

Perioperative fasting in adults and children

An RCN guideline for the
multidisciplinary team

November 2005

Perioperative fasting in adults and children

*An RCN guideline for the
multidisciplinary team*

November 2005

Published by the Royal College of Nursing,
20 Cavendish Square, London W1G 0RN

Publication code: 002 779

ISBN: 1-904114-19-9

© 2005 Royal College of Nursing. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise, without prior permission of the Publishers or a licence permitting restricted copying issued by the Copyright Licensing Agency, 90 Tottenham Court Road, London W1T 4LP. This publication may not be lent, resold, hired out or otherwise disposed of by ways of trade in any form of binding or cover other than that in which it is published, without the prior consent of the Publishers.

This guideline has been endorsed by the professional groups represented by the Guideline Development Group and other key organisations:

- ◆ Royal College of Anaesthetists
- ◆ Association of Paediatric Anaesthetists of Great Britain and Ireland
- ◆ Royal College of Midwives
- ◆ Preoperative Association
- ◆ British Association of Day Surgery

We are grateful to the Association of Anaesthetists of Great Britain and Ireland who provided helpful comments on this guideline.

RCN Institute project team:

Dr Maggie Westby (Project Lead) Research and Development Fellow

Dr Ian Bullock: Senior Research and Development Fellow

Will Gray: Research and Development Fellow

Colette Lardner-Browne: Administrator (Quality Improvement Programme)

Rayhan Rashid: Administrator (guidelines)



Contents

Introduction	3	4	Implementation in the NHS and the independent sector	9	
Clinical imperative for the guideline	3	4.1	Resource implications	9	
Disclaimer	3	4.2	General	9	
Principles of practice	3	4.3	Audit	9	
Key priorities for implementation	4	5	Research recommendations	9	
Notes accompanying the recommendations	5	6	Other versions of this guideline	10	
1	Guidance in adults	6	6.1	Full guideline	10
1.1	Preoperative fasting in healthy adults	6	6.2	Quick reference guide	10
1.2	Preoperative fasting in higher-risk groups	6	6.3	Information for the public	10
1.3	Postoperative resumption of oral intake in healthy adults	6	7	Related guidance	10
2	Guidance in children	7	8	Review date	10
2.1	Preoperative fasting in healthy children	7	Appendix A: Grading scheme	11	
2.2	Preoperative fasting in higher-risk groups	8	Appendix B: The Guideline Development Group (GDG)	12	
2.3	Postoperative resumption of oral intake in healthy children	8	Appendix C: The guideline peer reviewers	13	
3	Notes on the scope of the guidance	8	Appendix D: Technical detail on the criteria for audit	14	
			Appendix E: Glossary	15	
			Quick reference guide poster		

Introduction

The Royal College of Nursing (RCN) Quality Improvement Programme has worked collaboratively with key organisations in the development of this clinical guideline on perioperative fasting for use in the NHS and the independent sector in England, Northern Ireland, Scotland and Wales. This follows referral of the topic by the RCN membership following a 'clinical topic priorities survey' in 2002.

This national guideline provides recommendations for good practice, based upon the best available evidence of clinical effectiveness, and is intended to provide key source material for developing local guidelines.

Clinical imperative for the guideline

Until recently, surgical patients were fasted routinely from food and drink for periods of eight to 12 hours before anaesthesia, to reduce the risk of aspiration pneumonitis at induction of anaesthesia. Despite evidence that shortened preoperative fasts do not increase the risk of a harmful event for the patient, contemporary practice still has wide variations across the United Kingdom. The benefits of reduced preoperative fasting, increased patient comfort and hydration, coupled with an unchanged risk of adverse events, provide a persuasive argument for variations in contemporary practice to be minimised. The guideline development process is concerned not only with reviewing available evidence, canvassing expert opinion and generating recommendations, but also with promoting sustainable change in clinical practice.

This guideline addresses the inconsistencies in preoperative fasting policies and provides guidance in the postoperative field. The guideline was requested by members of the RCN, and was developed by an interdisciplinary team. This lays a solid foundation for the guidance to make an impact on clinical practice, thereby improving the quality of patient care.

