School of Medicine

Year 3

Background to Clinical Specialities

2012/13

Course Leader

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<https://education.med.imperial.ac.uk>

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# SOLE FEEDBACK

I cannot stress the importance of doing your SOLE feedback – we can only respond and change if we hear your views. This year we have changed the order, content, lecturers and length of the modules based on last year’s feedback. The changes are numerous and include new lecturers / new lectures / deletion of lectures found to be unhelpful / improvement of the timetable to reduce “free time” during the days and maximize free time, and to try our best to have a relatively early finish each day. Please take the time to do this for the sake of next year’s course!

The following pages provide you with templates on which you can record your thoughts as the course proceeds. At the end of the course you can enter your views onto SOLE.

**Please answer all questions by selecting the response which best reflects your view.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Very good | Good | Satisfactory | Poor | Very poor | No Response |
| The structure and delivery of the teaching sessions is… |  |  |  |  |  |  |

Please use this box for constructive feedback and suggestions for improvement.

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| --- | --- | --- | --- | --- | --- | --- |
|  | Very good | Good | Satisfactory | Poor | Very poor | No Response |
| The content of this module is useful. |  |  |  |  |  |  |

Please use this box for constructive feedback and suggestions for improvement.   
Students with a disability are invited to make specific suggestions for improvement that would assist them.

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**SOLE FEEDBACK - INDIVIDUAL LECTURERS**

Please note that for SOLE, a Lecturer’s name will only appear once. This template gives you the opportunity to record your comments about each lecture in the order of delivery.

**On the following section, you have an opportunity to record any comments and constructive feedback you have for each lecturer.**

|  | **The lecture(s) are well structured** | | | | | **The lecturer explains concepts clearly** | | | | | **The lecturer engages well with the students** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Lecturer and Lecture Title** | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree |
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| **Lecturer and Lecture Title** | **Please use this box for additional constructive feedback.** |
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**Background to Clinical Specialties**

# Timetable

**Week 1**

|  |  |  |  |
| --- | --- | --- | --- |
| **Time** | | **Title** | **Lecturer** |
| Start | End |  |  |
| **Monday 26th November 2012** | | | |
| 09:00 | 10:30 | Introduction and Pre-course exam | Professor Karim Meeran |
| 10:30 | 10:45 | Break |  |
| 10:45 | 12:00 | Pre-course Exam | Professor Karim Meeran |
| 12:00 | 13:00 | HIV | Dr Graham Cooke |
| 13:00 | 13:45 | Break |  |
| 13:45 | 15:15 | Introduction and clicker quiz “Substance misuse in the clinical specialties” | Dr Chris Hilton |
| 15:15 | 15:30 | Break |  |
| 15:30 | 17:00 | Pre-course exam continued | Professor Karim Meeran |
| **Tuesday 27th November 2012** | | | |
| 09:30 | 09:35 | Introduction: Cardiology and Chest Medicine | Professor Jamil Mayet |
| 09:35 | 10:05 | The patient with chest pain | Professor Jamil Mayet |
| 10:05 | 11:05 | The approach to palpitations, syncope and prevention of sudden cardiac death in the young |  |
| 11:05 | 11:25 | Break |  |
| 11:25 | 11:55 | Approach to the patient who is SOB, assessing fluid status, evaluation and treatment of heart failure | Dr Obi Okonko |
| 11:55 | 12:20 | Cardiology at the cutting edge; developing a critical mind and pushing the boundaries | Dr Boom Lim |
| 12:20 | 13:30 | Break |  |
| 13:30 | 15:30 | GUM | Dr Olamide Dosekun |
| **Wednesday 28th November 2012** | | | |
| **Self-Study** | | | |
| **Thursday 29th November 2012** | | | |
| 09:30 | 09:45 | Introduction: Surgery and Radiology: A multi-disciplinary approach to excellence in patient care | Mr Mikael Sodergren |
| 09:45 | 09:55 | Introduction to radiology component | Dr Alex Chapman |
| 09:55 | 10:30 | Elective general surgery | Mr Mikael Sodergren; Dr Alex Chapman |
| 10:30 | 11:05 | Elective vascular surgery | Ms Celia Riga;  Dr Alex Chapman |
| 11:05 | 11:35 | Break |  |
| 11:35 | 12:10 | Urology case with patient | Mr Erik Mayer;  Mr Dan Cohen;  Dr Alex Chapman |
| 12:10 | 12:45 | Emergency general surgery | Mr Mikael Sodergren; Dr Alex Chapman |
| 12:45 | 13:45 | Lunch |  |
| **Thursday 29th November 2012 (continued)** | | | |
| 13:45 | 14:20 | Emergency vascular surgery | Ms Celia Riga;  Dr Alex Chapman |
| 14:20 | 14:40 | Career path in surgery | Mr Mikael Sodergren |
| 14:40 | 15:00 | Women in surgery | Ms Jo Franks |
| 15:00 | 15:15 | Break |  |
| 15:15 | 15:25 | Career path in radiology | Dr Alex Chapman |
| 15:25 | 15:45 | Spot diagnosis test | Dr Alex Chapman |
| 15:45 | 16:00 | Summary of day and questions | Mr Mikael Sodergren |

