MENINGOCOCCAL DISEASE

NSW HEALTH

Acute Paediatric Clinical Practice Guidelines

- Consider in any child with acute onset of fever and rash.
- Typical rash has petechiae and purpura, however there may be no rash, or the rash may appear initially urticarial or varicelliform
- Leg pain is often associated with early onset meningococcal disease
- When in doubt, treat as if the child has meningococcal disease (see Pathway 1)

Other tests to identify Meningococcal disease are

- Scrape a petechial or purpuric lesion, place microscope slide on blood, allow to dry send to pathology and ask them to look for organisms
- Throat swab,
- PCR on blood
- Only perform LP when haemo dynamically and haematologically stable

NB Notify public health and organise prophylaxis of close family contacts in cases where the diagnosis is suspected.

MENINGITIS (including suspected disease)

- Not all patients have fever, neck stiffness, and altered mental status
- Younger patients have more subtle symptoms and signs
- Can present over acute (hours) to days
- Prior antibiotics may modify presentation and diagnostic yield
- Preceding URTI's present in 75% of cases
- The presence of otitis media or other source of fever does not exclude meningitis
- Seizures occur in 20-30% of cases
- Always consider meningitis in patients presenting with seizures and fever, especially <12 mths

0-3 MONTHS diagnosis difficult, keep a high index of suspicion	Non specific, includes fever or hypothermia, bulging fontanelle, acute increase in head circumference,irritable, high pitched cry, lethargy, seizures, apnoea, poor feeding, vomiting
> 3 months, Symptoms become more CNS specific	Fever not always present, Neck stiffness present 60-80% only, more useful > 3 years Kernigs sign – inability to completely extend leg Brudzinki's sign - flexion at hip and knee in response to forward flexion of the neck Both in older children, absence does not exclude meningitis Irritable, lethargic, altered mental state, anorexia, nausea +/- vomiting Photophobia in older children Papilloedema is rare, usually suggest complication like venous sinus thrombosis, abscess or subdural empyema
PRIOR ANTIBIOTICS- Time to diagnosis is delayed, But complication rate is not necessarily increased	Less temperature More frequent vomiting Less frequent alterations in mental status CSF positive culture less, but other parameters not changed Relationship between CSF polymorphonuclear cells and lymphocytes may be reversed

CLINICAL PRESENTATIONS

- Evaluate LOC, fundi, neck stiffness, focal signs amongst other things

DIAGNOSIS

- CSF examination provides definitive diagnosis via an LP
- Appropriate antibiotics +/-steroids can be commenced if the patient is too sick or unstable for LP
- LP should be performed when the patient is resuscitated and stable (see below)
- CT scans in not part of a routine workup

LUMBAR PUNCTURE- INDICATIONS TO DELAY THE LP

1. Local site- Skin infection at site of LP, anatomic abnormality at the site of LP
2. Patient instability- Respiratory or cardiovascular compromise, continuing seizure activity
3. Suspicion of space occupying lesion or raised intracranial pressure
   - Focal seizures, focal neurological signs, reduced conscious state (GCS <12), decerebrate or decorticate posturing, fixed dilated or unequal pupils, absent