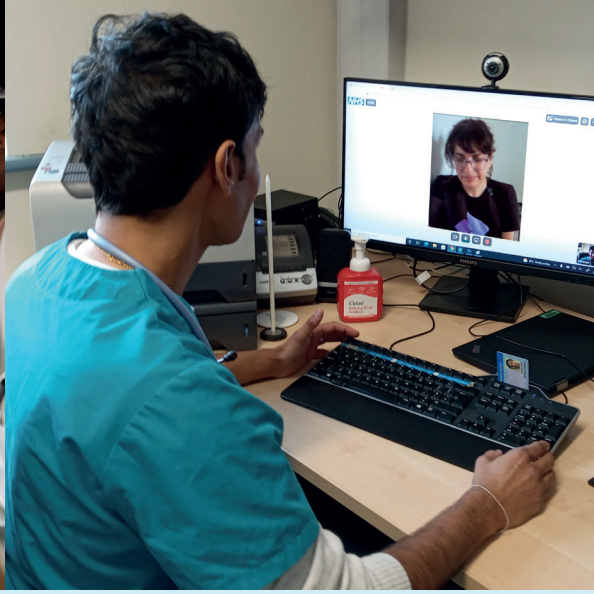
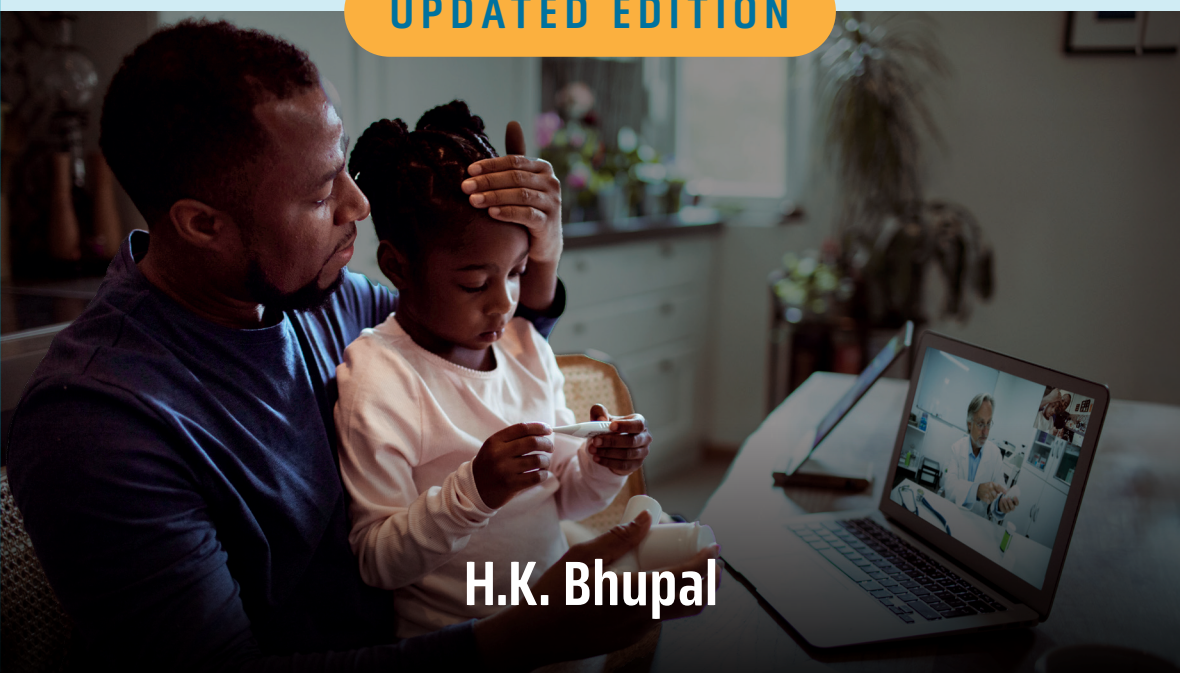


Urgent and Out-of-Hours Primary Care

a practical guide for clinicians

UPDATED EDITION



H.K. Bhupal

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Contents

Index of conditions

"Merely to have survived is not an index of excellence"
Anthony Hect

Index of conditions by symptom

"Symptoms, they are in reality nothing but the cry of suffering organs"
Jean Martin Charcot

Common presenting symptoms in OOH primary care and their acute causes (with least common causes shown at the end of each list).

