

PAEDIATRIC NURSING PRACTICE MANUAL  
SECTION 5

SPECIMEN COLLECTION

5.4 RESPIRATORY TRACT SPECIMENS

5.4.1 COLLECTION OF NASO-PHARYNGEAL ASPIRATE (NPA)

**Aims**

1. To collect respiratory secretions containing epithelial cells from the nasopharynx for culture.
2. To minimise risk of injury/and or trauma to the child during invasive medical or nursing procedures

**Key Point**

This is an [aseptic non touch technique](#).

**Fasting Requirements**

As residual milk in the nasopharynx will interfere with the immunofluorescence, ensure that the patient has not had any food or drink prior to collecting the Naso-Pharyngeal Aspirate.

Children/babies	30 min
Adults	15min

**CORRECT HOLDING POSITION**

Also refer to [PNPM 1.11](#) Clinical Holding

**Small children**

Babies and small children are usually non compliant with invasive procedures and therefore assistance will be required when obtaining specimens.<sup>1</sup>

Select from the following suggested holding techniques:

1. Place the child on the assistant's lap. With child's back against the assistant's abdomen and the back of his/her head against their sternum raise the child's hands above his/her head and press the elbows against the ears.<sup>2,3</sup>
2. Have the assistant encompass the child with one arm so that the child's own arms are beneath the assistant's. Have the assistant place their second hand firmly on the child's forehead.<sup>3</sup>
3. Place the baby/child on an open blanket/sheet. With the patient's arms against their body fold one side of the sheet across the body and secure under the opposite arm. Fold the second side across the body and secure.<sup>1</sup>

**Older children and adolescents**

Provide an age/ developmentally appropriate explanation of the procedure.<sup>2</sup> Select from the above positions if non compliant.



## Equipment

Continuous suction source

Mucous trap:

8 Fr gauge catheter for older children.

6 Fr gauge catheter suitable for neonates and small children

## Additional equipment

Transport medium

- For viral and chlamydial culture - Virus transport medium (VTM) 3mL T6566
- For bacterial culture - Normal saline (this is outlined in the procedure- 2<sup>nd</sup> page)

PROCEDURE	ADDITIONAL INFORMATION
Positively identify the patient.	Refer to the Pathology Handbook Section 2 for guidance.
Measure the required catheter length to be passed.	This should be equal to the distance from the nose to ear.
Check suction is working correctly. Connect mucous trap to suction. Tighten green cap on mucous trap.	
Have an assistant hold the child.	Refer to correct holding position(s) as listed above and <a href="#">PNPM 1.11</a> .
Turn suction unit pressure to an age appropriate setting.	
Crimp the tubing between suction and mucous trap to stop suction.	
Pass the suction catheter quickly into the post-nasal space.	
Release crimp and rotate the catheter as it is withdrawn. Ensure there is a mucous sample in the container.	

PROCEDURE	ADDITIONAL INFORMATION
<p>Rinse the catheter with an appropriate solution</p> <p><b>In laboratory hours:</b></p> <ul style="list-style-type: none"> <li>• <b>Combined bacterial and viral culture:</b> aspirate normal saline only into the mucous trap.<sup>4</sup></li> <li>• <b>Viral and/or Chlamydial culture:</b> aspirate VTM into mucous trap.<sup>4</sup></li> <li>• <b>Bacterial culture:</b> aspirate normal saline into mucous trap.<sup>4</sup></li> <li>• <b>Pertussis:</b> aspirate normal saline into the mucous trap.<sup>4</sup></li> </ul> <p><b>Outside of Laboratory hours:</b></p> <ul style="list-style-type: none"> <li>• <b>Viral and/or Chlamydial culture:</b> aspirate VTM into mucous trap.<sup>4</sup></li> <li>• <b>Bacterial culture:</b> aspirate normal saline into mucous trap.<sup>4</sup></li> </ul>	<p>Aspirating a tiny volume of normal saline or VTM through the catheter will help to draw mucous into the trap.</p> <p>The total volume should not exceed 0.75mL.</p> <p>OR if there will be a delay in processing by the lab.</p>
<p>Disconnect and cap mucous trap.</p>	
<p>Ensure specimen is correctly labelled and send immediately to the laboratory in a Biohazard bag.</p> <p><b>Out of hours;</b> all NPA specimens must be refrigerated.</p>	<p>Refer to Pathology Manual, General Guidelines Section 2.</p>

### References:

1. Algren C. Family centred care of the child during illness and hospitalisation. In: MJ H, editor. Wong's Nursing Care of Infants and Children. 8th ed. Mosby Elsevier, St. Louis; 2007.
2. Frey AM. Tips & tricks for pediatric IV insertion [Expert opinion]. Nursing 2000.30(12):54-56; 2000.
3. Sparks LA, Setlik J & Luhman J. Parental holding and positioning to decrease iv distress in young children: A randomized controlled trial [Level II]. J Pediatric Nursing.22(6):440-447; 2007.
4. PathWest Laboratory Medicine WA. Pathology Handbook. Perth: PathWest; 2009.