The interdisciplinary Guideline Development Group is listed in Appendix B, with project management undertaken by the RCN. The main areas examined by the guideline are:

- ◆ preoperative fasting in healthy adults

- ◆ preoperative fasting in healthy children
- ◆ preoperative fasting in higher-risk groups
- ◆ postoperative fasting in healthy adults
- ◆ postoperative fasting in healthy children.

Recommendations for good practice, based upon the best available evidence of clinical effectiveness, are presented. Recommendations contained in this document are those considered to be central to perioperative fasting care. This is a guide to that management, not a textbook of care.

Health care professionals should use their clinical judgement in support of these evidence-based recommendations.

Disclaimer

Clinical guidelines have been defined as 'systematically' developed statements that are designed to assist clinicians, patients and carers in making decisions about appropriate treatments for specific conditions and aspects of care.

As with all clinical guidelines, recommendations may not be appropriate for use in all circumstances. Decisions to adopt any particular recommendations must be made by practitioners in the light of:

- ◆ available resources
- ◆ local services, policies and protocols
- ◆ the patient's circumstances and wishes
- ◆ the clinical experience of the practitioner
- ◆ knowledge of more recent research findings.

It is important for all health care professionals, when implementing evidence-based guidance, to understand the local context in which they work and existing quality improvement structures.

Principles of practice

The principles, outlined below, describe the ideal context in which to implement the recommendations contained in this guideline. They reflect original research and development work by the RCN, and enable clinicians using evidence-based guidance to contextualise and understand the importance of preparation and planning, prior to implementation.

Patient-centred care

- ◆ Patients and carers should be made aware of the guideline and its recommendations, referring to the information for patients and carers (available in early 2006 from www.rcn.org.uk).
- ◆ Patients and carers should understand decisions made about the management of perioperative fasting, and have the opportunity to ask questions.
- ◆ Patients and carers should be informed about any potential risks and/or complications associated with perioperative fasting.

A collaborative interdisciplinary approach to care

- ◆ All members of the interdisciplinary team should be aware of the guidelines and all care should be documented in patients' health care records.
- ◆ The approach to care should be an interdisciplinary one involving all appropriate people in the management of perioperative fasting.

Organisational issues

- ◆ There should be an integrated approach to the management of perioperative fasting, with a clear strategy and policy supported by management.
- ◆ Care should be delivered in a context of continuous quality improvement, where improvements to care following guideline implementation are the subject of regular feedback and audit.
- ◆ Commitment to, and availability of, education and training are needed to ensure that all staff, regardless of profession, are given the opportunity to update their knowledge and are able to implement the guideline recommendations.
- ◆ The health care team should have undergone appropriate training and have demonstrated competence in perioperative care.
- ◆ Staffing levels and skill mix should reflect the needs of patients, and are paramount to providing high quality services for people who are being fasted before and after operations.

Key priorities for implementation

The following recommendations have been identified as priorities for implementation. Throughout this guideline, separate recommendations are given for adults (outlined box) and children (shaded box) for convenience.

adults

children

Adults

Preoperative fasting in adults undergoing elective surgery – 'the 2 and 6 rule'

- ◆ '2' - Intake of water up to two hours before induction of anaesthesia.
- ◆ '6' - A minimum preoperative fasting time of six hours for food (solids, milk and milk-containing drinks).
- ◆ The anaesthetic team should consider further interventions for patients at higher risk of regurgitation and aspiration.

Postoperative resumption of oral intake in healthy adults

- ◆ Patients should be encouraged to drink when ready, providing there are no contraindications.

Children

Preoperative fasting in children undergoing elective surgery – 'the 2-4-6 rule'

- ◆ '2' - Intake of water and other clear fluid up to two hours before induction of anaesthesia.
- ◆ '4' - Breast milk up to four hours before.
- ◆ '6' - Formula milk, cows' milk or solids up to six hours before.
- ◆ The anaesthetic team should consider further interventions for children at higher risk of regurgitation and aspiration.

