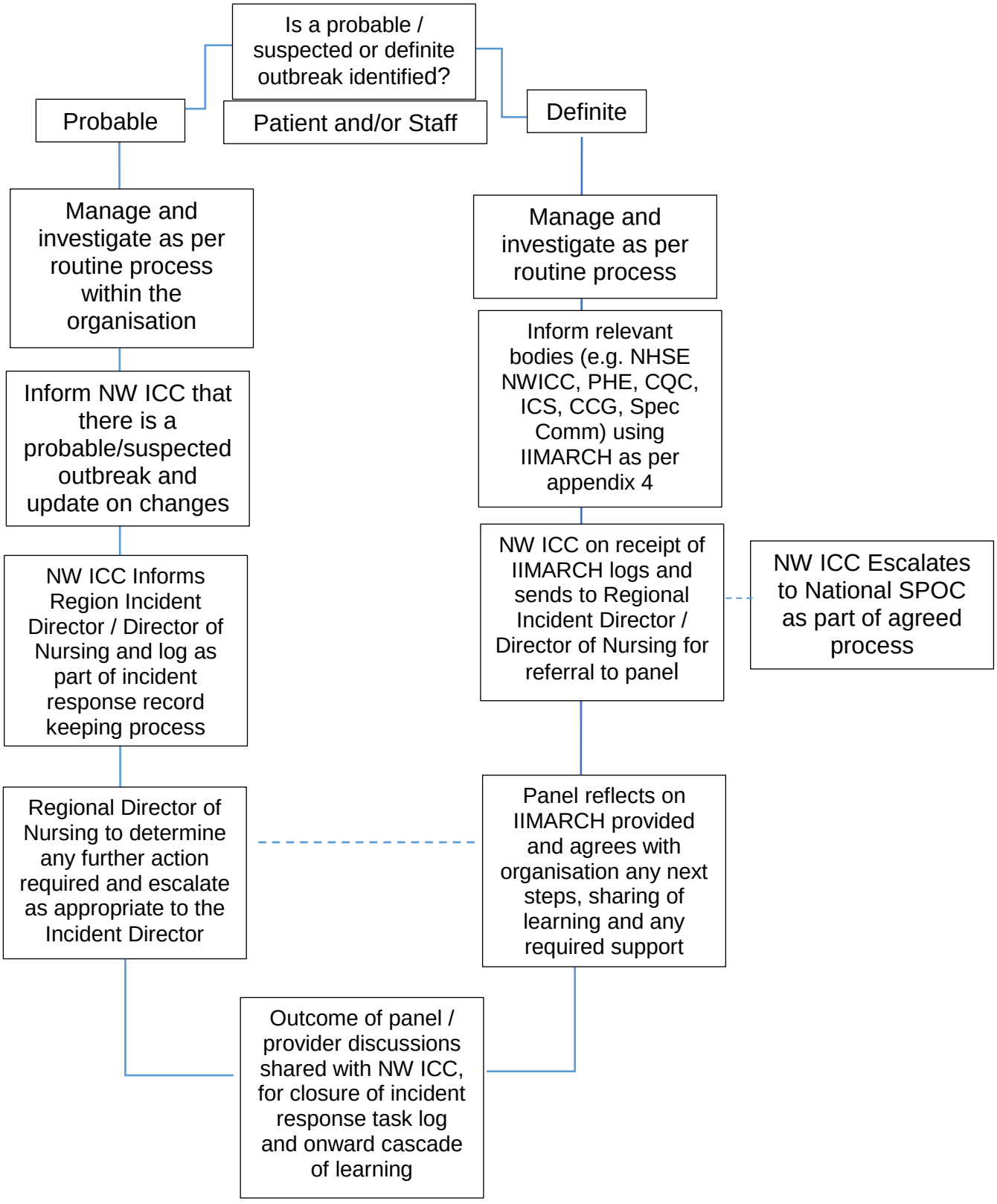
Staff Contacts if PPE breached.								
Environmental								
Cleaning Audit	Date	Score		Hand Hygiene Audit	Date	Score		
Personal Protective Equipment	Audit	Y/N	Score		Compliance Issues			
Organisational Issues								
Availability of Supplies					Staffing Availability			
Bed Capacity								
Lessons Learned								
Communication and Escalations								
IPCC								
PHE								
NHSE/I								
CQC								

Appendix 2 HOCI Escalation Process



Appendix 3 Decision/Action Flowchart

COVID-19 nosocomial confirmed case within ward/area



Appendix 4 IIMARCH Template

Element	Key questions and considerations	Action
I	**Information** **What, where, when, how, how many, so what, what might?** Timeline and history (if applicable), key facts reported using M/ETHANE	
I	**Intent** **Why are we here, what are we trying to achieve?** Strategic aim and objectives, joint working strategy	

