



# A strategic approach to the FRACP clinical examination

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With thanks to many other clinicians

# This is not official but personal opinion

- Not a member of the National Examining Panel
- Based on being an examiner for most of 18 years and being involved in exam organisation
- Very personal recommendations but based on my observations
- Because I have seen many registrars who study very hard but do not improve correspondingly
- You have quite a while before exams so you can prepare without stressing
- Official guidelines change subtly each year

# Be strategic

- You will learn a lot in the next 6 months that will make you a better doctor
- Be systematic in your preparation
  - You're already busy enough
  - You'll be more confident
- Concentrate on the important areas
- Address your weakest areas
- Ask last year's candidates what exam was like

# Strategic approach

- Ten things you need to do
- Ten things you need to know
- Long case
  - Diabetes examination
  - CNS screening examination
  - Renal history and examination

Presenting the long case, reasons for failing
- Short case
  - Cardiac examination
  - Respiratory examination
  - Abdominal examination
  - Joint examination

Presenting the short case, reasons for failing

# 1. Long case template

- Perfect your prototype history/template
- Who is the team who looks after this patient?
- Social history – family, friends, pets and neighbours, social activities, financial worries, steps, services, driving, GP, will/MPOA/EoL decisions
- Lifestyle history – nutrition, obesity, smoking, exercise, diet, treatment adherence, pets, immunisations, cancer surveillance
- Perioperative management
- Psychiatric history – depression, sleeping, insight

# Long case

- Practise your format on your ward admissions
- 2. Prepare a nice opening summary, 54 year old woman from home on her own, with worsening SOB probably due to progression of her interstitial lung disease. She also has the problems of ...
- 3. Prepare a nice closing summary of problems
- Quality not quantity of your practice long cases
- 4. Prepare a typical complicated long case (diabetes with renal transplant), do all the reading and preparation to answer questions and get phrases right

# 5.Speedy screening examinations

- Diabetic screening examination – 30% of medical inpatients have diabetes – feet, peripheral neuropathy, vascular disease, lying and standing BP
- CNS screening examination

## 6. Watch practice long cases in specialised areas – HIV, transplantation etc

- 2018 Series:

<https://elearning.racp.edu.au/tag/index.php?tc=3&tag=Clinical+exam+2018&from=15545&ctx=15545>

- 2017 Series:

<https://elearning.racp.edu.au/tag/index.php?tc=3&tag=Clinical+exam+2017&from=15545&ctx=15545>

- 2020 – Victoria may prepare some more examples of long cases... keep an eye out



# Timing in the long cases

- You are all worried about timing in the long cases and going for too long
- Don't talk too fast
- The examiners watch out for you and might ask you to summarise your findings
- When you practise, practise your phrases so that you know if you use your template and give certain details you will be on time...

# Short cases

- 7. Practise your short case examinations - CVS, respiratory, abdomen, joint, CNS (gait, lower limbs, eyes, speech, cranial nerves)
- 8. Prepare list of shorts in each system and likely questions, find out the answers
- 9. Take med students or interns for formal bedside tutorials weekly and go over the basic examinations
- 10. Find the patients with good signs to go over with the students weekly
- Start now (after you have revised your short case examinations)

# Why teach med students or interns

- You need to know the medical student examination basics really well
- You are less likely to cancel than with a friend
- They don't threaten you
- They will tell you if other consultants do things differently
- You will see a lot of interesting patients starting now
- They will ask you questions out of left field, just like in the exam, and you will learn how to answer them
- They will make you feel good

# 11. Extras

- Diabetes management
- Immunosuppression
- Perioperative management – diabetes and anticoagulation
  
- Always think in term of 3 commonest causes

# The clinical examination

- ‘Designed to test clinical skills, attitudes, and interpersonal relationships’
- ‘The clinical skills include history taking, physical examination, interpretation of findings, construction of a diagnosis or differential diagnosis, method of investigations and general management of patients’

# Ten things you need to know - 1

- The purpose of this examination is to test clinical skills not facts
- The emphasis is on patient management in the long case and detecting physical signs in the short case
- The examiners do not examine in their specialty
- They often want the (3) likely causes – your textbooks have long lists

# Ten things you need to know - 2

- The standard required is the ‘candidate is ready to begin advanced training’
- ‘Performs at the level expected’

# Ten things you need to know - 3

- There is a finite number of short cases you can be examined on. You should prepare for these



# Ten things you need to know - 4

- Expect the unexpected. There are many many examination sites who do things differently – or have crises on the examination day!

