

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Guideline scope

Perioperative care in Adults

The Department of Health in England has asked NICE to develop a clinical guideline on perioperative care.

The guideline will be developed using the methods and processes outlined in [Developing NICE guidelines: the manual](#).

This guideline will also be used to develop the NICE quality standard for perioperative care.

1 Why the guideline is needed

Key facts and figures

Perioperative care refers to care during the preoperative, intraoperative and postoperative periods.

In this guideline the perioperative period starts when the patient is booked for surgery and ends when the patient is discharged from care following surgery.

According to Hospital Episode Statistics (HES) there were approximately 11 million primary surgical procedures performed in the NHS in 2015. This includes therapeutic and diagnostic procedures. Over half of these were elective (non-emergency) procedures, with the majority of these procedures performed from an elective waiting list.

The 2011 National Confidential Enquiry into Patient Outcome and Death (NCEPOD) reported that every year in the UK there are between 20,000 and 25,000 deaths among people undergoing a surgical procedure. The majority of these deaths (79%) occur among 'high risk patients' (as defined by their

27 treating anaesthetist) who make up 10% of all patients undergoing surgery.
28 The enquiry concluded that patients are not receiving optimal care and that
29 there are improvements to be made in perioperative care.

30 **Current practice**

31 The Royal College of Surgeons of England and the Department of Health
32 reported in 2011 that patient care during surgery itself is now delivered at an
33 extremely high standard and complex elective surgery can be performed
34 relatively safely. However, challenges in optimising perioperative care remain.
35 Although progress has been made in improving surgical outcomes,
36 postoperative adverse events are reported to be more frequent than generally
37 thought, and the consequences of these complications are considerable.

38 **2 Who the guideline is for**

39 People using services, their families and carers, and the public will be able to
40 use the guideline to find out more about what NICE recommends, and help
41 them make decisions.

42 This guideline is for:

- 43 • Healthcare professionals, including dentists, in primary, secondary and
44 tertiary care.
- 45 • Non-NHS organisations commissioned to provide services for the NHS or
46 local authorities.
- 47 • Adults having surgery, and their families and carers.

48

49 NICE guidelines cover health and care in England. Decisions on how they
50 apply in other UK countries are made by ministers in the [Welsh Government](#),
51 [Scottish Government](#), and [Northern Ireland Executive](#).

52 ***Equality considerations***

53 NICE has carried out [an equality impact assessment](#) during scoping. The
54 assessment:

- 55 • lists equality issues identified, and how they have been addressed
56 • explains why any groups are excluded from the scope.

57 The guideline will look at inequalities relating to age and disability.

58 **3 What the guideline will cover**

59 **3.1 *Who is the focus?***

60 **Groups that will be covered**

- 61 • Adults (18 and older) undergoing surgery.
62
63

64 **3.2 *Settings***

65 **Settings that will be covered**

- 66 • Secondary and tertiary healthcare (whether in a conventional hospital
67 setting or elsewhere).
68 • General dental practices.

69 **Settings that will not be covered**

- 70 • Minor surgery in out-patient clinics.

71 **3.3 *Activities, services or aspects of care***

72 **Key areas that will be covered**

73 We will look at evidence in the areas below when developing the guideline,
74 but it may not be possible to make recommendations in all the areas.

- 75 1 Information and support needs of adults undergoing surgery, and their
76 families and carers, before, during and after an operation.
77 2 Preoperative assessment
78 - Identification and measurement of risk in adults who will be
79 undergoing surgery.
80 3 Preoperative optimisation

- 81 – Proactive care of older people undergoing surgery
- 82 – Perfusion and hydration
- 83 – Preoperative nutrition
- 84 – Preoperative fasting
- 85 – Pharmacological management
- 86 – Lifestyle optimisation.
- 87 4 Intraoperative management
 - 88 – Strict glucose control
 - 89 – Intravenous fluid during surgery
 - 90 – Cardiac monitoring
 - 91 – Crew resource management.
- 92 5 Postoperative management
 - 93 – Pain management services.
- 94 6 Recovery
 - 95 – Enhanced recovery programmes
 - 96 – Recovery in specialist areas including intensive care.