Element	Key questions and considerations	Action
M	**Method** **How are we going to do it?** Command, control and co-ordination arrangements, tactical and operational policy and plans, contingency plans	
A	**Administration** **What is required for effective, efficient and safe implementation?** **I**dentification of commanders, tasking, timing, decision logs, equipment, dress code, PPE, welfare, food, logistics	

Element	Key questions and considerations	Action
R	**Risk assessment** **What are the relevant risks, and what measures are required to mitigate them?** Risk assessments (dynamic and analytical) should be shared to establish a joint understanding of risk. Risks should be reduced to the lowest reasonably practicable level by taking preventative measures, in order of priority. Consider the hierarchy of controls. Consider Decision Controls	
C	**Communications** **How are we going to initiate and maintain communications with all partners and interested parties?** Radio call signs, other means of communication, understanding of inter-agency communications, information assessment, media handling and joint media strategy	

Element	Key questions and considerations	Action
H	**Humanitarian issues** **What humanitarian assistance and human rights issues arise or may arise from this event and the response to it?** Requirement for humanitarian assistance, information sharing and disclosure, potential impacts on individuals' human rights	

When using IIMARCH, it is helpful to consider the following:

- Brevity is important - if it is not relevant, leave it out
- Communicate using unambiguous language free from jargon and in terms people will understand
- Check that others understand and explain if necessary
- Consider whether an agreed information assessment tool or framework has been used

Appendix 5 Aide Memoire

This Aide Memoire is intended to be a prompt sheet of questions that can be used by the NW ICC SPOC or member of staff receiving the initial call or following up investigation of the initial reported concern or case.

Question	Response
1. Date Identified	
2. How many patients do you think are involved, and what wards/departments are involved, and over what time period?	
3. Has ward/department been closed to admissions/ a. If so, date closed b. Numbers of patients affected c. Numbers of staff affected?	
4. How many staff members do you think are involved?	
5. Do you think this is an outbreak? If so, have you involved PHE?	
6. Do you have any concerns with compliance with Infection Prevention? d. Hand Hygiene e. Environmental cleanliness	

f. Personal protective Equipment g. Social distancing for patients and staff	
7. What immediate actions have you taken, and when?	
8. What further actions do you plan to take, and when?	
9. Have you started staff or patient screening?	
10. Where are you with staff/patient swabbing?	
11. Have you briefed your board and comms? If so, can we have a copy of the briefing?	

Appendix 6 Glossary of Terms

Nosocomial - Originating or taking place in a hospital, acquired in a hospital, especially in reference to an infection.

Triangulation – Is a method used to increase the credibility and validity of research/investigation findings

North West ICC – As a Level 4 incident, the response to COVID-19 is coordinated on a national level. Within each of the seven NHS England and NHS Improvement regions, an Incident Control/co-ordination Centre (ICC) has been established.

BAME - abbreviation for Black, Asian, and Minority Ethnic: used to refer to people in the UK who are not white

Infection Prevention Control (IPC) - is a scientific approach and practical solution designed to prevent harm caused by **infection** to patients and health workers. It is grounded in infectious diseases, epidemiology, social science and health system strengthening.

Health and Social Care Act 2008: Code of Practice – The main purposes of the Code of Practice on the prevention and control of infections (The Code) are to: make the registration requirements relating to infection prevention and cleanliness clear to all registered providers so that they understand what they need to do to comply; provide guidance for the CQC's staff to make judgement about compliance with the requirement for infection prevention and cleanliness; provide information for people who use the services of a registered provider; provide information for commissioners of services on what they should expect of their providers; and, provide information for the general public

SDCS - The Strategic Data Collection Service (SDCS) is a secure data collection system used by health and social care organisations to submit data to NHS Digital

Notifiable Organism - Notification of infectious diseases' is the term used to refer to the statutory duties for reporting notifiable diseases in the Public Health (Control of Disease) Act 1984 and the Health Protection (Notification) Regulations 2010.

Algorithm - A medical algorithm is any computation, formula, statistical survey, nomogram, or look-up table. Medical algorithms include decision tree approaches to healthcare treatment (e.g., if symptoms A, B, and C are evident, then use treatment X).

Methodology - A body of methods, rules, and postulates employed by a discipline; a procedure or set of procedures.

Test and Trace - ensures that anyone who develops symptoms of coronavirus (COVID-19) can quickly be tested to find out if they have the virus, and also includes targeted asymptomatic testing of NHS and social care staff and care home residents; and, helps trace close recent contacts of anyone who tests positive for coronavirus and, if necessary, notifies them that they must self-isolate at home to help stop the spread of the virus.

Asymptomatic - Persons who carry a disease and are usually capable of transmitting the disease but, who do not exhibit symptoms of the disease are said to be asymptomatic.

Serious Incident (SI) - A process and procedure to help ensure serious incidents are identified correctly, investigated thoroughly and, most importantly, learned from to prevent the likelihood of similar incidents happening again

Pandemic - is an epidemic of an infectious disease that has spread across a large region, for instance multiple continents or worldwide, affecting a substantial number of people.

