2 Diphtheria: who and how to test

Have a low threshold for swabbing in priority areas and in under-vaccinated patients

AHCSA Aboriginal Health Council of South Australia

Government of South Australia, SA Health

Aboriginal Person and/or non-Aboriginal Person who lives in, recent travel to, or close interaction with communities in outbreak areas (incl NT/WA)

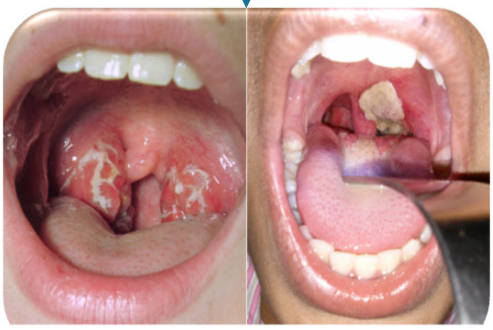
Sore throat, tonsillitis or pharyngitis (± hoarseness, progressive neck swelling)

Exudate visible on the tonsils or pharynx?

NO → **Any additional risk factor?** inadequately vaccinated (no primary course or >10y since last dose) or status unknown · immunosuppressed

- NO → **Treat as usual** Manage as a routine sore throat. Review and reconsider diphtheria if not improving.
- YES → **Are clinical warning signs of severe respiratory diphtheria present?** Pseudomembrane · bull neck / progressive lymphadenopathy · stridor · respiratory distress · signs of sepsis

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Exudate *Pseudomembrane*

- NO → **SWAB First, then treat empirically (Chart 3)**
  - **PPE for all swabbing: gown, gloves, eye protection and surgical mask (standard + contact + droplet).**

  Skin wound → skin swab ×2 (liquid Amies media).

  Sore throat → throat swab ×2 (liquid Amies media).

  Commence antibiotic therapy — see Chart 3.
  - Swab and treat for differentials as per usual sore throat management (e.g. GAS infection).
  - Review every 1–2 days for warning signs of severe disease.

  Notify CDCB on suspicion — do not wait for the laboratory.

  → **REQUEST FORM**
  - **State "M/C/S + Diphtheria Test" explicitly — routine M/C/S does not include it.**
  - Document the collection site, and the relevant clinical and epidemiological details.
  - **Mark the form URGENT and send to SA Pathology.**
- YES → **DO NOT SWAB IN THE CLINIC**
  - **Swabbing risks disrupting the pseudomembrane — airway obstruction and bleeding.**
  - Stabilise the patient; medical officer review.
  - Arrange immediate transfer to hospital — swabs and further investigations happen there.
  - Discuss with adult or paediatric infectious diseases on-call regarding diphtheria antitoxin (DAT).
  - Start oral azithromycin 500 mg (child 10 mg/kg up to 500 mg) if able to swallow comfortably.
  - **Notify CDCB 1300 232 272.**

Skin sore, ulcer or wound (any site)

Non-healing after 2 weeks, OR any ulcer or wound in a contact of a case?, OR any skin/soft tissue ulcer swab already being sent for M/C/S

- NO → **Treat as usual** Manage as a routine skin infection. Re-consider diphtheria if not healed by 2 weeks.
- YES → **SWAB** Skin swab ×2 (liquid Amies). Collect before antibiotics if possible

→ **REQUEST FORM**
- **State "M/C/S + Diphtheria Test" explicitly — routine M/C/S does not include it.**
- Document the collection site, and the relevant clinical and epidemiological details.
- **Mark the form URGENT and send to SA Pathology**

Add Recall to Follow Up + Check Results

Toxigenic Diphtheria Confirmed (PCR/culture)
- Treat as per SA Health guidelines (Chart 3).
- Public health follow-up and contact tracing (Chart 4).

Toxigenic Diptheria Not Found (PCR + culture)
- Cease diphtheria-specific treatment.
- Treat as per local guidelines.

Notify CDCB — 1300 232 272, 24 hours / 7 days

Notify suspected as well as confirmed diphtheria so that public health follow-up, vaccination and contact tracing can start immediately.