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Meningococcal Carriage Linked to Campus Bar

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Following a 15-month Group C meningococcal outbreak at a university campus in central Illinois, investigators studied the risk factors for oropharyngeal carriage in students. Almost 10% of students sampled at the student health center (86 of 976) were found to be carriers of meningococci; however, fewer than 2% of the 86 were found to have Group C. Risk factors associated with carriage included age under 23 years, male gender, no recent antibiotic use, alcohol ingestion of 21 or more drinks within the past week, not receiving allergy shots, and patronage of several local bars. Immunization with meningococcal vaccine, past use of rifampicin, and cigarette smoking were not statistically associated with carriage. The group reporting the heaviest alcohol consumption had approximately four times greater odds of meningococcal carriage than those who abstained from drinking.

Working in the bar was found to be an even greater risk factor than being a student patron, with a dose response effect; that is, the more bar exposure a student had, the more likely the student would be a carrier.

This analysis suggests that during meningococcal outbreaks on college campuses, epidemiologists and physicians should counsel students to reduce their alcohol intake, especially binge drinking, and not to frequent the local campus bars.

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