

# Clinical Procedures Manual for remote and rural practice

Supporting clinical practice in the bush

4th edition

**CARPA**  
Centre Australian Rural Practitioners Association Inc



**RPHCM**  
Remote Primary Health Care Manuals



**CRANAplus**  
improving remote health

Centre for Remote Health  
Alice Springs, 2017

**Copyright** © 2017 Central Australian Aboriginal Congress, Central Australian Rural Practitioners Association Inc, CRANAP<sup>plus</sup> Inc, Flinders University through the Centre for Remote Health.

### **Copying and reproduction**

**This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported Licence.** To view a copy of this license, see [www.creativecommons.org/licenses/by-nc-sa/3.0](http://www.creativecommons.org/licenses/by-nc-sa/3.0) or write to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.



You may only copy, distribute, display or perform the work (and make derivative works) subject to the terms of the Creative Commons licence that applies to it (which, among other things, preserves the moral rights of the Remote Primary Health Care Manuals joint venture and imposes obligations of attribution upon users). You may not make use of this work for commercial purposes.

For permissions beyond the scope of this licence, contact the publisher.

**Hard copy** (ISBN: 978-0-9875557-5-5)

First edition 2001

Third edition 2014

Second edition 2009

Fourth edition 2017

### **Published by the Centre for Remote Health**

PO Box 4066, Alice Springs, NT, 0871, Australia

E-mail: [remotephcmanuals@flinders.edu.au](mailto:remotephcmanuals@flinders.edu.au)

Websites: [www.crh.org.au](http://www.crh.org.au); [www.remotephcmanuals.com.au](http://www.remotephcmanuals.com.au)

Every effort has been made to trace and acknowledge copyright. However, should any infringement have occurred, the publishers offer their apologies and invite copyright owners to contact them.

**Illustrations:** Stephanie Mackie-Schneider, Alice Springs, NT.

### **Suggested citation**

Remote Primary Health Care Manuals. (2017). *Clinical Procedures Manual for remote and rural practice (4th edition)*. Alice Springs, NT: Centre for Remote Health.

### **Disclaimer**

The Clinical Procedures Manual for remote and rural practice has been written, edited, published, sold and distributed on the basis that all parties to its publication (including the authors, editors, editorial committee members, advisors, contributors and publishers) exclude any and all liability including for damages or loss, including but not limited to, by their negligence or defamation, arising out of the use, reliance upon or by reference to the information contained in the material. They are not responsible for errors, omissions, or for any consequences of application of the information contained herein and make no warranty in respect of its accuracy, currency or completeness.

Information within this publication should not be used as a substitute for professional qualified help or advice. Application of this information in a particular situation is the responsibility of the health practitioner, not the publication. The practice of medical procedures is risky and includes inherent risks, both known and unknown, in the practice of the procedures contained herein. The material is made available, sold and distributed expressly on the condition that all users of the material or people referring to this material agree to legally assume all the risks of injury and loss whatsoever, including the risk of our own negligence.

# Preface

---

People who live in remote, rural and isolated areas experience higher levels of trauma, and delays to treatment associated with location and geography — often vast distances, and sometimes water, weather or transport issues. Remote health practitioners not only provide emergency care, but as part of a primary health care service also perform a wide range of clinical procedures on site. The *Clinical Procedures Manual for remote and rural practice* is designed to support this practice.

The advanced practice skills needed to work in these areas can be developed and maintained through the Remote Health Practice Program at the Centre for Remote Health, and the Remote Emergency Care (REC) and Maternity Emergency Care (MEC) courses run by CRANAp<sup>l</sup>us.

For more information contact:

- Centre for Remote Health — [www.crh.org.au](http://www.crh.org.au), phone: +61 8 8951 4700
- CRANAp<sup>l</sup>us — [www.crana.org.au](http://www.crana.org.au), phone: +61 7 4047 6400

Support for remote practitioners and their families is available through Bush Support Services, offered through CRANAp<sup>l</sup>us. This includes the free, confidential 24 hour Bush Support Line — 1800 805 391.

