



Stephen **Hoole**
Andrew **Fry**
Rachel **Davies**

Cases for PACES

THIRD EDITION

ABDOMINAL
AND
RESPIRATORY

HISTORY
TAKING

CARDIOLOGY
AND
NEUROLOGY

ETHICS, LAW
AND
COMMUNICATION
SKILLS

BRIEF CLINICAL
CONSULTATIONS

WILEY Blackwell

Cases for PACES

Cases for PACES

Stephen Hoole MA, MRCP, DM

Consultant Cardiologist
Papworth Hospital
Cambridge
UK

Andrew Fry MA, MRCP, PHD

Consultant Nephrologist and Acute Physician
Addenbrooke's Hospital
Cambridge
UK

Rachel Davies MA, MRCP, PHD

Consultant Respiratory Physician
Hammersmith Hospital
London
UK

Third Edition

WILEY Blackwell

This edition first published 2015 © 2015 by John Wiley & Sons, Ltd.
Previous editions: 2010, 2003 © Stephen Hoole, Andrew Fry, Daniel Hodson & Rachel Davies

Registered Office

John Wiley & Sons, Ltd, The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

Editorial Offices

9600 Garsington Road, Oxford, OX4 2DQ, UK

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

350 Main Street, Malden, MA 02148-5020, USA

For details of our global editorial offices, for customer services and for information about how to apply for permission to reuse the copyright material in this book please see our website at www.wiley.com/wiley-blackwell

The right of the authors to be identified as the authors of this work has been asserted in accordance with the UK Copyright, Designs and Patents Act 1988.

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, except as permitted by the UK Copyright, Designs and Patents Act 1988, without the prior permission of the publisher.

Designations used by companies to distinguish their products are often claimed as trademarks. All brand names and product names used in this book are trade names, service marks, trademarks or registered trademarks of their respective owners. The publisher is not associated with any product or vendor mentioned in this book. It is sold on the understanding that the publisher is not engaged in rendering professional services. If professional advice or other expert assistance is required, the services of a competent professional should be sought.

The contents of this work are intended to further general scientific research, understanding, and discussion only and are not intended and should not be relied upon as recommending or promoting a specific method, diagnosis, or treatment by health science practitioners for any particular patient. The publisher and the author make no representations or warranties with respect to the accuracy or completeness of the contents of this work and specifically disclaim all warranties, including without limitation any implied warranties of fitness for a particular purpose. In view of ongoing research, equipment modifications, changes in governmental regulations, and the constant flow of information relating to the use of medicines, equipment, and devices, the reader is urged to review and evaluate the information provided in the package insert or instructions for each medicine, equipment, or device for, among other things, any changes in the instructions or indication of usage and for added warnings and precautions. Readers should consult with a specialist where appropriate. The fact that an organization or Website is referred to in this work as a citation and/or a potential source of further information does not mean that the author or the publisher endorses the information the organization or Website may provide or recommendations it may make. Further, readers should be aware that Internet Websites listed in this work may have changed or disappeared between when this work was written and when it is read. No warranty may be created or extended by any promotional statements for this work. Neither the publisher nor the author shall be liable for any damages arising herefrom.

Library of Congress Cataloging-in-Publication Data

Hoole, Stephen, author.

Cases for PACES / Stephen Hoole, Andrew Fry, Rachel Davies. – Third edition.

p. ; cm.

Preceded by Cases for PACES / Stephen Hoole ... [et al.]. 2nd ed. 2010.

Includes index.

ISBN 978-1-118-98357-7 (pbk.)

