SURGICAL SITE INFECTION: WHERE ARE WE TODAY?

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Surgical site infection (SSI) is the most preventable of the Health Care Associated Infections (HCAIs) yet its prevalence has not declined over the last 5-10 years despite the international introduction of guidelines, protocols and high impact interventions which embrace level I evidence based medicine.

This evidence base includes rational antibiotic prophylaxis, avoidance of perioperative inadvertent hypothermia, appropriate preoperative hair removal as well as less clear factors such as screening and suppression of MRSA/MSSA; preoperative showering; skin preparation; management of blood glucose levels in non-diabetics; supplemental oxygen; use of impregnated incise drapes; and postoperative wound management and use of surgical dressings.

There are several reasons for the persistently high SSI prevalence;

i. Poor definitions. Many of these were devised decades ago without statistical modelling. None has been validated and the inter-rater variance is high

ii. Poor surveillance. Unless this is undertaken by an independent, unbiased, trained observer with intensive post discharge surveillance up to 75% of SSIs can be missed

iii. Compliance. This is the largest likely contributor to high SSI rates. Without reassurance that guidelines have been enacted then they are likely to fail in preventing SSIs. Estimates of non-compliance are greater than 50%.