Postoperative resumption of oral intake in healthy children

- ◆ Oral fluids can be offered to healthy children when they are fully awake following anaesthesia, providing there are no contraindications. There is no requirement to drink as part of the discharge criteria.

Notes

accompanying the recommendations

The following guidance is evidence-based. Appendix A shows the grading scheme used for recommendations. The D grading encompasses consensus decisions made on the basis of expert opinion that, in many cases, is underpinned by evidence that is indirect or only partially applicable (for example, a randomised trial that provides evidence for what *should not* be done, but cannot be used to say what *should* be done).

A summary of the evidence on which the guidance is based is provided in the full guideline (www.rcn.org.uk).

Summary recommendations are given separately for adults and children. Recommendations are also summarised in the quick reference guide (see poster at the back of this document).

Reference is also made to 'healthy' and 'higher-risk' patients. The former category is defined as patients who are ASA I-II (Appendix E) without gastrointestinal disease or disorders; these are the types of patients specified in the trials in healthy patients. 'Higher-risk' refers to groups of patients who are expected to be at increased risk of regurgitation and aspiration, such as those who have gastro-oesophageal reflux, obesity and diabetes. The anaesthetic team should decide the most appropriate risk category for each patient.

Some of the recommendations state that the patients may have clear fluids '**up to** two hours before induction of anaesthesia'. This means that two hours is the recommended **minimum** time before induction of anaesthesia for that patient, but the patient should also be encouraged to take clear fluids as close as possible to two hours preoperatively.

1 Guidance in adults

1.1 Preoperative fasting in healthy† adults

1.1.1 The intake of oral fluids during a restricted fasting period

Intake of water up to two hours before induction of anaesthesia for elective surgery is safe in healthy adults, and improves patient wellbeing. [A]

Other clear fluid*, clear tea and black coffee (without milk) can be taken up to two hours before induction of anaesthesia in healthy adults. [A]

Tea and coffee with milk are acceptable up to six hours before induction of anaesthesia. [B]

The volume of administered fluids does not appear to have an impact on patients' residual gastric volume and gastric pH, when compared to a standard fasting regimen. Therefore, patients may have unlimited amounts of water and other clear fluid up to two hours before induction of anaesthesia. [A]

1.1.2 The intake of solid foods during a restricted fasting period

A minimum preoperative fasting time of six hours is recommended for food (solids and milk). [D]

1.1.3 Chewing gum and sweets during a restricted fasting period

Chewing gum should not be permitted on the day of surgery. [B]

Sweets are solid food. A minimum preoperative fasting time of six hours is recommended. [D]

1.1.4 Pharmacological interventions

Concurrent medications

Regular medication taken orally should be continued preoperatively unless there is advice to the contrary. [D(GPP)]

† 'healthy' defined as ASA I-II (Appendix E) without gastrointestinal disease or disorders

* In practice, a clear fluid is one through which newsprint can be read.

Up to 30 ml water may be given orally to help patients take their medication. [D(GPP)]

Premedication

Administration of premedication as currently practised, for example benzodiazepines, does not appear to affect the fasting recommendations for water and other clear fluid. [A]

Histamine-2 receptor antagonists (H₂RAs)

The routine use of H₂-receptor antagonists (H₂RAs) is not recommended for healthy adults. [D]

1.1.5 Delayed operations

If an elective operation is delayed, consideration should be given to giving the patient a drink of water to prevent excessive thirst and dehydration. [D(GPP)]

1.2 Preoperative fasting in higher-risk‡ groups

1.2.1 General recommendations

Higher-risk patients should follow the same preoperative fasting regime as healthy adults, unless contraindicated. In addition, the anaesthetic team should consider further interventions, as appropriate to the overall clinical situation#. [D]

Adults undergoing emergency surgery should be treated as if they have a full stomach. If possible, the patient should follow normal fasting guidance to allow gastric emptying. [D]

1.3 Postoperative resumption of oral intake in healthy adults

1.3.1 General recommendations

When ready to drink, patients should be encouraged to do so, providing there are no medical, surgical or nursing contraindications. [A]

‡ Higher risk of regurgitation and aspiration; patients include those with obesity, gastro-oesophageal reflux and diabetes

Such as H₂-receptor antagonists, sodium citrate, gastrokinetic agents and proton pump inhibitors, together with rapid sequence induction, tracheal intubation and nasogastric tube.

