

Quality Improvement Audit – Use of Iodophor-Impregnated Incise Drapes in Orthopaedic Trauma Surgery

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Type	QIP
Specialty	orthopaedics
Trust	Princess Royal University Hospital (King's College Hospital NHS FT)
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Background

Surgical site infection (SSI) following dynamic hip screw (DHS) fixation or femoral intramedullary nailing is associated with significant morbidity, prolonged hospital stay, and risk of re-operation. NICE guidance (2008) specifically recommends against the routine use of non-iodophor-impregnated incise drapes, and mandates the use of iodophor-impregnated incise drapes when an incise drape is required, with the exception of documented iodine allergy. Observational review at PRUH orthopaedic trauma theatres identified variable use of iodophor drapes across DHS and IM nailing procedures, with non-iodophor drapes frequently used despite the absence of documented iodine allergy. PubMed evidence and meta-analyses confirm that iodophor drapes reduce incision-site contamination compared with plain plastic drapes. This QIP aimed to establish baseline compliance and implement practice improvements.

Aims

To achieve $\geq 95\%$ compliance with NICE guidance on iodophor-impregnated incise drape use during DHS and femoral IM nailing procedures at PRUH, and to implement sustainable practice improvements using a PDSA cycle approach.

Objectives

1. Audit baseline iodophor drape compliance across DHS and IM nail cases (August–September 2025). 2. Document rate of iodine allergy and confirm appropriate exemptions. 3. Identify barriers to iodophor drape use including stock availability and team awareness. 4. Implement PDSA cycle: standardise stock, deliver team education, add WHO checklist item. 5. Display reminder posters and tray labels in orthopaedic theatres. 6. Re-audit compliance following intervention to assess improvement.

Guidelines

NICE Clinical Guideline – Surgical Site Infection Prevention (2008): Recommendation 1.3.3 – Do not use non-iodophor-impregnated incise drapes routinely; Recommendation 1.3.4 – Use iodophor-impregnated drapes when an incise drape is required, unless the patient has an iodine allergy.

Keywords

iodophor drape, incise drape, surgical site infection, SSI, NICE, DHS, dynamic hip screw, IM nail, intramedullary nail, theatre, infection prevention, QIP, PDSA, PRUH, orthopaedic trauma