I. Fry, Andrew (Nephrologist), author. II. Davies, Rachel, active 2015, author. III. Title.

[DNLM: 1. Physical Examination—Examination Questions. 2. Ethics, Clinical—Examination Questions. WB 18.2]

RC66

616.07'5—dc23

2014049398

A catalogue record for this book is available from the British Library.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Set in 7.5/9.5pt Frutiger by SPI Publisher Services, Pondicherry, India

Contents

Foreword, ix
Preface, x
Acknowledgements, xi
Abbreviations, xii
Advice, xv

Station 1: Abdominal and Respiratory, 1

Clinical mark sheet, 1
Chronic liver disease and hepatomegaly, 2
Haemochromatosis, 5
Splenomegaly, 7
Renal enlargement, 9
The liver transplant patient, 11
The renal patient, 12
Pulmonary fibrosis, 14
Bronchiectasis, 16
Old tuberculosis, 17
Surgical respiratory cases, 18
Chronic obstructive airways disease, 19
Pleural effusion, 21
Lung cancer, 22
Cystic fibrosis, 24
Pneumonia, 25

Station 2: History Taking, 27

Clinical mark sheet, 27
Introduction and advice, 28
Case 1, 32
Case 2, 33
Case 3, 34
Case 4, 35
Case 5, 36
Case 6, 37
Case 7, 38
Case 8, 39
Case 9, 40
Case 10, 41
Case 11, 42
Case 12, 43

Station 3: Cardiology and Neurology, 44

- Clinical mark sheet, 44
- Aortic stenosis, 45
- Aortic incompetence, 47
- Mitral stenosis, 49
- Mitral incompetence, 51
- Tricuspid incompetence, 53
- Pulmonary stenosis, 54
- Prosthetic valves: aortic and mitral, 55
- Implantable devices, 57
- Pericardial disease, 58
- OTHER COMMON CONGENITAL DEFECTS, 60
- Atrial septal defect, 60
- Ventricular septal defect, 61
- Hypertrophic (obstructive) cardiomyopathy, 63
- Dystrophia myotonica, 65
- Cerebellar syndrome, 67
- Multiple sclerosis, 69
- Stroke, 71
- Lateral medullary (Wallenberg) syndrome, 74
- Spastic legs, 75
- Syringomyelia, 77
- Motor neurone disease, 79
- Parkinson's disease, 81
- Hereditary sensory motor neuropathy, 83
- Friedreich's ataxia, 84
- Facial nerve palsy, 85
- Myasthenia gravis, 86
- Tuberous sclerosis, 88
- Neurofibromatosis, 89
- Abnormal pupils, 90
- Optic atrophy, 92
- RETINAL PATHOLOGY, 93
- Age-related macular degeneration (AMD), 93
- Retinitis pigmentosa, 94
- Retinal artery occlusion, 95
- Retinal vein occlusion, 96

Station 4: Ethics, Law and Communication Skills, 97

- Clinical mark sheet, 97
- ETHICS AND LAW IN MEDICINE, 98
- Principles of medical ethics, 98
- Medico-legal system, 99

Negligence, 100
Competency and consent, 101
Confidentiality, 104
End of life decisions, 105
Communication skills, 107
Dealing with a difficult patient, 108
Driving restrictions, 109
Information delivery, 110
Worked examples, 111
Sample questions, 116

Station 5: Brief Clinical Consultations, 117

Clinical mark sheet, 117
Chest pain, 119
Headache, 121
Swollen calf, 123
Altered conscious state, 124
Anaemia, 125
Osler–Weber–Rendu syndrome (hereditary haemorrhagic telangiectasia), 127
Haemoptysis, 128
Worsening mobility, 129
Persistent fever, 131
Dyspnoea, 133
Syncope, 135
Atrial fibrillation, 137
Inflammatory bowel disease, 139
Hypertension, 141
Red rashes, 143
Leg ulcers, 146
Diabetes and the skin, 148
Erythema nodosum, 150
Henoch–Schönlein purpura, 151
Skin malignancy, 152
Skin and hyperextensible joints, 154
Rheumatoid arthritis, 156
Systemic lupus erythematosus, 159
Systemic sclerosis, 161
Ankylosing spondylitis, 163
Marfan’s syndrome, 164
Paget’s disease, 165
Other joint problems, 166
Diabetic retinopathy, 168
Hyperthyroidism and Graves’ disease, 171

