

# Divine Intervention Episode 16

## Bacterial Cases B

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Some MS4

1

Comparing and contrasting the 2 Neisserial species.  
General gram staining characteristics? Capsule?  
Vaccine? General kind of infection? Glucose?  
Maltose? Growth media? Special discussion on N.  
Meningitis detection.

## 2

A 17 yo college student presents with a 13 hr history of fever and severe headache. PE is notable for a petechial rash on the LUE and nuchal rigidity. Dx? Bug? Demographic? Method of transmission? Relationship to “mucosal immunology”? The Eculizumab connection. Dx if this patient loses consciousness, has a BP of 50/30, K of 6.1, and Glucose of 45? Tx and prophylactic strategies.

3

A 22 yo sexually active college student presents with a 3 day history of “migratory” joint pain and a purulent penile discharge. Dx? Dx testing? Structural feature that increases infectious potential (especially for the urinary tract)? Common presentations in women. Neonatal ophthalmology and prevention. Compare w/chlamydia. Tx strategies.

4

A 3 yo M is brought to the pediatrician by his concerned mom. He has been tugging his ear and wincing in pain for the past 2 days. Otoscopic exam is notable for erythema and decreased mobility of the tympanic membrane. A gram stain of purulent material around the eardrum reveals gram -ve circular organisms. Bug? Tx strategies?

5

A 23 yo cystic fibrosis patient is brought to the ED by his mom. T is 105. He has had significant respiratory difficulty for the past 3 days that is worse than his normal baseline. Bug? Special characteristics/pigments? Classic presentations? HY virulence factor relating to protein synthesis? Why would a patient with a -ve NBT test get recurrent pseudomonal infections? Tx strategies.

6

59 yo smoker presents to the ED with a 3 day history of diarrhea and SOB. T is 101. He recently visited a resort in the Bahamas that had an artificial waterfall. Bug? Special characteristics/means of transmission? Classic presentation? Symptomatology? Dx testing? Tx strategies?

7

A med student presents to the ED with a T of 104 and a painful, ulcerating lesion on the LUE. PE is notable for significant left axillary lymphadenopathy. He took a year off to study targeted therapy in rabbit models of the brain malignancy, Glioblastoma Multiforme. Bug? Special characteristics/means of transmission? Classic presentation?



8

A 4 yo F in California is rushed to the ED by her concerned parents. She has had a severe cough for the past 7 days. These episodes have occasionally been associated with vomiting. A funduscopic exam is +ve for subconjunctival hemorrhage. WBC is 60K with a lymphocytic predominance. Dx? Bug? Stages of disease? Virulence factors (2)? Special characteristics/growth media? Prevention? Tx/ppx?

# 9

A KY family that resides on a goat breeding farm brings their 6 yo daughter to the ED with complaints of high fevers for the past 7 days. These fevers are worse at night. The child's clothes are drenched from profuse sweating even with outside temperatures of 50. Bug? Special characteristics? Classic associations/presentation? Megaloblastic anemia in an infant with a strict goat milk diet.

10

A 26 yo F is intubated in the ICU 3 days after presenting with bilateral LE weakness. She had a 4 day episode of bloody diarrhea that resolved w/o treatment 2 weeks ago. LP is notable for a marked increase in CSF protein. WBC is wnl. Bug? Special characteristics? Means of transmission? Classic presentation? Tx strategies?