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Pseudo-Outbreak of *Aspergillus niger* Reinforces Need for Consistent Infection Control Practices in Construction

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ISSUE: On December 12, 2006, Infection Control received notification from the laboratory of a possible cluster of *Aspergillus niger* sputum cultures, plated at Kaiser Permanente Fontana Medical Center involving eleven patients. This was an unusual isolate for our hospital.

PROJECT: Upon review of the positive *Aspergillus niger* cultures, it was evident that the patients were dispersed throughout the hospital. Cases were reviewed with Infectious Disease who agreed that these patients did not appear to have clinical evidence of disease. Construction was occurring at this time only in the laboratory. Infection Control and Infectious Disease inspected the laboratory with the lab supervisor. In the plating area of Bacteriology, a veil of heavy dust was found on the walls, ceiling vent and outside the laminar flow hood. Upon inspection of the construction site, the door was observed to be open to the laboratory, a slit was apparent in the gauze that covered the vent dispelling air out into the laboratory and uncovered equipment was being transferred out of the construction area. Environmental Services was asked to wet mop the entire plating area including walls. The construction supervisor was informed of positive sputum cultures and of compliance concerns involving the construction area. Construction was halted in this area until the construction crew could effectively vacuum, seal the vent and replace the sticky door mats with wet mats to absorb more dust. The supervisor also sealed the door proximal to the laboratory and instructed flow to occur through a distal door for the remaining construction period. Environmental cultures were collected. Twenty-one patient's sputum cultures were contaminated with *Aspergillus niger*. There have been no further positive *Aspergillus niger* cultures after above actions were taken. The last false positive culture occurred on December 13, 2006.

RESULTS: Case review was performed on all patients for common variables. The 21 involved patients were scrutinized for long term oral corticosteroid and recurrent oral antibiotic treatment; two were found to have a history of steroid use and one had no prior history to evaluate. Ventilator usage was 48% with 50% of these started pre-admission. There were pre-existing respiratory related issues in 62% of these patients. Infectious Disease concluded that these were false positive cultures.

LESSONS LEARNED: Construction volunteered that they had become lackadaisical with compliance regulations directly resulting in culture contamination in the plating area of Bacteriology in the laboratory. This pseudo-outbreak helped Infection Control emphasize vigilance in Infection Control practices during construction in all areas of the hospital.

Infection Prevention and Control Programs

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Implementation of Universal Precautions during Norovirus Outbreak at One County Long Term Care Facility

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ISSUE: Noroviruses are very common: they account for 93% of nonbacterial gastroenteritis reported to the Centers for Disease Control and Prevention (CDC) for which a cause is identified. Outbreaks in long-term care facilities are not uncommon. In one recent two-year period, 80% of norovirus outbreaks were in skilled nursing facilities. Taking specific steps to prevent the virus from being transmitted from person to person can control outbreaks. CONTROL OF AN OUTBREAK OF VIRAL GASTROENTERITIS 1. Interrupt person-to-person transmission; 2. Limit transmission when initial cases are suspected; 3. Institute infection control measures without waiting for diagnostic confirmation.

PROJECT: LIMIT TRANSMISSION WHEN INITIAL CASES ARE SUSPECTED:

1. Close doors to long term care nursing unit;
2. Notify medical director;
3. Place the isolation station over the entrance door to the long term care nursing unit, * Masks, gowns, gloves, hand hygiene supplies;
3. Place do not enter signs on door to the long term care nursing unit;
4. Place isolation stations over door of each symptomatic resident room;
5. Discontinue staff "floating";
6. Ask family of symptomatic residents to avoid visitation;
7. Notify the Dept of Public Health Disease Control and Prevention and Dept of Health Services Division of Communicable Disease Control in Conjunction with Licensing and Certification;
8. Begin line listing of residents who are symptomatic.

INSTITUTE INFECTION CONTROL MEASURES WITHOUT WAITING FOR DIAGNOSTIC CONFIRMATION:

1. Do not admit to the unit;
2. Do not discharge from the unit;
3. Dedicate patient care equipment to a single resident or among symptomatic residents, adequate clean and disinfect before use for another resident;
4. Exclude non-essential personnel from the affected unit;
5. Clean hands before and after glove use;
6. Wear gowns and change between each resident contact;
7. Cancel or postpone group activities;
8. Increase frequency of routine ward bathroom and toilet cleaning;
9. Use EPA approved disinfectant to disinfect surfaces;
10. Consider antiemetics for patients with vomiting;
11. Clean carpets and soft furnishings if contaminated.

RESULTS: There were 12 resident cases and 11 employee cases. Long term care unit was released from outbreak restrictions by the Dept of Public Health, Disease Control and Prevention, in 8 days. Reference: <http://www.dhs.ca.gov/ps/dcdc/> Recommendations for the Prevention and Control of Viral Gastroenteritis Outbreaks in California Long Term Care Settings; www.aboutinfectioncontrol.com, the SF Bay Area APIC Chapter website, red button RESOURCES, GI Checklist.

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Steam Sterility Assurance: It's a Process

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ISSUE: Steam sterility assurance plays an important role in the delivery of quality patient care. Sterility assurance activities in the central processing department and the operating room help reduce the possibility of cross-contamination and the risk of healthcare-acquired infections. As part of the patient-safety initiatives, prevention of surgical site infections is paramount in the overall goal for improving patient outcomes.