2 Guidance in children

2.1 Preoperative fasting in healthy† children

2.1.1 The intake of oral fluids during a restricted fasting period

Intake of water and other clear fluid* up to two hours before induction of anaesthesia for elective surgery is safe in healthy children, and improves patient wellbeing.

[A (age 1 year and above); D (below 1 year)]

The volume of administered fluids does not appear to have an impact on patients' residual gastric volume and gastric pH, when compared to a standard fasting regimen. Therefore, children may have unlimited amounts of water and other clear fluid up to two hours before induction of anaesthesia.

[A (age 1 year and above); D (below 1 year)]

2.1.2 The intake of milk during a restricted fasting period

Breast milk may be given up to four hours before induction of anaesthesia. [D]

Formula milk or cows' milk may be given up to six hours before induction of anaesthesia. [D]

2.1.3 The intake of solid foods during a restricted fasting period

A minimum preoperative fasting time of six hours is recommended for food. [D]

2.1.4 Chewing gum and sweets during a restricted fasting period

Chewing gum should not be permitted on the day of surgery. [D(GPP)]

Sweets (including lollipops) are solid food. A minimum preoperative fasting time of six hours is recommended. [D]

2.1.5 Pharmacological interventions

Concurrent medications

Regular medication taken orally should be continued preoperatively unless there is advice to the contrary. [D(GPP)]

Up to 0.5 ml/kg (up to 30 ml) of water may be given orally to help children take their medication. [D(GPP)]

Premedication

Administration of premedication as currently practised, for example benzodiazepines, does not appear to affect the fasting recommendations for water and other clear fluid. [A]

Histamine-2 receptor antagonists (H₂RAs)

The routine use of H₂-receptor antagonists (H₂RAs) is not recommended for healthy children. [D]

2.1.6 Delayed operations

If an elective operation is delayed, consideration should be given to giving the child a drink of water or other clear fluid to prevent excessive thirst and dehydration. If it is confirmed by the anaesthetist and/or surgeon that a delay is likely to be longer than two hours, water or other clear fluid should be given. [D(GPP)]

2.1.7 Excessive fasting

If a child admitted for surgery has undergone excessive fasting, consideration should be given to offering them a drink and scheduling their operation slightly later in the operating list. [D(GPP)]

† 'healthy' defined as ASA I- II (Appendix E) without gastrointestinal disease or disorders

* In practice, a clear fluid is one through which newsprint can be read.

2.2 Preoperative fasting in higher-risk[‡] groups

2.2.1 General recommendations

Higher-risk patients should follow the same preoperative fasting regime as healthy children, unless contraindicated. In addition, the anaesthetic team should consider further interventions, as appropriate to the overall clinical situation[#]. [D]

Children undergoing emergency surgery should be treated as if they have a full stomach. If possible, the child should follow normal fasting guidance to allow for gastric emptying. [D]

2.3 Postoperative resumption of oral intake in healthy children

2.3.1 General recommendations

Oral fluids can be *offered* to healthy children when they are fully awake following anaesthesia, providing there are no medical, surgical or nursing contraindications. [A]

Clinicians should consider giving clear fluids or breast milk before introducing other oral intake. [D(GPP)]

Children undergoing day surgery should *not be required* to drink as part of the discharge criteria. [A]

‡ Higher risk of regurgitation and aspiration; patients include those with obesity, gastro-oesophageal reflux and diabetes.

Such as H₂-receptor antagonists, gastrokinetic agents and proton pump inhibitors, together with rapid sequence induction, tracheal intubation and nasogastric tube.

3 Notes on the scope of the guidance

This RCN guideline was developed following the agreed scope document that defined what the guideline would and would not cover. The scope of this guideline was established at the start of the guideline development process.

