



# Practical Medical Procedures at a Glance

Rachel K. Thomas



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Procedures  
at a Glance**

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# Practical Medical Procedures at a Glance

**Rachel K. Thomas, BM, BCh, BEng (Hons), BSc**  
South Thames Foundation programme  
London, UK

**With contributions from:**

**Catherine J. Taylor, BM, BCh, PhD, BSc (Hons)**  
South East Scotland Foundation programme  
Edinburgh, UK

**Aletta E. Richards, MB, BCh, DA, FCA**  
Consultant Anaesthetist  
Oxford Universities NHS Trust  
Clinical Skills Tutor  
Division of Medical Sciences,  
The University of Oxford, UK

**Diana E. Thomas, BSc (Hons), PhD**  
Scientific Director  
Centre for Evidence Based Paediatrics,  
Gastroenterology and Nutrition  
Sydney Medical School, The University of Sydney  
KRI, The Children's Hospital at Westmead  
Sydney, NSW, Australia

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The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

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# Contents



*Preface* vii  
*Acknowledgements* viii  
*About the companion website* ix  
*How to use your textbook* x

## Part 1

### Introduction 1

- 1 Overview of practical procedures 2
- 2 Non-technical skills 4
- 3 Waste, sharps disposal and injuries 6

## Part 2

### Common preliminary components 9

- 4 Identifying a patient 10
- 5 Consent, capacity and documentation 12
- 6 Hand hygiene and personal protective equipment 14
- 7 Scrubbing in 16
- 8 Asepsis 18

## Part 3

### Common non-invasive ward procedures 21

- 9 Measuring vital signs 22
- 10 Writing a safe prescription 24

## Part 4

### Common invasive ward procedures 27

- 11 Performing venepuncture 28
- 12 Taking blood cultures 30
- 13 Inserting a cannula in a peripheral vein 32
- 14 Measuring blood glucose 34
- 15 Suturing 36

## Part 5

### Administering medications 39

- 16 Administering intravenous infusions 40
- 17 Administering intravenous infusions of blood and blood products 42
- 18 Administering parenteral medications 44
- 19 Administering injections 46

## Part 6

### Common procedures – respiratory 49

- 20 Measuring arterial blood gas 50
- 21 Administering oxygen therapy 52
- 22 Using inhalers and nebulisers 54

- 23 Assessing respiratory function 56
- 24 Using airway manoeuvres and simple adjuncts 58
- 25 Ventilating with a bag valve mask device 60

## Part 7

### Common procedures – cardiology 63

- 26 Recording a 12-lead electrocardiogram 64
- 27 Performing cardiopulmonary resuscitation 66

## Part 8

### Common procedures – gastroenterology 69

- 28 Inserting a nasogastric tube 70
- 29 Performing a digital rectal examination 72

## Part 9

### Common procedures – urology 75

- 30 Performing urinalysis 76
- 31 Inserting a bladder catheter 78

## Part 10

### Common procedures – otolaryngology 81

- 32 Performing otoscopy 82

## Part 11

### Common procedures – ophthalmology 85

- 33 Performing ophthalmoscopy 86

## Part 12

### Common procedures – end-of-life care 89

- 34 Confirming and certifying death 90

## Part 13

### Supplementary resources 93

- Multiple choice questions* 94
- Answers to multiple choice questions* 104
- Further reading and references* 114
- Index* 117

# Preface



**P**ractical procedures are an integral part of many clinical encounters. They are a mainstay of good clinical care. Accordingly, regulatory bodies such as the General Medical Council now require procedures to be formally recognised and assessed as a prerequisite to gaining full registration.

The intention of this book is to provide a resource to help guide in the safe and effective acquisition of these skills. It is intended to supplement the teaching provided by a multitude of experienced clinicians – the doctors, nurses, site practitioners, professors, medi-

cal school tutors and lecturers – not to replace it. Each skill or procedure possesses protocols specific to each Healthcare Trust or region of practice which, of course, must be adhered to first and foremost.

The online representations of the procedures are included to help readers understand the practical aspects of the procedures – but, as with any skill, there is no replacement for repetition.

The suggested further reading and references are included as they have been consulted in the writing of this book, and they are valuable resources to further expand upon its contents.



# Acknowledgements

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# About the companion website



Don't forget to visit the companion website for this book:



[www.ataglanceseries.com/  
practicalmedprocedures](http://www.ataglanceseries.com/practicalmedprocedures)

There you will find valuable material designed to enhance your learning, including:

- Interactive multiple choice questions
- Videos demonstrating practical techniques

Scan this QR code to visit the companion website:



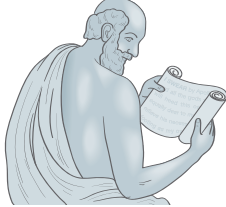
# How to use your textbook

## Features contained within your textbook

Each topic is presented in a double-page spread with clear, easy-to-follow diagrams supported by succinct explanatory text.

