

INFECTIOUS DISEASE OUTBREAK: HOSPITAL MANAGEMENT - SCH

POLICY®

DOCUMENT SUMMARY/KEY POINTS

- The purpose of the Infectious Disease Outbreak: Hospital Management guideline is to aid hospital managers in the recognition, investigation and containment of potential outbreaks within Sydney Children's Hospital that may impact on patients, staff and others including extended family and the wider community.
 - Hospital Managers and After-Hours Nurse Managers will investigate possible acute infectious disease outbreaks in the Hospital promptly and institute an outbreak management plan as soon as possible.
 - Employees should co-operate with the outbreak management plan and take reasonable care in the workplace to minimise the risk of patients, health care workers and others from infectious illnesses.
 - Health care workers with presumed infectious illness may be requested to provide certain specimens to aid in the identification of the infectious agent.

This document reflects what is currently regarded as safe practice. However, as in any clinical situation, there may be factors which cannot be covered by a single set of guidelines. This document does not replace the need for the application of clinical judgement to each individual presentation.

Approved by:	SCHN Policy, Procedure and Guideline Committee	
Date Effective:	1 st September 2013	Review Period: 3 years
Team Leader:	Staff Specialist	Area/Dept: SCH Infection Control

CHANGE SUMMARY

- Due for mandatory review. No changes to practice.
- Replaces SCH Document of same title Outbreak Management.

READ ACKNOWLEDGEMENT

- All staff must read and notify their local manager that they understand the content of the document .
- Local managers will maintain records of read receipts for subsequent compliance and other audits.

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Preamble

Acute infectious disease outbreaks are common. The early identification of possible outbreaks within the hospital is essential for minimising the transmission of infection to others.

Sydney Children's Hospital acknowledges and promotes the principles of disease prevention with:

- Identification and flagging of any "potential infection risk" sought at every patient admission and ward transfer (see Isolation Guideline policy)
- Opportunistic vaccination and vaccination clinics for staff and patients
- Staff orientation and ongoing infection control education
- Specific infection control policies for SCH and SCHN are located on the SCHN Policies Site (<http://chw.schn.health.nsw.gov.au/o/documents/policies/policies/2013-9031.pdf>) from the bar labelled "Infection Control": Including:
 - Isolation De-isolation - SCH
 - [Notification of Infectious Diseases under the Public Health Act 2010](#),
 - [Hand Hygiene](#)
 - Prevention and Control of Infection in Healthcare,⁴

Possible outbreaks of disease may be recognised by various means. Monitoring for an increase above normal in these communicable diseases is overseen by the Infection Prevention and Control Clinical Nurse Consultant, Chief Resident Medical Officer, SCH Infection Control Committee and Infectious Diseases Staff Specialist.

The categories of illness recognised to cause exposure and possible outbreaks in the hospital environment include communicable diseases that may have been acquired in the community or Health Care Associated infections include:

- **Infectious gastroenteritis** – ([Gastroenteritis Transmission Prevention - SCH](#))
- **Respiratory illnesses** – (Acute Respiratory Infections - SCH)
 - RSV
 - Influenza
 - Tuberculosis
 - Whooping cough (Bordetella pertussis)
- **Viral illness**
 - *Measles virus*
 - Varicella zoster virus – ([Chicken Pox \(Varicella\) - SCH](#))
 - Blood borne viruses –HIV, HBV, HCV

- **Multi-resistant organisms:**
 - Methicillin-resistant Staphylococcal aureus (MRSA)
 - Vancomycin-resistant enterococci (VRE) ([Vancomycin Resistant Enterococci \(VRE\) - SCH](#))
 - Extended spectrum betalactamases (ESBL)
 - Gentamicin resistant acinetobacter (GRAB)
 - Metallo beta-lactimases (MBL)
- Anthropods
 - Head lice
 - Scabies

Aim

The purpose of the Infectious Disease Outbreak: Hospital Management guideline is to aid in the recognition, investigation and containment of potential outbreaks within Sydney Children's Hospital that may impact on patients, staff and others including extended family and the wider community. The Management Flowchart will describe the process.

Definitions

Case Definition – formulated by examination of patients, laboratory data and review of clinical records to give a set of inclusion and exclusion criteria. Enables classification of disease status in the outbreak setting.