The guideline recommendations apply to all patient groups (adults, older people, infants, children and young people) undergoing operations under general anaesthesia.

This guideline does not cover patients undergoing procedures under sedation.

For postoperative fasting, patients undergoing surgery involving the gastrointestinal tract or major abdominal surgery are not covered by this guideline.

4 Implementation in the NHS and the independent sector

4.1 Resource implications

Local health communities should review their existing practice for perioperative fasting against this guideline. The review should consider the resources required to implement the recommendations set out in Sections 1 and 2, the people and processes involved, and the timeline over which full implementation is envisaged. It is in the interests of patients that the implementation is as rapid as possible.

Relevant local clinical guidelines, care pathways and protocols should be reviewed in the light of this guidance and revised accordingly.

4.2 General

Regulatory bodies, such as the Healthcare Commission, consider implementation of clinical guidelines to be a developmental standard. The implementation of this guideline will build on National Service Frameworks and other key strategic reports, and should form part of the service development plans for each local health community.

4.3 Audit

Suggested audit criteria based upon the key priorities for implementation are listed in Appendix D, and can be used to audit practice locally.

5 Research recommendations

The Guideline Development Group (GDG) has made the following recommendations for research, on the basis of its review of the evidence. The Group regards these recommendations as the most important research areas to improve guidance and patient care in the future. The GDG's research recommendations are detailed in the full guideline (see Section 6).

- ◆ When should the last feed of breast or formula milk be given preoperatively to infants?
- ◆ When can tea and coffee (with milk) be given safely preoperatively?
- ◆ Does preoperative fasting alter the incidence of postoperative nausea and vomiting?
- ◆ What type and quantity of oral fluid or food can be given postoperatively?
- ◆ Are there other important factors that limit the intake of oral fluids or foods postoperatively? For example, operation type, patient age, effect of opioids?

6 Other versions of this guideline

The Royal College of Nursing commissioned the development of this guidance. A GDG was established to review the evidence and develop recommendations. Its members are listed in Appendix B. This guideline has been peer reviewed and reviewers are listed in Appendix C.

6.1 Full guideline

The full guideline, *Perioperative fasting in adults and children*, is published by the Royal College of Nursing. It is available from the RCN website (www.rcn.org.uk) and the website of the National Library for Health (www.nlh.nhs.uk).

6.2 Quick reference guide

A quick reference guide for health professionals is included as a poster at the back of this document. It is also available separately from the RCN website (www.rcn.org.uk) or from RCN Direct (telephone 0845 772 6100; quote publication code 002 778).

6.3 Information for the public

As part of the suite of perioperative fasting guideline materials, versions of this guideline for people undergoing operations under general anaesthesia, and their carers, and for the public will be available from the RCN website (www.rcn.org.uk) in early 2006.

7 Related guidance

NICE (2004) *Caesarean section*. NICE Clinical Guideline No. 13, London: NICE. Available from www.nice.org.uk

SIGN (2004) *Postoperative management in adults*. SIGN Clinical Guideline No. 77, Edinburgh: SIGN. Available from www.sign.ac.uk

The following related guidance is in the process of development:

- ◆ *Intrapartum care*. NICE Clinical Guideline. (Publication expected February 2007). Further details from www.nice.org.uk

8 Review date

The guideline is scheduled to be reviewed in Autumn 2009.

Appendix A:

Grading scheme

The classification of recommendations and the levels of evidence for intervention studies used in this guideline are adapted from the Scottish Intercollegiate Guidelines Network (*SIGN 50: a guideline developers' handbook*), and summarised in the tables below.