### 1 Overview of practical procedures

**Figure 1.1** Hippocrates: the father of medicine and author of the Hippocratic Oath. Reproduced from Slack © by author.



**Figure 1.2** 1948 World Medical Association modern version of the Oath. Source: Dawy (2014), Chapter 1, p. 2.

**At** the time of being admitted a member of the medical profession:

- I solemnly pledge myself to consecrate my life to the service of humanity.
- I will give my teachers the respect and gratitude which is their due.
- I will promote my profession with conscience and dignity.
- The health of my patient will be my first consideration.
- I will respect the secrets which are confided in me, even after the patient has died.
- I will maintain by all the means in my power, the honour and the noble traditions of the medical profession.
- My colleagues will be my brothers.
- I will aid, without consideration of religion, nationality, race, party politics or social standing to relieve the suffering of all and my patient.
- I will maintain the strictest respect for human life from the time of conception, even under threat I will use no medical knowledge contrary to the laws of humanity.
- I make these promises solemnly, freely and upon my honour.

**What are practical procedures?**  
The practical procedures addressed in this book, and in the online learning materials, are a group of processes that medical practitioners are required to be proficient in.  
Whilst these requirements may shift, varying with different regulatory bodies, Healthcare Trusts and local protocols, most of the included procedures are part of the current recommendation of required skills by the General Medical Council (GMC).

**Why are they important?**  
Proficiency is required in order to contribute to quality patient care – facilitating the provision of a more beneficial clinical encounter for both the patient and the medical practitioner. Many of these skills are simple components of daily life in most hospitals, as they are required for the diagnosis and management of a wide range of medical conditions.  
Furthermore, proficiency in these skills is part of the current requirements for doctors to gain their full medical registration.

**Using this resource**  
This book is best used when coupled with the supplementary online learning materials. Each chapter addresses a procedure or closely linked set of skills – what is, why it is used, and several relevant indications, contra-indications and complications. As the focus of this resource is on assisting in the acquisition of skills, the information relating to indications, contra-indications and complications is by no means exhaustive. The contra-indications listed may be relative or absolute. Various other sources of information, some of which are included in the Further reading and reference sections at the back of the book, focus more fully on the pathology and medical settings of these procedures. In some skills, common pathology is also briefly mentioned to give some context to the procedure and its frequent findings. Most chapters include a step-by-step breakdown of how to perform the practical procedure. Most also include a **Hint** and **Tip** box with suggestions and important points to remember.  
The chapters correspond to self-assessment questions, which are included both in the book and online. The majority of chapters also correspond to an online video, which shows in real time how to perform the practical procedure, and the equipment required to do so.  
Proficiency in performing these procedures, as with any new skill, takes time and practice. Repetition is the key! Generally, it is preferable to read about the procedure and how to do it, and to then watch it several times, prior to attempting it yourself in a skills laboratory, if possible, before attempting it on a patient. Many skills laboratories have either low-fidelity or high-fidelity simulations to facilitate learning.

**General advice**  
Be sure to ask for help from your seniors and colleagues – they also had to learn once, and thus they will usually be happy to help.

Ensure that you are not interrupting his or her clinical commitments or affecting patient care, and if you are, it may be more suitable to ask someone else.  
Never attempt a procedure on a patient if you do not feel confident or capable of performing it safely – it is not appropriate to feel coerced into clinical procedures you do not feel qualified to carry out. Ensure that you have enough self-awareness and confidence to be aware of not only your capabilities but also your limitations. Remember the Hippocratic Oath – first, do no harm (Figures 1.1 and 1.2)! Ensure that you also look after yourself! Take breaks, and ensure that you eat and drink regularly, particularly during long shifts. Also ensure that you avoid injuring yourself by adhering to moving and handling protocols, such as using slides, hoists and approved methods for moving patients.  
As will be covered in each of the following chapters of this book, ensure that you fully and correctly identify the patient, and document your actions in the relevant area. Usually, this will mean in the patient notes, although for some procedures (e.g. cannulation), some hospitals will require this to also be included on the medication chart. Ensure that you also document procedures that you attempted that were not successful – do not feel embarrassed to do so.  
In many situations, site practitioners or nurses may be able to perform the procedure. Whilst at times when you are very busy, this will be a blessing, ensure that you obtain adequate experience in performing them too. There is no substitute for practice – with the procedures will become much easier, as your confidence grows.  
Remember that many clinical settings have clear guidance and protocols available to assist in practical procedures. Ensure that you become familiar with these as soon as possible, as they will help both you and your patients. This book's information on each practical procedure is included as guidance only – it is important to remember that best current practice constantly evolves, and it is the medical practitioner's responsibility to keep up with any changes as they appear. Guidance is available online from resources such as the GMC's *Tomorrow's Doctors*.  
Finally, everyone has periods of time when they lose confidence, and are unsuccessful in procedures that had previously been mastered. This will pass – perhaps after requesting guidance from a senior to improve technique, perhaps after confidence increases or perhaps simply after luck has improved! Everyone had to learn once – you are not the first person to have trouble removing that last little air bubble from that syringe.