Hypothyroidism, 173

Acromegaly, 174

Cushing's disease, 176

Addison's disease, 178

Sickle cell disease, 180

Index, 182

Foreword

We are – as always – in a time of flux, with medical careers and the organization of hospitals needing to adjust to meet changing demands. But the fundamental essentials of the practice of clinical medicine have not changed at all. The doctor needs to be able to take a history from a patient, examine them and decide whether investigations and/or treatment are required. They then need to be able to discuss the various options with the patient in an appropriate manner, hopefully reaching a sensible mutual understanding about how best to proceed. The doctor may need to give difficult and distressing information, and must learn how to do it in a way that is clear and does not duck the issues, but also does not increase the pain. And all of these things must be done in a reasonable time frame: the next patient is waiting.

The MRCP PACES examination remains the measure that is most generally respected as indicating that a doctor has developed a fair degree of the knowledge, skills and behaviours that are necessary to do the things detailed above. They are not yet the finished article (beware of anyone, including any consultant, who thinks they are), but they can proceed from core to specialist training. The examination is not easy, with a pass rate of around 40%. Those preparing for it need to immerse themselves in clinical work. There is no substitute for seeing a lot of cases and taking histories and performing examinations, but – and here is where books such as *Cases for PACES* come in – endless repetition of sloppy practice isn't helpful. The physician examining you in the PACES examination is thinking: 'Is this doctor ready to be my SpR now? Can they sort things out in a reasonably efficient and sensible way? Would I get a lot of people wanting to see me because problems had been explained or dealt with poorly?'

What comes over in *Cases for PACES* is a pragmatic and sensible approach that sorts the wood from the trees and cuts pretty rapidly to the chase. I recommend it to you: if you do what it says you will stand a better chance of passing the examination than if you do not.

Dr John Firth
Consultant Physician, Addenbrooke's Hospital, Cambridge
PACES Examiner

Preface

PACES (Practical Assessment of Clinical Examination Skills) was initiated in June 2001 by the Royal College of Physicians as the final stage of the MRCP examination. The initial examination consisted of five stations in a carousel: Station 1, Respiratory and Abdominal (10 minutes each); Station 2, History Taking (20 minutes); Station 3, Cardiology and Neurology (10 minutes each); Station 4, Communication Skills and Ethics (20 minutes) and Station 5, Short Cases (Skin, Locomotor, Eyes and Endocrine; 5 minutes each). The format was refined in October 2009 by restructuring Station 5. This station now has two 10-minute 'Brief Clinical Consultations' that encompass the whole exam and draw on the key skills required to be a competent registrar: the ability to extract a succinct and relevant history, elicit the key physical signs, construct a sensible management plan and communicate this to the patient.

Cases for PACES, 3rd edition, prepares candidates for the current PACES examination. It mimics the examination format and is designed for use in an interactive way. The 3rd edition has a completely revised text that has been informed by recent successful candidate feedback. It now has useful advice for the day of the exam and provides updated information on ethical and medicolegal issues. There is plenty of history-taking advice with new examples and mock questions for candidates to practise themselves. Station 5, the newest and perhaps the most challenging of stations, receives more attention than in previous editions.

Avoid further factual cramming at this stage – you know enough! Go and see medical patients on a busy acute medicine unit or outpatient department. This has always been the best way to prepare for PACES and this book will assist you to do this. We now include mock 'mark sheets', designed to enable groups of candidates to practise 'under examination conditions' at the bedside.

Common cases that regularly appear in the exam, rather than rarities, have been deliberately chosen. We assume candidates will be familiar in examination techniques and the appropriate order in which to elicit the various signs. We provide discussion topics on which a candidate could be expected to comment at the end of the case. Examiners are monitoring specifically for knowledge of the differential diagnosis and organized clinical judgement, while managing the patients' concerns and maintaining patient welfare. The detail is not exhaustive but rather what is reasonably needed to pass. There is additional room to make further notes if you wish.