Preface

"Live as if you were to die tomorrow, learn as if you were to live forever"
Mahatma Gandhi

This book has arisen from my interest in family medicine, general medical practice and urgent medical care. It stems from my experience working at the front end of these fields of medicine, as well as being involved in the commissioning, development, implementation and provision of urgent care services in England.

This book is aimed at doctors, medical students, nurses, paramedics, pharmacists and anyone who has an interest in out-of-hours primary care and urgent medical care. It deals with acute medical conditions, ailments and illnesses which a primary care clinician will be faced with when working outside a hospital setting and armed with only basic diagnostic aids.

I have always thought of a GP as being a 'true doctor', and I state this without any intention to disrespect my colleagues who specialise in one field of medicine. I relish the opportunity to treat patients of different ages and not limit myself to a particular area of the body or a specialty. Being able to deal with a multitude of problems, be it mental health issues or musculoskeletal problems, and being the first port of call for patients, is a privileged position to be in.

For me this is the true art of being a doctor; when on the edge and with limited access to diagnostic equipment a clinician is left with only his or her quick thinking and clinical skills to make rapid-fire diagnoses and develop and implement management plans for patients who may be, or could become very unwell. The old adage – that 80% of the time the diagnosis can be obtained from the history, 15% of the time from the examination and 5% of the time from investigations – still rings true.

My aim was to provide front-line healthcare professionals with a quick reference pocket book. Although not exhaustive, the intention was to cover the most common conditions seen in an out-of-hours primary care or urgent medical care setting.

As well as clinical conditions the book also contains my experiences of working as an out-of-hours General Medical Practitioner and the change in working towards remote consultations. It deals with the complexities and challenges of telephone triage and video consultations, as well as home visits.

Notes on some of the common medico-legal pitfalls are also included and tips on how these can be avoided.

Since the Covid-19 pandemic and the increased emphasis on remote consultations, the need to be able to diagnose and treat patients remotely is even greater. This book aims to provide the reader with the skills required to do this safely and effectively.

I have used icons to represent telephone, video and face-to-face consultations (see *Abbreviations*), thereby giving the reader an indication of which conditions can be managed remotely and via which format. In some situations a combination of the above may be required in order to assess and manage the patient. If enough information cannot be obtained remotely (via telephone or video consultation), then always consider a face-to-face consultation. Have a low threshold for assessing elderly patients and children face-to-face.

Red flag features are highlighted in red boxes, and key points are summarised at the end of each chapter. I have highlighted when an emergency ambulance should be arranged for the patient, along with which category.

In addition to this I have provided information on key features to look out for and when an admission to hospital is warranted.

Where possible I have tried to utilise images to assist the reader and clarify the text.

I have opened each chapter with a quote which I hope will be relevant to the chapter and will also interest and inspire, as well as amuse the reader.

Whilst every effort has been made to reference and credit original sources of information, I am more than happy to be corrected and to amend and acknowledge any information in subsequent editions.

All dosages for medication are correct at the time of writing and are for adults; however, I would advise the reader to check the British National Formulary prior to prescribing any medication, to ensure the dosages are correct and up to date.

To the readers of this book: I wish you all the best and good luck in your endeavours.