**Hint and tip:**

- First, do no harm!
- Don't hesitate to ask for help.
- Document your actions – successful or otherwise.
- Take care to not injure yourself when moving patients – used approved aids and methods.
- Follow local protocols.
- Keep up with best current practice.

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Hints and tips boxes give inside information on a topic.

### Hints and tips:

- First, do no harm!
- Don't hesitate to ask for help.
- Document your actions – successful or otherwise.
- Take care to not injure yourself when moving patients – used approved aids and methods.
- Follow local protocols.
- Keep up with best current practice.

Did you know boxes highlight points to remember.

Your textbook is full of photographs, illustrations and tables.

### Did you know?

• Many needles now have **needle safe units** attached to the needle (Figure 3.2). This is usually a **plastic component**, which can click safely and easily over the needle after use – thus minimising the risk of needle-stick injury. If one is present, use it!

Multiple choice questions, at the end of the book and followed by the answers, help you test yourself.

### Multiple choice answers

#### 1 Overview of practical procedures

- 1 A  
Practical procedures are required to deliver quality patient care. Proficiency in many practical procedures is currently a regulated recommendation by the General Medical Council.
- 2 D  
Practical procedures, such as venepuncture, occur every day many times per day, in most clinical environments. These procedures can be used to help diagnose conditions, and to monitor their treatments, such as by looking at the rise and fall of inflammatory markers in blood to indicate the possible presence of infection, and the effects of antibiotics.
- 3 C  
Always seek senior help with performing procedures – especially in instances where you do not feel confident in performing it, you have not performed it before or you feel it may be more complicated than you feel capable of managing.
- 4 B  
Depending upon the local protocols of each Healthcare Trust, some nursing staff may be able to perform some practical procedures, such as venepuncture. This varies widely to ensure that you are familiar with that which is permitted in each area you work in.
- 5 D  
It is the medical professional's responsibility to ensure that no harm is done to the patient, as per the Hippocratic Oath. Local policies must be adhered to as most current 'best practice' to ensure that optimal patient care is delivered each time.

#### 2 Non-technical skills

- 1 D  
Communication includes many different components, and in order to communicate most effectively, it may be appropriate to use many different forms to convey meaning. Written words, actions and spoken words are all important parts of communication.
- 2 C  
Communicating in areas where you may be overheard is not good practice, but if it is unavoidable, ensure the patient's confidentiality is maximised. It is not good practice to use family members as translators, as in some cases the patient may not receive impartial information or may not feel able to convey their wishes openly. Effective communication is maintained by appropriate levels of eye contact and a posture that is suitably attentive and open.
- 3 B  
Task management involves prioritising activities in the order of importance. Other factors such as difficulty,

duration, cost or ease should not be the primary dictator of where tasks are done – they should be done in the order of importance.

- 4 D  
Situation awareness involves many aspects. It involves modifying a workspace to gain maximum information, as well as asking questions to maximise understanding of this information. It involves observing, interpreting and comprehending this information, as well as anticipating what may occur.
- 5 B  
Teamwork involves multiple aspects, all of which are facilitated by good communication skills. It involves allocating roles based upon each member's capabilities and limitations, after discussing and recognising those. These roles need to be respected and accepted by the team members, and for all members to then work in co-operation.

#### 3 Waste, sharps disposal and injuries

- 1 D  
Local policies may vary in each Healthcare Trust; however, generally bins for clinical waste are yellow and clearly marked.
- 2 B  
Ensure that waste is disposed of in the correct bin. Pay particular care in respecting patient confidentiality, and ensuring that any confidential waste containing patient information is disposed of in confidential waste bins.
- 3 D  
Never re-sheath a needle, and always use the attached needle safe units if one is present. These help minimise the risk of an injury by protecting you from the needle. Sharps must always be disposed of in a sharps bin, ideally in a portable one that you can have with you to facilitate immediate disposal after use.
- 4 C  
Sharps injuries must be dealt with immediately by encouraging bleeding under running water, and washing it with soap. Occupational Health must be contacted immediately, and they generally will help with future steps such as patient testing for possible relevant illnesses such as hepatitis and HIV.
- 5 B  
Soiled incontinence products should be disposed of in yellow clinical waste bins, along with any contaminated products such as dressings, swabs, and gloves. Food wrappers should be disposed of in domestic waste bins, while anything with patient details on it should be disposed of in a confidential waste bin.



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