# Ten things you need to know - 5

- Everyone understands how stressful the examinations and preparation are (including the examiners)

# Ten things you need to know - 6

- The pass rate is not 'capped'.
- Theoretically all candidates can pass

# Ten things you need to know - 7

- You don't have to know everything or get everything right to pass
- There are different ways to do things
- Most people fail at least one short. You can fail 2 shorts and still pass the exam if you do well in the long cases
- ~ 90% candidates pass the written and the clinical examinations within 2 years

# Ten things you need to know - 8

- In the overall scheme of things it does not matter if you fail the first time
- No one else remembers
- Some notable people have
- Despite efforts to make the exam fair, some good candidates fail

# Ten things you need to know - 9

- Examiners should not indicate to you how you have performed

# Ten things you need to know - 10

- There is usually not much time after the exam before you must organise an advanced training position
- This year you will be studying and trying for a training position

# Exam organisation

- Patients are often very experienced, recruited months in advance
- Coordinating registrar will hopefully put together groupings of long and short cases – so you don't get 4 neuro cases
- Sometimes 'reserves' are brought in from the wards



# Long case

- Typically patient gives a good history, has at least one physical sign
- Typically a chronic disease
  - With progression
  - With a complication of the disease or of treatment
  - With a second coincidental disease
  - Usually with many comorbidities and multiple medications
  - Sometimes no 'issue' – patient will tell you their major concern eg who will look after their dog
- The skill is to tie everything in together and to tell a story about this individual

# Renal long cases

- Diabetes/renal failure/transplant
- Wegener's granulomatosis/lung disease
- SLE/kidney failure/transplant
- Chronic liver disease/IgA glomerulonephritis
- Non-Hodgkin's lymphoma/nephrotic syndrome
- HIV/Focal segmental glomerulosclerosis (FSGS)
- Hepatitis C/glomerulonephritis/kidney failure

# Long case

- Not much Oncology as primary diagnosis but Ca breast, lung, colon, prostate common as comorbidities
- Special long cases – renal, cardiac, bone marrow, liver transplants and HIV – in College Learning Series

# Common comorbidities

- Diabetes in about 30% of your patients
- Hypertension
- AF, Ischemic heart disease, CCF
- Chronic obstructive pulmonary disease
- Dyslipidemia
- Osteoporosis
- Obesity, obstructive sleep apnoea
- Gastroesophageal reflux
- Cancer – breast, colon, prostate, lung
- Depression

# Common complications

- Steroid side effects
- Immunosuppression
  - Infections eg TB, pneumocystis, candida,
  - Cancer
- Diabetes
- Perioperative management eg diabetes, anticoagulation!

# Synthesis and priorities

- Expected standard

- Identified all key **problems**
- Arranges problems in order of **priority**

# History

- What is patient's major concern? (ask them)
- How has this illness impacted on their life?
- What does the future hold for them? Insight
- Paint a picture of an individual and tell their story
- Is there anything else I should know?

# Diabetes screening examination

- Diabetic foot – posture, wasting, ulcers, pulses, capillary return, peripheral neuropathy
- Lying and standing blood pressure
- Bruits – carotid, heart (Af, JVP), iliac, femoral
- Fundi – cataracts, glaucoma, macular degeneration, background or proliferative retinopathy
- Urine – macroalbuminuria
- BMI, other autoimmune disease, alcoholic liver disease, haemochromatosis, renal failure



# CNS screening examination

## Complete neurological examination

- when there is a history of neurological disease
- when neurological disease is suspected
- when you find an abnormality on screening examination
  
- Patients may not be aware of all their neurological deficits such as nystagmus, peripheral neuropathy, brisk reflexes

# CNS screening examination

- Higher cortical function, speech – history taking
- Cranial nerves
  - Quality of talking
  - Facial asymmetry and ptosis
  - Visual fields and neglect
  - Horizontal nystagmus and double vision
  - Fundi
  - Uvula and tongue pointing midline

# Limbs

## Upper limbs

- ‘Play the piano’
- Tone including ‘unrolling the fingers’
- Biceps reflex
- Finger-nose test to a fixed point

## Lower limbs

- Walking – heel-toe
- Stand on toes, stand on heels, squat
- Romberg’s test
- Ankle reflexes
- Vibration sense in feet

# Renal failure – history

- Cause of kidney disease, year of diagnosis
- Who manages you?
- What complications? – BP, IHD, infections, anaemia, bone disease, nutrition
- Team – including fistula preparation
- What dietary restrictions
- What choice of treatment - dialysis, why, where, who will assist
- Compliance
- Any prospect of transplant

# Renal failure – examination

- Malnutrition
- Sallow complexion, anaemia, depressed mental state, foetor, poor dentition, conjunctival calcium deposits
- AV fistula, bruising, leuconychia, Terry's nails, metabolic flap, peripheral neuropathy, scratch marks, myopathy, carpal tunnel syndrome
- Fluid overload, hypertension lying and standing, cardiomegaly
- Abdominal examination for renal masses (polycystic kidney and transplant kidney) and scars, Tenckhoff catheter site