Structured Judgment Review (SJR) – process to effectively review the care received by patients who have died.

Root Cause Analysis (RCA) - Root cause analysis is a structured investigation following National Patient Safety Agency (NPSA) guidance that aims to identify the true cause of a problem and identify learning and the actions necessary to either eliminate or significantly reduce risk. RCA is the process used for undertaking systems-based investigations that explore the problem (what?), the contributing factors to such problems (how?) and the root cause(s)/fundamental issues (why?)

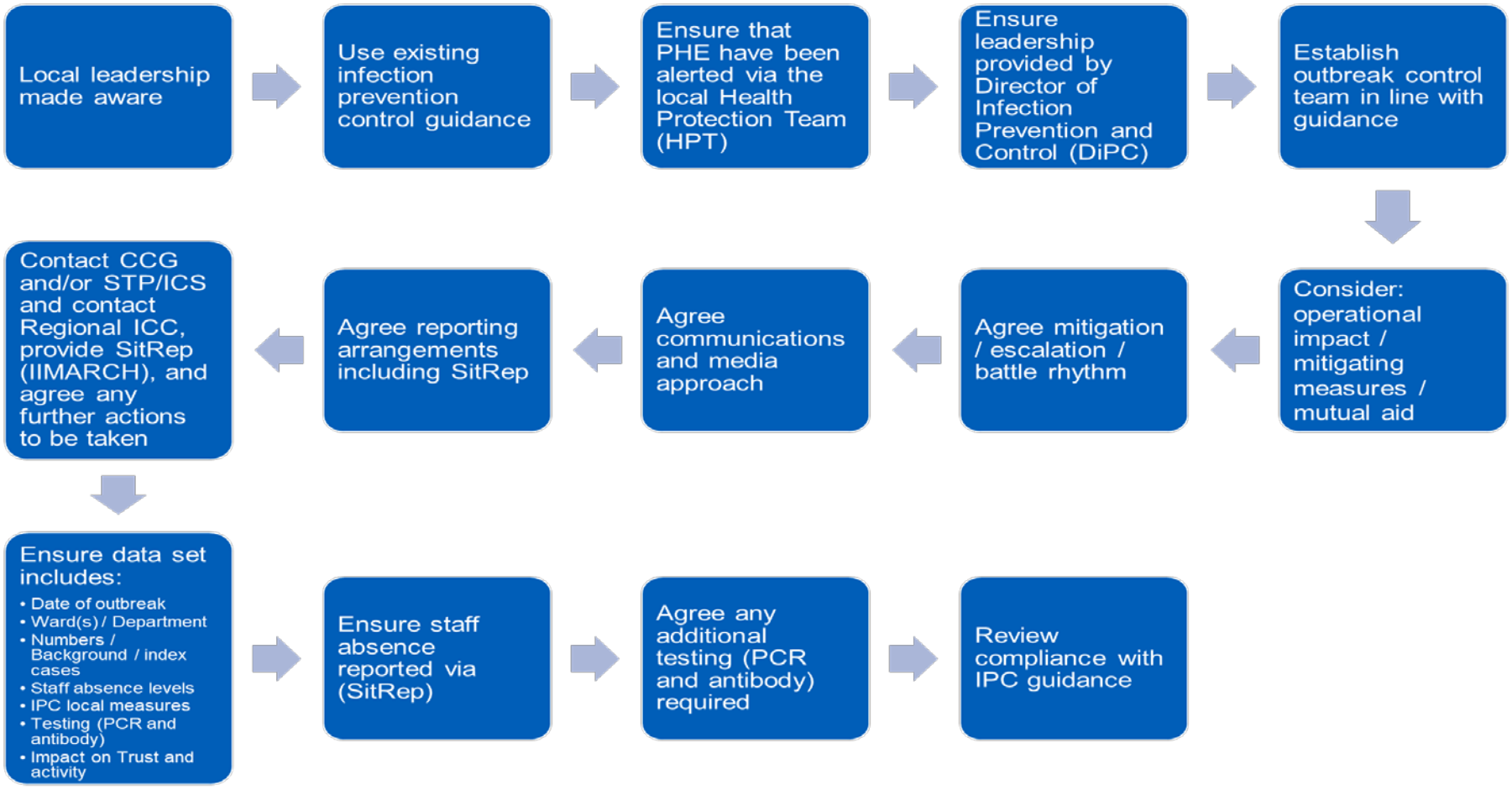
IIMARCH (**Information**, **Intent**, **Method**, **Administration**, **Risk Assessment**, **Communications and Humanitarian Issues)** - is widely used by emergency responders to provide a structured briefing.

METHANE – stands for Major Incident Declared; Exact location; Type of incident; Hazards; Access; Number and type of casualties; Emergency services present and required and is the recognised model for passing incident information between services and their control rooms. The use of a common model that means information is shared in a consistent way, quickly and easily between emergency service providers.