Communicable period - the time during which an infectious agent may be transferred directly or indirectly from an infected person to another person from an infected animal to humans or from an infected person to animals including arthropods.

Contact - is a person or animal that has been in such association with an infected person or animal or a contaminated environment as to have an opportunity to acquire the infection.

Incubation period - the time interval between initial contact with an infectious agent and the first appearance of symptoms associated with the infection until the last possibility of symptoms associated with the infection.

Infectious agent - an organism that is capable of producing infection or infectious disease.

Nosocomial infection/Healthcare associated infection – an infection occurring in a person in whom it was neither present nor incubating at the time of admission/arrival in the hospital nor is it the result of an infection acquired during a previous admission

Outbreak – is defined as an epidemic or an increase above the normal or expected level of healthcare associated infection within a clinical setting

Work Health and Safety

Employees should co-operate with the outbreak management plan and take reasonable care in the workplace to minimise the risk of patients, health care workers and others from infectious illnesses.

Health care workers with presumed infectious illness may be requested to provide certain specimens to aid in the identification of the infectious agent. Specimens required will be determined at the initial outbreak management meeting. All specimens will be coded for confidentiality. Staff specimens are voluntary and all staff have the right to choose to attend their own medical practitioner for testing and follow up of any illness.

References

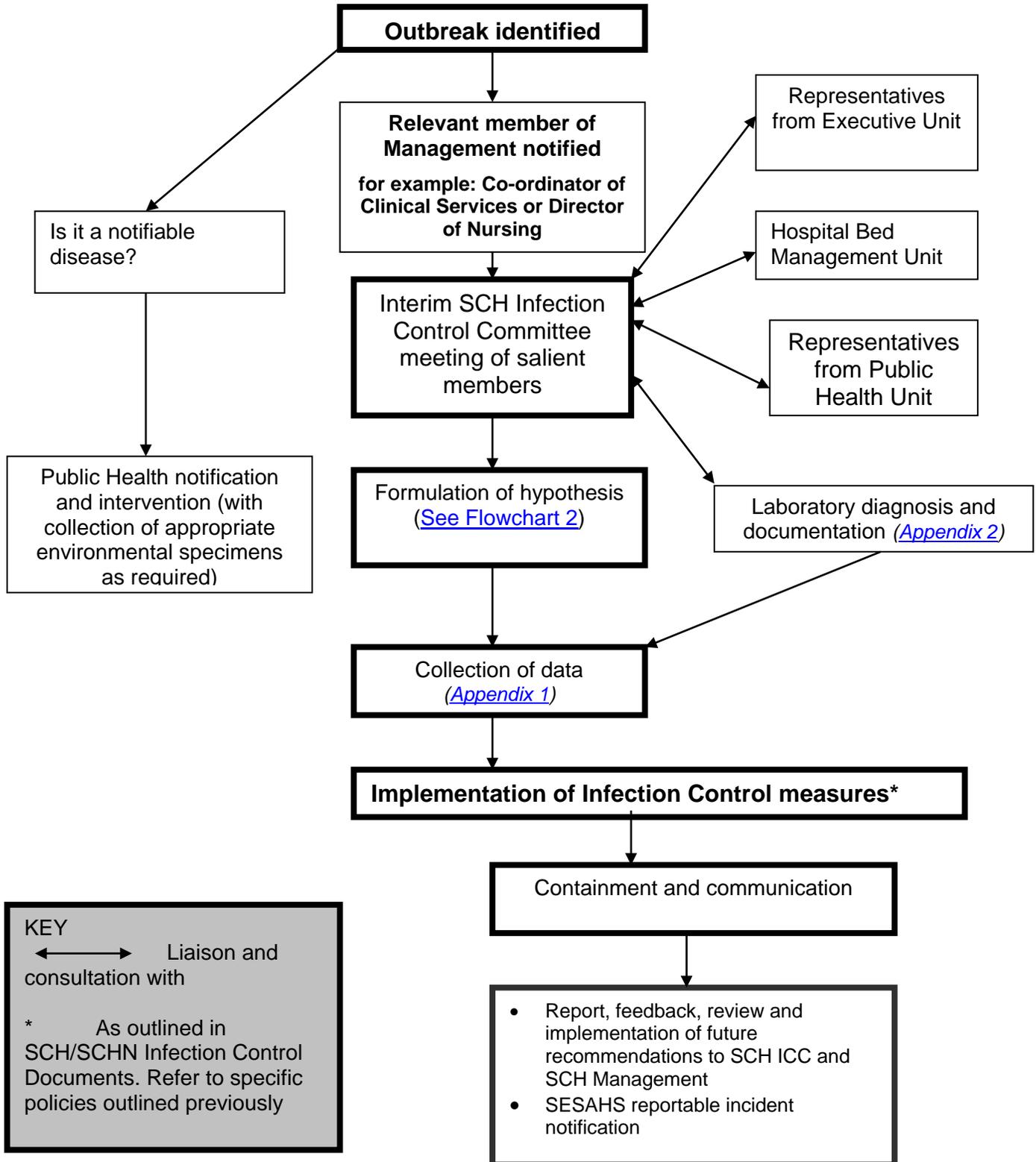
1. NSW Ministry of Health PD2007_036 "Infection Control Policy"
<http://chw.schn.health.nsw.gov.au/o/documents/policies/policies/2013-9042.pdf>
2. Reingold A. Outbreak Investigations –A Perspective. *Emerging Infectious Diseases* 1998 4:1 21-27
3. Chadwick PR et al. Management of hospital outbreaks of gastro-enteritis due to small round structured viruses. *Journal of Hospital Infection* 2000 45 1-10
4. National Health and Medical Research Council "Australian Guidelines for the Prevention and Control of Infection in Healthcare (2010) <http://www.nhmrc.gov.au/guidelines/publications/cd33>