Hardeep Kumar Bhupal

Acknowledgements

"If I can touch the blue sky and feel the rays of the sun on my face, it is only because I am standing on the shoulders of giants."
Hardeep K. Bhupal

I would like to thank my wife Elizabeth for her support and my children Ambika, Abhijai and Aarav for always making me smile. I would like to thank my parents for channelling my endeavours into academia when I was a child; without their guidance I would not have achieved my ambition of being a doctor. I am grateful to my siblings Aman and Yogeeta for keeping me grounded. I would also like to thank Yogeeta and Ankit, both accomplished clinical pharmacists, for reviewing the dosages of medication in this book.

I would like to thank my teachers past and present who continue to inspire and motivate me.

I would like to thank Jonathan Ray, Clare Boomer and the team at Scion Publishing for their support and for believing in the viability of this book; I am eternally grateful.

I would also like to thank Dr David Lloyd and Dr Michael Ip, two respected and experienced colleagues with a wealth of knowledge in General Practice, for reviewing the manuscript.

Most importantly I would like to thank my patients; I have been privileged to listen to them, have their concerns shared with me, and been allowed to work with them so we can get through their troubles together.

About the author

"I've missed more than 9000 shots in my career. I've lost almost 300 games. 26 times, I've been trusted to take the game winning shot and missed. I've failed over and over and over again in my life. And that is why I succeed."

Michael Jordan

Dr Hardeep Kumar Bhupal went to school in west London; he graduated from the University of the West Indies in 2003. He has worked in Acute Medicine and Emergency Medicine departments in London and the south-east of England.

He has gained the following qualifications by examination:

MBBS	Bachelor of Medicine, Bachelor of Surgery
MRCGP	Member of the Royal College of General Practitioners
MRCP (UK)	Member of the Royal College of Physicians (UK)
DRCOG	Diplomate of the Royal College of Obstetricians and Gynaecologists
DFSRH	Diplomate of the Faculty of Sexual and Reproductive Health
MFFLM	Member of the Faculty of Forensic and Legal Medicine
PGDip (SEM)	Postgraduate Diploma in Sports and Exercise Medicine

He is currently a General Medical Practitioner in Chesham. In the past he has been clinical lead for urgent care in Enfield and Buckinghamshire. He has been involved in the development, implementation and provision of urgent medical care services in London and Buckinghamshire.

He works as an out-of-hours GP in urgent care in London, Buckinghamshire, Bedfordshire and Hertfordshire.

He is actively involved in education and is a GP registrar educator and medical student teacher. He is an author and examiner in Clinical Forensic and Legal Medicine and has worked as a physician in Clinical Forensic and Legal Medicine. He is a GP Appraiser for NHS England.

He also has a specialist interest in Sports and Exercise Medicine and in the past has worked with the medical team at Reading Football Club and provided medical cover to athletes at the Commonwealth Games in Glasgow.

He currently lives in Hertfordshire with his family.

Chapter 14: **Ophthalmology**

"Few are those who see with their own eyes and feel with their own hearts."
Albert Einstein

Assessment of patients presenting with acute eye conditions

Telephone

- The two most important features to consider when assessing acute eye conditions are pain and acuity.
- Eye injuries and foreign bodies will usually require slit lamp assessment with fluorescein dye, and patients should be referred to an appropriate urgent treatment centre.
- Any chemical or thermal injuries to the eye should be referred to ED or the on-call ophthalmology team.
- A detailed history will usually provide a clear indication of whether the patient can be seen in a primary care setting or will require an ED or ophthalmology referral.

Face-to-face

- If there is any doubt with regard to the diagnosis and it is unclear if the patient should be referred directly to hospital, consider a face-to-face assessment.
- An objective assessment of visual acuity using a Snellen chart is required.
- If there is an acute onset of pain or a proven drop in visual acuity (assessed via a Snellen chart) the patient should be referred to ED or the on-call ophthalmology team.
- In addition to assessing visual acuity, a face-to-face assessment should include an assessment of pupil reflexes and of range of movement of the eye.
- If a corneal injury is suspected, a slit lamp examination with fluorescein should also be conducted.

Red flags for ophthalmology

Acute onset of pain or a sudden drop in visual acuity are indications for referral to ED or the on-call ophthalmology team.