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98 **Areas that will not be covered**

- 99 1 Routine preoperative tests for elective surgery
- 100 2 Blood products and blood transfusion
- 101 3 Surgery for burns
- 102 4 Surgery for traumatic brain injury or neurosurgery
- 103 5 Other specific types of surgery

104

105 **Related NICE guidance**

- 106 • HumiGard for preventing inadvertent perioperative hypothermia (2017)
107 NICE guidance MTG31
- 108 • Multimorbidity: clinical assessment and management (2016) NICE
109 guidance NG56
- 110 • Hypothermia: prevention and management in adults having surgery (2016)
111 NICE guidance CG65

- 112 • Routine preoperative tests for elective surgery (2016) NICE guidance
113 NG45
- 114 • Intravenous fluid therapy in adults in hospital (2013) NICE guidance CG174
- 115 • Healthcare-associated infections: prevention and control (2011) NICE
116 guidance PH36
- 117 • The MIST Therapy system for the promotion of wound healing (2011) NICE
118 guidance MTG5
- 119 • Venous thromboembolism in adults: reducing the risk in hospital (2010)
120 NICE guidance CG92

121 **NICE guidance that will be partially updated by this guideline**

- 122 • CardioQ-ODM oesophageal doppler monitor (2011) NICE guidance MTG3.
123
- 124 • Surgical site infections: prevention and treatment (2008) NICE guidance
125 CG74
126 The two recommendations from CG74 expected to be updated in this new
127 guideline are:
 - 128 – Recommendation 1.3.12. Maintain adequate perfusion during surgery.
 - 129 – Recommendation 1.3.13. Do not give insulin routinely to patients who do
130 not have diabetes to optimise blood glucose postoperatively as a means
131 of reducing the risk of surgical site infection.

132

133 **NICE guidance about the experience of people using NHS services**

134 NICE has produced the following guidance on the experience of people using
135 the NHS. This guideline will not include additional recommendations on these
136 topics unless there are specific issues related to perioperative care:

- 137 • Medicines optimisation (2015) NICE guideline NG5
- 138 • Patient experience in adult NHS services (2012) NICE guideline CG138
- 139 • Medicines adherence (2009) NICE guideline CG76

140 **3.4 Economic aspects**

141 We will take economic aspects into account when making recommendations.
142 We will develop an economic plan that states for each review question (or key
143 area in the scope) whether economic considerations are relevant, and if so
144 whether this is an area that should be prioritised for economic modelling and
145 analysis. We will review the economic evidence and carry out economic
146 analyses, using a NHS and personal social services (PSS) perspective, as
147 appropriate.

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149 **3.5 Key issues and questions**

150 While writing this scope, we have identified the following key issues, and draft
151 questions related to them. The questions may be used to develop more
152 detailed review questions, which guide the systematic review of the literature:

153 1 Information and support needs of adults undergoing surgery and their
154 families and carers, before during and after an operation.

155 1.1. What information and support is useful for adults undergoing
156 surgery, and their families and carers, before, during and after an
157 operation?

158

159 2 Preoperative assessment

160 2.1. Which validated risk tools best identify increased risk of adverse
161 events in adults who will be undergoing surgery?

162

163 3 Preoperative optimisation

164 3.1. In adults who will be undergoing surgery, what is the clinical and
165 cost effectiveness of pre-operative optimisations clinics?

166 3.2. What is the clinical and cost effectiveness of perioperative perfusion
167 and hydration in adults?

168 3.3. Does a systematic approach to preoperative assessment of
169 nutritional status improve surgical outcomes for adults?

- 170 3.4. What is the most clinically and cost effective preoperative fasting
171 strategy for adults?
- 172 3.5. What is the clinical and cost effectiveness of a systematic approach
173 to reviewing medication prior to surgery in adults?
- 174 3.6. Do pre-operative interventions to help adults their lifestyle improve
175 surgical outcomes?
176
- 177 4 Intraoperative management
- 178 4.1. What is the most clinically and cost effective intravenous fluid during
179 surgery in adults?
- 180 4.2. What is the clinical and cost effectiveness of strict blood glucose
181 control in adults undergoing surgery?
- 182 4.3. What is the clinical and cost effectiveness of cardiac output
183 monitoring during surgery in adults?
- 184 4.4. What is the clinical and cost effectiveness of crew resource
185 management during surgery in adults?
186
- 187 5 Postoperative management
- 188 5.1. What is the clinical and cost effectiveness of having a dedicated
189 postoperative pain management service for adults?
190
- 191 6 Recovery
- 192 6.1. What is the clinical and cost effectiveness of enhanced
193 postoperative recovery programmes for adults?
- 194 6.2. What is the clinical and cost effectiveness of postoperative recovery
195 in specialist areas, including intensive care, for adults?