# Dialysis patient – history

- Cause of kidney disease
- Mode of dialysis and why, where, how long
- Fistula – any problems
- Base weight, urine output
- Diet, fluid restriction, usual weight predialysis
- Haemodialysis – K, Ca, needles, heparin, home facilities
- Efficiency of dialysis
- Problems on dialysis – eg overloaded – ‘crashing’, cramps, nausea, collapse, angina
- Complications - hypertension, IHD, anaemia, bone disease, nutrition, depression
- Work, holidays, member of patient support group
- Any achievements on dialysis
- Prospect of a transplant

# Transplant patient – history

- Cause of kidney disease, how long before dialysis
- How long on dialysis and any complications
- Any procedures pre-transplant eg cardiac workup
- Donor kidney – what happened to other kidney
- Any perioperative complications, rejection, first year
- Complications of treatment – infections, cancer, rejection/function, cancer surveillance, depression
- Recurrence of original disease
- How fistula is faring
- How the patient feels about when graft fails
- Any achievements after transplant

# Transplant patient – examination

- Features of original disease
- Complications from medication, steroids etc
- Fistula, old fistula and other access sites
- Skin cancers
- Cardiovascular disease
- Hypertension
- Complications from infections
- Old Tenckhoff site



# Presenting the long case

- One examiner will lead
- They will ask you if you had any problems
- Address this examiner principally
- Other examiner will question you for say last 5 minutes
- Present for 11-12 minutes out of 25

# Presenting the long case

- A good introduction includes the most important issues (diagnostic, management, prognosis) pitched at the consultant level
- Tells a story with interactions and consequences, integrates different aspects of the patient's clinical course
- Shows perspective
- Understands impact of disease, comments on insight and compliance
- Finishes with a summary and list of issues

# Presenting the long case

In summary Mrs X has chronic disabling RA and IHD and 5 major management issues

- Ongoing management of her RA
- Aggressive monitoring of her medication-related side-effects particularly corticosteroids
- Stabilising her current IHD symptoms and optimising her cardiovascular risk factors
- Addressing her significant polypharmacy
- Providing her with greater community links and resources

*- P Barlis*

# Questions on the long case

- Clarification of points of history or examination findings
- What is biggest problem for the patient?
- Disease activity
- Linking different clinical features
- Optimising treatment, management
- How does the illness affect the patient's life?
- How much insight does the patient have?
- How was the patient's diabetes or anticoagulation modified perioperatively?

# Common reasons for failing long case

- Missing something
- Lack of perspective
- Poor social history
- Summary and list of issues
  - Getting wrong what is important to the patient
  - No comment on prognosis
  - No discussion of management issues

# Short case

- 15 minutes in total
- 7 minutes for examination
- Presentation
- Discussion – **severity, activity, cause, complications**
- Differential diagnoses
- What definitive investigation would you like?
- Interpretation of tests

# Short case

- Cardiovascular, neuro, respiratory, abdo, rheum
- Optimally one cardiac and one neuro case
- 2 from abdomen, respiratory or joint
- Preferably not 2 patients with the same system but sometimes 2 cardiac cases
- Coordinators try to avoid spot diagnoses

# Common short cases

- CVS – valve lesions, cardiomyopathy, VSD, HOCM, coarctation
- CNS – cranial nerves, speech, arms, legs, gait - MS, motor neurone disease, myasthenia gravis, CIDP, Guillain Barre, polio, peripheral neuropathy, spinocerebellar atrophy
- Rheumatology – hands, knees - RA, SLE, MCTD, scleroderma, gout, haemochromatosis, ankylosing spondylitis
- Renal – polycystic kidney disease, transplant
- Haem – PRV, CLL/lymphoma, CML, haemolytic anaemia, myelofibrosis
- Gastro – chronic liver disease and splenomegaly
- Respiratory – pulmonary fibrosis, bronchiectasis, pleural effusion, lobectomy



# Cardiovascular short case

- Get your examination perfect now and always repeat it
- Know how to assess JVP and pulses
- Apex beat
- Listen in axilla, neck
- Manoeuvres - insp/exp, Valsalva, LLSE leaning forward in exp (AR), left lateral position
- Feel for pulsatile liver
- Assess severity of valve lesion, and likely cause(s)
- TTE criteria for surgery for each valve lesion

# Respiratory short case

- Diffuse interstitial lung disease
- Bronchiectasis
- Pleural effusion
- Lung resection
- Crepitations - Diffuse interstitial lung disease, pneumonia, heart failure, bronchiectasis, retained secretions, atelectasis, emphysema

# Interstitial lung disease

- Nature of crepitations, ? End-inspiratory, do they clear with coughing?
- Extent – how far up the chest, axilla
- Any pulmonary hypertension
- Cause – radiotherapy, ankylosing spondylitis spond, RA, MTX, amiodarone, psoriasis

