The Use of an Iodophor-Impregnated Plastic Incise Drape in Abdominal Surgery: A Controlled Clinical Trial


**Purpose**

The purpose of this study was to conduct a prospective randomized trial comparing the efficacy of 3M™ Ioban™ 2 Antimicrobial Incise Drapes to a standard skin preparation technique in abdominal surgeries. The primary endpoints of the study were bacterial wound contamination and wound infection rates.

**Methods**

Abdominal surgery patients were randomly assigned to either receive the Ioban drape or enter the control group, (receive no Ioban drape). All patients were given a routine skin prep consisting of an iodophor antiseptic followed by alcohol. The Ioban drape was then applied to those patients designated to the test group. At completion of the operative procedure, and following closure of the deep fascia, a bacterial swab sample was taken and cultured for aerobic and anaerobic organisms.

**Results**

- A total of 1,016 abdominal patients completed the trial.
- Wound infection rates were not found to be significantly different between the two study groups.
- Wound contamination occurred in 6.2% of patients draped with Ioban drapes compared with 10.3% of all wounds without the drape ($P<.03$).
- In clean wounds (219 patients total) there was a significant difference in wound contamination. Contamination occurred in 9.1% of the patients draped with Ioban drapes compared with 16.2% of the patients without drapes ($P<.05$). (See Figure 21).

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**Figure 21**

![Wound Contamination Chart]

- Wound Contamination Rate (%)
- Wound Classification
  - No drape used (disinfected skin)
  - 3M™ Ioban™ 2 Antimicrobial Incise Drape (sterile surface)

* Significant difference $P<.05$ Chi-square