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| **Friday 30th November 2012** | | | |
| 09:00 | 10:15 | How to be a good referrer for Imaging? | Dr Ravi Lingam |
| 10:15 | 10:30 | Break |  |
| 10:30 | 12.45 | Respiratory investigations and breathlessness | Dr Graeme Wilson |
| 12:45 | 13:30 | Break |  |
| 13:30 | 16:30 | Oncology | Dr Laura Kenny |

Week 2 is shown on next page

**Week 2**

|  |  |  |  |
| --- | --- | --- | --- |
| **Time** | | **Title** | **Lecturer** |
| Start | End | **Multisystem Diseases that you should know about** | **Professor Edwina Brown** |
| **Monday 3rd December 2012** | | | |
| 09:00 | 09:45 | Patient: SLE, renal involvement, now on dialysis | Dr Jeremy Levy |
| 09:45 | 10:15 | Patient: Systemic Lupus Erythematosus | Dr Jeremy Levy |
| 10:15 | 11:00 | Individualising drug management in chronic disease SLE and renal disease | Dr Jeremy Levy; Professor Edwina Brown |
| 11:00 | 11:30 | Break |  |
| 11:30 | 12:00 | Clinical presentation of severe hypertension | Professor Karim Meeran |
| 12:00 | 12:30 | Severe hypertension: what investigations should you perform? | Professor Karim Meeran |
| 12:30 | 13:30 | Break |  |
| 13:30 | 13:45 | Patient: Diabetes, ischaemic heart disease, renal involvement, ESRD, wants conservative care | Professor Karim Meeran;  Professor Edwina Brown |
| 13:45 | 14:00 | New Diabetic Drugs | Professor Karim Meeran |
| 14:00 | 14:15 | Type 2 Diabetes and its complications | Professor Karim Meeran |
| 14:15 | 14:30 | When to start Dialysis | Professor Edwina Brown |
| 14:30 | 15:00 | Elderly on Dialysis: conservative Care | Professor Edwina Brown |
| 15:00 | 15:30 | Chronic disease pathway: role of active and supportive treatment | Professor Edwina Brown |
| 15:30 | 15:45 | Break |  |
| 15:45 | 16:45 | Patient: Rheumatoid arthritis | Dr Sonya Abraham |
| **Tuesday 4th December 2012** | | | |
| 09:30 | 12:30 | Clinical Communications | Dr Ged Murtagh |
| 12:30 | 13:30 | Break |  |
| 13:30 | 15:30 | The Mental Capacity Act - Please see additional emails from Dr Raby and Dr Kong on groupings for this seminar. | The Harry Partnership; Dr Wing May Kong;  Dr Adrian Raby |
| 15:30 | 15:45 | Break |  |
| 15:45 | 16:45 | Medical Law Quiz | Dr Wing May Kong;  Dr Adrian Raby |
| **Wednesday 5th December 2012** | | | |
| 09:00 | 09:30 | Introduction to Dermatology | Dr James Shelley |
| 09:30 | 10:15 | Introduction to Dermapathology | Dr Justin Weir |
| 10:15 | 10:30 | Break |  |
| 10:30 | 11:15 | Overview of inflammatory skin disease and lesions | Dr Nick Turnbull |
| 11:15 | 12:00 | Skin Infections | Dr James Shelley |

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| **Thursday 6th December 2012** | | | | |
| 09:00 | 09:10 | Introduction to Substance Misuse and Clicker Quiz | Dr Chris Hilton | |
| 09:10 | 09:30 | Assessing alcohol and substance misuse | Dr Chris Hilton | |
| 09:30 | 10:30 | Alcohol and the GI patient (with patient interview) | TBC | |
| 10:30 | 11:00 | Break |  | |
| 11:00 | 11:40 | Alcohol, drugs and the heart | Dr John Baksi | |
| 11:40 | 12:20 | Alcohol, drugs and the brain | Dr Rick Adams | |
| 12:20 | 13:00 | Alcohol, drugs and sexual health | Dr Michael Rayment | |
| **Friday 7th December 2012** | | | | |
| 09:30 | 09:50 | Quality of Life and Joint Disease | | Professor Justin Cobb |
| 09:50 | 10:10 | Morphology and pathomorphology of the hip and knew | | Professor Justin Cobb |
| 10:10 | 10:30 | The Ministry of Funny Walks | | Professor Justin Cobb |
| 10:30 | 10:50 | Aftermath of war | | Professor Justin Cobb |
| 10:50 | 11:10 | Break | |  |
| 11:10 | 11:30 | Rebuilding joints with robots and beyond | | Professor Justin Cobb |
| 11:30 | 12:00 | Technology in surgery: the best surgeon in year three | | Mr Barry Andrews;  Mr Adeel Aquil |
| 12:00 | 12:30 | Why pursue a career in musculoskeletal medicine and surgery? | | Professor Justin Cobb |
| 12:30 | 13:30 | Break | |  |
| 13:30 | 15:30 | Question time: Ethics in medicine, surgery palliative care and mental health | | Dr Wing May Kong;  Dr Adrian Raby;  Dr Catherine Urch;  Dr Angharad Rutley |
| 15:30 | 16:30 | Medical law at the end of life | | Dr Wing May Kong;  Dr Adrian Raby |

