

Case Study: N. Meningitidis

Smarty Pants University (SPU) has 3,000 students living on campus, and a total student body of 15,000. The majority of dorms are shared rooms with communal bathrooms. Meals are served in the campus cafeteria. SPU includes fliers encouraging meningitis vaccination in their new student orientation packets, but does not require it or track student vaccination.

You are an infection preventionist who has been asked to assist with a meningitis outbreak on SPU's campus. So far, 5 students have contracted meningitis. The organism has been identified as N. Meningitidis, serogroup B. Another student has tested positive for N. Meningitidis via nasal swab but is asymptomatic. She has had no known exposure, but requested testing from her PCP because she lives in dormitory A and was concerned.

Case #	Date	Residence	Case Notes
1	09/05	Dormitory A	The student was visiting their hometown when diagnosed. The case was not immediately reported to the university.
2	9/12	Dormitory A	No known contact with case #1, but they were on the same floor and used the same bathroom
3	9/17	Off campus	Attended a large sorority party that case #2 had also attended.
4	9/24	Dormitory B	Reported first to the student health center, then to the emergency room. Health center staff were masked, but the patient and other students in the waiting room were not.
5	10/1	Dormitory A	Unknown exposure link. Nursing student, worked 2 clinical rotations in labor & delivery in the past week.

Recommendations:

Isolation/Quarantine:

- Isolate for 24 hrs after starting antibiotics
- Consider quarantine of close contacts for 24 hr of antibiotics

Contact tracing/prophylaxis:

- Identify close contacts for PEP (roommates, intimate partners, shared airspace for prolonged periods, shared drinks/food, high risk individuals)

Testing/vaccination:

- No asymptomatic testing
- Consider vaccination clinic/education campaign

Classes/campus activities:

- Continue classes
- Encourage student to practice safe behavior, may encourage masking
- Discourage large parties/crowded gatherings

Other:

- Education on signs and symptoms
- Hotline for questions