NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

SCOPE

1 Guideline title

Surgical site infection: prevention and treatment of surgical site infection

1.1 Short title

Surgical site infection

2 Background

1. The National Institute for Health and Clinical Excellence ('NICE' or 'the Institute') has commissioned the National Collaborating Centre for Women's and Children's Health to develop a clinical guideline on surgical site infection for use in the NHS in England and Wales. This follows referral of a guideline topic on the prevention; management and treatment of wounds by the Department of Health and Welsh Assembly Government (see appendix). The guideline will provide recommendations for good practice that are based on the best available evidence of clinical and cost effectiveness.

1. The Institute's clinical guidelines will support the implementation of National Service Frameworks (NSFs) in those aspects of care where a Framework has been published. The statements in each NSF reflect the evidence that was used at the time the Framework was prepared. The clinical guidelines and technology appraisals published by the Institute after an NSF has been issued will have the effect of updating the Framework.

1. NICE clinical guidelines support the role of healthcare professionals in providing care in partnership with patients, taking account of their individual needs and preferences, and ensuring that patients (and their

carers and families, where appropriate) can make informed decisions about their care and treatment.

3 Clinical need for the guideline

Surgical site infection (SSI) is a postoperative complication following a surgical procedure. It is an important cause of morbidity and mortality for patients undergoing surgery and significantly increases costs of treatment. The Third National Prevalence Survey of Infections in Hospitals (2006) reported an overall prevalence of health care associated infection of 8.2%. 13.8% of this was attributable to SSI. Furthermore, surveillance of SSI in English hospitals between 1997 and 2001 reported an incidence of 4.2% from the 152 hospitals that participated. However, definitions and variation in post-discharge surveillance are critical to the accuracy of these figures.

Patient-related factors and operation characteristics influence the risk of SSI development. The assessment and identification of the presence of these factors facilitates both surveillance and the implementation of targeted prevention measures. In addition, the incidence of infected surgical wounds may be influenced by factors such as preoperative care, the operating room environment, postoperative care, type of surgery, and care in the community.

Treatment of SSI should be directed by patient factors, operation characteristics, empirical signs and symptoms and local microbiological surveillance.

4 The guideline

a) The guideline development process is described in detail in two publications that are available from the NICE website (see ‘Further Information’). ‘The guideline development process: an overview for stakeholders, the public and the NHS’ describes how organisations

can become involved in the development of a guideline. ‘The guidelines manual’ provides advice on the technical aspects of guideline development.

b) This document is the scope. It defines exactly what this guideline will (and will not) examine, and what the guideline developers will consider. The scope is based on the referral from the Department of Health and Welsh Assembly Government (see appendix).

c) The areas that will be addressed by the guideline are described in the following sections.

4.1 Population

i. Groups that will be covered

All patients, both adults and children, undergoing surgical incisions through the skin. This includes minimally invasive surgery (arthroscopic, thoracoscopic and laparoscopic surgery). Incisional infections up to 30 days post initial procedure will be covered.

ii. Groups that will not be covered

Patients undergoing a surgical procedure that does not involve a visible surgical incision, and therefore does not result in the presence of a conventional surgical wound, for example, vaginal hysterectomy, transurethral resection of the prostate and oral surgery. In addition, procedures involving intravascular catheters, shunts, endoscopy and pin sites will not be covered.

4.2 Healthcare setting

Patients undergoing surgical procedures in both acute hospital trusts and primary healthcare settings.

4.3 Clinical management

The recommendations in this guideline will be clinically focused and take into account important cost-effectiveness issues on the prevention and treatment of SSI.

a) Definition of surgical site infection

b) When to use antibiotic prophylaxis for surgical procedures

c) Preoperative factors including assessment of patient risk factors and surgical preparation

d) Peri-operative factors including:

- patient risk factors
- skin preparation, topical solutions and methods of closure
- factors relating to the healthcare worker / patient interface, such as theatre wear and drapes
- patient perfusion and hydration, oxygenation, glycaemic control and warming

e) Postoperative prevention and treatment including:

- patient risk factors
- the use of wound drains and dressings
- the principle of the use of antibiotics to treat SSI both empirically and following initial treatment failure
- use of debridement to remove dead tissue from the wound and incision and drainage of pus from the wound (this guideline will update the NICE technology appraisal on wound care and debridement and the current technology appraisal will be withdrawn on publication of the guideline)

- the use of surveillance data with appropriate methodology to improve outcome measures

f) The information needs of patients and their carers

g) The guideline development group will consider making recommendations on the principal complementary and alternative interventions or approaches to care relevant to the guideline topic

h) The guideline development groups will take reasonable steps to identify ineffective interventions and approaches to care. If robust and credible recommendations for re-positioning the intervention for optimal use, or changing the approach to care to make more efficient use of resources can be made, they will be clearly stated. If the resources released are substantial, consideration will be given to listing such recommendations in the 'Key priorities for implementation' section of the guideline

Areas that will not be covered

a) Prophylaxis and management of antibiotic resistant bacteria.

b) Management of the operating theatre environment and environmental factors.

c) Anaesthetic factors relating to SSI

iii. Scope

This is the final version of the scope drafted after the stakeholder workshop discussion on 19 March 2007.

iv. Guideline

The development of the guideline recommendations will begin in September 2007.

5 Further information

Information on the guideline development process is provided in:

- ‘The guideline development process: an overview for stakeholders, the public and the NHS’
- The guidelines manual’.

These booklets are available as PDF files from the NICE website (www.nice.org.uk/guidelinesmanual). Information on the progress of the guideline will also be available from the website.

Appendix: Referral from the Department of Health and Welsh Assembly Government

The Department of Health and Welsh Assembly Government asked the Institute:

- ‘To prepare guidance for the NHS in England and Wales on the prevention, management and treatment of wounds. The guidance should include the prevention of skin breakdown, prevention of pressure sores, prevention of diabetic foot ulceration, prevention of recurrence of venous leg ulcers and prevention of breakdown of surgical wounds