Carbapenem Non-susceptible Organism Incidence Report Utah, 2013

Utah Department of Health
Division of Disease Control and Prevention
Bureau of Epidemiology
Prepared by

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Carbapenem Non-Susceptible Cases in Utah, 2013

In May 2013, the Utah Department of Health updated the Communicable Disease Reporting Rule (Rule R386-702). This rule requires healthcare facilities, laboratories and providers to report laboratory identified cases of Acinetobacter, Klebsiella, and E. coli species that are carbapenem non-susceptible. All cases in this report were reported to, and investigated by, public health. Information regarding these cases was extracted from the Utah Department of Health’s electronic reporting system, and analyzed using R statistical software. Data are preliminary, are current as of March 2014, and may not reflect all cases in Utah in 2013 due to underreporting* and reporting delays.

Figure 1. Cases of carbapenem non-susceptible organisms in Utah, 2013

Table 1: Number of carbapenem non-susceptible cases by organism, Utah, 2013

<table>
<thead>
<tr>
<th>Organism</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acinetobacter</td>
<td>42</td>
<td>89.4%</td>
</tr>
<tr>
<td>E.coli</td>
<td>3</td>
<td>6.4%</td>
</tr>
<tr>
<td>Klebsiella</td>
<td>2</td>
<td>4.2%</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>100%</td>
</tr>
</tbody>
</table>

*Updated reporting rule went into effect on May 15, 2013. Many, but not all, facilities voluntarily reported MDROs prior to this date.
Carbapenem Non-Susceptible Cases in Utah, 2013

Public health investigation of cases includes hospitalization and morbidity information. The majority of cases with these organisms were hospitalized. Table 2 depicts the number of hospitalized cases.

Table 2: Number of reported hospitalized carbapenem non-susceptible cases, Utah, 2013

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>39</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Percent</td>
<td>83%</td>
<td>10.6%</td>
<td>6.4%</td>
</tr>
</tbody>
</table>

Table 3 describes the number of cases that expired. Mortality data for cases with these organisms were not always available at the time of reporting or investigation. Information on mortality was available for 20 identified and investigated cases. Of those 20 cases, five were known to have died at the time of investigation.

Table 3: Number of reported deaths among carbapenem non-susceptible cases, Utah, 2013

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>5</td>
<td>15</td>
<td>27</td>
</tr>
<tr>
<td>Percent</td>
<td>10.7%</td>
<td>31.9%</td>
<td>57.4%</td>
</tr>
</tbody>
</table>

Figure 2 depicts case counts by county. Counties with larger populations will naturally have a greater number of cases. Consequently, larger case counts are not necessarily indicative of a higher incidence rate.

Figure 2. Carbapenem non-susceptible case counts by county, Utah, 2013