

SAQ 10

A two month old infant has been brought in following a brief seizure. She has had coryzal symptoms and high fevers for two days. She has no relevant past history and no allergies. On examination: HR 110, BP 80/45, Temp 39.7. There is no rash & no clear focus of infection but the child is ill-appearing and drowsy.

(1) What investigations are required?

Investigation	Justification

A lumbar puncture is performed

CSF white cell count

Neutrophils 120 (nil)

Lymphocytes 25 (<5)

CSF red cell count 200

CSF Protein 1.2 (< 0.4 g/L)

CSF glucose 0.4 (> 2.5 mmol/L)

(2) Interpret these results

(3) List and justify the medications you would use to treat this child

Medication	Justification	Dose

Answer - febrile child seizure

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(1) What investigations are required?

Investigation	Justification
WCC (FBC) Other inflammatory markers – CRP etc	At 2 months most would consider too young to assess on purely clinical grounds. Could comment that WCC/CRP do not confirm/exclude SBI
Electrolytes	Sick child – possible abnormality of fluids in/out
Urine	Part of septic workup – especially as going to give

	antibiotics
CSF	Part of septic workup. While this could be a “simple febrile convulsion” with another source of sepsis LP is mandatory in this setting
Blood culture	Sepsis workup

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(2) Interpret these results

Highly suggestive of bacterial meningitis. Likely a “traumatic tap” but ratio of RBC:WBC still indicates too many WBCs

(3) List and justify the medications you would use to treat this child

Medication	Justification	Dose
Cefotaxime	Could choose ceftriaxone though under 3 months usually cefotaxime (hepatic immaturity)	50mg/kg 6th hourly (ceftriaxone 100mg/kg 12 th hourly)
Ben Penicillin	To cover listeria	60mg/kg 4 th hourly
Vancomycin	For resistant S pneu – local practice varies – depends on local prevalence. Some wait for CSF gram stain or antigen studies	30 mg/kg 12 th hourly
Dexamethasone	Give before or with antibiotics. Reduce hearing loss in Hib meningitis (JAMA	0.15 mg/kg

	1997). Decrease poor outcomes (GOS) & death (NEJM 2002)	
Paracetamol	For fever	15mg/kg

(4) A senior nurse complains to you that one of the junior doctors involved in this case has been caught stealing a box of ciprofloxacin. A formal incident report has been filed and the nurse wants you to “deal with the JMO”. The doctor says he only wanted to take some as prophylaxis against possible meningococcus.

What key principles should you consider in your discussion with the JMO?

- Non-judgemental, non-confrontational, confidential, document discussion.
- “Stealing” drugs is potentially serious – disciplinary/employment ramifications
- Doctor needs counselling - ?apology etc
- Concern about infection not entirely unreasonable though prophylaxis only indicated if meningococcus confirmed & close exposure (e.g. suctioning, intubation)

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