

NASOPHARYNGEAL ASPIRATION - SCH

PROCEDURE[®]

DOCUMENT SUMMARY/KEY POINTS

- Nasopharyngeal aspiration is an aerosol-generating procedure which may pose infection transmission risks to healthcare workers as well as to nearby patients, staff and carers. The procedure should be performed as far as possible from other patients, ideally in a single room. If this is not possible, the curtains between bed areas should be closed during and for 5 minutes after the procedure
- Nasopharyngeal aspiration (NPA) is performed to detect respiratory pathogens.
- A surgical mask and eye protection must be worn by staff collecting the NPA
- This procedure should only be performed where there is access to oxygen therapy.
- Same Day Results** will only be available if specimens reach SEALS Pathology:
 - Pertussis testing** before 10am Monday to Friday.
 - Respiratory viral testing** before 10am Monday to Saturday
- Retesting is generally not indicated
- In the case of an NPA for combined virology and pertussis, do not place the specimen into ice but deliver the specimen immediately to the virology laboratory.

CHANGE SUMMARY

- Due for mandatory review.
- Replaces SCH document C.10.06 **Sampling Nasopharyngeal Aspirate (NPA)**.
- No change in practice.

READ ACKNOWLEDGEMENT

- Clinical Nursing staff or medical staff who collect NPAs should read and acknowledge this procedure document.

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 2015	Review Period: 3 years
Team Leader:	CNC Respiratory Acute	Area/Dept: Respiratory

Introduction

Nasopharyngeal aspirates are obtained in order to determine the pathogen responsible for selected respiratory infections and determine treatment. Respiratory infections are most commonly caused by viruses. NPAs taken early in the illness can provide information on the respiratory viral pathogen. The virus is detected by a multiplex PCR from an NPA sample or nose and throat swab. Pertussis or “whooping cough” can also be detected by PCR from an NPA sample.

Although identifying a respiratory pathogen may be important in some clinical scenarios, the NPA is not a routine investigation for acute respiratory tract infections or bronchiolitis in children as children with viral respiratory infections such as bronchiolitis must be isolated with droplet precautions based on symptoms. They may be de-isolated when symptoms have resolved. PCR positivity or negativity should not be used to make decisions about de-isolation.

Pertussis or “whooping cough” is a highly infectious bacterial disease that causes severe bouts of coughing. In infants, especially those not yet vaccinated, it can be life-threatening. Children presenting with suspected pertussis should be isolated with droplet precautions for 5 days after initiation of effective therapy or until 3 weeks after onset of paroxysms if appropriate antimicrobial therapy has not been given.

Avian influenza, SARS and influenza infections are mandated as a reportable infection to Public Health Units as per [Notification of Infectious Diseases Under the Public Health Act](#)

- A Reportable Incident Brief (RIB) will be sent to NSW Department of Health on any potential media interests or problems. This is currently the responsibility of the Executive Assistant to the CE.
- The Microbiologist or Infection Control Practitioner will notify the Director of Clinical Operations of identification of any known clusters of respiratory infections. The Director of Clinical Operations will in turn notify the Chief Executive.

Equipment

- Oxygen therapy should be accessible.
- Personal Protective Equipment including gloves and eye protection
- Sputum trap.
- Y suction catheter (appropriate size for age).
 - Size 6 Fg (neonates).
 - Size 6-8 Fg (young child-usually up to 5years of age).
 - Size 8-10 Fg (older children).
- 0.9% sodium chloride/syringe 1ml.
- Suction tubing and apparatus.

Procedure

- Perform Basic hand hygiene.
- Explain procedure to parent and child.
- Assistance with holding the child secure may be required. Some patients & parents may find the procedure distressing; therefore two staff members will be required.
- Draw up 0.9% sodium chloride, and place gloves, sputum trap & suction catheter on a clean field.
- Basic hand hygiene.
- Don gloves, and eye protection
- Attach the sputum trap to the catheter and to the suction tubing - do not contaminate the end of the catheter.
- Turn suction on (assistant to do).
- Ensure child is held correctly (child may have to be wrapped firmly in a sheet or blanket).
- If the child has inadequate secretions insert 0.1ml- 0.2mls 0.9% sodium chloride into each nostril.
- Measure the distance from the patients' nostril to nasopharynx (which is half the distance from the nostril to the base of the ear).
- Do not advance the suction catheter past this point.
- With catheter tubing pinched off, (or Y port open) pass the catheter into the nostril to the nasopharynx then slowly withdraw un-pinching the catheter to enable suction.
- Ensure secretions are captured in the trap or catheter.
- Repeat if necessary to obtain adequate secretions.
- It is not necessary to flush catheter with 0.9% sodium chloride.
- Discard catheter & gloves.
- Basic hand hygiene.
- Settle child.
- Label specimen and send to pathology department with request form.
- Document procedure and patients' tolerance of same in patient medical record.

Notes

- **For results, call SEALS Call Centre: 1800 073 257.**
- Testing for respiratory viruses is done with a PCR assay detecting multiple different respiratory viral targets, including targets for influenza and RSV. The sample **must be received by 10am on Monday to Saturday** to be tested that day. Testing is not done on Sunday except for urgent cases in consultation with the microbiologist on-call.

- Respiratory virus PCR results will generally be available by **4 PM on the day** of assay (N.B. a test sent Saturday evening will have the result available Monday afternoon, unless urgent). For urgent tests or queries, call the virology laboratory on **93829133**.
- Testing for pertussis is done by a PCR assay at SEALS Kogarah. **The NPA sample must be received at SEALS Randwick Specimen reception by 10am on Monday to Friday to be tested that day.** Testing is not done on Saturday or Sunday except for urgent cases in consultation with the microbiologist on-call.
- Pertussis PCR results are generally available **before 5 PM** on the day of assay. Out of hours and urgent requests need to be approved by the microbiologist on-call, and specific transport for specimens may need to be arranged. For urgent tests or queries, call the laboratory on **02 9113 3329**.
- Repeat testing is generally not indicated and should only be ordered in consultation with Respiratory Medicine or Infectious Diseases. NPAs may be unpleasant for children and respiratory viral testing is a substantial ongoing cost to the hospital.
- Test requests for unusual pathogens should be discussed with the microbiologist on-call.

Related information

- **Infection Control Isolation and Transmission Based Precautions - SCH**
- **Infectious Diseases Outbreak: Hospital Management – SCH**
<http://chw.schn.health.nsw.gov.au/o/documents/policies/policies/2013-7049.pdf>
- NSW Ministry of Health Policy Directive (PD2007_036): “**Infection Control Policy**”
http://www0.health.nsw.gov.au/policies/pd/2007/pdf/PD2007_036.pdf
- NSW Ministry of Health Information Bulletin (IB2013_010): “**Notification of Infectious Diseases under the Public Health Act 2010**”:
<http://chw.schn.health.nsw.gov.au/o/documents/policies/policies/2012-9064.pdf>

References

1. Australian Commission on Safety and Quality in Healthcare “**Australian Guidelines for the Prevention and Control of Infection in Healthcare**”. Australian Government National Health and Medical Research Council 2010
https://www.nhmrc.gov.au/files/nhmrc/publications/attachments/cd33_infection_control_healthcare_140616.pdf
(Accessed 27/7/2015)

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