

Clinical Evidence Supporting Pressure Dressings to Reduce Hematoma and Infection Risk After CIED Implantation

1. Pressure dressings are recommended to reduce hematoma risk, which is directly linked to device infection.

“Given the association between postprocedural hematoma formation and the increased risk of CIED infection, strategies to prevent postoperative hematomas have been recommended, which include the placement of pressure dressings...”

Journal of Innovations in Cardiac Rhythm Management, 2020.

2. Pocket hematoma increases the risk of infection more than 7-fold.

“We show for the first time in a prospective study with adjudicated objective endpoints that there is a clear and strong association between significant pocket hematomas and subsequent infection. Patients with [clinically significant hematomas] had more than a 7-fold subsequent risk of serious device infection.”

Journal of the American College of Cardiology, 2016 (BRUISE CONTROL INFECTION trial).

3. Hematoma prevention is central to infection risk reduction per AHA guidelines.

“Postprocedure pocket hematoma is associated with a significantly increased risk of infection... Efforts to prevent hematoma formation, such as... pressure dressings after skin closure, were described in the previous guideline.”

AHA Scientific Statement on CIED Infection Prevention, 2023.

4. EHRA international consensus recommends pressure dressing for hematoma prevention.

“Pressure dressing may be used for the first 24 h to avoid haematoma.”

EHRA International Consensus Document on CIED Infection Prevention, Europace 2020.

5. National study shows hematoma doubles in-hospital mortality and raises costs by 42%.

“Patients who developed a pocket haematoma had a longer length of stay (8.7 vs. 4.8 days), higher hospitalization costs (\$48,815 vs. \$34,324), and higher in-hospital mortality (2.0% vs. 0.7%) compared with patients who did not.”

Europace, 2015 (Nationwide Inpatient Sample Analysis)