## Remote Primary Health Care Manuals logo

The RPHCM logo, developed by Margie Lankin, tells this story:

The people out remote, where they use the manuals, are coming into their health service. They are being seen from one of the manuals ... desert rose, the colours of the petals. The people sitting around are people who use the manuals – men and women. People who are working for Indigenous health... doctors and nurses and health workers. Messages are being sent out to the community from the clinic, from the people, to come in to the clinic to be seen. Messages about better health outcomes. People are walking out with better plans, better health, better health outcomes.

## About this manual

The fourth edition of the *Clinical Procedures Manual for remote and rural practice (CPM)* has been produced as part of the suite of Remote Primary Health Care manuals, through a collaboration between CRANAp<sup>l</sup>us, the Central Australian Aboriginal Congress, Central Australian Rural Practitioners Association, and the Centre for Remote Health. The other manuals in the suite are the *CARPA Standard Treatment Manual (CARPA STM)*, the *Minymaku Kutju Tjukurpa Women's Business Manual (WBM)*, and the *Medicines Book for Aboriginal and Torres Strait Islander Health Practitioners (Medicines Book)*.

As with previous editions it has been written by remote practitioners, for their remote and rural colleagues. The aim is to incorporate the practice wisdom and experience of these practitioners into a practical, best-practice guide to the many routine and emergency procedures carried out in the bush.

It is intended that this manual will remind, reassure, and clearly instruct as needed. It provides procedures and general principles that can be used in a range of settings to support your endorsed standard treatment guidelines, eg *CARPA STM*, *WBM*.

This manual presumes knowledge and skills at the level of a registered health professional who has undertaken, or is undertaking, advanced skills training for remote or rural practice.

Remember that you should:

- Be prepared and upskilled for remote and rural practice
- Be current in remote emergency, life support, and maternal emergency care
- Work to your level of competence and confidence and carefully consider the circumstances
- Be guided by local policy
- Get advice or help from someone more qualified any time you are unsure.

## Your input

Feedback is an essential component of keeping the manuals 'by the users for the users'. Please submit your suggestions and comments via either

- Online feedback form at [www.remotephcmanuals.com.au](http://www.remotephcmanuals.com.au)
- Email to [remotephcmanuals@flinders.edu.au](mailto:remotephcmanuals@flinders.edu.au)

## Acknowledgements

This manual was produced with funding from the Australian Government Department of Health. Project management for the revision was provided by the Centre for Remote Health, Alice Springs. Oversight of the project was provided by the Remote Primary Health Care Manuals Governance Committee, made up of representatives from *CRANApplus*, Central Australian Aboriginal Congress, Central Australian Rural Practitioners Association, and the Centre for Remote Health. Oversight of the review process was provided by the Remote Primary Health Care Manuals Editorial Committee.

## Contributors

Thank you to the practitioners, from all over Australia, who volunteered their time and expertise to ensure the manual remains evidence-based, relevant, practical and user-friendly. More information about the review process can be found at [www.remotephcmanuals.com.au](http://www.remotephcmanuals.com.au)

This acknowledges those contributors known to us. Due to the large number of volunteers, we have only recorded the highest level of participation.

## Remote Primary Health Care Manuals Editorial Committee

Lyn Byers (chair), Christine Connors, David Atkinson, Frances Vaughan, George Tripe, Kerrie Gell, Lesley Neuwoudt, Margaret Gaff, Nicholas Williams, Peter McCormack, Robbie Charles.

We wish to recognise Sabina Knight, founding chair, for 30 years of leadership, inspiration and commitment to improving health care in remote and Indigenous Australia.

### **Editorial Working Group chairs**

Anne Patton, Deb Fearon, Fred Miegel, Geoff Isbister, Graeme Maguire, Jacqueline Boyle, Louise Maple-Brown, Lukas Arkapaw, Nathan Ryder, Paul Lawton, Peter May, Phil Humphris, Richard Davey, Richard Johnson, Rosalie Schultz, Sally Foxley, Simon Wooley, Terrie Ivanhoe.

