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Using Bacteria Binding Dressing with NPWT in an Acute Hospital to Heal Abdominal Dehiscence Wound.

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Background:

Mr KL is 78 years of age with pancreatic cancer. Treated with Whipple procedure (pancreaticoduodenectomy) complicated by abdominal wound dehiscence and intra-abdominal wound collection/ sepsis. Post-surgical wound dehiscence are often complicated wounds subject to delayed wound healing due to bioburden and local pressure.

Wound Management (progress)

Initially a NPWT dressing was applied combined with an antimicrobial bacteria & fungi binding dressing used as the contact layer. The Bacteria binding dressing helped protect the wound bed from the foam filler, manage the bioburden and assisted in removal of slough.

After 8 weeks the NPWT was discontinued and Bacteria binding dressing was continued to be used with a foam dressing to manage the exudate.

Outcomes:

The wound prior to the use of Bacteria binding dressing and NPWT was 17.3cm x 7.2cm and 4cm Depth.



At 4 weeks the wound had reduced to 9.2cm x 3cm and 0.5cm Depth.



At 8 weeks NPWT was discontinued. Sorbact was in use for the entire period including after discharge and after NPWT was discontinued.



At 14 weeks the wound was almost fully healed.



Conclusion:

In contrast to commonly used antimicrobial dressings (e.g. Silver) Bacteria binding dressings release no chemically active agents into the wound. It works by a physical mode of action – hydrophobic interaction, binding and removing bacteria and fungi from the wound¹. Therefore, it can be used as prevention in wounds that are at risk of infection or re-infection, and throughout the entire healing process in wounds that are infected. Bacteria & Fungi binding dressings can be used without restrictions (there are no known contra-indications) and is cost effective in use.

References:

1. Ljungh A, et al. Using the principle of hydrophobic interaction to bind and remove wound bacteria. *J Wound Care* 2006; 15(4):175-180.