Conjunctivitis

Presentation

There are three main types of conjunctivitis.

Often the aetiology can be determined over the phone; if there is any doubt a video consultation and still images should help confirm the diagnosis. A face-to-face consultation is rarely required.

- **Bacterial conjunctivitis**
  - more common in the young
  - presents with a purulent discharge
  - it is a benign and self-limiting condition
  - pain is absent and visual acuity will remain intact
  - occasionally patients may complain of blurred vision; however, this will clear on blinking
  - symptoms settle within 7 days with regular eye bathing (wipe the eye using cotton wool and cooled boiled water four times a day)
  - chloramphenicol 0.5% eye drops (available over the counter) or chloramphenicol 1% ointment applied four times a day can be prescribed and both have been shown to shorten the duration of symptoms[1].
- **Viral conjunctivitis**
  - the eye tends to be watery and red with a gritty sensation
  - it is highly contagious and commonly affects both eyes
  - it is self-limiting and symptoms usually settle within 7 days
  - lubricating eye drops containing hypromellose (available from the pharmacy) can be used to keep the eye comfortable
  - if inflammation of the conjunctiva is marked, topical ketorolac eye drops can be prescribed
  - corticosteroid eye drops should only be initiated by an ophthalmologist due to the risk of sight-threatening complications in the presence of a concomitant viral ulcer of the cornea
  - patients should be advised to avoid sharing towels and to wash hands after touching their eyes, due to the contagious nature of the condition.
- **Allergic conjunctivitis**
  - this commonly affects both eyes
  - it is associated with allergic rhinitis
  - the eyes are watery, red and feel itchy
  - management centres around avoiding the trigger and using oral antihistamines such as chlorphenamine 4mg every 6 hours or cetirizine 10mg once daily
  - sodium cromoglycate eye drops can also help alleviate symptoms; these are available from the pharmacy.

Stye (hordeolum)

Presentation and assessment

- A stye is an infection of one of the hair follicles on the eyelid, and presents as a small painful swelling (*Fig. 14.1*).
- This is different to a chalazion which is a granuloma of the meibomian glands and tends to be a hard painless swelling of the eyelid.

A face-to-face assessment or video consultation is often required to differentiate a stye from a chalazion and also to ensure there are no signs of periorbital cellulitis.

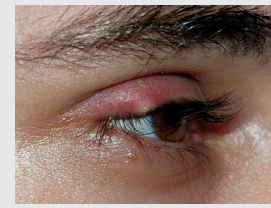

Fig. 14.1: Stye (hordeolum) after approximately 5 days.

Reproduced from https://commons.wikimedia.org/wiki/File:Stye02.jpg Public domain (photo by Andre Riemann).

Management

- In the majority of cases a stye will resolve spontaneously.
- Resolution can be expedited with warm compresses, regular bathing of the eyelid and cleaning the affected area with a cotton bud soaked in a diluted solution of baby shampoo.
- Severely infected styes can be treated with topical chloramphenicol 0.5% eye drops and oral antibiotics such as flucloxacillin 500mg QDS or clarithromycin 500mg BD for 7 days.

Periorbital (preseptal) and orbital cellulitis

Presentation and assessment

Although a detailed history can be taken over the phone, all patients with suspected periorbital or orbital cellulitis should be assessed face-to-face.

It is important to be able to differentiate between the two conditions and also to ensure there are no features of sepsis or systemic upset.

- A general examination to identify signs of systemic infection is mandatory.
- Orbital cellulitis is an ophthalmological emergency.
- Orbital cellulitis can be differentiated from periorbital cellulitis as the pain will be intra-orbital, deep-seated and more severe.
- Patients with orbital cellulitis tend to be systemically unwell.
- Orbital cellulitis will result in reduced visual acuity and a limited range of movement of the globe of the eye (this is not the case with periorbital cellulitis).