### **Editorial Working Group members**

Alan Gault, Alice Gilbert, Amanda Leach, Andis Graudins, Andrew Dawson, Andrew Lee, Andrew White, Anne-Marie Kerr, Annie Godwin, Annie Tangey, Annie Villeseche, Cherian Sajiv, Cherie Whitbread, Dennis Pashen, Erik Tikoft, Frances Neylon, Gaynor Garstone, Helen Vaughn, Hubertus Jersmann, Jenelle Dunkin, Jenni Judd, Jennifer Alison, John Kelly, Karen Edmond, Kathliene Robinson, Katrina Lloyd, Kerin O'Dea, Kerryn Gijsbers, Kiarna Brown, Koen De Decker, Lachlan McIver, Lana Field, Linda Garton, Marcus Tabart, Markus Roth, Marrpallawuy Marika, Martin Hall, Melissa Williams, Michael Foster, Michele Luey, Peter Bennet, Peter Morris, Pippa Tessman, Precious Mapendere, Rae-Lin Huang, Rebecca Allnutt, Rob Baird, Rohan Anderson, Sandra Meihubers, Sandy Nelson, Sharon Johnson, Sridhar Chitturi, Stephen Gourley, Tanya Gardner, Tasmin Cockayne, Tim Henderson, Tracy Walczynski, William Majoni.

### **Primary reviewers**

Adele Northwood, Allan Donnelly, Amanda Gill, Amy Lamb, Bill Pettit, Chris Belshaw, Chris Turnbull, Claire Waddington, Geoff Malone, Graham Williams, Gypsy De Jonge, Heather Jensen, Jacob Koshy, Jennifer Byrnes, Judy Wicking, Kim Poole, Kira Kranzusch, Kyran Smith, Libby Bowell, Lloyd Noon, Mathew Leach, Matthew Simpson, Maureen Phillips, Michael Geraghty, Mike Nicholls, Peter Deutschmann, Shane Wise, Sue Gordon, Sue Orsmond, Tom Snelling, Ulrich Orda, Verena Tinning.

### **Secondary reviewers**

Alison Welsh, Allison Gray, Annie Wilson, Bianca Evans, Caitlin Steiner, Carmel Hattch, Caroline McDonald, Cathy Chapple, Chrissie Ingliss, Colleen Court, Dana Fitzsimmons, Debbie Jolley, Deborah O'Neill, Don Boldiston, Donna Simmonds, Eleanor Parker, Elizabeth Watkins, Emily Lawton, Emily Whitelaw, Fabian Schwarz, Felix Ho, Fiona Djerrkura, Francis Colahan, Genevieve Gabb, Glory Baker, Helen Parker, Janet Terry, Janine Kelsey, Jessie Anderson, John Wright, Jol Fleming, Julia Vnuk, Julie Hasset, Kathy Currie, Katie Mitchell, Keith Forrest, Keith Hunter, Kerr Wright, Kim Henderson, Laurencia Grant, Liz Swan, Margaret Cotter, Maricar Alcedo, Marilyn Hake, Megan Halliday, Melanie Herdman, Nick Tyllis,

Pamela Harnden, Paul Lee, Peter Thorn, Rebecca Henshaw, Ria Beatson, Rita Apelt, Rosemary Lee, Stephen Fuller, Sue Roth, Sung Lee, Tara White, Winnie Chen.

## **Project team**

Janet Struber, Stephanie Mackie-Schneider, Victoria Orpin, Sandeep Reddy, Sally Herring, Allison Gray.

**Assisting the team:** Karen Montey, Malissa Hodgson, Ross Carter, Sheree Zadow.

## **Content**

The following content has been reproduced for use in the manual.

- Ear examination chart ([p160](#)) — photos provided by Dr Michael Hawke, Hawke Library. [otitismedia.hawkelibrary.com](http://otitismedia.hawkelibrary.com)
- HEADSS framework for Psychosocial Health Assessment ([p102](#)) — Goldenring JM, Rosen DS. Getting into adolescent heads: an essential update. *Contemporary Pediatrics* 2004;21:64
- Children's BP charts ([p107](#)) — Centres for Disease Control and Prevention, United States. [www.cdc.gov](http://www.cdc.gov)
- Children's BMI charts 0–5 years ([p109](#)) (Table 4.7, Table 4.8) — WHO Child Growth Standards, 2009. [www.who.int/childgrowth/standards/en](http://www.who.int/childgrowth/standards/en)
- Children's BMI charts 5–19 years ([p110](#)) (Table 4.9, Table 4.10) — WHO Growth Reference 5–19 years, 2007. [www.who.int/growthref/en](http://www.who.int/growthref/en)