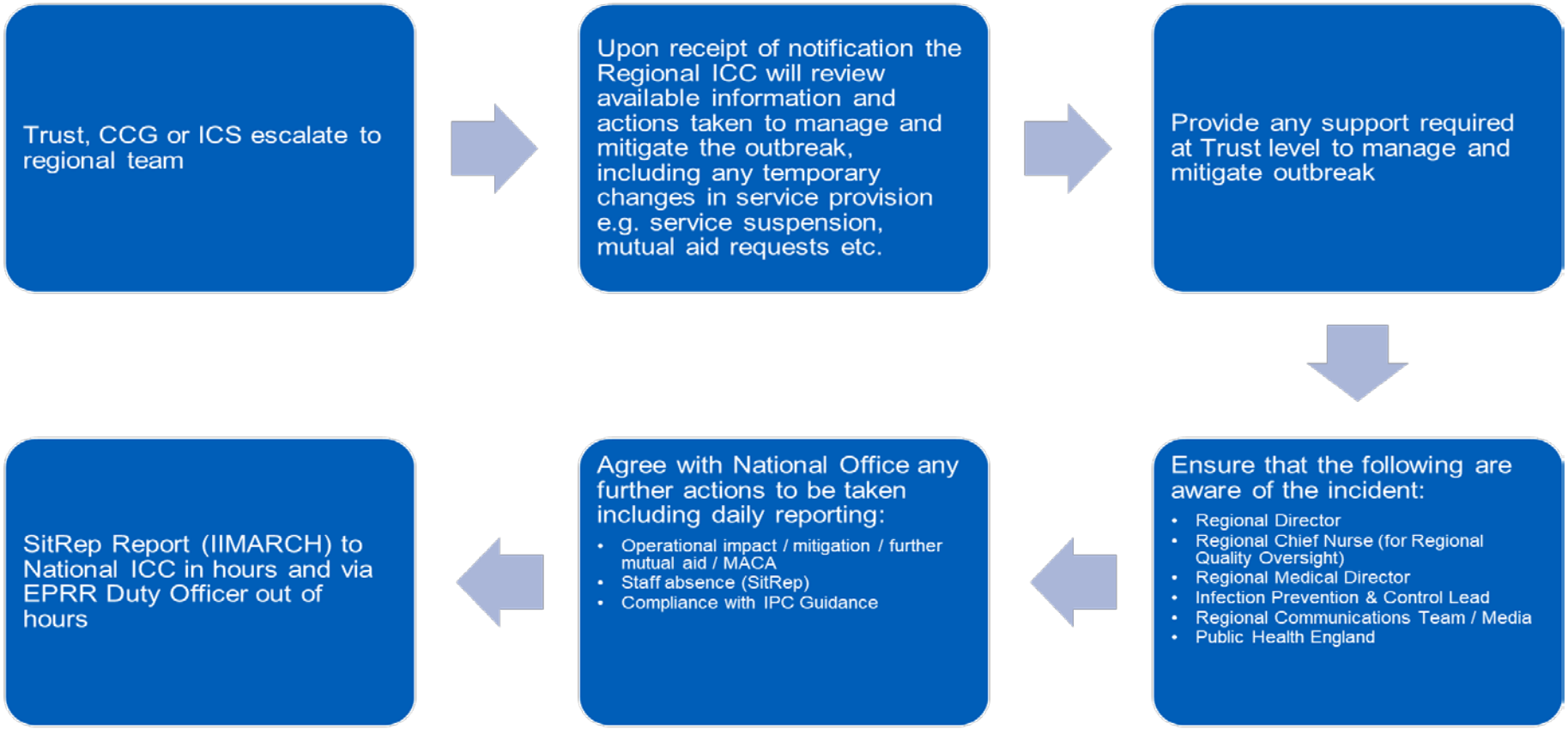
EPRR – Emergency Planning Resilience and Response

Appendix 7 Flowcharts to support the process in Hospitals and Primary Care Settings