The aim of this book is to put the information that is frequently tested in the clinical PACES examination in a succinct format that will enable capable candidates to practice and pass with ease on the day.

We wish you the best of luck.

Stephen Hoole
Andrew Fry
Rachel Davies

Acknowledgements

We acknowledge the help of Dr Daniel Hodson in the previous two editions. We thank the doctors who taught us for our own PACES examination, and above all the patients who allow us to refine our examination techniques and teach the next generation of MRCP PACES candidates.

Abbreviations

ABG	Arterial blood gas
ABPA	Allergic bronchopulmonary aspergillosis
ABPM	Ambulatory blood pressure monitoring
ACE	Angiotensin-converting enzyme
ACE-I	Angiotensin-converting enzyme inhibitor
ACTH	Adrenocorticotrophic hormone
ADLs	Activities of daily living
AF	Atrial fibrillation
AFP	Alpha-fetoprotein
AICD	Automated implantable cardiac defibrillator
AIH	Autoimmune hepatitis
ADPKD	Autosomal dominant polycystic kidney disease
ANA	Anti-nuclear antibody
AR	Aortic regurgitation
ARB	Angiotensin receptor blocker
ARVD	Arrhythmogenic right ventricular dysplasia
5-ASA	5-Aminosalicylic acid
ASD	Atrial septal defect
AVR	Aortic valve replacement
BIPAP	Bi-level positive airway pressure
BMI	Body mass index
CABG	Coronary artery bypass graft
CAPD	Continuous ambulatory peritoneal dialysis
CCB	Calcium-channel blocker
CCF	Congestive cardiac failure
CF	Cystic fibrosis
CFA	Cryptogenic fibrosing alveolitis
CFTR	Cystic fibrosis transmembrane conductance regulator
CK	Creatine kinase
CML	Chronic myeloid leukaemia
CMV	Cytomegalovirus
COMT	Catechol-O-methyl transferase
COPD	Chronic obstructive pulmonary disease
CRP	C-reactive protein
CSF	Cerebrospinal fluid
CVA	Cerebrovascular accident
CVID	Common variable immunodeficiency
CXR	Chest X-ray (radiograph)
DBP	Diastolic blood pressure
DIPJ	Distal interphalangeal joint
DM	Diabetes mellitus
DMARDs	Disease-modifying anti-rheumatic drugs
DVLA	Driver and Vehicle Licensing Agency
DVT	Deep vein thrombosis
EBV	Epstein-Barr virus
ECG	Electrocardiogram
eGFR	Estimated glomerular filtration rate
EMG	Electromyogram
ESR	Erythrocyte sedimentation rate
FBC	Full blood count

FEV₁	Forced expiratory volume in 1 second
FTA	Fluorescent treponema antibodies
FVC	Forced vital capacity
GH	Growth hormone
Hb	Haemoglobin
HBV	Hepatitis B virus
HCG	Human chorionic gonadotrophin
HCV	Hepatitis C virus
HGV	Heavy goods vehicle
HLA	Human lymphocyte antigen
HOCM	Hypertrophic obstructive cardiomyopathy
HRT	Hormone replacement therapy
HSMN	Hereditary sensory motor neuropathy
HSV	Herpes simplex virus
IBD	Inflammatory bowel disease
IDDM	Insulin-dependent diabetes mellitus
IGF	Insulin-like growth factor
INR	International normalized ratio
ITP	Immune thrombocytopaenic purpura
IV	Intravenous
JVP	Jugular venous pressure
K_{co}	Transfer coefficient
LAD	Left axis deviation
LDH	Lactate dehydrogenase
LFT	Liver function test
LMWH	Low molecular weight heparin
LQTS	Long QT syndrome
LV	Left ventricle
LVEF	Left ventricular ejection fraction
LVH	Left ventricular hypertrophy
LVOT	Left ventricular outflow tract
mAb	Monoclonal antibody
MAO	Monoamine oxidase
MCPJ	Metacarpophalangeal joint
MI	Myocardial infarction
MND	Motor neurone disease
MPTP	Methyl-phenyl-tetrahydropyridine
MR	Mitral regurgitation
MRI	Magnetic resonance imaging
MTPJ	Metatarsophalangeal joint
MVR	Mitral valve replacement
NIPPV	Non-invasive positive pressure ventilation
NSAIDs	Non-steroidal anti-inflammatory drugs
NSCLC	Non-small cell lung cancer
OA	Osteoarthritis
P_a	Partial pressure (arterial)
PBC	Primary biliary cirrhosis
PCT	Primary Care Trust
PE	Pulmonary embolism
PEFR	Peak expiratory flow rate
PEG	Percutaneous endoscopic gastrostomy
PET	Positron emission tomography
PIPJ	Proximal interphalangeal joint
PR	Per rectum

