Galway: GAPP - Galway Antimicrobial Prescribing Policy / Guidelines (GAPP): Central Nervous System

Suspected Bacterial Meningitis

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1. The **most important** aspect of treatment of suspected or confirmed bacterial meningitis is to **commence antibacterial therapy IMMEDIATELY** .
2. Consult with Microbiology or Infectious Diseases is recommended.
3. **Chloramphenicol** is available in the Emergency Department and in the Pharmacy Department. **Meropenem** may be an alternative to chloramphenicol in patients with a history of penicillin anaphylaxis, as recommended in Irish guidelines, with close monitoring for cross-sensitivity e.g. in ICU. Consult with immunology strongly advised.
4. See footnote on use of **Dexamethasone**** .
5. **Consult with Microbiology or Infectious Diseases essential** if risk factors for ***M. tuberculosis*** (alcohol, homelessness, immunocompromised host, recent immigration from area of high incidence, recent contact with tuberculosis) or if history of neurosurgery or head trauma or if device-related infection e.g central nervous system shunt, ventricular drain or other.
6. Risk factors for ***Listeria monocytogenes*** meningitis in adults include underlying neoplasm, immunosuppressive treatment, age over 50, pregnancy and excessive alcohol use.
7. Viral **meningitis** (as distinct from encephalitis) generally does **NOT** require anti-viral treatment. Discuss with Microbiology or Infectious Diseases.
8. See Appendix 3 for management of **contacts.**

Empiric Antibiotics for Suspected Bacterial Meningitis

Infection	1st Line Antibiotics	Penicillin allergy: delayed onset non-severe reaction See penicillin hypersensitivity section for further information	Penicillin allergy: immediate or severe delayed reaction	Comment
Suspected Bacterial Meningitis	CefTRIAXone IV 2g every 12 hours Consider **adding** Vancomycin IV infusion, dose per GAPP App calculator, if Pneumococcal meningitis is likely/suspected. See footnote* re vancomycin review and monitoring. See footnote ** re Dexamethasone. Consider **adding** Amoxicillin IV 2g every 4 hours if at risk for *L. monocytogenes* (See point 6 above)	CefTRIAXone IV 2g every 12 hours Consider **adding** Vancomycin IV infusion, dose per GAPP App calculator, if Pneumococcal meningitis is likely/suspected. See footnote* re vancomycin review and monitoring. See footnote ** re Dexamethasone. Consider **adding** Co-trimoxazole IV 60mg/kg every 12 hours (round dose to nearest multiple of 480mg) if at risk for *L. monocytogenes* (See point 6 above)	Chloramphenicol IV 25mg/kg + Vancomycin IV infusion, dose per GAPP App calculator. See footnote* re vancomycin review and monitoring. Give first dose, THEN IMMEDIATELY **consult** Microbiology or Infectious Diseases regarding further therapy. See footnote ** re Dexamethasone. Consider **adding** Co-trimoxazole IV 60mg/kg every 12 hours (round dose to nearest multiple of 480mg) if at risk for *L. monocytogenes* (See point 6 above) Discuss need for nasopharyngeal eradication for the patient with Microbiology or Infectious Diseases	Minimum duration of treatment: Meningococcal meningitis: 7 days Haemophilus meningitis: 10 days Pneumococcal meningitis: 14 days Listeria meningitis: 21 days

* Review need for ongoing vancomycin on a daily basis. For advice on monitoring see **Vancomycin** Dosing & Monitoring section.

****Dexamethasone**

Consider adjunctive treatment with dexamethasone IV 10mg every 6 hours, particularly if *Pneumococcal* or *Haemophilus influenzae* meningitis suspected, **preferably starting before or with first dose of antibiotic** , but no later than 24 hours after starting antibiotic. Discontinue dexamethasone if a diagnosis other than bacterial meningitis is subsequently made. Discontinue dexamethasone if bacterial meningitis with an organism other than *pneumococcus* or *H.influenzae* is confirmed.

Avoid dexamethasone in septic shock, meningococcal septicaemia, or if immunocompromised, or in meningitis following surgery.

Some experts add **Rifampicin** PO 600mg every 12 hours to the antimicrobial regimen if Dexamethasone is given.

Refs:

1. *HPSC Guidelines for the Early Clinical and Public Health Management of Bacterial Meningitis (including meningococcal disease) November 2016*
2. *ESCMID guideline: diagnosis and treatment of acute bacterial meningitis. Clinical Microbiology and Infection. 2016; 22 (3); S37-S62*
3. *BNF 86 March 2024*
4. *IDSA Guidelines for the Management of Bacterial Meningitis. Clin Infect Dis 2004;39:1267–84*

Suspected Herpes Simplex Encephalitis

Suspected Herpes Simplex Encephalitis

1. Viral **meningitis** (as distinct from encephalitis) generally does **NOT** require anti-viral treatment. Discuss with Microbiology or Infectious Diseases.
2. Consult with Microbiology or Infectious Diseases recommended if patient has recent travel history or is immunocompromised.

Antivirals for Suspected Herpes Simplex Encephalitis

Infection	1st Line	Comment
Suspected **Herpes Simplex** **Encephalitis**	Aciclovir IV 10mg/kg every 8 hours Refer to IV guide on MedinfoGalway for dosing in obese patients.	**Confirmed** HSV encephalitis requires a total of 14 to 21 days IV therapy.

Ref: IDSA Guidelines for the Management of Encephalitis Clin Infect Dis 2008;47:303-27