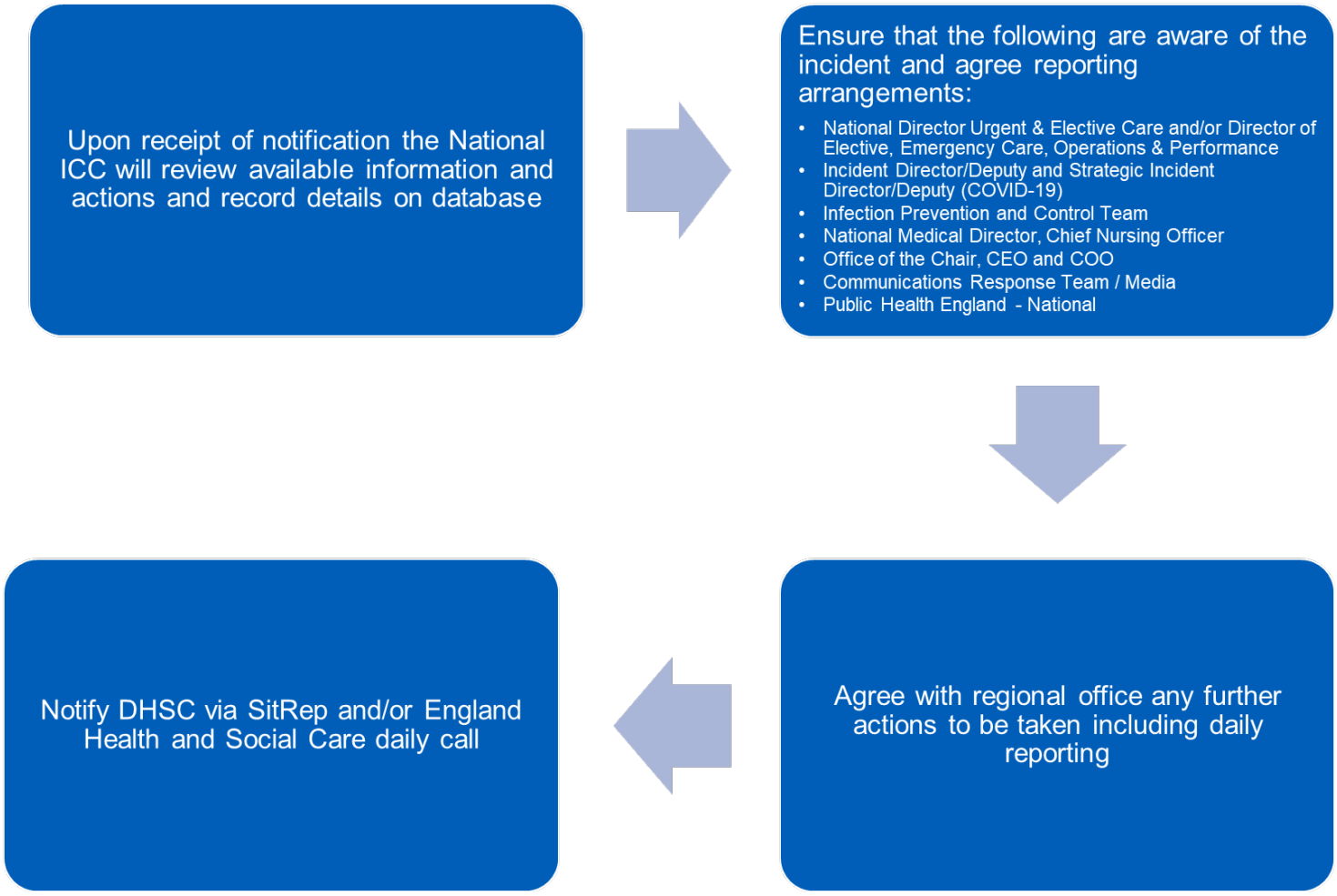
Hospital Onset Covid-19 Outbreaks - Actions to be taken by **Trusts**



