



Testing for *Bordetella pertussis* in the Community Setting

The recent increase in pertussis cases continues.

See: http://www.surv.esr.cri.nz/PDF_surveillance/PertussisRpt/2012/201226PertussisRpt.pdf

Although the number of confirmed cases in the Midlands region of the North Island has remained relatively low, awareness and subsequent testing in the community has increased significantly.

There has been some confusion as to optimal testing and also what swabs are the most appropriate. This clinical update aims to clarify this.

The testing method depends on the duration of symptoms. If the symptoms have been present for less than **three weeks**, then a swab for **culture or PCR** is preferred. If the symptoms have been for longer than three weeks, **pertussis serology** is the diagnostic test of choice.

PCR is more sensitive than culture for the diagnosis of pertussis infection. It also has a faster turnaround time, with a result usually available within 2-3 working days. PCR should be performed in preference to culture in situations where rapid confirmation of the diagnosis is likely to change management of the patient or their contacts.

Guidance on Which Swabs to Use for Pertussis Culture and Pertussis PCR

For Pertussis culture: Collect one blue per-nasal wired swab and place into charcoal transport medium.



For Pertussis PCR: Use the swab above but put back into the original dry tube, not into the charcoal transport media (which is inhibitory to PCR). Note, if a swab for PCR testing is received in charcoal transport medium it will be rejected by the laboratory.

Alternatively, collect an orange topped flocced per-nasal swab with flexible head – no transport medium.



If you would like to receive these updates via e-mail please forward your details to: Jo.Sherwood@pathlab.co.nz

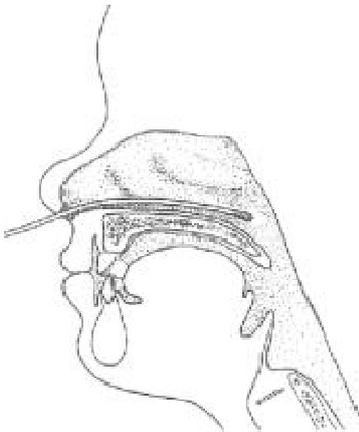
For more information check out [www.pathlab.co.nz/Clinicians/Clinical Information](http://www.pathlab.co.nz/Clinicians/Clinical%20Information)

Guidance on Taking A Per-Nasal/ Nasopharyngeal Swab

The objective is to sample the cells in the nasopharynx, so this requires the swab to go a lot further than for a simple nasal swab. It is also more uncomfortable for the patient. A normal wound swab has too thick a shaft for this purpose, hence the need to use one of the swabs as detailed above.

Procedure for Taking A Per-Nasal/ Nasopharyngeal Swab

- The patient can either lie flat on a bed or sit up with his/her head back against a wall.
- **The nasopharyngeal swab is slowly inserted into the nasal passage. It should pass along the floor of the nasal passage (parallel to the palate, see diagram below) in order to minimise the risk of damage to the naso-pharyngeal roof.**
- If any resistance is felt, try the other side. Some patients have a deviated septum on one side.
- In small children just over half the swab will be inserted, in adults well over two-thirds of the wire will be inserted.
- Once the swab is in position it is preferable to leave it in place for 20 – 30 seconds.



For further information on testing strategy, please contact myself on **027 389 0464**.
For further general information on pertussis, including management of contacts and indications for immunisation, see <http://www.toiteorapublichealth.govt.nz/pertussis> (Bay of Plenty/Lakes) or <http://www.waikatodhb.govt.nz/file/fileid/21565> (Waikato)

Please could this update be distributed to all GPs and Practice Nurses at your Health Centre.

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CLINICAL UPDATE