COMMUNITY-ACQUIRED MENINGITIS

CONSULT ID

EMPIRIC CHOICE

- ceftriaxone 2 g iv q12h + vancomycin 25mg/kg iv loading dose x1 followed by 15 mg/kg iv q8h
- if over age 50, add ampicillin 2g iv q4h or TMP-SMX 5 mg/kg iv q6h

DURATION

- *S. pneumoniae*: 10 days
- *N. meningitidis*: 7 days
- *L. monocytogenes*: 21 days

ALTERNATIVES FOR ALLERGIES

- For non-anaphylactic penicillin allergy, ceftriaxone may be used.
- For severe β-lactam allergy, use moxifloxacin 400 mg iv q24h + vancomycin 15 mg/kg iv q8h (add agent for Listeria if over age 50 or immunocompromised (see below)).

TOP FIVE ORGANISMS (what we expect for common organisms)

- *S. pneumonia*
- *N. meningitidis*
- *L. monocytogenes* (esp. in those over age 50)
- aerobic Gram-negative bacilli

CURRENT RESISTANCE ISSUES

- The rate of ceftriaxone-resistant pneumococci in Toronto is <1%. Recommendations for treating with vancomycin are based, primarily, from jurisdictions with higher resistance than we are currently encountering in Toronto.

IMMUNOCOMPROMISED HOST CONSIDERATION (INCLUDING THOSE WITH ADVANCED LIVER/KIDNEY DISEASE)

- Add ampicillin 2 g iv q4h or TMP-SMX 5 mg/kg iv q6h for Listeria coverage.
- Fungal meningitis (esp. cryptococcal) is relatively common in those with severe cell-mediated immunocompromised (eg. steroids, transplantation).

ADDITIONAL DIAGNOSTIC AND THERAPEUTIC COMMENTS

- Dexamethasone 10mg iv q6h for 4 days (started as soon as possible prior to initiating antimicrobial therapy) is currently recommended. The current evidence demonstrates that this neither provides benefit nor harm in patients with bacterial meningitis (vis a vis mortality, neurologic sequelae), but a single study from the Netherlands suggested benefit and the recommendation remains controversial.
- Consideration for repeat lumbar puncture should be given for patients failing to improve after 24-48h of therapy.

References:

Tunkel AR, Hartman BJ, Kaplan SL, Kaufman BA, Roos KL, Scheld WM, et al. Practice guidelines for the management of bacterial meningitis. *Clin Infect Dis*. 2004;**39**(9):1267-84. Epub 2004/10/21.

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van de Beek D, Farrar JJ, de Gans J, Mai NT, Molyneux EM, Peltola H, et al. Adjunctive dexamethasone in bacterial meningitis: a meta-analysis of individual patient data. *Lancet Neurology*. 2010;**9**(3):254-63. Epub 2010/02/09.