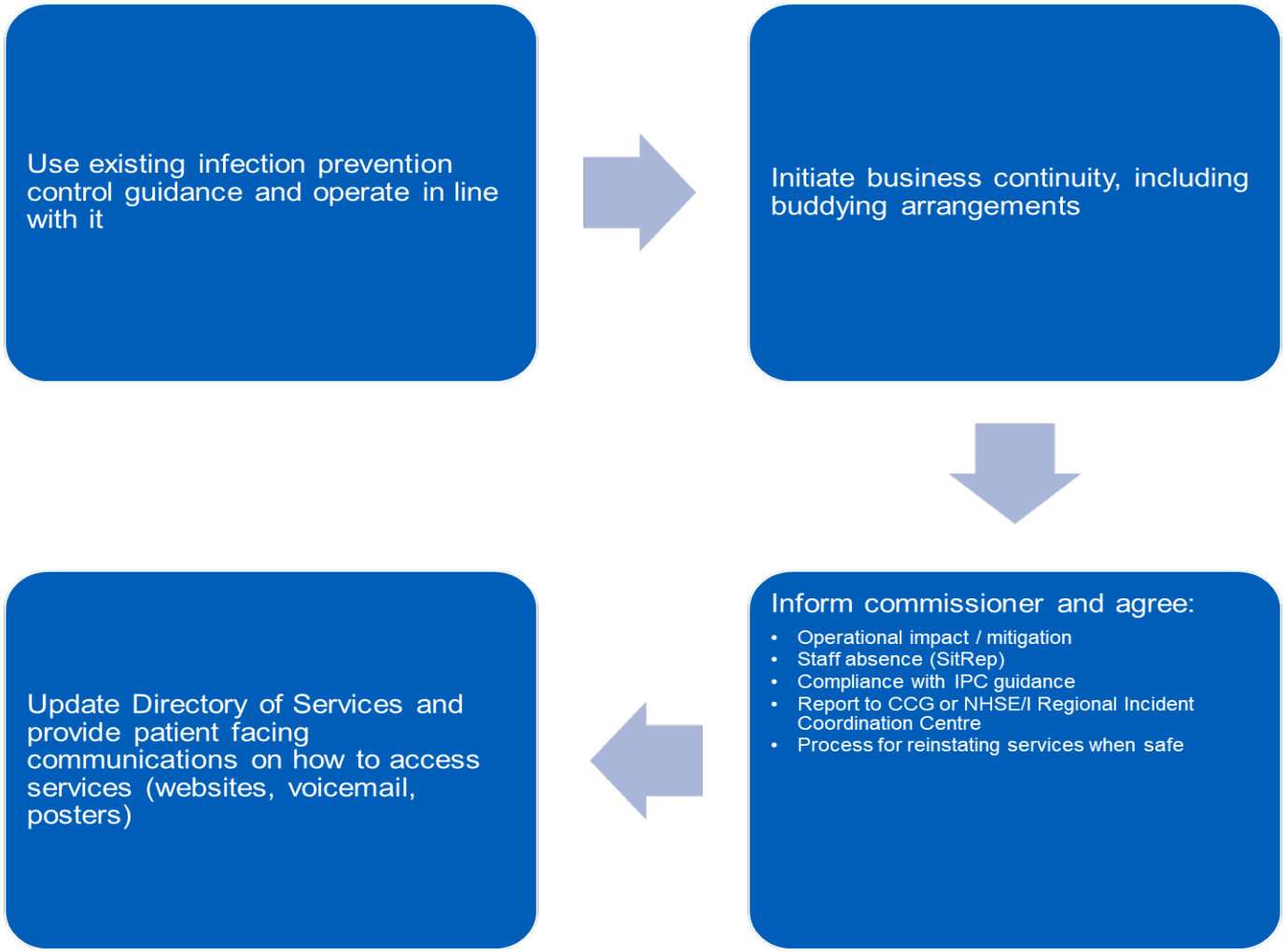
Hospital Onset Covid-19 Outbreaks - Actions to be taken by **Regions**



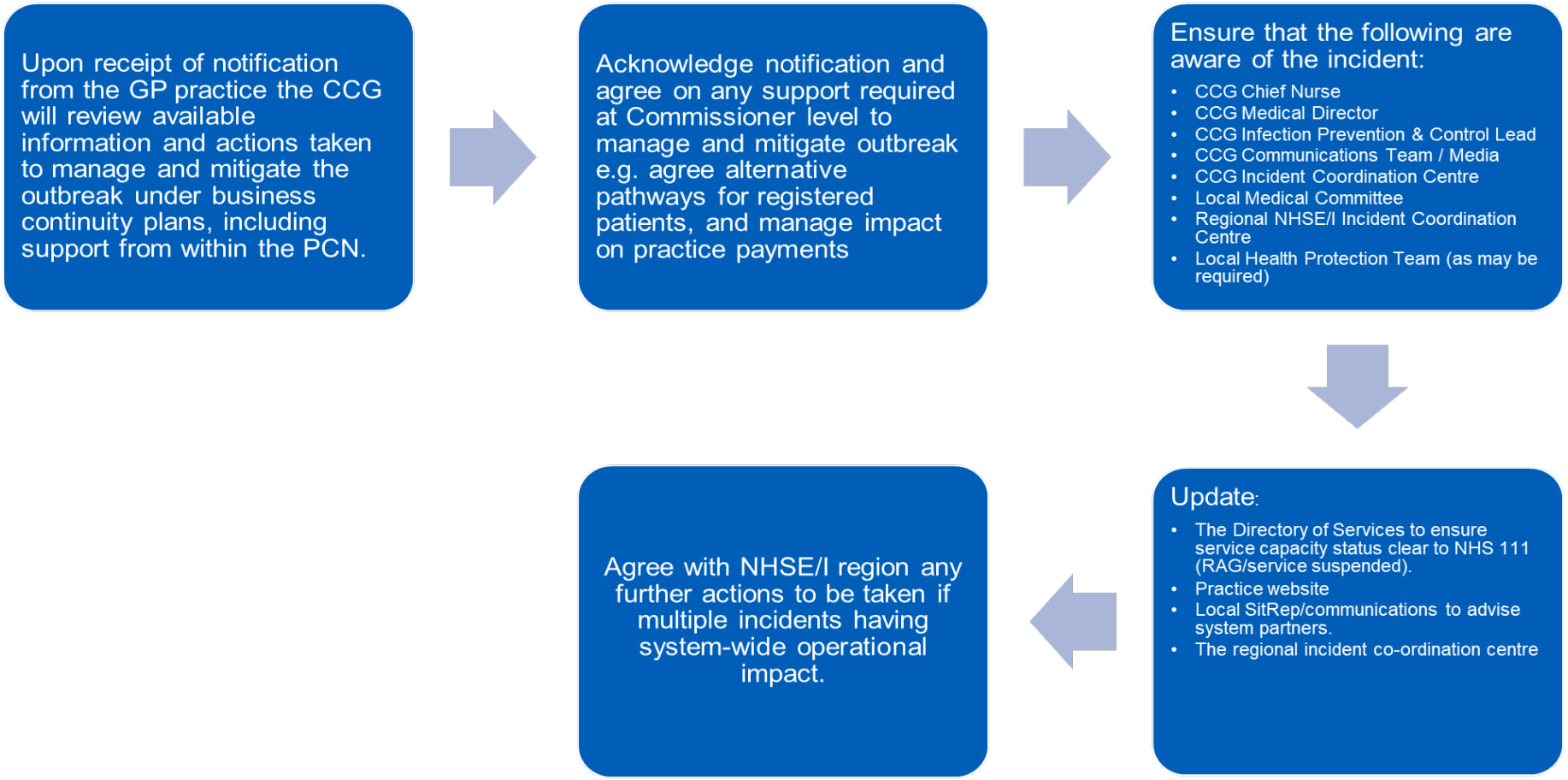
Hospital Onset Covid-19 Outbreaks - Actions to be taken by **ICC National**



