



AB203. SOH22ABS104. The implementation of novel heating devices to reduce the incidence of perioperative hypothermia in adult surgical patients: a quality improvement project

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Background: Perioperative hypothermia is one of the most common phenomena seen amongst surgical patients, leading to numerous adverse outcomes such as increased blood loss, perioperative cardiac events, delayed wound healing, longer hospital stay, unanticipated admission to high dependency units and reduced patient satisfaction. The Australian health system estimates costs associated with hypothermia to be \$1,259,725,856/annum. All major advisory bodies, including The National Institute for Health and Care Excellence (NICE) and World Health Organisation (WHO), have strongly recommended the maintenance of intraoperative normothermia during surgery.

Methods: We have introduced a novel heating system, by means of an under-body resistive mattress, in three operating theatres at University Hospital Limerick. The mattress provides safe and controlled warming to assist in the maintenance of normothermia. As it is re-usable, energy efficient, easily cleaned and relatively silent, it has been promoted as a more cost-effective and practical alternative to forced-air warming.

Results: This is a quality improvement project which commenced in July 2021. At three months post-introduction of the new heating blankets, we conducted an audit, over a 2-week period, to evaluate the benefit of their implementation. Data points collected include: Temperature

assessment intra-operatively. Use of conventional and/or new heating equipment. Temperature assessment in Post Anaesthesia Care Unit (PACU). Results show patients, in whom an under-body warming mattress was applied, had zero incidence of postoperative hypothermia (below 35 degrees Celsius). A breakdown of results will be presented.

Conclusions: By implementing this superior warming method, into the operating theatres, the incidence of perioperative hypothermia and its associated patient morbidity is reduced.

Keywords: Cost-effective; hypothermia; perioperative; under-body; warming mattress

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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