FRCS Experience: Leicester May 2016

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In a Nutshell:

Syllabus is huge. If you have an average memory I think this takes at least a year to prepare for, maybe longer if you have distractions. Part 1 depends on bags of knowledge and good MCQ technique. Part 2 is a game: “buzzword Orthopaedics,” it’s not fun and the stakes are high.

I’ve included a detailed account to provide a flavour of what it’s like.

PART 1:

It is actually all in **Miller**. Get the latest version, each edition is more readable than the last and with fewer errors and fewer topics out of date. I supplemented this with:

Orthopaedic Secrets, **Orthopaedic Hand Secrets**, **Orthopaedic Spine Secrets**, **Orthopaedic Paeds Secrets**. The secrets series is American but the majority is relevant and in question answer format which makes it easier to get through. **Post-graduate Paediatric Orthopaedics** covers all you need for Paeds and is well written.

But if you just read Miller a couple of times, you’d pass.

Started MCQs 2 months before: **Orthobullets** is too easy and <u>nothing</u> like the actual exam so don’t let it falsely reassure you, **Black book** is useful but a bit old, **Orthopaedic Basic Science MCQs** (Dowson-Bowling), **Kesavan** (excellent), old **UKITEs** (very useful).

PART 2:

<u>READING</u>

First I made notes on the Exam corner articles from the BJJ. The model answers in these would score an 8 in reality so don’t be too downhearted when you start these. Covers most of the syllabus. In fact...

***EVERY TOPIC IN MY PART 2 WAS COVERED IN EXAM CORNER. ***

My only reservation with this approach is that the Paeds cases in exam corner are very poorly written, so use another source.

I also used the Banaszkiewicz book **– Postgraduate Orthopaedics**, which covers most the topics you would expect to come up. Viva books: **FRCS Trauma and Ortho** (Davies), **Orthopaedic Basic and Clinical science** (Dawson-Bowling)

<u>COURSES</u>

You’ve spent the last 8 years doing intermediate cases in clinic. Short cases are less familiar, start seeing patients in your clinics by examining them before history and look for signs. It’s tempting to blow thousands on courses but don’t waste your money. **<u>One</u>** good course to get a flavour: Our Northern FRCS course is very good (October). I did another day-long course for £100 in Queen’s Romford where they amassed 40 short cases! Very useful. Miller course (clinical and Viva) was expensive and a bit rubbish (no patients just practising examining each other and med students! Viva groups were too big so not enough practice), I would not recommend it.

<u>GROUP WORK</u>

I’m convinced this is the key to VIVA. Practice is important; You may think you know a topic well, but it’s only under the spotlight that the voids appear... better to fill those before match day. Thanks to my fellow exam-goers.

<u>CONSULTANT VIVA PRACTICE</u>

There is a culture of Northern Deanery Consultants supporting exam-going trainees with viva practise, often in their own time. These sessions are great value as these chaps know what classic topics come up. I owe great thanks to:

Jeff Auyeung, Rajesh Kakwani, Pal Lakshmannan, Sam Dalal, Yusuf Michla, Alan Middleton, Richard Jeavons, Dave Townsend, Phil Henman. Plus all my trainers past and present.

CLINICALS

Intermediate 1
(Same as Sarah)
38 M AVN both hips. 10 year old daughter translating! Awkward slow history and exam. More time on Discussion – typical AVN chat. Risks, Classification, Management. Hip salvage first.. fails. THR – what implant – why? Think this was OK.

Intermediate 2
Rheumatoid Hands, severe deformity and poor function. Recent Right TSR. History was typical for RA, My examination was a bit rubbish as everything hurt her and was chronically deformed or dislocated and not reducible. Did a functional assessment: pen/key/coin probably only useful thing I checked. Discussion also didn't go very well – The guy kept asking me the same question over and over and I couldn't deliver! Wanted to change the subject on general principles of RA but he wouldn't let me. Probably failed this intermediate.

Short Cases: Upper Limb
"Examine this child's shoulders.." No blue sclera, completely normal looking child! Uh oh. Quick palpation – nothing. ROM = full but scapulothoracic dysrhythmia. I must have looked a bit blank as they said "palpate again" – Oh! Osteochondroma – Brain kicked in, likely MHE." Autosommal dominant", looked at dad- mentioned arm held in pronation with scars likely pseudo-madelungs. Asked child if he had any other lumps – other side. Carried on talking about MHE – features concerning for malignant change blah blah blah ding! Slow start but probably pass

"Examine this patient's right shoulder" (I'm sure he said RIGHT). Old boy with completely normal looking shoulder/arm – and examination findings. Patient then told me I was examining the wrong shoulder! I looked at the examiner who just shrugged.. I thought that was bad examiner techniquer. I would also SWEAR that he said right as we were walking towards him… anyway. Pseudoparalysis left shoulder, No ER or ABD, more passive movement and pain. X-rays RTC arthropathy. Management – Non-op to Reverse TSR. This could have gone better.

