Ensure that the patient’s body temperature is maintained above 36°C in the perioperative period (excludes cardiac patients)

What is recommendation based on

For most SSIs, the source of the invading pathogen is thought to be the patient’s skin. Consequently, optimisation of preoperative skin antisepsis is required to decrease postoperative infections. The focus of this intervention is the removal of both the transient and resident flora on the skin. Although transient microorganisms can be readily removed by soap and water, the use of antiseptics is required to remove the resident flora prior to surgery. This can involve the use of antiseptics such as chlorhexidine and povidone-iodine. The antimicrobial activity of different antiseptics needs to be considered as there may be a requirement for a residual action to provide additional protection during the surgical procedure itself. Chlorhexidine is known to have a persistent effect and combined with alcohol which is fast drying make 2% chlorhexidine in 70% isopropyl alcohol a suitable product. The National Institute of Health and Clinical Excellence (NICE) guideline recommends that the site is prepared immediately prior to incision using a suitable antiseptic such as chlorhexidine or povidone iodine.

The DH high impact intervention, states that ‘Patient’s skin has been prepared with 2% chlorhexidine gluconate in 70% isopropyl alcohol solution and allowed to air dry. (If the patient has a sensitivity povidone-iodine application is used). On reviewing the background evidence, this recommendation is based on evidence from Darouiche et al ‘Chlorhexidine–Alcohol versus Povidone–Iodine for Surgical-Site Antisepsis’. In this study a total of 849 subjects (409 in the chlorhexidine–alcohol group and 440 in the povidone–iodine group) were involved with the overall rate of SSI being significantly lower in the chlorhexidine–alcohol group than in the povidone-iodine group. The suitability and benefits of using 2% chlorhexidine gluconate in 70% isopropyl alcohol solution have also been demonstrated in other studies.
It is concluded therefore that this is a key recommendation to minimise SSI. The recommendation given results from all evidence considerations and after applying the framework described in Appendix 2.

References:


(33) Maiwald M, Widmer AF, Rotter ML. Chlorhexidine is not the main active ingredient in skin antiseptics that reduce blood culture contamination rates. Infect Control Hosp Epidemiol 2010 Oct;31(10):1095-6.


### Recommendation for review
Ensure that the patient’s body temperature is maintained above 36°C in the perioperative period (excludes cardiac patients)

### Grade of recommendation (based on review of evidence)
Category 1A

### Health impact contribution (based on Healthcare Quality Strategy for NHSScotland)
- **Safe:** Not implementing this recommendation may put the patient at risk of harm
- **Effective:** This recommendation reduces the risk of infection complications occurring
- **Efficient:** This recommendation fits within the natural flow of perioperative patient care
- **Equitable:** This recommendation promotes a standard of perioperative care for all patients that may result in avoidable personal and NHS costs
- **Timely:** This recommendation fits with the natural flow of perioperative patient care
- **Person Centred:** This is a person centred action to reduce harm; in every patient receiving surgery

### Expert opinion/consultation and practical considerations
<table>
<thead>
<tr>
<th>Measurement and feedback (Y/N/?</th>
<th>Feasibility and sustainability (Y/N/?)</th>
<th>Applicability and reach (Y/N/?)</th>
<th>Training and informing (Y/N/?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential for measurement through e.g. observation</td>
<td>Easily implemented within current culture and will improve the quality of care now</td>
<td>Stealth integration into natural workflow/logical clarity of concept (also see Cause &amp; Effect Chart)</td>
<td>Unambiguous</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>?</td>
</tr>
</tbody>
</table>

### Is this a key recommendation?
Yes