

Control of Norovirus Outbreak with Infection Control Practices

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PROBLEM: Noroviruses (NV) are highly contagious resulting in gastroenteritis outbreaks in healthcare facilities accompanied by increased morbidity, mortality, and healthcare costs. It is characterized by acute onset of nausea, vomiting, and/or diarrhea, with or without laboratory confirmation.

EVIDENCE: The Center of Disease Control (CDC) has published measures limiting transmission of NV.

STRATEGY: A positive NV case was reported in an acute care patient admitted from the community on 1-18-08. On 1-23-08, a nursing home patient in the same facility was confirmed NV suggesting an outbreak. Within twenty four hours, thirteen patients demonstrated symptoms of NV. CDC measures as well as other IC measures were implemented immediately to prevent transmission.

PRACTICE CHANGE: The following practices were implemented:

1. Contact Precautions for all patients exhibiting symptoms of NV.
2. Routine EPA disinfectant was changed to a 1:10 bleach solution.
3. Hand washing was enhanced.
4. Visitors were restricted from the unit.
5. Nurses were not assigned to work on other units.
6. Patient activity was limited to the unit.

EVALUATION: Effectiveness was measured by calculating attack rate on patients and staff; death rates, the total number of units affected, and the length of the outbreak in days.

RESULTS:

1. NV cases were limited to community acquired cases on acute medicine and nursing home acquired cases on only one of three units.
2. Attack rate on nursing home patients was 54% (13/24).
3. Attack rate on nurses was 52% (12/23).
4. The outbreak ended on 1/27/08, lasting nine days.
5. There were no associated deaths.

RECOMMENDATIONS:

Stringent IC practices including Contact Precautions, hand washing, environmental disinfection with bleach, restricting assignments of nurses to the sick unit, and restricting unit traffic need to be implemented immediately upon recognition of NV. These actions will prevent increased morbidity, mortality, and health care expenses.

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