PRL	Prolactin
PSA	Prostate-specific antigen
PSC	Primary sclerosing cholangitis
PSV	Public service vehicle
PTHrP	Parathyroid hormone-related peptide
PUVA	Psoralen ultraviolet A
PVD	Peripheral vascular disease
RA	Rheumatoid arthritis
RAD	Right axis deviation
RBBB	Right bundle branch block
RR	Respiratory rate
RV	Right ventricle
RVH	Right ventricular hypertrophy
Rx	Treatment
SBP	Systolic blood pressure
SCLC	Small cell lung cancer
SIADH	Syndrome of inappropriate anti-diuretic hormone
SLE	Systemic lupus erythematosus
SOA	Swelling of ankles
SSRI	Selective serotonin reuptake inhibitor
SVCO	Superior vena cava obstruction
T₄	Thyroxine
T°C	Temperature
TB	Tuberculosis
TIA	Transient ischaemic attack
TIMI	Thrombolysis in myocardial infarction
T_lCO	Carbon monoxide transfer factor
TNM	Tumour nodes metastasis (staging)
TOE	Transoesophageal echo
TPA	Tissue plasminogen activator
TPHA	<i>Treponema pallidum</i> haemagglutination assay
TR	Tricuspid regurgitation
TSAT	Transferrin saturation
TSH	Thyroid stimulating hormone
TTE	Transthoracic echo
UC	Ulcerative colitis
U&E	Urea and electrolytes
UFH	Unfractionated heparin
UIP	Usual interstitial pneumonia
UTI	Urinary tract infection
VATS	Video-assisted thorascopy
VEGF	Vascular endothelial growth factor
VSD	Ventricular septal defect
WCC	White cell count

Advice

Preparation

Practice makes perfect; it makes the art of eliciting clinical signs second nature and allows you to concentrate on what the physical signs actually mean. Practice makes you fluent and professional and this will give you confidence under pressure. We strongly encourage you to see as many patients as possible in the weeks leading up to the exam. Practice under exam conditions with your peers, taking it in turns to be the examiner. This is often very instructive and an occasionally amusing way to revise! It also maintains your motivation as you see your performance improve. We also encourage you to seek as much help as possible from senior colleagues; many remember their MRCP exam vividly and are keen to assist you in gaining those four precious letters after your name.

The day before

Check that you have your examination paperwork in order with your examination number as well as knowing where and what time you are needed: you don't want to get lost or be late! Also ensure that you have packed some identification (e.g. a passport) as you will need this to register on the day. Remember to take with you vital equipment with which you are familiar, particularly your stethoscope, although avoid weighing yourself down with cotton wool, pins, otoscope, etc. The necessary equipment will be provided for you on the day. Punctuality is important and reduces stress so we advise that you travel to your exam the day before, unless your exam centre is on your doorstep. Avoid last minute revision and try and relax: you will certainly know enough by now. Spend the evening doing something other than medicine and get an early night!