196 **3.6 Main outcomes**

197 The main outcomes that will be considered when searching for and assessing
198 the evidence are:

- 199 1 Health-related quality of life.
200 2 Survival (mortality)
201 3 Adverse events and complications

- 202 – Surgical site infection
- 203 – Respiratory complications
- 204 4 Symptom scores and functional measures
- 205 5 Length of stay in intensive care unit or hospital
- 206 6 Hospital readmission
- 207 7 Psychological distress and mental wellbeing
- 208 8 Patient, family and carer experience of care
- 209

210 **4 NICE quality standards and NICE Pathways**

211 **4.1 NICE quality standards**

212 **NICE quality standards that may need to be revised or updated when**
213 **this guideline is published:**

- 214 • Surgical site infection (2013) NICE quality standard QS49

215

216 **4.2 NICE Pathways**

217 [NICE Pathways](#) bring together everything we have said on a topic in an
218 interactive flowchart. When this guideline is published, the recommendations
219 will be included in the NICE Pathway on perioperative care (in development).

220 Other relevant guidance will also be added, including:

- 221 • [The MIST Therapy system for the promotion of wound healing](#) (2011) NICE
222 guidance MTG5
- 223 • [Depth of anaesthesia monitors – Bispectral Index \(BIS\), E-Entropy and](#)
224 [Narcotrend-Compact M](#) (2012) NICE diagnostics guidance DG6

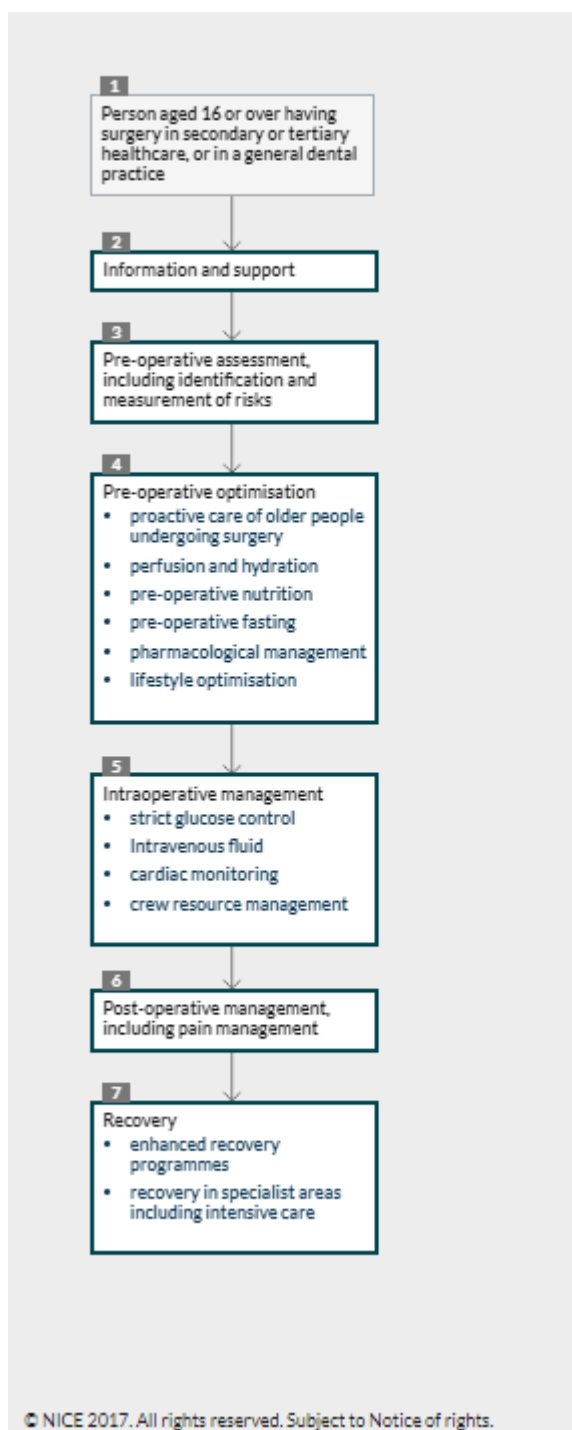
225 Links to relevant NICE Pathways will be added as well, for example:

- 226 • [Inadvertent perioperative hypothermia](#)
- 227 • [Intravenous fluid therapy in hospital](#)
- 228 • [Preoperative tests](#)

- 229 • [Prevention and control of healthcare-associated infections](#)

230 An outline based on this scope is included below. It will be adapted and more
 231 detail added as the recommendations are written during guideline
 232 development.

Perioperative care overview



233

234 **5 Further information**

This is the draft scope for consultation with registered stakeholders. The consultation dates are 15 November to 13 December 2017.

The guideline is expected to be published in February 2020.

You can follow [progress of the guideline](#).

Our website has information about [how NICE guidelines are developed](#).

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