

Perioperative Care of the Child

A NURSING MANUAL



Edited by **Linda Shields**

 **WILEY-BLACKWELL**

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PhD, MMedSci, BAppSci (Nursing), FRCNA, FRSM

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Contributors

Bernie Carter *PhD, PGCE, PGCE, BSc, RSCN, SRN, FRCN*

Bernie Carter is currently Professor of Children's Nursing at the University of Central Lancashire and at Alder Hey Children's NHS Foundation Trust. Bernie has been involved in researching and writing about children's pain for many years. Her particular interests lie in pain assessment and especially the assessment, care and pain management of children with severe cognitive impairment. She is currently involved in researching the pain experiences of boys and young men with Duchenne Muscular Dystrophy.

Julie Grasso (*nee Mill*) *RN*

Julie Grasso is the Clinical Nurse Consultant at The Stuart Pegg Paediatric Burns Centre at the Royal Children's Hospital, Brisbane. Her special interests include distraction therapy for children and burn assessment.

Eunice Hanisch *BSc (Nursing), BSocComm, PR*

Eunice has been working at the Mater Children's Hospital in Brisbane, Australia, since 1995. Eunice joined the Mater Children's Paediatric Postoperative Anaesthetic Care Unit in 2005, and before that worked in the surgical/orthopaedic ward.

Jeremy Jolley *PhD, MA, BN, PGCEA, PGCTheol, SRN, RSCN*

Jeremy Jolley is a Senior Lecturer – Paediatric Nursing at the University of Hull, East Yorkshire in the UK. He initially worked in general paediatric nursing before becoming a nurse teacher in 1989. Since then, he has managed pre- and post-registration programmes in paediatric nursing at the undergraduate and postgraduate levels. His research interests centre around the history of paediatric nursing, and his publishing has focussed on the individual needs of the child and the ways in which nursing can provide a service that is properly orientated to the needs of each child rather than to the needs of the hospital or community nursing team. Jeremy argues that each child should be seen as a 'person' and as a member of a family, that the child has a right, not just to be respected but to be regarded with affection.

Denise Jonas *RSCN, RGN, MSc, BSc (Hons), PGCHEPR, RNT*

Denise Jonas is currently a lecturer/practitioner in children's pain management and child health at University of Salford and Royal Manchester Children's Hospital. Denise has specialised for many years in the field of children's pain management. Her interests include the management of pain following day surgery and chronic pain in children.

Roy Kimble *MD (Qld), MBChB (Glas), FRCS, FRACS (Paed Surg)*

Professor Kimble is a Paediatric Surgeon and Director of Burns & Trauma in the Combined Department of Paediatric Surgery at The Royal Children's and Mater Children's Hospitals, Brisbane, Australia. His special areas of interest include paediatric burns and antenatal

diagnosis and treatment of fetal anomalies. He is Professor of Paediatrics at the University of Queensland Department of Paediatrics and Child Health.

Wendy McAlister *BN, RN*

Wendy holds a Bachelor of Nursing and works at the Mater Children's Hospital, Brisbane, Queensland, Australia, as a Registered Nurse. She has been a paediatric nurse for 12 years, worked as a paediatric recovery nurse for 5 years and an anaesthetic nurse for 4 years.

Janet Roper *BN, GradDip Perioperative Nursing, PGC Anaesthetic Nursing, RN*

Janet's interests in paediatric perioperative nursing began in her early training days at the Royal Children's Hospital in Brisbane, Australia. After various positions in Australia, Janet moved to the UK where she worked as practice educator in the Operating Department of the John Radcliffe Hospital in Oxford. Janet has now returned to her home town of Brisbane and is a perioperative nurse at the Redcliffe Hospital.

Linda Shields *PhD, MMedSci, BAppSci (Nursing), FRCNA, FRSM*

Linda Shields is Professor of Paediatric and Child Health Nursing and the Child and Adolescent Health Service and Curtin Health Innovation Research Institute, Curtin University of Technology, Perth, Western Australia, Australia, and is an Honorary Professor in the Department of Paediatrics and Child Health, The University of Queensland, Brisbane, Queensland, Australia. She maintains a small clinical load in post-operative recovery, and her research interests include family-centred care across health services, health of children in developing countries and the history of nursing.

