Outbreak of Mumps on a College Campus in Cambridge, Massachusetts: The Local Perspective

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Agenda

• Background
• Interview Tips for the College Population
• Best Practices for University Protocols
• Unique Sources of Exposure
• Communication: What Worked, What Didn’t?
Interagency Coordination

<table>
<thead>
<tr>
<th>Massachusetts Department of Public Health</th>
<th>Cambridge Public Health Department</th>
<th>University Health Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Regional coordination</td>
<td>• Primary case interviews</td>
<td>• Primary clinical investigation</td>
</tr>
<tr>
<td>• Statewide communication</td>
<td>• Contact tracing</td>
<td>• Specimen collection</td>
</tr>
<tr>
<td>• Laboratory testing</td>
<td>• Local communication</td>
<td>• Isolation &amp; quarantine</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Transportation</td>
</tr>
</tbody>
</table>
Interviewing the College Population, 2016-2017

- First point of contact: email
  - Prefer not to speak over the phone
  - Will not answer calls from unknown numbers
  - Do not check voicemails or have voicemail set up
- Contact students in the afternoon, evenings, or weekends (avoid mornings)
- Be clear about time commitment
- Build trust: who gets to know what information?
- Be prepared with statistics!
- Use university as backup
Undergrad vs. Grad Students

Undergraduate Students
- Biggest isolation challenge: loneliness
- More likely to require isolation-appropriate housing from the university
- More likely to need food delivered from the dining hall during isolation
- Higher number of close contacts, but contacts are more likely to be vaccinated
- Common contact sources: roommates, athletic teams, social clubs, weekend parties

Graduate Students
- Biggest isolation challenge: academics
- More likely to already live in isolation-appropriate housing
- More likely to be able to order their own groceries/takeout during isolation
- Lower number of close contacts, but contacts are less likely to be vaccinated (babies/young children)
- Common contact sources: jobs, teaching assistant positions, medical/dental offices
University Protocols: Best Practices

- Preparing for isolation: space, meal delivery, hygiene needs, mental health needs, ensuring protocol followed
  - Daily calls from health services, meals delivered in person, cooperation of athletic/academic personnel
- Set up centralized hub of online information
- Provide tips to partygoers instead of discouraging social activities
- Put emergency management personnel in charge of logistic coordination
  - Plugged into housing, dining, facilities, environmental services, transportation, etc.
University Protocols: Overcoming Challenges

• If housing for isolation is running low, can more than one case be isolated together?
  • Yes, but only as a last resort and only if both cases are PCR+
• How much information do healthy students need to know about sick students being isolated in their buildings?
• What are some possible clinical issues we may encounter?
  • Unfamiliarity with parotid swelling and buccal swabs
  • Differing definitions of Day 0 for calculating isolation dates
  • Uncertainty with re-isolating cases who move from unilateral to bilateral swelling
Sources of Exposure & Solutions

• Social clubs: key is to provide tips, not discourage
• Athletic teams (athletes spend a lot of time together and travel frequently)
  • Cooperation of athletic administration
  • Cross-team socialization
  • Gyms: locker rooms, equipment, water fountains
• Spring break: students traveled domestically and internationally
  • Encourage students who get sick and visit a doctor out of town to still contact the university and inform physician of exposure to mumps outbreak
  • Most doctors outside of an outbreak situation won’t do the appropriate tests, suspect mumps, or send the results to MA
  • Uptick in cases after spring break: students return to parties, forget about outbreak, take fewer precautions
Communication Challenges

• Messages that got lost
  • High rate of false negatives → case definition still counts you if you have symptoms for 2+ days and have an epi-link to the outbreak population

• Vaccination:
  • You are still at risk if you have both MMRs
  • The “perpetrators” are not unvaccinated students – the university has a 98-99% vaccination rate
  • The MMR may be one vaccine, but there are different rates of effectiveness for measles, mumps, and rubella

• Decision to only report confirmed cases and not suspect cases may have led to people not taking the outbreak as seriously
Thank You!

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