Which hair removal policy in the surgical setting?

The following questions were answered by a systematic review of the literature:
1) Is no preoperative hair removal superior to preoperative hair removal in the prevention of surgical site infection?
2) Is hair removal the morning of surgery superior to hair removal the night before surgery in the prevention of surgical site infection?
3) Is preoperative hair removal by clipper superior to preoperative hair removal by razor in the prevention of surgical site infection?
4) Is preoperative hair removal by cream superior to preoperative hair removal by razor in the prevention of surgical site infection?
5) Is preoperative hair removal by clipper superior to preoperative hair removal by cream in the prevention of surgical site infection?
This review is accepted for publishing in the journal 'Infection Control and Hospital Epidemiology' in 2005.

The evidence on hair removal policies in clean surgery ─ a systematic review of randomised controlled trials

B.S. Niël-Weise, J.C. Wille, P.J. van den Broek

Abstract

Objective
To determine whether certain hair removal policies are better than others in terms of prevention of surgical site infections in patients undergoing clean surgery.

Methods
Publications were retrieved by a systematic search of Medline, the Cochrane Library and Embase up to February 2005. Additionally, the reference lists of all identified trials were examined. All randomised trials, quasi-randomised trials and systematic reviews/meta-analyse of randomised or quasi-randomised trials comparing different hair removal policies in clean surgery were selected. Trials that studied patients with cranial neurosurgery were excluded. Two reviewers independently assessed trial quality and extracted data. Disagreements were resolved by discussion with the third reviewer. Data from the original publications were used to calculate the relative risk or risk difference of surgical site infection. Data for similar outcomes were combined in the analysis where appropriate, using a random-effects model.

Results
Four trials were included in the review. No eligible systematic review/meta-analysis of randomised or quasi-randomised trials was found. The quality of the trials and the way they were reported were generally unsatisfactory. The evidence whether preoperative hair removal has any effect is inconclusive. Where hair removal is considered necessary, the evidence about the best moment to remove hair is

inconclusive. There was some evidence that hair removal by means of a clipper is superior to hair removal by means of a razor.

Conclusion

Because of insufficient evidence as a basis for recommendations, the practical consequences on ward management played an essential part when the Dutch Working Party on Infection Prevention (WIP) formulated their recommendations on hair removal policies. There is a need for large randomised controlled trials to determine the optimal preoperative hair policy.