Outbreak of Group A Streptococcus in a Long-Term Care Facility — Illinois, 2016

2017 CSTE Annual Conference
June 4-8, 2017
Boise, Idaho

Cluster of GAS reported in Feb-March 2016, LTCF A, Illinois

Cook County Department of Public Health
Wound Care observation

Wound Care Observation

V.A.C. (Vacuum Assisted Closure) Therapy, also known as NPWT (Negative Pressure Wound Therapy)

Muscle Stimulation Therapy
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Infection Control lapses

Total GAS cases, LTCF A, Illinois 2016

Case-Control study, LTCF A, Illinois 2016

- 15 case-residents: A patient with history of recent admission to LTCF A with a positive culture for GAS emm type 89.0

- 21 control-residents: A patient of LTCF A with a negative surveillance culture in wound, who did not develop infection at a later time.
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Characteristics of cases

- Chronic wounds
- V.A.C. and/or wound therapy
- DM, Morbid Obesity, HTN
- Gender: 59% female, 41% male
- Race: 59% AA, 41% Caucasian
- Age: Median 64 years old (48 to 82)
- # of days at Facility: Median 24 days (11 to 30)
- 57% of cases were invasive
- 2 fatalities were reported

Characteristics of controls

- Chronic wounds
- DM, Morbid Obesity, HTN
- Gender: 43% female, 57% male
- Race: 62% AA, 38% Caucasian
- Age: Median 77 years old (25 to 97)
- # of days at Facility: Median 7 days (1 to 30)
- (-) GAS culture

Case-Control study, LTCF A, Illinois 2016

<table>
<thead>
<tr>
<th>Clinical characteristic</th>
<th>Cases N=15</th>
<th>Controls N=21</th>
<th>Odds Ratio (95% confidence interval)</th>
<th>P (Fisher’s exact test)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident received wound care therapy</td>
<td>N=15 (100%)</td>
<td>N=5 (24%)</td>
<td>undefined</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Resident had VAC placement</td>
<td>N=14 (93%)</td>
<td>N=1 (4.8%)</td>
<td>280 (16.1 to &gt;999.9)</td>
<td>&lt;0.001</td>
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Environmental cultures

Building an Infection Control Program

- APIC certified nurse has been contracted
- ABHS dispensers have been installed by the door of every room and other common areas
- Biohazard bags are now available in immediate treatment or care area
- All wound care therapy devices were removed from service and replaced by new ones
- Policies for cleaning and disinfection of wound care devices had been revised and improved according to manufacturer’s recommendations
- Devoted devices for known carriers and cases
- Ongoing competency-based training
- Active surveillance
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