INFECTION Preoperative preparation

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A short preoperative hospital stay lowers the risk of acquiring MRSA, multidrug-resistant coagulase-negative staphylococci and other antibiotic-resistant organisms from the hospital environment. Medical and nursing sta ff should always wash their hands after any patient contact. Hand gels containing at least 70% alcohol can act as a substitute for handwashing, but do not destroy the spores of C. di ff ., which may cause pseudo- membranous colitis, especially in immunocompromised patients or those whose gut flora is suppressed by antibiotic therapy . Although the need for clean hospitals, emphasised by the media, is logical, the ‘clean your hands campaign’, particu larly in the COVID-19 era, is beginning to result in falls in the incidence of HAIs. Sta ff with open, infected skin lesions should not enter the operating theatres. Ideally , neither should a ff ected patients, especially if they are having a prosthesis implanted. Antiseptic baths (usually c hlorhexidine) are popular in Europe, but there is no hard evidence for their value in reducing wound infections. Preoperative skin shaving should be undertaken in the operating theatre immediately before surgery as the SSI rate after clean wound surgery may be doubled if shaving is performed the night before because minor skin injury enhances superficial bacterial colonisation. Scrubbing and skin preparation When washing the hands prior to surgery , dilute alcohol-based antiseptic hand soaps such as chlorhexidine or povidone– iodine should be used, and the scrub should include the nails (Figure 5.1) . One application of a more concentrated alcohol-based antiseptic is adequate for skin preparation of the operative site. This leads to a >95% reduction in bacterial count but caution should be taken not to leave a pool of alcohol-based fluid on the skin as it could ignite with diather my and burn the patient (Figure 5.1) . Theatre technique and discipline also contribute to low infection rates. Numbers of sta ff in the theatre and movement in and out of theatre should be kept to a minimum. Careful and regular surveillance is needed to ensure the quality of ment sterilisation, aseptic technique and theatre ventilation. Laminar flow systems direct clean, filtered air over the operat ing field, with any air potentially contaminated as it passes over the incision then directed away from the patient. Operator skill in gentle manipula tion and dissection of tissues is much more di ffi cult to audit, but dead spaces and haematomas should be avoided. T here is no evidence that drains, incision drapes or wound guards help to reduce wound infection. There is a high level of evidence that both the perioperative avoidance of hypothermia and the use of supplemental oxygen during recovery significantly reduce the rate of SSIs. INFECTION Preoperative preparation

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Revision #1
Created 2025-12-31 15:18:38 UTC by Omar Ayman
Updated 2025-12-31 15:18:38 UTC by Omar Ayman