

Meta-Analysis Indicates Hydrofiber® Dressings May Lower Post-Operative Infection Risks for Patients After Total Joint Arthroplasty

Study Details:

The effect of wound dressings on infection following total joint arthroplasty (TJA). Chen, Kevin J, MA, Elbuluk, Ameer M, BA, Vigdorichik, Jonathan M, MD, Long, William J, MD, FRSC, Schwarzkopf, Ran, MD, MSC. *Arthroplasty Today* 4 (2018) 125-129.

Department of Orthopaedic Surgery, NYU Langone Medical Center's Hospital for Joint Diseases, New York, New York

This meta-analysis was conducted independently without industry sponsorship.

Overview:

- **Reported Incidence of Surgical Site Infection:** Total joint arthroplasty (TJA) infections are reported in 0.3% to 2.5% of patients who undergo total knee arthroplasty (TKA) and in nearly 1% of those who undergo total hip arthroplasty (THA).
- **Infection Rates Increase Morbidity:** Post-operative infections in TKA and THA account for increased morbidity. Infections were responsible for 25.2% of revisions performed in TKA and were the third most common cause of revision in THA (14.8%) in the United States.

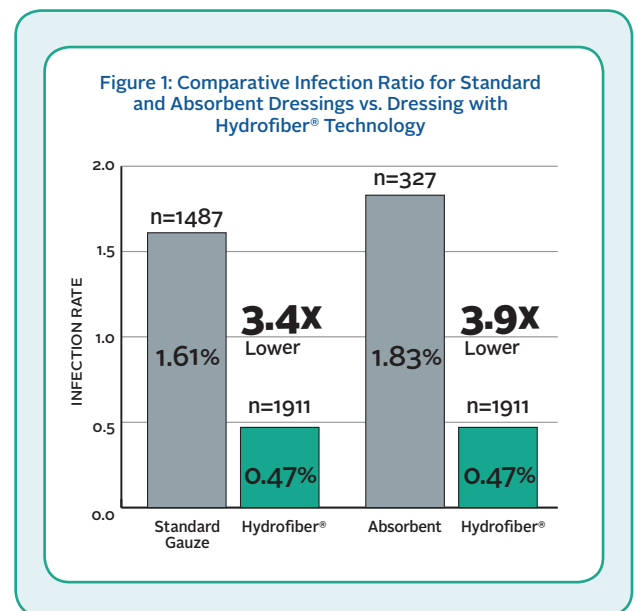
Methods and Results:

Researchers conducted a systematic review of the existing literature published between 2006 and 2016 on THA and TKA surgery and associated rates of post-operative infection and types of dressings used. Three dressing types were compared:

- Standard gauze
- Dressings with Hydrofiber® Technology (e.g., AQUACEL® Ag Surgical, ConvaTec Inc.)
- Absorbent dressings

Hydrofiber® Technology Significantly Reduces Risk of Infection:

Analysis of the studies revealed that the rate of infection was approximately 3.4 times lower for patients treated with Hydrofiber® Technology compared with standard wound dressings and 3.9 times lower compared with absorbent dressings (Figure 1).



Discussion:

Even though the rate of infection after TJA is low, the increased morbidity and financial burden on the healthcare system makes each case a great concern. Although there are limitations in conducting a literature search on this topic because studies may vary in focus and methods, the current literature indicates that dressings with Hydrofiber® Technology can help reduce this infection risk.

Conclusion:

This analysis suggests that dressings with Hydrofiber® Technology (silver and non-silver) may be significantly better than both standard gauze and absorbent dressings in reducing associated post-operative infections in patients after TJA, thereby helping healthcare professionals control costs and improve outcomes for patients.