Rebecca Smith *MA, BA (Hons), RN*

Rebecca is an In-House Donor Transplant Co-ordinator for the Hull and East Yorkshire Hospitals NHS Trust in the UK and a regional Transplant Co-ordinator for St James University Hospital in Leeds. She worked for many years on a General Intensive Care Unit that nursed both adults and children. She is also a lecturer at the University of Hull, specialising in health care ethics.

Susan Louise Tame *MSc (Dist), PGDip, BSc (Hons), PGCE (FE), RN (Adult)*

Susan began working in theatres at Hull and East Yorkshire Hospitals NHS Trust, England, in 1999 and worked in a number of specialities as a scrub practitioner before becoming a senior nurse and then sister in maxillofacial and ENT theatres. Susan currently works as a training advisor, providing advice and support to pre- and post-registered operating department practitioners and nurses working within theatres across the Trust. She is also a clinical practice educator for student operating department practitioners.

Ann Lesley Tanner *RN, MHLthSc (HlthProm)*

Ann Lesley Tanner became a Registered General Nurse at the Royal Adelaide Hospital, Adelaide, South Australia, in 1984, and gained a Master's degree in Health Science, majoring in Health Promotion in 1998 from Queensland University of Technology, Brisbane, Australia. She works as a Registered Nurse at the Royal Children's Hospital, Brisbane, Queensland, in the day procedure centre, PACU (post-anaesthetic care unit) and a major surgical/burns ward. She has been working in paediatric surgical wards and operating suites for the past 15 years.

Introduction

Operating theatres are frightening places, a foreign environment where highly specialized techniques that involve opening and invading a human body take place. As such, they present unique challenges for both those who use them, and those who work there. For children who require surgery and their families, the surgical environment is potentially one in which consideration must be given to the whole psychosocial aspect of care, even more so than in any other hospital environment. This is the 50th anniversary of publication of the Platt Report, a policy document that saw, around the world, the protection of the psychological state of children during hospital admission. This book about the care of children in the perioperative area celebrates the benefits brought about by the changes implemented in the paediatric surgical area since. While we have covered many topics surrounding different areas of paediatric surgical practice, there are some we may have missed, and would welcome suggestions from your readers for future editions.

In this book, we aim to provide the reader with a range of information about the specialised care of children (and their families) who are having a surgical procedure in a perioperative area. However, we have not included detailed accounts of standard perioperative practice, e.g. sterilising techniques, as this book is about children and their families. For standard perioperative practice, many large and detailed books exist. The authors of this book are all experienced clinicians, who have highly specialised skills in particular areas. While we all live in different countries, we all care for children and their families when they come into a health service for a surgical procedure of some kind.

A note on terminology. We often refer to parents. For our purposes, 'parent' means any person who has primary responsibility to care for a child. This can mean the natural parents, any extended family member, foster parents and carers or anyone in whose charge the child is deemed to be at the time. However, for brevity, we use the word 'parent/s'. We use the term 'child' to mean child in the legal sense, i.e. a minor in legal terms (in many countries, someone under the age of 18 years). However, we recognise that adolescents, young people or any other term considered politically correct could be used for those in their teenage years, whom we include in this book. We also include people who may be older than 18 years, but who still use paediatric operating theatres for any reason whatsoever. For ease of use, all will be referred to as 'child' or 'children'. We use the terms 'operating theatre' and 'operating room' interchangeably, and often use the abbreviation 'OR' for operating room. The paediatric postanaesthetic care unit, or post-operative recovery room, is denoted as 'PPACU'. Induction rooms are part of many paediatric ORs, and are the rooms adjoining the operating theatre itself where the anaesthetic is induced before the child is wheeled into the theatre and placed on the operating table. Induction rooms are often colourful places with pictures on the wall and a range of distraction tools such as music

and puppets to relax the child and his or her parents. This precludes a range of people having to enter the theatre itself, thereby preventing possible spread of microorganisms.

We hope that you enjoy reading this book, and that it is useful to anyone who is caring for children and families.

Linda Shields

Acknowledgements

This book is dedicated to the memory of Mary Ann Doslick (1953–1999), a committed and caring children’s nurse who worked at the Mater Children’s Hospital in Brisbane, Queensland, Australia, for many years. Some of us who have written this book knew Mary well, and miss her very much.