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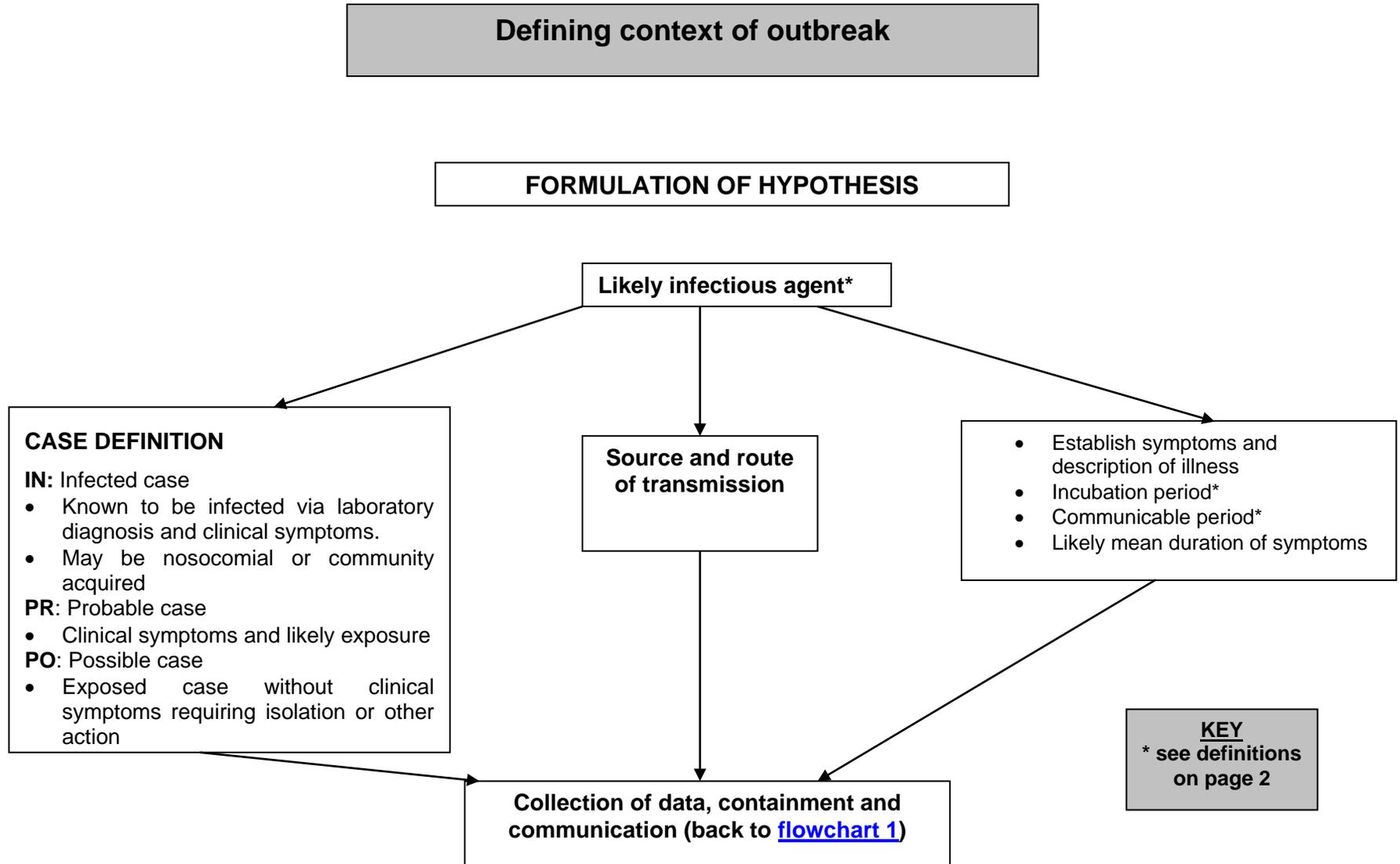
Flowchart 1: Process during an Outbreak Situation