Week 3 is shown on next page

**Week 3**

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| --- | --- | --- | --- |
| **Time** | | **Title** | **Lecturer** |
| Start | End |  |  |
| **Monday 10th December 2012** | | | |
| 09:00 | 10:00 | An Ophthalmology Taster | Miss Vickie Lee |
| 10:00 | 11:45 | Acute Abdomen | Mr Barry Paraskevas |
| 11:45 | 12:00 | Break |  |
| 12:00 | 13:00 | Year 3: Firms and an introduction to exams | Mr Sybghat Rahim |
| 13:00 | 14:00 | Break |  |
| 14:00 | 15:30 | Psychiatry and its importance in Medical Disease | Dr Amrit Sachar;  Dr Catherine Urch;  Dr James Stratford-Martin |
| 15:30 | 15:45 | Break |  |
| 15:45 | 17:00 | Psychiatry and its importance in Medical Disease | Dr Amrit Sachar;  Dr Catherine Urch;  Dr James Stratford-Martin |
| **Tuesday 11th December 2012** | | | |
| Self-Study | | | |
| **Wednesday 12th December 2012** | | | |
| 09:00 | 10:30 | Clinical PPD - Taking the plunge | Dr Colin Bicknell;  Dr Elizabeth Muir |
| 10:30 | 10:45 | Break |  |
| 10.45 | 11.45 | Quality of care and the Clinical quality improvement assignment | Dr Colin Bicknell;  Dr Elizabeth Muir |
| **Thursday 13th December 2012** | | | |
| 09:30 | 09:45 | Introduction to Paediatrics and Obstetrics and Gynaecology | Dr Mitch Blair |
| 09:45 | 10:30 | What does science tell us about the developing human- a life course approach? | Dr Mitch Blair |
| 10:30 | 11:15 | New Beginnings – optimising the health of the mother and foetus | Professor Jacqueline Dunkley-Bent |
| 11:15 | 11:50 | The Success and Challenges in Neonatology' | Dr Ezam Mat-Ali |
| 11:50 | 12:10 | Break |  |
| 12:10 | 12:45 | Teenage sexual health, contraception and pregnancy | Dr Claudia Domoney |
| 12:45 | 13:00 | Infertility – issues and advances | Dr Davina White |
| 13:00 | 13:30 | Break |  |
|  |  | Afternoon sessions shown on next page |  |

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| **Thursday 13th December 2012 (continued…)** | | | |
| 13:30 | 14:00 | Transition to adult services – a challenge for the adolescent with chronic disease | Dr Caroline Foster |
| 14:00 | 14:45 | The Acutely Ill Child – mechanisms and cures | Prof Mike Levin |
| 14:45 | 15:15 | The Acutely Ill Child – making a difference | Dr Saji Alexander |
| 15:15 | 15:30 | Break |  |
| 15:30 | 15:35 | Vignettes of speciality perspectives – short 15-20 minute slots from different subspecialists | Dr Mitch Blair |
| 15:35 | 15:55 | Obstetrics – the most useful speciality in the world | Dr Ruth Curry;  Mr Martin Lupton |
| 15:55 | 16:15 | Paediatric Intensive Care: Why bother? | Dr Simon Nadel |
| 16:15 | 16:35 | Paediatric Surgery- the cutting edge! | Dr Simon Eccles |
| 16:35 | 16:50 | Wrap Up | Dr Mitch Blair |
| **Friday 14th December 2012** | | | |
| 09:30 | 11:00 | End of course clicker exam | Dr Amir Sam |
| 11.00 | 11.30 | Break |  |
| 11:30 | 12:30 | History of Medicine | Dr Hutan Ashrafian |
| 12:30 | 13:30 | Break |  |
| 13:30 | 13:45 | Introduction to Neuroscience | Dr Peter Bain |
| 13:45 | 14:10 | Dizziness (Case A) | Mr Barry Seamungal |
| 14:10 | 14:35 | Peripheral neuropathy (Case B) | Dr Wojtek Rakowicz |
| 14:35 | 14:55 | Epilepsy (Case C) | Dr Michael Johnson |
| 14:55 | 15:10 | Break |  |
| 15:10 | 15:55 | Head injury (Case D) |  |
| 15:55 | 16:15 | Tremor (Case E) | Dr Peter Bain |
| 16:15 | 16:30 | End of session discussion | Professor Karim Meeran |

**Background to Clinical Specialties**

# **INTRODUCTION**

This is a good time to consolidate some of your knowledge. Having done a 10 week firm, you are ideally positioned to learn and review clinical information that you may have been given before the start of this term. To this end, there will be some sessions on diseases (including some basic pathology) of conditions that you will need to know more about in   
Year 3. To this end, the material you have been taught in your previous years underpins this course and the rest of Year 3.

In addition this course serves as an introduction to many different clinical specialities that you may not encounter till Year 5 or 6. It is a taster session to give a better understanding of each speciality, and aims to broaden and integrate your clinical knowledge at an early stage.

Preparation for the OSCE and EMQs are not the main aim of this course, although many sessions will assist with this. This course may also help you start to think about what sort of career you might want. It is certainly too early to decide, but exposure to a wide variety of specialities will be a start.