My personal thanks must go to the contributors, many of whom had serious family events occur during the time they wrote their chapters. I applaud their persistence and commitment, and for sticking with what must have become onerous tasks at times. Ms Canay Brown Coghill and Master Alfred Jack Coghill helped enormously with their patience and willingness to be photographed in many different situations.

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Abbreviations

<	less than
>	greater than
ABC	airway, breathing and circulation
ABG	arterial blood gasses
ACORN	Australian College of Operating Room Nurses
ANZCA	Australia & New Zealand College of Anaesthetists
AORN	Association of Operating Room Nurses
ASPAN	American Society of PeriAnaesthesia Nurses
BP	blood pressure
BSD	brainstem death
BTS	British Transplant Society
C	centigrade
Ca ⁺	calcium
CAAS	Cardiac Analgesia Assessment Scale
CCAM	congenital cystic adenomatoid malformation
CDH	congenital diaphragmatic hernia
CIT	cautery inferior turbinates
CJD	Creutzfeld–Jakob disease
cm	centimetre
CMI	continuous morphine infusions
CMV	cytomegalovirus
CNS	central nervous system
CO ₂	carbon dioxide
CSF	cerebrospinal fluid
CT	computerised tomography
CVP	central venous pressure
DIC	disseminated intravascular coagulation
ECG	electrocardiogram
ENT	ear, nose and throat
ETT	endotracheal tube
EUA	examination under anaesthetic
EXIT	<i>ex utero</i> intrapartum treatment
FCC	family-centred care
FiO ₂	fraction of inspired oxygen
FLACC	Faces, Legs, Activity, Cry and Consolability pain assessment tool
FPS-R	Revised Faces Pain Scale
GA	general anaesthetic
GMC	General Medical Council (UK)
GP	general practitioner

H ₂ O	water
HIV	human immunodeficiency virus
HLA	human leukocyte antigen
hr	hour
ICP	intracranial pressure
ICU	intensive care unit
IDC	indwelling catheter
IM	intramuscular
IPPV	Intermittent Positive Pressure Ventilation
IV	intravenous
kg	kilogramme
LMA	laryngeal mask airway
LWI	local wound infiltration
MAC	minimum alveolar concentration
mEq	milli-equivalents
MH	malignant hyperthermia
mins	minutes
MIS	minimally invasive surgery
mls	millilitres
mm	millimetre
mmHg	millimetres of mercury
MRI	magnetic resonance imaging
MSPCT	Multiple Size Poker Chip Tool
NB	<i>nota bene</i> (note well)
NCA	nurse-controlled analgesia
NCCPC-PV	Non-Communicating Children's Pain Checklist-Post-operative Version
NCCPC-R	Non-Communicating Children's Pain Checklist
NEC	necrotising enterocolitis
NG	nasogastric
NHBD	non-heart beating donation
NIBP	non-invasive blood pressure
NSAID	non-steroidal anti-inflammatory drugs
O ₂	oxygen
OA	oesophageal atresia
ODP	operating department practitioner
ODR	National Organ Donor Register (UK)
OR	operating room (or operating theatre)
OSA	obstructive sleep apnoea
PARS	post-anaesthesia recovery score
PAS	post-anaesthesia shivering
PCA	patient-controlled analgesia
PEG	percutaneous enteric gastrostomy
PIPP	Premature Infant Pain Profile
PO ₂	oxygen pressure
PONV	post-operative nausea and vomiting
PPACU	paediatric post-operative care unit

PPP	Paediatric Pain Profile
PPPM	Parents Post-operative Pain Measure
RN	registered nurse
SaO ₂	oxygen saturation
SCAN	suspected child abuse and neglect
secs	seconds
T3	tri-iodothyronine
T4	thyroxine
TBI	total body irradiation
TBSA	total body surface area
TDC	thyroglossal duct cyst
TIVA	total intravenous anaesthesia
TOF	tracheo-oesophageal fistula
TPN	total parenteral nutrition
TTTS	twin-twin transfusion syndrome
U&E	urea and electrolytes
UK	United Kingdom
USA, US	United States of America
WHO	World Health Organization