Flow Chart 1: for use in outbreak situations



KEY
 ↔ Liaison and consultation with
 * As outlined in SCH/SCHN Infection Control Documents. Refer to specific policies outlined previously

Flowchart 2: Defining context of the Outbreak



Protocol for the microbiologic investigation of hospital outbreaks

1 Who To Notify

When a microbiologic investigation is required to determine the aetiology of an outbreak within the Sydney Children's Hospital (SCH), the designated outbreak co-ordinator(s) should notify the following staff members of the Microbiology Department (SEALS), Randwick*:

Scientists to co-ordinate laboratory investigations

Phone: 9382 9052

or

Senior Hospital Scientist-in-Charge, Virology Diagnostic Laboratory, Department of Microbiology (SEALS), Randwick.

Phone: 9382 9102

or

Laboratory Manager, Department of Microbiology (SEALS), Randwick.

Phone: 9382 9100

Staff specialist for discussion of microbiologic tests

Senior Microbiologist or Senior Medical Virologist, Microbiology Department (SEALS), Randwick.

Phone: 9382 9050

2 Completion of Request Forms

It is important that requests for investigations be distinguishable from routine samples so that the appropriate tests can be performed. This will also assist scientists in the scheduling of testing and timely provision of results minimising unnecessary tests. See: [Appendix 2](#).

A proforma of the microbiology request form based on the example attached to this document should be made available for specimens.

3 Specimens Required & Microbiological Tests to be undertaken

Depending on the likely infectious agent responsible, different samples will be required by the laboratory for investigation. For example in a gastroenteritis outbreak:

Stools

Stool samples can be collected during the early stages of the illness to enhance detection of the aetiological agent. Samples should be forwarded immediately to the Microbiology Department or stored at 4°C until forwarded.

Viruses: Norwalk-like virus, Astrovirus, Rotavirus, Adenovirus and Enterovirus

Bacteria: Food-borne agents (Salmonella, Shigella and Campylobacter) and a nosocomial agent (Clostridium difficile).

Parasites: Giardia lamblia and Cryptosporidium.

Microscopy will also be performed to screen for faecal leukocytes and other parasites. The examination of subsequent samples will be focused towards the aetiological agent(s) detected during this broad screen.

Throat swabs

The aim of testing throat swabs is to detect enteric viruses, which may colonise this region, or be harboured subsequent to vomiting.

Specimens can be taken using the regular serum coated swabs but must be immediately immersed in a single vial of viral maintenance medium (a red solution) provided by the Virology Diagnostic Laboratory (VDL). Please phone the SCH Emergency Department (9382 1033) or the VDL (9382 9103) to obtain vials. These vials should be transported to the Microbiology Department immediately or stored at 4°C.

Serum

Where possible, serum should be taken (particularly early cases) to identify response to infection. Samples will be stored for later examination if the above tests failed to detect the aetiologic agent(s).

N.B.: South Eastern Area Laboratory Services (SEALS) is a shared service provided to SCH Randwick by SESLHD.