CLASSIFICATION OF RECOMMENDATIONS ON INTERVENTIONS

Recommendation grade	Evidence
A	<ul style="list-style-type: none"> At least one meta-analysis, systematic review, or randomised controlled trial (RCT) that is rated as 1⁺⁺, and is directly applicable to the target population, or A systematic review of RCTs or a body of evidence that consists principally of studies rated as 1⁺, is directly applicable to the target population and demonstrates overall consistency of results, or Evidence drawn from a NICE technology appraisal.
B	<ul style="list-style-type: none"> A body of evidence that includes studies rated as 2⁺⁺, is directly applicable to the target population and demonstrates overall consistency of results, or Extrapolated evidence from studies rated as 1⁺⁺ or 1⁺.
C	<ul style="list-style-type: none"> A body of evidence that includes studies rated as 2⁺, is directly applicable to the target population and demonstrates overall consistency of results, or Extrapolated evidence from studies rated as 2⁺⁺.
D	<ul style="list-style-type: none"> Evidence level 3 or 4, or Extrapolated evidence from studies rated as 2⁺, or Formal consensus.
D(GPP)	<ul style="list-style-type: none"> A good practice point (GPP) is a recommendation for best practice based on the experience of the Guideline Development Group.

LEVELS OF EVIDENCE FOR INTERVENTION STUDIES

Level of evidence	Type of evidence
1⁺⁺	<ul style="list-style-type: none"> High-quality meta-analyses, systematic reviews of RCTs, or RCTs with a very low risk of bias.
1⁺	<ul style="list-style-type: none"> Well-conducted meta-analyses, systematic reviews of RCTs, or RCTs with a low risk of bias.
1⁻	<ul style="list-style-type: none"> Meta-analyses, systematic reviews of RCTs, or RCTs with a high risk of bias.
2⁺⁺	<ul style="list-style-type: none"> High quality systematic reviews of case-control or cohort studies. High-quality case-control or cohort studies with a very low risk of confounding, bias or chance and a high probability that the relationship is causal.
2⁺	<ul style="list-style-type: none"> Well-conducted case-control or cohort studies with a low risk of confounding, bias or chance and a moderate probability that the relationship is causal.
2⁻	<ul style="list-style-type: none"> Case-control or cohort studies with a high risk of confounding, bias, or chance and a significant risk that the relationship is not causal.
3	<ul style="list-style-type: none"> Non-analytical studies (for example, case reports, case series).
4	<ul style="list-style-type: none"> Expert opinion, formal consensus.

Appendix B:**The Guideline Development Group (GDG)**

Claire Allen (patient representative): Deputy Administrator, The Cochrane Collaboration Secretariat, Oxford and Cochrane Consumer Network.

Lindsay Beverley: Senior Pharmacist, Falkirk and District Royal Infirmary.

Jane Bovey: Anaesthetics and Recovery Nurse, Salisbury District Hospital bank contract, and NHS Professionals, Portsmouth Health Trust, and RCN Perioperative and Surgical Nursing Forum.

Dr Marian Brady (Chair): Programme Leader, Nursing, Midwifery and Allied Health Professions Research Unit, Glasgow, Scotland.

Ingrid Darnley: Clinical Effectiveness and Quality Officer, British Dietetic Association.

Dr Annette Dearmun: Principal Lecturer/Senior Nurse, Oxford Brookes University/ Oxford Radcliffe Hospital, and Chair RCN Children's Surgical Nursing Forum.

Dr Rebecca Jester: Associate Dean (taught postgraduate studies), University of Wolverhampton, and RCN Orthopaedic Nursing Forum.

Mervi Jokinen: Practice and Standards Development Adviser, Royal College of Midwives.

Di Keeton: Senior Sister, children's day ward, Southampton University Hospitals NHS Trust, and RCN Children's Surgical Nursing Forum.

Dr George Meakin: Senior Lecturer in Anaesthesia, Royal Manchester Children's Hospital and President Elect, Association of Paediatric Anaesthetists of Great Britain and Ireland.

Gail Parsons: Advanced Nurse Practitioner, The Dudley Group of Hospitals Trust, and RCN Orthopaedic Nursing Forum.

Joanna Prickett: Department of Nutrition and Dietetics, North Bristol NHS Trust.

Professor Leo Strunin: Emeritus Professor, University of London, and Royal College of Anaesthetists.

Dr Pauline Stuart: Consultant Anaesthetist, Glasgow Royal Infirmary.

