

POSTER PRESENTATION

Open Access

Safety of non-woven polypropylene surgical adhesive drapes to prevent wound infection

A Jeurissen*, R Hendrickx, K Beesemans, A Van Thielen, V Cossey, A Schuermans

From International Conference on Prevention & Infection Control (ICPIC 2011)
Geneva, Switzerland. 29 June – 2 July 2011

Introduction / objectives

Wound infections caused by intra-operative contamination can be a major problem in surgery. The passage of bacteria through drapes is a potential source of wound infection. In this study we aimed to test the bacterial penetrability of 6 brands of non-woven polypropylene drapes.

Methods

Six brands of disposable non-woven polypropylene drapes were tested. A latex glove was used as a negative control and a woven cotton drape was used as a positive control. For each drape, a rodac plate was inoculated with 10^5 colony-forming units / ml of *Staphylococcus aureus* ATCC strain 6538 and incubated at 37°C for 24 h to obtain confluent growth. Thereafter, each drape was placed between the incubated rodac plate and an inverted rodac plate with a weight of 400 gram placed thereon for 30 minutes. Subsequently, the inverted rodac plate was incubated for 24 h at 37°C and inspected for growth of *S. aureus*.

Results

The latex glove was totally impermeable, in contrast to the woven cotton drape which revealed heavy growth after 30 minutes. All the drapes made from non-woven polypropylene were impermeable.

Conclusion

Although bacterial penetration through surgical drapes can be time dependent, we here show that polypropylene non-woven drapes were impenetrable at 30 minutes. We therefore recommend the use of non-woven polypropylene drapes in surgical procedures

Disclosure of interest

None declared.

Published: 29 June 2011

doi:10.1186/1753-6561-5-S6-P190

Cite this article as: Jeurissen et al.: Safety of non-woven polypropylene surgical adhesive drapes to prevent wound infection. *BMC Proceedings* 2011 5(Suppl 6):P190.

Submit your next manuscript to BioMed Central
and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at
www.biomedcentral.com/submit

 BioMed Central

*Hospital hygiene and infection control, Uzz Gasthuisberg, Leuven, Belgium