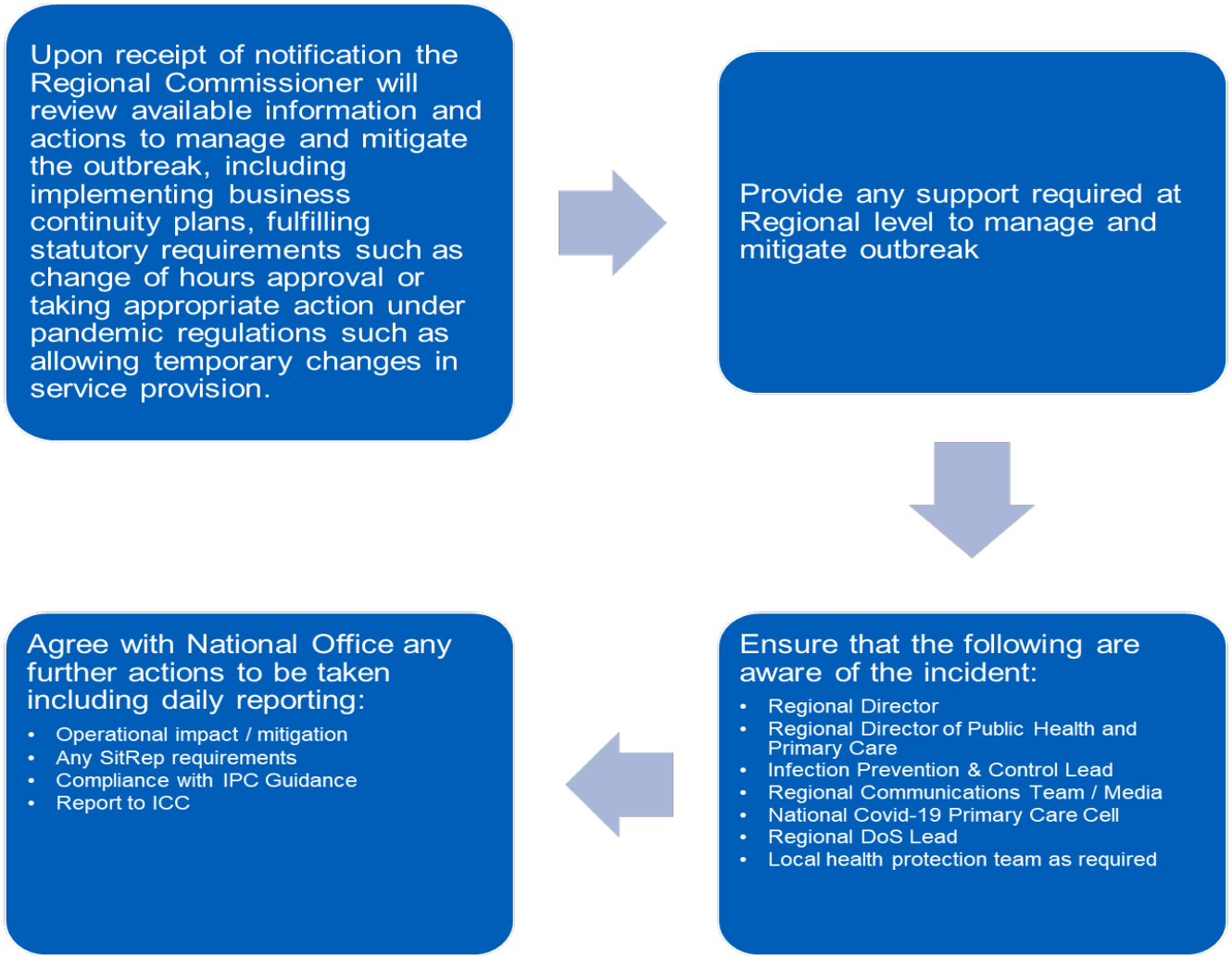
Hospital Onset Covid-19 Outbreaks - Actions to be taken by **Providers**