Royal College of Nursing Institute staff (current)

Dr Ian Bullock: Senior Research and Development Fellow

Will Gray: Research and Development Fellow

Colette Lardner-Browne: Administrator (Quality Improvement Programme)

Rayhan Rashid: Administrator (guidelines)

Dr Maggie Westby (Project Lead): Research and Development Fellow.

Royal College of Nursing Institute staff (former)

Dr Iveta Simera

Professor Debra Bick

Appendix C:

The guideline peer reviewers

The guideline has been peer reviewed by the main external professional bodies and relevant organisations. The members of the Peer Review Group were as follows.

Association of Paediatric Anaesthetists of Great Britain and Ireland: Council members: Robert Bingham, Anaesthetic Consultant, Great Ormond Street Hospital, London; Neil Morton, Consultant in Paediatric Anaesthesia, Royal Hospital for Sick Children, Glasgow; Monica Stokes, Consultant Anaesthetist, Birmingham Children's Hospital; Kathy Wilkinson, Consultant Anaesthetist, Norfolk and Norwich University Hospital, and Honorary Secretary APAGBI.

Robin Correa: Consultant Anaesthetist, University Hospital Coventry and Warwickshire.

Liz McInnes: Senior Research and Development Fellow, NICE Collaborating Centre - Nursing and Supportive Care, Oxford.

National Association of Theatre Nurses: C Allen, Theatre Services Manager, Murrayfield Hospital, Edinburgh, and Chair RCN Anaesthetic and Recovery Forum.

Preoperative Association: John Carlisle (Chair) and Consultant Anaesthetist, South Devon Healthcare NHS Trust, and members: Paul Knight, Consultant Anaesthetist, Calderdale Royal Hospital; John Watt, Research and Development Lead Clinician, Southport and Formby District General Hospital; Nelson Richard, Consultant in Anaesthesia, Countess of Chester Hospital; Chris Earlam, Consultant Anaesthetist, Hope Hospital, Salford.

Royal College of Anaesthetists: Council members.

Eileen Scott: Research and Development Co-ordinator, North Tees and Hartlepool NHS Trust, and Chair RCN Perioperative and Surgical Nursing Forum.

Joanna Smith: Lecturer in Child Health Nursing, University of Leeds, and RCN Children's Surgical Nursing Forum.

Appendix D:

Technical detail on the criteria for audit

Possible objectives for an audit

To ensure that the management of perioperative fasting follows evidence-based guideline recommendations.

People that could be included in an audit

- ◆ All patients undergoing elective surgery.
- ◆ All staff and carers who work or have close associations with patients undergoing planned elective surgery.

Measures that could be used as a basis for an audit

- ◆ The Guideline Development Group and RCN staff have developed essential question areas that form a broad basis for the development of audit criteria.
- ◆ Plans for a national web-based audit tool are in place, creating emphasis on the importance of implementation of this guidance. This builds on the innovative work currently being tested by the Quality Improvement Programme, RCN Institute in the area of venous leg ulcers, supported by the Healthcare Commission.

Criterion	Exception	Definition of terms
1. Water (clear fluid) is taken up to two hours before induction of anaesthesia.	The higher-risk patient that the anaesthetic team treats differently. Contraindications.	Higher risk of regurgitation and aspiration; patients include those with obesity, gastro-oesophageal reflux and diabetes.
2. Breast milk is taken up to four hours preoperatively.	The higher-risk patient that the anaesthetic team treats differently. Contraindications.	Higher risk of regurgitation and aspiration; patients include those with obesity, gastro-oesophageal reflux and diabetes.
3. The patient fasts from solids, formula milk, cows' milk and milk-containing drinks for at least six hours preoperatively.	The higher-risk patient that the anaesthetic team treats differently. Contraindications.	Higher risk of regurgitation and aspiration; patients include those with obesity, gastro-oesophageal reflux and diabetes.
4. The anaesthetic team gives the higher-risk patient further interventions.	Healthy patients.	Healthy – ASA I-II without gastrointestinal disorders. Further interventions such as H ₂ -receptor antagonists, sodium citrate, gastrokinetic agents and proton pump inhibitors, together with rapid sequence induction, tracheal intubation and nasogastric tube.
5. a) Postoperatively, oral fluids are <i>offered</i> to healthy patients when they are fully awake. b) The child is not required to drink as part of the discharge criteria.	Non-routine, complicated surgery. Gastrointestinal or major abdominal surgery. Contraindications.	