We hope you enjoy the next three weeks. There is a huge amount to learn that students do in their own time. This course should make that a lot easier.

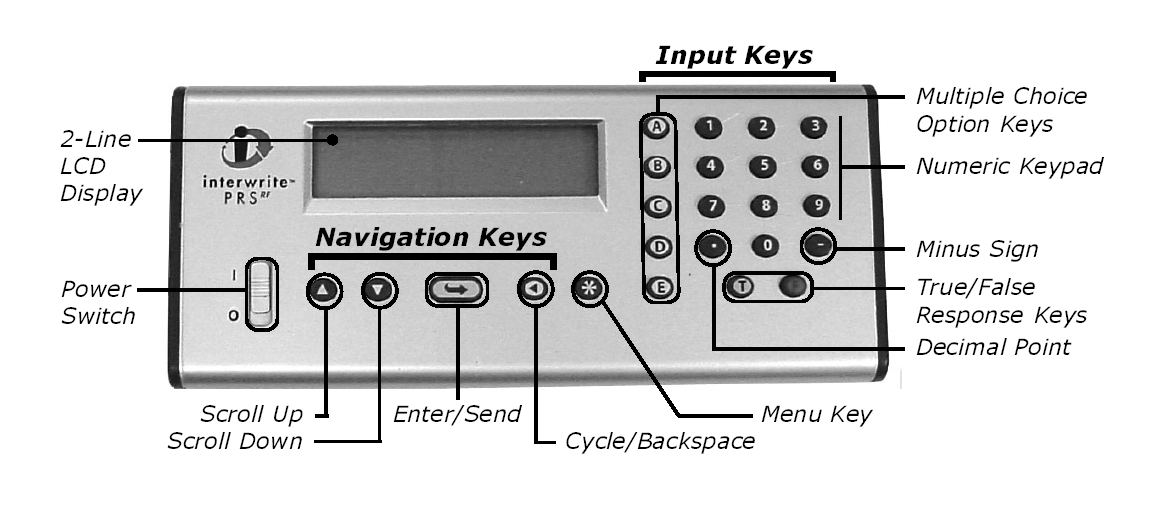
# **COURSE STRUCTURE**

This is a 3-week lecture course based in the Drewe Lecture Theatre. Each of the sessions are themed, so that important areas are covered by experts in the field. Some of the sessions will use clickers that you have already been using to try and give you a bit more feedback.

Attendance at all lectures is compulsory, and will be monitored by a combination of the clickers, and by use of ID card scanning. Please carry your ID card at all times.   
Please note that everything in this course is examinable.

# **Interactive clickers**

Instructions on how to use the PRS handset are shown below.



Only turn on the handset when instructed. **WAIT** till you can all do this together.

**When instructed…**

1. Turn on your handset by sliding the Power Switch up (I = ON).
2. Wait for 4 seconds till “GTCO CalComp” disappears.

**Joining the class**

1. “Scanning classes Please wait” will appear. The clicker will check each possible channel, until it finds the right one. Your teacher might know what channel you should connect to, and if you are told what channel to join, you can immediately jump to the correct channel by pressing that number or letter.
2. Press the green “return” key
3. You are now connected and should see: ANS:  
    year 3

**Now wait for a question**

1. ****When the lecturer asks you to respond to a question, press the key that represents your response and press to send it. Then watch for the ‘**Received**’ message to

appear in your handset display.

1. If the ‘**Wait for Q**’ message appears, please wait for your lecturer to start the countdown process before sending your response.
2. If you change your mind, or submit something you didn’t mean to, change your answer and submit again (the green key). Only your FINAL answer will be counted.

**WARNING:** Your handset will go to SLEEP when it is not being used.   
Press the any key to WAKE UP your handset.

Core Curriculum and clarification of policy over non-delivered teaching

The full core curriculum is available on the intranet. It is important to emphasise that learning is the responsibility of students. Academic and clinical staff members provide teaching in order to help students to learn, but it has never been the policy that all areas of intended student learning must be embodied in formal teaching. Students are frequently told that a particular aspect of their learning should be covered by private study.

The same principle applies to teaching that appears in the timetable but is not delivered. While teachers make all possible efforts to ensure that any cancelled teaching is rescheduled, it is not always possible to do so. It is the responsibility of students to cover any such missed material by independent study. Non-delivery of teaching on a particular topic does not mean that the topic will not be tested in examinations.

# **Pre course Exam after the First 10-Week Firm**

Professor Karim Meeran

List below the liver substrates and enzymes that leak into the circulation and that are used to give some idea of the function of the liver. You were taught this last year in the “Diagnostics” section of pathology (GE) or MCD (year 2) with a case presentation of “Billy”.

A patient develops pancreatic cancer and the tumour physically obstructs the bile duct.   
What will you see in the patient’s eyes?

Write below the liver enzymes that will be most deranged in this patient, confirming that the jaundice is caused by “obstruction to the bile ducts”.

If instead, the patient had viral hepatitis, which enzyme would be most elevated during an acute attack?

How can you clinically (i.e. on examination of the patient) distinguish obstructive jaundice from any other type of jaundice?