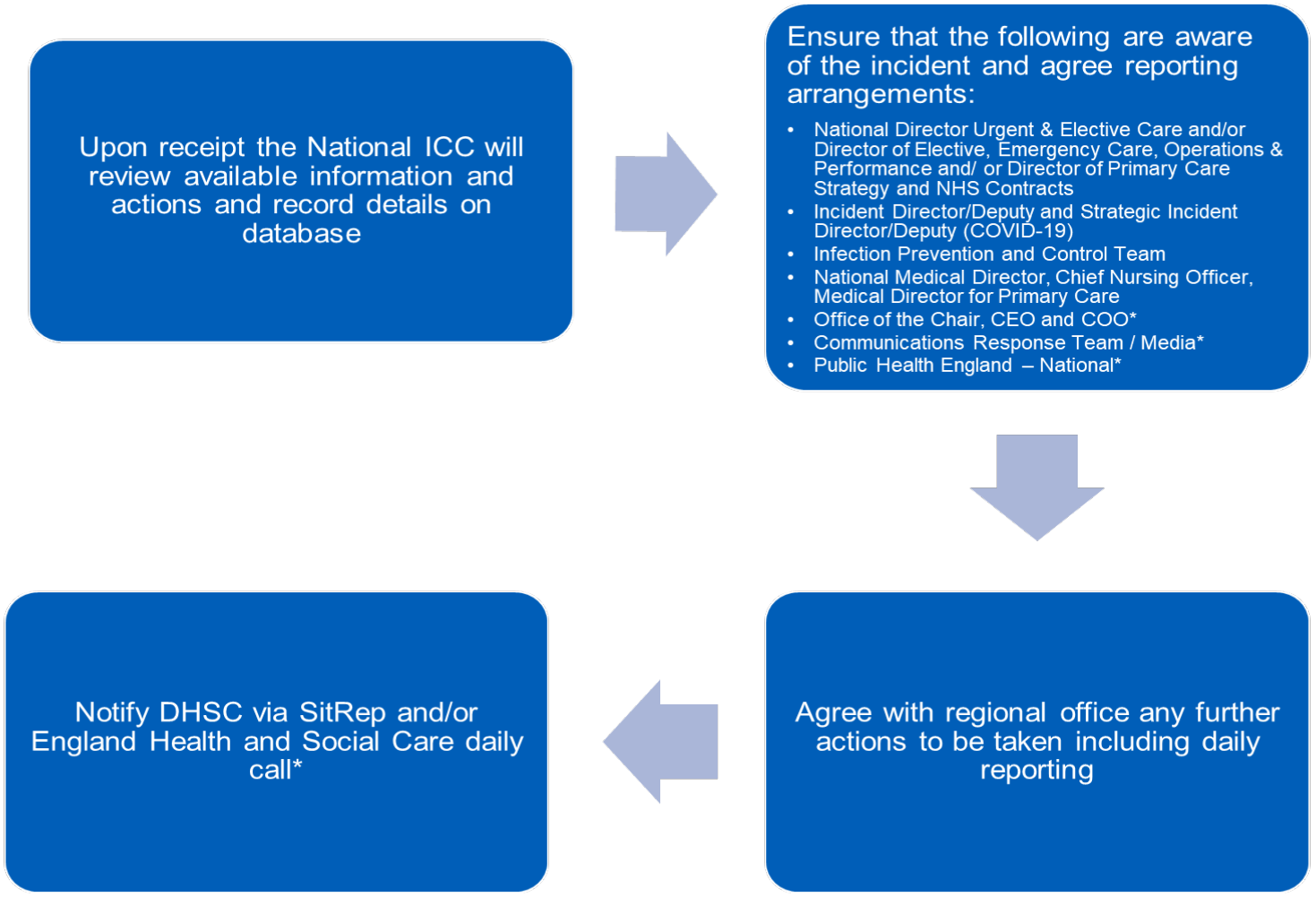
Hospital Onset Covid-19 Outbreaks - Actions to be taken by the **Commissioner**



Dental/Pharmacy/Optometry Onset Covid-19 Outbreaks - Actions to be taken by **Regions**



Primary Care Covid-19 Outbreaks - Actions to be taken by **ICC National**



* Note degree reporting of primary care outbreaks will be dependent on whether a single provider is affected or a cluster of providers within an area