"Examine this man's elbow and tell me what's going on". Scar posterior ulna and Kocher's scar. Full flexion extension but no forearm rotation. Likely to be post-traumatic synostosis. Ulna shaft fracture and radial head injury – replaced? X-ray showing that. Types of synostosis – management options, unilateral – try to live with it, if can't only reliable option is osteotomy to reposition arm in useful rotation. Wouldn't recommend taking down synostosis – unlikely to improve ROM and high recurrence. This was ok

Short Cases Lower Limb
Elderly lady – Pes planovalgus. Causes? Evaluate her clinically – single heel raise: no. Passively correctable – yes. No fixed forefoot deformity. Stage II Johnson. Management? History to determine function pain expectations then recommend non-op with corrective orthosis UCBL. Surgical options? FDL transfer a calcaneal osteotomy.

Elderly Polio man in an KAFO orthosis. "Talk me through the orthosis". Thigh straps, side bars, hinge mechanism with release catch to lock in extension to compensate for weak Quads. "examine his gait" Short leg gait and trunk imbalance – probably fixed scoliosis to compensate for gross LLD. Doesn't correct adam's forward bend or sitting on couch. Management – if he's managing well, continue non-op. Consider post-polio syndrome and physio.

Young woman – midline bilateral scars on knees and additional transverse scars over medial proximal tibiae. Norman gait, no pain. Slight varus laxity no posterior sag. Thoughts? Bilateral TKRs at

a young age? What about these other scars…. Umm HTOs? Yes. “tell me about indications for HTO”. When would you consider UKR. Predictors for failure?

Hmmm.. Clinicals were over in a flash and could have gone a lot better. I actually have no idea how I did as we don’t get our marks back. Apparently they are quite generous with marking. You really have to convince them to give you a 4.

VIVA

Basic science
MRI knee. How does MRI generate image. - T1 and T2 physics gadollinium. Precession, nuclear spin. Interpret MRI - ACL injury and meniscal tear. Where bone bruising.
Failed implant poly wear - Modes of wear, mechanisms of wear. What factors influence the wear of metal on poly THR bearings - Head size sliding distance formula. Viscoelasticity. Surface roughness, properties of ceramic as a bearing surface.
Picture of distal humerus: Talk me through anatomy: then Median/radial/ulna nerve detailed course and branches. Arthroscopic portals and SAR.
Bone graft - quick run through types, process of incorporation (creeping substitution), synthetic types and differences.
Open fracture boast zone of injury external fixator .. How can you increase stability
Exeter stem history of changes taper slip hoop stresses properties of cement viscoelasticity. Draw stress relaxation curve And creep Curve. Hysteresis curve.

Paeds and hands
Undisplaced radius EPL rupture cause. Treatment. Talk me through EIP transfer. Extensor anatomy and wrist arthroscopy.

Scaphoid nonunion X-ray but history of recent fall. Work up and surgical plan- mentioned vender paper high risk of SNAC. Options for graft. What would I do - wedge graft + screw. Volar Approach in detail: blood supply.

Swollen finger. Kanarval signs. Mentioned communicating ulnar radial bursa - horseshoe abscess and need for emergency decompression. After midnight? Yes. Theatre Technique of decompression. Further wash 48 hours.
Paeds
Femur shaft hit by car- trauma network to mtc paeds . Paeds trauma team.. Avoid pan CT if poss. Estimated fluid bolus and how to guess 7 year old's weight. How to put on Thomas splint. Isolated midshaft management. Family want non op. Hamilton Russell traction .. Please draw. Force vector in line with femur. Now they want surgery. ESIN technique.

In toeing Possible causes. Pathological causes. Clinical assessment: IR ER range, gage test, transmalleolat axis Heel bissector, thigh foot axis. Management now. 12 year old now falling over. Proximal femoral DRO. How to do.