What SIGNS of chronic liver disease might you find on examination of a patient who drinks large amounts of alcohol?

A 50-year-old patient develops a stroke, with weakness of her right arm and right leg.   
Write below what you are likely to have written in the patients notes under “neurological examination”.

1. Inspection:

2. Tone:

3. Power:

4. Co-ordination:

5. Reflexes:

6. Sensation:

7. Summary:

List below possible causes of an upper motor neurone lesion:

List below possible causes of a lower motor neurone lesion:

A very fit, tall, thin 25-year-old man suddenly becomes breathless with left sided chest pain when he breathes in. What diagnosis do you suspect? Give a few differential diagnoses:

Choose the likeliest diagnosis from your list above and write down below answers for that patient:

What are you likely to find on respiratory examination?

Inspection:

Expansion:

Palpation:

Percussion:

Auscultation:

Summary:

A 45-year-old patient complains of breathlessness. He is carefully examined by a medical student who suggests that he has aortic regurgitation.

Suggest a likely blood pressure.

How would you describe the blood pressure.

List the SIGNS that the student will have elicited to come to this conclusion:

Suggest a likely pulse rate.

What will you see if you carefully examine the fingernails?

What will you see if you examine the patient’s neck?

What will you hear if you listen over the femoral vessels (in the groin)?

What will the student have heard on auscultation of the praecordium?

Draw below a diagram that the student should put into the notes illustrating the murmur heard:

Assuming that you were clerking this patient, write down below what you will have written in the notes under “summary” and “plan”.

Summary:

Plan:

List the complications of aortic regurgitation.

Make sure that you know the examination findings (signs) and can draw the murmurs for the following:

Mitral regurgitation

Mitral stenosis

Aortic stenosis

What organism lives around peoples teeth, and occasionally enters the bloodstream?

List below as many SIGNS of endocarditis that you should look for:

(a) in the hands

(b) in the abdomen

(c) generally

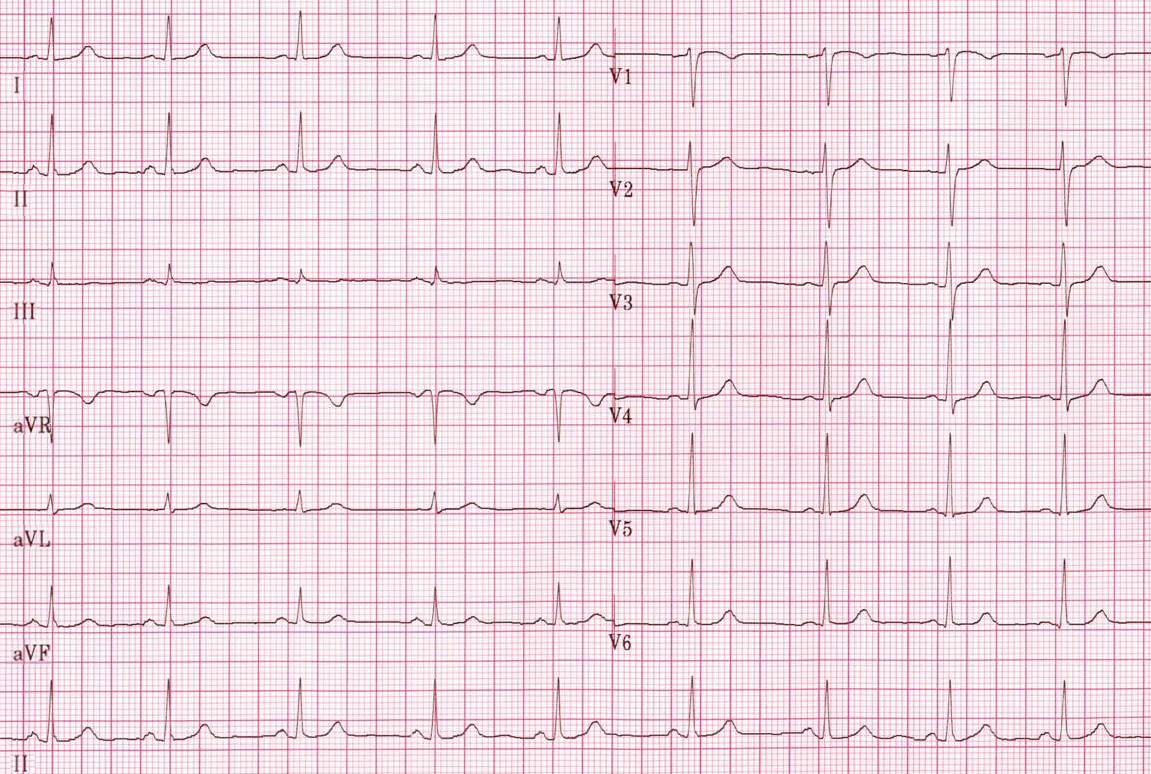
A few days later, the endocarditis damages the tricuspid valve, and he develops severe tricuspid regurgitation. What specific sings of Tricuspid regurgitation will you now be able to find:

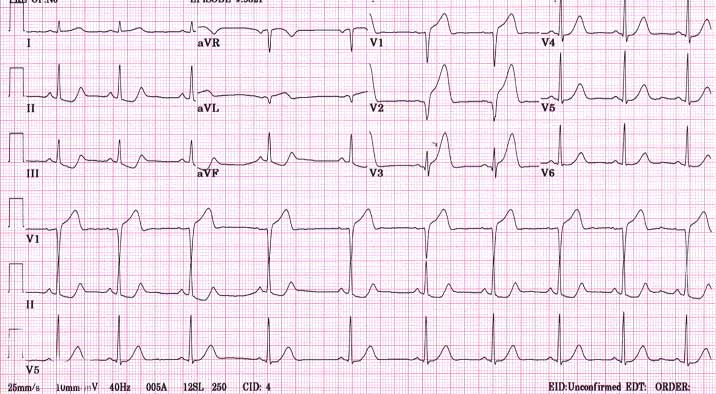
(d) in the neck:

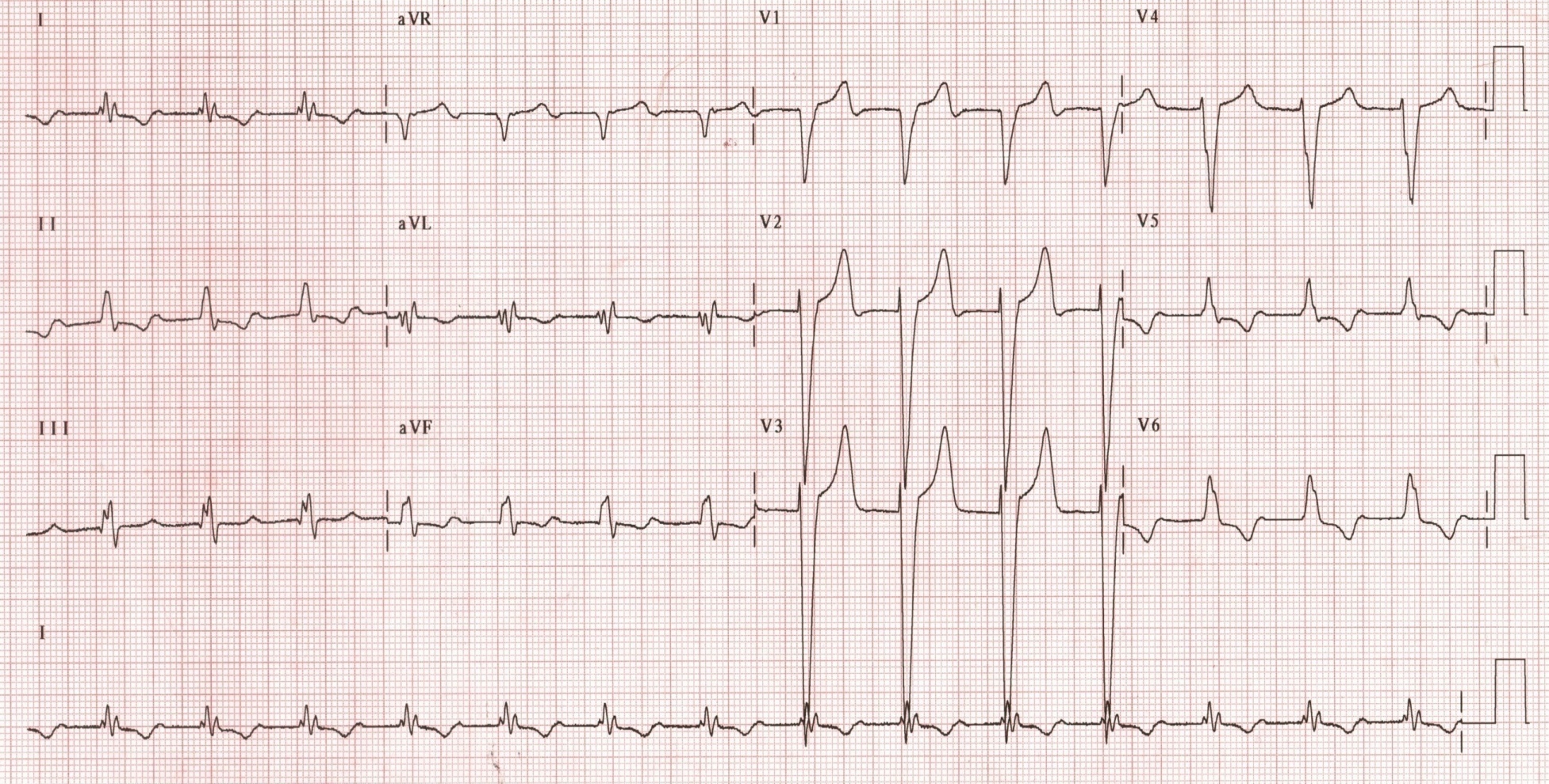
(e) in the abdomen.

(f) what will you hear when you auscultate the praecordium?

Report on the three ECGs below.