# The abdominal short case

- Ms X presents with 3 months of tiredness, please examine her abdomen

# Abdominal examination

- If you are asked to examine the abdomen, start with the abdomen
- Take a few deep breaths
- Look around and look at patient overall – including left forearm
- Get patient to take a few big breaths and then cough
- Percuss and measure liver span in mid-clavicular line
- Exclude ptosed liver
- Palpate for spleen under rib cage and then roll patient towards you and percuss
- Work out how you are going to test for ascites – loin fullness is suggestive, better to roll patient towards you?
- **After abdomen, progress to relevant system – Liver, Haem or Kidneys**

# The abdominal short case

- Polycystic kidneys +/- liver +/- transplant
- Splenomegaly
- Hepatosplenomegaly
- Hepatomegaly

Due to

- Polycystic kidneys +/- renal failure
- Chronic liver disease +/- portal hypertension
- Haematological disease, esp PPP, ET, CLL

# Polycystic kidney disease

- A common short case
- Kidneys may be asymmetrical
  - Unilateral polycystic kidney
  - Polycystic kidneys and polycystic liver
  - Polycystic kidneys plus renal transplant
  - Polycystic kidneys and splenomegaly from another cause

# Hepatomegaly

- Span (12 – 15 cm in M, 10 – 12 cm in F)
- Surface, edge, consistency
- Tenderness
- Pulsatile
- Bruit



# Causes of persistent hepatomegaly

- (Ptosed liver)
- CCF
  
- Fatty liver – alcohol, diabetes, obesity
- Cirrhosis
- Haematological disorders – lymphoma
- Infiltration – amyloid, haemochromatosis
- (Others IM, hepatitis, SBE)

# Causes of persistent hepatosplenomegaly

- (Ptosed liver and splenomegaly)
- **Portal hypertension**
- **Myeloproliferative diseases eg PRV, ET, myelofibrosis, CML**
- **Lymphoproliferative diseases eg CLL**
- Haemochromatosis, amyloid, Gauchers
- (Others IM, hepatitis, SBE)

# Splenomegaly

- Decide whether liver disease or haematological or other
- Liver disease
  - Features of chronic liver disease
  - Features of portal hypertension
  - Features suggesting alcohol
  - Features suggesting decompensation

# Characteristics of splenomegaly

- Characteristics
  - Notch
  - Moves down and inwards on inspiration
  - Cannot get above it
  - Dull to percussion
  - Cannot be ballotted

# Causes of persistent splenomegaly

- **Portal hypertension**
- **Myeloproliferative diseases eg PRV, ET, myelofibrosis, CML**
- **Lymphoproliferative diseases eg CLL**
- Others – IM, CMV, hepatitis, SBE, SLE, amyloid, Gauchers, haemolytic anaemia, Felty's, SLE, POEMS

# Haematological examination

- Abdomen – liver, spleen, lymph nodes
- Face – jaundice, anaemia, hair loss, mouth – teeth, ulcers, tonsils, palate haemorrhage, Candida
- Neck - axillae, groin, epitrochlear lymph nodes
- Periphery – petechiae, haemorrhage related to BP cuff, gouty tophi
- Sternal and spinal tenderness
- Which definitive investigation would you order?
- Here it is. What does it show?

# Rheumatological short case

- Hands
- Knees
- Back
- Feet
- Shoulder, elbows, hips

# Rheumatological hand short case

- Rheumatoid arthritis
- Scleroderma
- CREST
- Ankylosing spondylitis
- Gout
- Psoriatic arthritis
- Haemochromatosis



# Questions for the short case

- What have you found?
- What do you think is the most likely diagnosis?
- What else could it be and why is it not this ?
- What other complications does this patient have?
- Which tests would you perform to confirm this diagnosis?
- Please interpret this test ?

# Short case – pass standard

- Performs clinical examination efficiently and confidently
- Detects signs accurately
- Interprets signs correctly
- Assesses activity, severity, complications of underlying problem
- Identifies possible causes
- Formulates differential diagnoses
- Names relevant investigations
- Interprets investigations accurately

- *L Rotstein*

# Short case

- Show perspective in your answers
- Often the examiners ask for the 3 most common causes
- **You need to know clinical features of all cardiac valve abnormalities, how to assess severity and indications for surgery for all lesions**
- Need to know Xray and echo findings

# When things go wrong

- You won't necessarily know
- It is unlikely you will pass every case
- Don't get too upset 'that was the one I was meant to fail'
- You can make sure you get extra marks on the long case
- One good long case makes failure unlikely

# Remember

- The examinations and preparation are all undertaken by your Consultants in an honorary capacity
- It will be your turn next year!