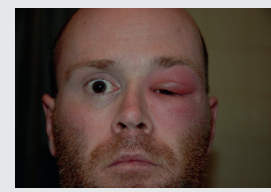

Fig. 14.2: Periorbital (pre-septal) cellulitis.

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Management

- An emergency referral to the on-call ophthalmology team is mandatory if orbital cellulitis is suspected.
- Periorbital cellulitis (*Fig. 14.2*) can be managed with oral antibiotics such as co-amoxiclav; however, if it does not respond to oral antibiotics or the patient is systemically unwell, they should be referred to the on-call medical team.

Subconjunctival haemorrhage

Often the diagnosis can be made on the phone; images and video consultations can also be utilised. Face-to-face consultations may be required if there is suspected trauma to the eye and to ensure blood pressure is within normal range.

Presentation and assessment

- Although it can be an alarming condition for the patient and visually quite striking (*Fig. 14.3*), it is completely benign.
- A subconjunctival haemorrhage will manifest itself quite suddenly.
- It may be spontaneous or it may be brought on by a coughing or a sneezing episode.
- Occasionally there may be a history of minor trauma to the eye.
- Some patients may be on antiplatelet or anticoagulant medication, and this is considered to be a contributory factor.

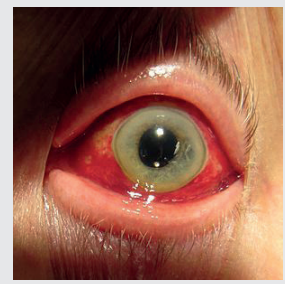

Fig. 14.3: Eye showing subconjunctival haemorrhage.

Reproduced from https://en.wikipedia.org/wiki/Subconjunctival_bleeding under a CC BY-SA 3.0 licence (photo by James Heilman, MD).

Management

- This is based on ensuring there are no underlying risk factors such as hypertension (hence it is important to check the blood pressure).
- Reassurance that this is a benign and self-limiting condition.
- Lubricating eye drops (e.g. hypromellose) to alleviate any discomfort.
- Complete resolution should be expected within 2 weeks.

Corneal abrasion

Presentation

- Patients are often able to identify a trigger or the exact time when a foreign body may have caused the injury.
- Discomfort is more common than pain.

- A drop in visual acuity is rare.

A face-to-face assessment is required; nearly always a slit lamp examination and fluorescein dye will be required to delineate the abrasion and rule out corneal ulcers and extract corneal foreign bodies. For these reasons patients with suspected corneal injuries should only be referred to primary care or urgent treatment centres where these facilities are available.

Assessment

- The abrasion can usually be seen using topical fluorescein dye and with a slit lamp or an ophthalmoscope blue light.
- It is important to ensure there are no foreign bodies.
- Always examine behind the upper and lower eyelids.

Management

- Most abrasions heal spontaneously within a few days.
- Chloramphenicol 0.5% eye drops can be prescribed to prevent secondary bacterial infections.

Corneal foreign bodies

- These can be removed by using topical anaesthetic and either cotton wool or the edge of a bevelled needle.
- Topical chloramphenicol eye drops should be prescribed after removal of the foreign body and a reassessment should take place 5 days later to ensure injuries are healing.

Summary for ophthalmology

- A sudden drop in visual acuity or a sudden onset of pain is an indication to refer to the on-call ophthalmologist.
- Chemical or thermal injuries of the eye should be referred to hospital.
- The most common types of conjunctivitis are viral, bacterial and allergic.
- Corneal injuries can be seen with fluorescein and a blue light (slit lamp or ophthalmoscope).
- Patients should be reassessed 5 days after the removal of any foreign bodies from the eye.
- Topical corticosteroid drops for acute eye problems should be initiated by an ophthalmologist.

Reference

1. Jefferis, J., Perera, R., Everitt, H. *et al.* (2011) Acute infective conjunctivitis in primary care: who needs antibiotics? An individual data meta-analysis. *British Journal of General Practice*, **61(590):** e542–e548.