Evaluation of Cost Savings with the Addition of a Matrix Assisted Laser Desorption Ionization-Time of Flight Machine (MALDI-TOF) at a Tertiary Hospital

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**Methods**

- A report was generated with the total number of organisms identified at St. Cloud Hospital between July 2016 and June 2017. A microbiology technical specialist identified the cost of supplies utilizing current methods of identification within the microbiology lab and obtained a report regarding the total cost of send out identifications during the time period. A previous study was utilized to identify the projected cost of supplies when using a MALDI-TOF. Costs were compared between the two methods using the following calculations.

$$\text{cost savings} = \text{total expenses of current method} - \text{total expenses of MALDI – TOF}$$

$$\% \text{ cost savings} = \left( \frac{\text{cost savings}}{\text{total expenses of current method}} \right) \times 100\%$$

**Results**

<table>
<thead>
<tr>
<th></th>
<th>Number of organisms in house</th>
<th>Cost of supplies per test</th>
<th>Number of organisms sent out</th>
<th>Send out costs</th>
<th>Total expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Method</strong></td>
<td>3096</td>
<td>$3.603</td>
<td>182</td>
<td>$16,004.45</td>
<td>$27,242.93</td>
</tr>
<tr>
<td><strong>MALDI-TOF</strong></td>
<td>3278*</td>
<td>$0.43</td>
<td>0</td>
<td>0</td>
<td>$1,409.54</td>
</tr>
</tbody>
</table>

*number includes organisms that were sent out for identification that could be identified in house if using MALDI-TOF

**Conclusion**

- Based on the cost of supplies to identify an organism, the MALDI-TOF has an estimated savings of 94.8% over current methods utilized at St. Cloud Hospital.

**References**


**Disclosure**

- Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation

Hannah Packer: Nothing to Disclose
Ann Wigton: Nothing to Disclose