

Intercollegiate Green Theatre Checklist



Below are a list of recommendations to reduce the environmental impact of operating theatres. All the relevant guidance and published evidence has been included in the Compendium of evidence, accessed via the QR code:

Anaesthesia

- 1 Consider local/regional anaesthesia where appropriate (with targeted O₂ delivery only if necessary)
- 2 Use TIVA whenever possible with high fresh gas flows (5-6 L) and, if appropriate, a low O₂ concentration
- 3 Limit Nitrous Oxide (N₂O) to specific cases only and if using:
 - ▶ check N₂O pipes for leaks or consider decommissioning the manifold and switching to cylinders at point of use;
 - ▶ introduce N₂O crackers for patient-controlled delivery.
- 4 If using inhalational anaesthesia:
 - ▶ use lowest global warming potential (sevoflurane better than isoflurane better than desflurane);
 - ▶ consider removing desflurane from formulary;
 - ▶ use low-flow target controlled anaesthetic machines;
 - ▶ consider Volatile Capture Technology.
- 5 Switch to reusable equipment (e.g. laryngoscopes, underbody heaters, slide sheets, trays)
- 6 Minimise drug waste (*"Don't open it unless you need it"*, pre-empt propofol use)

Preparing for Surgery

- 7 Switch to reusable textiles, including theatre hats, sterile gowns, patient drapes, and trolley covers
- 8 Reduce water and energy consumption:
 - ▶ rub don't scrub: after first water scrub of day, you can use alcohol rub for subsequent cases;
 - ▶ install automatic or pedal-controlled water taps.
- 9 Avoid clinically unnecessary interventions (e.g. antibiotics, catheterisation, histological examinations)

Intraoperative Equipment

- 10 REVIEW & RATIONALISE:
 - ▶ surgeon preference lists for each operation - separate essential vs. optional items to have ready on side;
 - ▶ single-use surgical packs - what can be reusable and added to instrument sets? what is surplus? (request suppliers remove these);
 - ▶ instrument sets - open only what and when needed, integrate supplementary items into sets, and consolidate sets only if it allows smaller/fewer sets (please see guidance).
- 11 REDUCE: avoid all unnecessary equipment (eg swabs, single-use gloves), *"Don't open it unless you need it"*
- 12 REUSE: opt for reusables, hybrid, or remanufactured equipment instead of single-use (e.g. diathermy, gallipots, kidney-dishes, light handles, quivers, staplers, energy devices)
- 13 REPLACE: switch to low carbon alternatives (e.g. skin sutures vs. clips, loose prep in gallipots)

After the Operation

- 14 RECYCLE or use lowest carbon appropriate waste streams as appropriate:
 - ▶ use domestic or recycling waste streams for all packaging;
 - ▶ use non-infectious offensive waste (yellow/black tiger), unless clear risk of infection;
 - ▶ ensure only appropriate contents in sharps bins (sharps/drugs);
 - ▶ arrange metals/battery collection where possible.
- 15 REPAIR: ensure damaged reusable equipment is repaired, encourage active maintenance
- 16 POWER OFF: lights, computers, ventilation, AGSS, temperature control when theatre empty

DISCLAIMER: These suggestions are based upon current evidence and broadly generisable, however, specific environmental impacts will depend upon local infrastructure and individual Trusts' implementation strategies.