Mitigating Surgical Site Infection Risks via Thermal Regulating Modalities

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Problem

Forced-air warmers (FAW) are used in the operating room to manage hypothermia. Recent evidence suggests an association between the use of FAWs and surgical site infections, especially in patients undergoing general, orthopedic, and vascular procedures.

Methods

An educational PowerPoint was conducted, with the objective of helping ADU SRNAs understand the infection risk associated with FAWs and offering recommendations to safely decrease the infection risks while preventing hypothermia perioperatively. A pre-test and a post-test were conducted before and after the presentation to evaluate for increased knowledge base.

Analysis & Conclusions

Paired sample tests from the pre-test and the post-test showed that percentage scores significantly increased knowledge by 26.8.

<table>
<thead>
<tr>
<th>Paired Samples Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Pre-Test</td>
</tr>
<tr>
<td>Post-Test</td>
</tr>
</tbody>
</table>

Paired Samples Test

<table>
<thead>
<tr>
<th>Paired Differences</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Test - Post-Test</td>
<td>26.8000</td>
<td>18.78341</td>
<td>2.665637</td>
<td>-32.13818 - 86.73818</td>
</tr>
</tbody>
</table>

The F test demonstrated that there was significantly less variance in the post-test percentage scores compared to the pre-test scores (p<0.001).

Findings

These results suggest that the educational PowerPoint presentation successfully helped the ADU SRNAs expand their knowledge of risks associated with FAWs and SSIs.

Potential Implications:
1. Applied = improve patient outcomes.
2. Cost savings.
3. Educate colleges.
4. Advocate for safer modalities.

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- Chair of the Scientific Review Committee for ADU: Roy Lukman, PhD, ADU Research Department

References: Available upon request