# **Substance Misuse**

Dr Chris Hilton

**Learning objectives:**

By the end of the two sessions, students should be able to:

**Session 1:**

* Define substance misuse, dependence and addictive behaviour and distinguish between acceptable and problematic use
* Demonstrate awareness of the range of substances that can be misused, the different types and classes of addictive substances, their alternative and colloquial names and their effects
* Describe the basic treatment regimes for various addictions and withdrawal states
* Describe UK policies and strategies for the reduction of harm caused by alcohol, tobacco and drug misuse
* Demonstrate a professional attitude towards substance misusers, which incorporates a non-judgemental approach and respect for a patient’s autonomy
* Consider how substance misuse problems may affect a healthcare professional’s judgement, performance and care of their patients

**Session 2:**

* Be aware of the principles of how to make an assessment of drug and alcohol in a variety of clinical settings
* Recognise life-threatening complications of substance misuse, including septicaemia, pulmonary emboli and overdose and be able to carry out appropriate interventions
* Describe and explain the links between substance misuse and:
* accidents
* heart disease and hypertension
* liver disease, pancreatitis and gastritis
* infectious diseases, including HIV and hepatitis
* neurological conditions including seizures, paraesthesia and stroke

# **GUM**

**Introduction**

Due to undergo another name change in the not too distant future, Genitourinary Medicine [or GUM for short] grew out of the specialty of Venereology [Venus, the Goddess of Love...]. Venereology was a branch of acute medicine that came to the fore during the 1st World War when one the commonest reason for soldiers being unfit for the front was syphilis or gonorrhoea. Being an Imperial Medical Student you will of course know that penicillin, the cure for both of these infections, was discovered by Alexander Fleming at St. Mary’s Hospital. But did you know that Fleming had worked in the VD clinic at St. Mary’s or that there has been a VD/GUM/Sexual Health clinic providing free confidential testing and treatment for any patient at St. Mary’s since 1918, 30 years before the invention of the NHS.

**Aim**

We will discuss the specialty of GUM, past, present and future and explore how your attachment with us in the future should be an opportunity to hone your communication and clinical skills.

# **Surgery & Radiology A multidisciplinary approach to excellence in patient care**

Introduction:

In modern medicine we rely heavily on a holistic and multidisciplinary approach in providing the best possible care for our patients. Considering the interaction between different surgical specialties and radiology provides an excellent example of the importance of this multidisciplinary approach throughout the patient pathway. Surgery is a specialty which utilises operative manual and instrumental techniques to treat or investigate patients. With rapid advances in technology and heavy reliance on imaging for some operative procedures, interventional radiology in particular is now treating conditions which were previously only treated by surgery and surgeons and radiologists work in close symbiosis.

The format of the day is very much interactive with surgical scenarios and relevant radiology being presented allowing the students to vote on their favoured diagnosis or treatment. Cases in elective and emergency general and vascular surgery will be covered. A urology case will include a patient with the relevant condition for interactive discussion.

The day will conclude with presentations in the relevant career pathways in radiology and surgery as well as a presentation on part-time training and having children during surgical training.

Aims:

Introduction to common surgical presentations, diagnosis and treatment of elective and emergency conditions in general and vascular surgery including common radiological investigations and interventions

Discussion of career pathways in radiology and surgery, as well as part-time training and having children during surgical training

**Learning objectives:**

At the end of the day the students should have some insight into:

* Common presentations of surgical disease and subsequent treatment modalities and the interaction between the surgeon and radiologist
* Common radiological investigations and interventional radiological treatment modalities used in surgical disease
* The career pathways in surgery and radiology

**Additional Reading:**

<http://www.learningradiology.com/medstudents/medstudtoc.htm>

<http://surgicalcareers.rcseng.ac.uk/students/medical-students>

[Bailey and Love's Short Practice of Surgery, 24th edition](http://www.baileyandlove.com/home.htm) (Hodder Arnold Publication)

# **Clinical Communication**

**Communicating information to patients**

**Introduction**

In your Clinical Communication curriculum so far we have focused mainly on the skills associated with gathering information and aimed to develop knowledge, attitudes and skills commensurate with patient-centred interviewing. In this session we aim to explore the skills associated with effective information giving. This will involve examining different contexts in which information is given to patients (explaining a procedure, communicating during procedures, securing shared understanding and informed consent). The format of the session is an interactive one and will include demonstrations with professional actors and a ‘professional opportunist’.

**Aim**

The aim of the session is to raise awareness of specific communication issues in medicine, to refresh and advance your skills and knowledge in preparation for the OSCE and the Y3 FOCP exam.

**Learning objectives**

After this session, you are expected to be able to:

1. Outline the GMC specified communication and patient safety learning outcomes in *Tomorrow’s Doctors*
2. Describe key principles for effective information exchange with patients
3. Understand the difference between informing a patient and ensuring a patient is informed
4. Understand and be able to apply effective communication skills to counter the contingencies of communicating with a patient whilst performing a procedure
5. Understand the principles of shared understanding and describe communication skills designed to achieve this aim

Reading

Silverman J, Kurtz S & Draper J. (2004) Explanation and planning. (Ch 6, pp 141-198)   
In. *Communicating with patients.* 2nd ed. Oxford, Radcliffe Medical Press.