On the day

Think carefully about your attire: first impressions count with both the examiners and – more importantly – the patients. Broadly speaking, exam dress policy is similar to that required of NHS employees. You should look smart and professional, but above all wear something that is comfortable! Shirts should be open collar (not low cut) and short sleeved to enable bare-below-the-elbow and effective hand sanitation. Remove watches/jewellery (wedding bands are permitted) and dangling necklaces/chains that could be distracting. Facial piercings other than ear studs are not recommended.

Examination

Use the preparatory time before each case wisely. When you enter the station remember to 'HIT' it off with the examiners and patient:

- Hand sanitization (if available),
- Introduce yourself to the patient and ask permission to examine them,
- Take a step back once the patient is appropriately uncovered/positioned. As soon as you start touching the patient, focus becomes blinkered and you will miss vital clues to the case.

Remember to HIT it off and your nerves will settle, you'll be underway and the rest will follow fluently if you are well practised.

Rather like a driving test when looking in the rear-view mirror, be sure to convey to your examiner what you are doing. Similarly, your examiner will be expecting to see you do things in a certain order. Stick to this and examiner 'alarm bells' will remain silent. However, if you do forget to do something half way through the examination, or you have to go back to check a physical finding, do so. It's more important to be comprehensive and sure of the clinical findings, than simply being 'slick'.

Spend the last few moments of your examination time working out what is going on, what the diagnosis is and what you are going to say to the examiner. There's still time to check again. Most examinations can be completed by standing up and stating to the examiners a phrase like: 'To complete my examination I would like to check...' and then listing a few things you may have omitted and/or are important to the case.

Presentation

Eye contact and direct, unambiguous presentation of the case conveys confidence and reassures examiners that you are on top of things. Avoid the phrases 'I'm not sure if it is...' and 'I think it is...'. Be definitive and avoid sitting on the fence but *above all be honest*. Don't make up clinical signs to fit a specific diagnosis but do not present clinical signs that are inconsistent with the diagnosis or differential diagnosis.

There are two ways to present the case:

- **state the diagnosis and support this with key positive and negative clinical findings** – if (and only if) you are confident you have nailed the diagnosis!
- **state the relevant positive and negative clinical signs (often easier in the order elicited) and then give the differential diagnosis** that is consistent with them – particularly if you are unsure of the diagnosis.

Where possible, a comment on the disease severity or disease activity should be made. Consider complications of the diagnosis and mention if these are present or not. Know when to stop presenting. Brevity can be an asset. It avoids you making mistakes and digging a hole for yourself! Wait for the examiners to ask a question; do not be preemptive – the examiners may follow up on what you say.

Examiners

Prior to you examining the patient the examiners will have individually 'calibrated the case' to ensure that the clinical signs are present. This maintains the fairness and robustness of the exam and makes sure consistency exists between exam centre marking. There will be two examiners for every carousel station and usually one will lead the discussion with you. Both will have mark sheets and will mark you individually without collaboration. Contrary to popular belief they both want you to pass. They are there because they support the college training and progression of talented physicians of the future.

Mistakes happen

If you do make a mistake and realize it, do not be afraid to correct yourself. To err is human and the examiners may overlook a minor *faux pas* if the rest of the case has gone well. It is not uncommon to think you have failed a case half way round the carousel and that your chances of passing PACES has been dealt a fatal blow. We are often our own harshest critics! *Do not write yourself off*. Frequently, all is not lost. Don't let your performance dip on the next cases because you are still reeling from the last. Put mistakes behind you, keep calm and carry on!

Station 1

Abdominal and Respiratory

Clinical mark sheet

Clinical skill	Satisfactory	Unsatisfactory
Physical examination	Correct, thorough, fluent, systematic, professional	Incorrect technique, omits, unsystematic, hesitant
Identifying physical signs	Identifies correct signs Does not find signs that are not present	Misses important signs Finds signs that are not present
Differential diagnosis	Constructs sensible differential diagnosis	Poor differential, fails to consider the correct diagnosis
Clinical judgement	Sensible and appropriate management plan	Inappropriate management Unfamiliar with management
Maintaining patient welfare	Respectful, sensitive Ensures comfort, safety and dignity	Causes physical or emotional discomfort Jeopardises patient safety

Chronic liver disease and hepatomegaly

This man complains of weight loss and abdominal discomfort. His GP has referred him to you for a further opinion. Please examine his abdomen.