# Contents

---

Using the Clinical Procedures Manual .....	1
<b>1. Remote context .....</b>	<b>5</b>
Cultural safety .....	6
Travelling in remote areas .....	9
Consult by telephone, satellite phone, or radio .....	13
Evacuations .....	16
Transport — person who may become violent .....	23
Assessing or treating someone in custody .....	25
<b>2. Trauma and emergencies .....</b>	<b>27</b>
Preparation for trauma and emergencies .....	28
Assessing trauma — primary and secondary survey .....	35
Keeping airway open and assisting breathing .....	44
Advanced airway management .....	49
Chest procedures .....	57
Choking.....	62
Immobilising the spine .....	64
Immobilising a snake bite.....	72
Sexual assault in adults .....	73
<b>3. Giving fluids (rehydration) .....</b>	<b>79</b>
Making oral rehydration salts (ORS).....	80
Putting in nasogastric tube (NGT) .....	81
Putting in IV cannula and starting a drip .....	84
Putting in butterfly IV needle .....	86
Putting in intraosseous needle .....	88
<b>4. Clinical assessment and management.....</b>	<b>93</b>
Clinical assessment of adults.....	94
Clinical assessment of children .....	98
Providing care for young people .....	102
Clinical measurements .....	105
Mental health assessment .....	112
Recording in the file notes .....	116
<b>Screening tools</b>	
Child health check (0–5 years) .....	118
School-aged health check (6–14 years).....	121
Adult Health Check .....	123

<b>Management and interventions</b>	
Management plan .....	128
Disability.....	131
Palliative care .....	133
Loss and grief .....	136
Brief interventions .....	138
Healthy lifestyle choices .....	143
<b>5. Eyes, ears, nose, mouth .....</b>	<b>147</b>
<b>Eyes</b>	
Checking near and distance vision .....	148
Eye procedures.....	151
<b>Ears</b>	
Ear examination .....	158
Ear procedures .....	164
<b>Nose</b>	
Nasal packing .....	169
<b>Mouth</b>	
Mouth, throat, teeth and gums examination.....	172
Protective dental procedures .....	173
Dental materials and equipment .....	176
Dental care procedures .....	177
<b>6. Chest and abdomen .....</b>	<b>185</b>
<b>Chest</b>	
Lungs and respiratory system examination .....	186
Chest physiotherapy.....	194
<b>Abdomen</b>	
Abdominal examination .....	198
Rectal examination.....	203
Male catheterisation .....	205
Reduction of a tight foreskin .....	207
Condoms .....	209
Continuous ambulatory peritoneal dialysis.....	210
<b>7. Musculoskeletal system .....</b>	<b>217</b>
Broken bones — simple and compound fractures .....	218
Bandaging .....	224
Slings .....	227

Splinting .....	229
Plaster of Paris (POP) slabs .....	234
Taking off a cast .....	240
Using crutches .....	242
Reducing dislocated or pulled joints .....	244
Joint aspirations and injections .....	249
Stiff neck.....	257
Feet .....	259
<b>8. Skin .....</b>	<b>265</b>
Skin examination .....	266
Cutting and draining an abscess .....	268
Injuries — fingers .....	270
Injuries — fingernails and toenails .....	273
Removing a tick .....	275
<b>Wound management</b>	
Wound assessment .....	277
Wound dressings .....	280
Examining and cleaning a wound before closing .....	287
Giving local anaesthetic before closing a wound .....	289
Closing a wound .....	292
Taking out sutures and staples .....	303
Nerve and ring blocks.....	305
<b>9. Infection control .....</b>	<b>311</b>
Personal protection .....	312
Clinical and related waste management in remote areas .....	317
Cleaning, disinfecting and sterilising reusable medical equipment .....	321
Preparation for pandemic infections in remote communities .....	328
<b>10. Medicines .....</b>	<b>331</b>
Managing a remote clinic dispensary.....	332
Storing and transporting vaccines and medicines .....	335
Giving medicines .....	338
Giving injections .....	345
Giving medicines and injections to babies and young children .....	351
Giving IV medicines by injection .....	352
Giving iron by IV infusion .....	353
Giving oxygen .....	355

