Clinical Question: The concern you have about your nursing unit or area of practice:

Would consistently using a wound protector prevent surgical site infections (SSI) in post-op patients during general surgery cases?

<table>
<thead>
<tr>
<th>P: Surgical Patients</th>
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<tbody>
<tr>
<td>I: Using wound protectors</td>
</tr>
<tr>
<td>C: Not using wound protectors</td>
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<tr>
<td>O: SSI rate with wound protector use.</td>
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</tbody>
</table>

*Due February 28th with signed approval by leader/manager PICO(t) topic*

Discussed with and Approved by Nurse Leader

Print_________________________ Signature_________________________ Date_______

Additional notes:

Search terms:

Evidence: Summarize key findings and cite (APA format) – three sources

The article *Wound Edge Protectors in Open Abdominal Surgery to Reduce Surgical Site Infections: A Systematic Review and Analysis* written by A. L. Mihaljevic, T. C. Muller, V. Kehl, H. Friess, & J. Kleeff (2015) discusses how SSIs in open abdominal cases are a common cause of death and complication in patients. Endogenous pathogens from the patient are the most frequent causes of contamination and infection in surgical sites during abdominal surgeries. These contaminants are either found on the skin or in the gastrointestinal tract. Wound protectors work as a barrier to effectively protect the surgical site. Wound protectors, especially the double-edged or ringed devices, were effective in dramatically reducing the infection rate of surgical sites and were recommended, unless the case had a wound classification of dirty.

This study compared plastic wound protector use in the operating room to not using wound protectors during laparoscopic-assisted colectomies. The patients with wound protectors used during their operation experienced more complications from adhesions and uroschisis post-operative. “In the non-wound protector group, the most common complication was wound infection. Therefore the wound infection rates were significantly lower in the wound protector group compared to the non-wound protector group, while there were no differences in other complications.” They stated that they were simple, user friendly, and cheap to use.


“This systematic review of 4,229 patients involved in 19 RCTs provides some evidence that SSI is reducing by using ring retractors...The incision classification sub-group analysis suggests that retractors may be more effective in relation to the degree of contamination. Contaminated and dirty procedures showed more benefits from using ring retractors than did the clean and clean contaminated procedures, but the numbers are small.” The article suggests that ring retractor devices lower the SSI rates in abdominal surgery, but recommends more research due to the quality of the studies that were examined in this review.


**Conclusion/Recommendations:**

Using wound protectors during abdominal surgeries is an effective way to reduce SSIs and provide improved and safe patient care.

**Ideas/suggestions for next steps:**
Talk to my manager at our next meeting about discussing with the surgeons the importance of adding wound protectors to the case cards and opening devices with all applicable open abdominal cases.

Identify your collaborative partners if you were to follow this through to next steps:

N/A

*Due April 30th completed template (scan to brenda.monnot@ascension.org)*