Appendix E:

Glossary

Abbreviations

Technical terms

GDG	Guideline Development Group
GI	gastrointestinal
GOR	gastro-oesophageal reflux
GPP	good practice point
H ₂ RA	Histamine-2 receptor antagonist
NPO	nil (nulla) per os; nil by mouth
RCT	randomised (controlled) trial

Organisations

AAGBI	Association of Anaesthetists of Great Britain and Ireland
APAGBI	Association of Paediatric Anaesthetists of Great Britain and Ireland
ASA	American Society of Anesthesiologists
CC	The Cochrane Collaboration
DH	Department of Health
NCC-NSC	National Collaborating Centre for Nursing and Supportive Care
NICE	National Institute for Health and Clinical Excellence (England and Wales)
RCN	Royal College of Nursing
RCoA	Royal College of Anaesthetists
SIGN	Scottish Intercollegiate Guidelines Network

General glossary

ASA I-II

American Society of Anesthesiologists Physical Status Classification System: I - A normal healthy patient; II - A patient with mild systemic disease.

Carer

An individual who provides unpaid care as opposed to paid carers (for example, care workers).

Child

A child or young person between 0 and 18 years.

Clear fluid

A fluid through which it is possible to read newsprint.

Evidence-based

The process of systematically finding, appraising and using research findings as the basis for clinical decisions.

Evidence-based clinical practice

Evidence-based clinical practice involves making decisions about the care of individual patients, based upon the best available research evidence, rather than on personal opinion or common practice (which may not always be evidence-based). Evidence-based clinical practice involves integrating individual clinical expertise and patient preferences with the best available evidence from research.

Health professional

Includes nurses, allied health professionals, doctors.

Infant

A child less than one year old.

Intervention

A health care action intended to benefit the patient, for example, drug treatment, psychological therapy.

Meta-analysis

A statistical method of summarising the results from a group of similar studies

pH

Negative logarithm to base 10 of the hydrogen ion concentration. As pH increases the acidity decreases. pH ranges from 0 (most acidic) to 14.

Premedication

Drug therapy given to prepare the patient for anaesthesia and operation. The main aim of prescribing premedication is to prevent stress-induced physiological reactions.

Randomisation

Method used to generate a random allocation sequence, such as using tables of random numbers or computer-generated random sequences.

Randomised (controlled) trial

A clinical trial in which the treatments are randomly assigned to participants. The random allocation eliminates bias in the assignment of treatment to patients and establishes the basis for statistical analyses.

Standard fast

Fasting from food and drink from midnight for a morning operating session or 6am for an afternoon session. In infants, the standard fast may mean the normal feed is allowed up to four hours preoperatively.

Systematic review

A review of a clearly formulated question that uses systematic and explicit methods to identify, select and critically appraise relevant research, and to collect and analyse data from the studies that are included.

User

Anyone using the guideline.

Glossary partially based on:

- ◆ the *Clinical epidemiology glossary* by the Evidence based Medicine Working Group, www.med.ualberta.ca/ebm
- ◆ the glossary from the *Cochrane Handbook for Systematic Reviews of Interventions*, www.cochrane.org
- ◆ *Information for national collaborating centres and guideline development groups*, (NICE 2005) and the glossary from the Patient Involvement Unit at NICE, www.nice.org.uk

improving practice:
improving care

CLINICAL PRACTICE GUIDELINES

Published by the Royal College of Nursing
20 Cavendish Square, London, W1G 0RN

Telephone: 020 7409 3333

November 2005

ISBN: 1-904114-19-9

Publication code: 002 779



Royal College
of Nursing