Clinical signs

SIGNS OF CHRONIC LIVER DISEASE

- **General:** cachexia, icterus (also in acute), excoriation and bruising
- **Hands:** leuconychia, clubbing, Dupuytren's contractures and palmar erythema
- **Face:** xanthelasma, parotid swelling and fetor hepaticus
- **Chest and abdomen:** spider naevi and caput medusa, reduced body hair, gynaecomastia and testicular atrophy (in males)

SIGNS OF HEPATOMEGALY

- Palpation and percussion:
 - Mass in the right upper quadrant that moves with respiration, that you are not able to get above and is dull to percussion
 - Estimate size (finger breadths below the diaphragm)
 - Smooth or craggy/nodular (malignancy/cirrhosis)
 - Pulsatile (TR in CCF)
- Auscultation
 - Bruit over liver (hepatocellular carcinoma)

EVIDENCE OF AN UNDERLYING CAUSE OF HEPATOMEGALY

- Tattoos and needle marks Infectious hepatitis
- Slate-grey pigmentation Haemochromatosis
- Cachexia Malignancy
- Mid-line sternotomy scar CCF

EVIDENCE OF TREATMENT

- Ascitic drain/tap sites
- Surgical scars

EVIDENCE OF DECOMPENSATION

- Ascites: shifting dullness
- Asterixis: 'liver flap'
- Altered consciousness: encephalopathy

Discussion

CAUSES OF HEPATOMEGALY

The **big three**:

Cirrhosis (alcoholic)

Carcinoma (secondaries)

Congestive cardiac failure

- Plus:
- Infectious (HBV and HCV)
 - Immune (PBC, PSC and AIH)
 - Infiltrative (amyloid and myeloproliferative disorders)

INVESTIGATIONS

- Bloods: FBC, clotting, U&E, LFT and glucose
- Ultrasound scan of abdomen
- Tap ascites (if present)

IF CIRRHOTIC

- Liver screen bloods:
 - Autoantibodies and immunoglobulins (PBC, PSC and AIH)
 - Hepatitis B and C serology
 - Ferritin (haemochromatosis)
 - Caeruloplasmin (Wilson's disease)
 - α -1 antitrypsin
 - Autoantibodies and immunoglobulins (PBC)
 - AFP (hepatocellular carcinoma)
- Hepatic synthetic function: INR (acute) and albumin (chronic)
- Liver biopsy (diagnosis and staging)
- ERCP (diagnose/exclude PSC)

IF MALIGNANCY

- Imaging: CXR and CT abdomen/chest
- Colonoscopy/gastroscopy
- Biopsy

COMPLICATIONS OF CIRRHOSIS

- Variceal haemorrhage due to portal hypertension
- Hepatic encephalopathy
- Spontaneous bacterial peritonitis

CHILD-PUGH CLASSIFICATION OF CIRRHOSIS

Prognostic score based on bilirubin/albumin/INR/ascites/encephalopathy

	Score	1 year survival
A:	5–6	100%
B:	7–9	81%
C:	10–15	45%

CAUSES OF ASCITES

- Cirrhosis (80%)
- Carcinomatosis
- CCF

TREATMENT OF ASCITES IN CIRRHOTICS

- Abstinence from alcohol
- Salt restriction
- Diuretics (aim: 1 kg weight loss/day)
- Liver transplantation

CAUSES OF PALMAR ERYTHEMA

- Cirrhosis
- Hyperthyroidism
- Rheumatoid arthritis
- Pregnancy
- Polycythaemia