

My experience with meningococcal meningitis in the expanded Africa Meningitis belt

I was recently on a global health trip to Nalerigu, in Northern Ghana. This region falls within the African meningitis belt that runs from The Gambia in the West to Eritrea in the East. A total of 26 countries lie or have regions that fall within the expanded meningitis belt. I was in Ghana from early February to early March, at the start of the meningitis season.

The locals commonly call it CSM, short for cerebrospinal meningitis. My first patient with CSM was a middle-aged woman who came in with altered mental status (AMS). She had been admitted in the middle of the night with fever, generalized body pains and altered consciousness for some days. On rounds the next morning, she was observed to have neck stiffness, which is one of the classic features of CSM and so we decided to do a lumbar puncture. After collecting the sample, we immediately started her on antibiotics (ceftriaxone) and gave her steroids per hospital protocol. Laboratory analysis confirmed CSM

She was the first of a significant number of patients that I, along with my colleagues would see as a team. The ages of the patients varied from children below the age of 10 to middle-aged patients. One patient that stood out for me was a young 19-year-old male, high school student attending boarding school in the area. He was admitted for AMS and a fever that began on the day of admission. He had also been complaining of a headache and malaise for 2 days before coming in.

He arrived late in the evening and so a lumbar puncture was deferred till the morning. Unfortunately, he passed away in the middle of the night. The following day, while I was rounding through the wards, I signed his death certificate and listed meningitis as a secondary cause of death based on his clinical presentation. This became an issue however because CSM is a notifiable disease in Northern Ghana and since a lumbar puncture was not

done before he passed away, there was no objective confirmation of this diagnosis.

All team members had to use prophylaxis frequently because we had new cases of meningitis almost everyday towards the end of our trip. A lot of the patients did not make it out of the hospital and so we were ecstatic whenever a patient took a turn for the better.

When all is said and done, these are my take away lessons:

- CSM is a public health concern and is reportable wherever you work.
- CSM is a serious disease. If you suspect that you have been significantly exposed, use prophylaxis.
- Identify the protocols for reporting and be aware of the implications of CSM for the institution you are working in.