Calculating medicine doses and drip rates .....	358
Inhalation devices for respiratory medicines .....	360
Spacer devices for respiratory medicines .....	364
<b>11. Pathology .....</b>	<b>367</b>
Storing and transporting pathology specimens .....	368
Collecting blood samples .....	370
Collecting blood from babies and children .....	378
Testing for diabetes mellitus — blood glucose and HbA1c .....	381
Testing haemoglobin .....	383
Collecting body fluids, viral cultures, skin specimens .....	385
Collecting swabs .....	388
Collecting urine .....	393
Collecting faeces and parasites .....	398
Collecting semen .....	400
Estimating kidney function .....	401
<b>12. Reference section .....</b>	<b>403</b>
Mnemonics .....	404
Abbreviations .....	405
<b>Index .....</b>	<b>408</b>

# Using the Clinical Procedures Manual

---

Use of the *Clinical Procedures Manual* is not intended to replace clinical judgement, expertise, or appropriate referral. It does not support practitioners to work beyond their level of competence or confidence or outside their scope of practice or health service policy.

Remember that clinical procedures can be invasive, painful, and frightening. Always be reassuring and encouraging, explain calmly what you are doing, and take your time.

**In using this manual it is assumed that:**

- **You know the meaning of, and are able to do, the following**
  - An aseptic technique
  - Draw up and give common injections
  - Safely throw away (dispose of) sharps and syringes
  - Cardiopulmonary resuscitation (CPR)
- **BEFORE doing any procedure you have**
  - Taken a full medical history and done a physical examination
  - Explained the procedure to the person and/or their carer and gained informed consent
  - Ensured patient privacy
  - Talked with someone more experienced than you when
    - This is suggested by the guideline
    - You are unsure of the clinical management
    - It is a clinically serious situation
  - Used your clinical guidelines to give pain relief, sedation, antibiotics, tetanus injections etc as needed
- **AFTER finishing a procedure you will**
  - Record everything in the person's file notes, and in other documents as required by the condition or local policies
  - Give appropriate advice, instructions and warnings to the person, and arrange follow-up or handover.

## The procedures

Procedures are written in dot point form, and are usually under 4 headings:

- **Title** — what the procedure is and why it is done
- **Attention** — lists dangers and warnings, general dos and don'ts, and handy tips to help with the procedure
- **What you need** — lists equipment and medicines needed in the order that they are used, and equipment/medicines that may be needed
- **What you do** — explains procedure in the order it is done, makes helpful comments as it goes along, highlights important facts

**Always** begin by reading whole procedure, and carefully checking points listed under Attention.

When options are given they are listed in order of preference. Only move down the list if earlier options are not available, or are not acceptable to the person or their carer.

### Information boxes

Black boxes — easy to find information

Thin red boxes — important information

Thick red boxes — very important or life saving information

### The symbols

The symbols found in boxes at the beginning of a section or procedure are reminders about common equipment and tasks.



**Light** — you need a bright light to do this procedure.



**Gloves** — put on clean, nonsterile gloves for personal and patient protection.



**Mask** — use a mask for personal protection.



**Eye protection** — use glasses/goggles for personal protection.



**Sterile technique** — use sterile (aseptic) technique and 3 minute hand wash before putting on sterile gloves.



**Pathology** — label, pack and store pathology specimens and fill in forms.



**Sharps disposal** — throw away needles and other used sharps safely.

### Language

We use simple language in all but the most advanced procedures. Where possible we have used common words followed by the medical term in brackets.

### Abbreviations

Abbreviations or acronyms may be used without explanation. There is an abbreviation list, including acronyms, in the reference section.

**Indigenous**

The term Indigenous has been used to mean both Aboriginal and Torres Strait Islander Australians. We mean no disrespect by using this inclusive term for different cultural groups and apologise for any discomfort or sorrow it may cause.

**Medicines**

Medicines are named for their active ingredients. Where a brand name for a medicine or other product is used it is in italics, and usually in brackets.

The mention of specific products does not imply that they are endorsed or recommended in preference to others of a similar nature that are not mentioned.

**Online version**

The *Clinical Procedures Manual for remote and rural practice* is available online as part of the Remote Primary Health Care Manuals at:  
[www.remotephmanuals.com.au](http://www.remotephmanuals.com.au)