Pes cavus photo. Causes brain to LMN . Likely. HSMN.. Look at hands. How to confirm… I wouldn't do it- neuro and geneticist. MRI and NCS. Principles of correction. ST & Bone Techniques. Talk through calcaneal osteotomy. Mark incision, incise periosteum, lateral Cortex saw medial osteotome. SAR

Trauma -
Pelvic open book. Unstable haemodynamics. Instantly said pelvic binder which he didn't like! He Said how do you know if he needs one.. Don't think he works in a trauma centre. Young burgess APC type 2. Also mentioned tile- markers for vertical instability. Started on C management 1:1:1 got shut

down. Associated injuries - uro.. Retrograde urethrogram If injured-suprapubic away from pelvic approach approaches. urologist or interventional radiology for supra pubic. Patient stable now what- if I'm MTC theatre for open plating or ex fix. If I'm DGH transfer as per boast.

Distal humerus elderly. Said not reconstructible. Typical associated neuro injuries. Bag of bones vs TER. How does TER work. Which implant. Conrad Murray (only one I've heard of).

Proximal humerus posterior fracture dislocation. Describe. Tried to make me reduce in a and e… No. Needs CT planning and shoulder specialist. Don't you want to reduce now? No. Needs planning may not be reconstable. No evidence to show increased AVN. (Probably) . Associated injuries? Plan. DP and Orif or arthroplasty.

Worst forearm injury ever: segmental ulnar with DRuJ dislocation. Radius midshaft with radial head dislocation and elbow medial condyle . Opening line: 'you're in theatre'. Plan? Thought out loud .. Normally would fix simple fracture first I.e radius to achieve anatomical reduction then bridge segmental # but in this case radius dislocated so proximal Henry part will be dangerous. Said plate ulna. No plate long enough. Then 90 90 plating of ulna with overlap. Then fix radius. Showed me post op of what I said. Non Union- why failed. Ding! Phew.

Elderly spiral prox femur with severely arthritic hip ipsilateral (supero lat migration). Said depends on pre-existing level of function.. If doing ok fix fracture and plan for thr later. usual deformity is flexion and Abduction but fortunately prox frag is held in line by OA. Easy nailing . What if she's crippled by arthritis. Needs a revision hip surgeon .. It's you. 'No I'm not !'. Didn't help. Fix fracture and long stem uncemented modular Femur and uncemented cup with trabecular augments for superolat bone deficiency. Other options for fixation . Retrograde nail and plate.

Lisfranc . Lines views anatomy. Why's this view suboptimal.. Nwb. Draw how 2nd TMTJ provides stability. Keystone. Management . Operative plan. When soft tissues allow bridge plating and lisfranc screw. Didn't get a chance to mention evidence.

Adult path
PTOA ankle. Surgical options. Fuse or replace. Benefits and disadvantages. 60 year old with mild subT OA. Selective joint injection to see if resolves pain or some residual. Still spare sub t and manage with fusion TT and infect subT . Failure rate of TAR. Guessed 15% 5 years. Avoid in young active. What about plate? I perform open ankle arthrodesis using lateral approach with fibula osteotomy so would explant plate during approach.

56 Female in clinic with hip pain. X-Ray: left acetabular fracture with lytic lesion and pelvic discontinuity. Letournel . Hole in bone- stage and grade d/w bone tumour unit. Biopsy technique - core needle = lymphoma.how will I manage his fracture. NWB + D/w haematology for urgent chemo. Showed me X-ray with healed fracture post chemo.

Left femur osteomyelitis with sequestrum. 'Tell me about pathogenesis of OM'. Metaphyseal collection subP abscess sequestrum involucrum. Cierny Mader. Work up. Bloods imaging blood cultures bone biopsy for organism. Management. Goals eradicate infection and stabilise bone. Principles are excise sinus. Remove sequestrum Synthes RIA and stabilise bone with local Abx delivery. I would use abx nail with organism appropriate mix.

Rotator cuff arthropathy. Acetabularisation of glenoid coracoid etc. How common RTC tears. 70% over 70s(?). Why will Standard TSR fail- loss of concavity compression = rocking horse glenoid failure. Reverse TSR - medialise joint and tensions deltoid.

Elbow loose bodies and OA Young patient. Lady examiner got progressively more annoyed with me as I couldn't read her mind! In the end had to put this case behind me. Synovial chondromatosis?

Metastatic spinal cord compression. Describe MRI in detail. Features suggestive of malignancy. Stage and grade. How can you biopsy this? Trans pedical core needle. Nice guidelines, MSCC liaison nurse. Dex 16mg. Preop embolise for RCC. Emergent decompression if neurology deteriorates. ASIA chart.