# **The Mental Capacity Act**

The Harry Partnership, Dr Wing May Kong, Dr Adrian Raby

# **Medical law quiz**

Dr Wing May Kong and Dr Adrian Raby

**Introduction:**

This session will take the form of a 1-hour interactive workshop with The Harry Partnership. The workshop will take the form of a number of scenes depicting common place medical scenarios that demonstrate aspects of decision making with patients whose decision-making capacity is impaired. Students will be asked to comment on the action, and may be invited on to the ‘stage’ to take part in the consultation itself. The content of this session forms part of the Year 3 Law programme, and is assessed in the Law paper at the end of the year.

The second part of the session will take the form of a quiz, which will cover a wide range of topics in medical law. This is designed to help you identify the range of topics and areas of weakness that may need to be addressed in your revision for the summer exam.

**Learning outcomes:**

* Describe the legal requirements for a finding of mental incapacity
* Carry out a straightforward assessment of mental capacity
* Explain in clinical practice the legal requirements for a valid advance decision
* Apply Department of Health Guidance in the determination of ‘best interests’
* Describe the role of the independent mental capacity advocate and the function of lasting power of attorney
* Critically reflect on the key functions of the Mental Capacity Act

**Preparation:**

Essential reading:

Herring J. ‘*The Treatment of Incompetent Patients’* In, Medical Law and Ethics. 2010.   
3rd Edition. pp172-185

# **Year 3 Clinical Specialities – FOCP in practice**

**Charing Cross campus Friday 7 Dec 2012**

|  |  |  |  |
| --- | --- | --- | --- |
| **1345-1400** | Drewe LT | All year | Assignment instructions |
| **1400-1500** | Not allocated | Red Cohort | Group Preparation |
| Drewe LT | Blue Cohort | Lecture – law quiz |
| **1500-1600** | See timetable for room allocations | Red Cohort | Group presentations |
| Not allocated | Blue Cohort | Group preparation |
| **1600-1700** | Drewe LT | Red Cohort | Lecture – law quiz |
| See timetable for room allocations | Blue Cohort | Group presentations |

**!!A lot of learning resources to help you prepare for you assignment presentation are available on line!!**

Please make sure that at least one member of your tutorial subgroup has a laptop with on-line access for this session.

**Cohort A: Red Half-Year:**

All students whose first clinical attachment was at one of the following hospitals:

Central Middlesex Hospital

Chelsea and Westminster Hospital

Ealing Hospital

St Peter’s Hospital

West Middlesex Hospital

**Cohort B: Blue Half-Year:**

All students whose first clinical attachment was at one of the following hospitals:

Charing Cross Hospital

Hammersmith Hospital

Hillingdon Hospital

Northwick Park Hospital

St Mary’s Hospital

**Learning outcomes**

**Following this session students should be able to:**

* Identify the most appropriate response to clinical dilemmas involving consent, capacity, confidentiality and children
* Apply their legal reasoning to clinical dilemmas involving questions of consent, confidentiality, capacity and children
* Identify issues relating to clinical communication, professional development and medical ethics that arise in clinical events encountered in practice
* Formulate relevant questions relating to these domains of learning to the clinical events that they encounter in practice
* Apply knowledge and skills from clinical communication, professional development and medical ethics to formulate an appropriate response to these questions

**Preparation**

This session assumes that students have completed the law e-modules covering consent, capacity, the Mental Capacity act, Children and confidentiality and attended the law session on 31 October 2012 and the Mental Capacity Session on 4 December 2012. Al students should read the sample FOCP available on Blackboard before the session

For the tutorial students will be working in their clinical firms. Students should have all submitted a significant event reflection via PebblePad during the first Year 3 clinical attachment. These reflections must be brought to today’s session as they will form the basis for today’s tutorial assignment. Students may find it helpful to have access to or bring their year 2 course guides for Clinical Communications, Personal and Professional Development and Medical Ethics to this session.

**The assignment**

All students will be emailed in the week before session with their assignment group allocation for the tutorials. **Students must remember their assignment group allocation i.e. A, B or C** as this will determine what type of question (i.e. communications, professional development or medical ethics) each group is assigned. Guidance for the assignment will be given at 1345 to the whole year. It is essential that all students attend this.

**Tutorial Lesson Plan**

Group preparation: 1 hour

Red Cohort: 1400-1500h

Blue Cohort: 1500-1600h

Within each assignment group students must choose the significant event that they wish to work on and divide up the assignment tasks. AV facilities will be available but it is not necessary to provide a Powerpoint presentation. Each group will have **a maximum of 5 minutes to present their work**.

For the chosen significant event and the allocated learning area (clinical communications, professional development or medical ethics) students must prepare:

* Devise one long question (8 mark ethics question or 10 mark communication or PPD question)
* Write a model answer with a marking scheme
* Identify two resources/references as background reading in preparation for this assessment

Tutorial: 1 hour

Red Cohort: 1500-1600h

Blue Cohort: 1600-1700h

5 minutes: Introduction, ice-breaking and ground rules

45 minutes: 3 x 5 minute presentation followed by 10 minutes discussion and feedback

10 minutes: Feedback

**Marking guidance for FOCP in practice case:**

Group:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 0 | 1 | 2 | 3 |
| **Choice of suitable case** | The case chosen is not useful in assessing understanding of the course materials (PPD, Clinical Communication or ethics) | The case is relevant but doesn’t present sufficient challenge or interest to allow an interesting or challenging question | The case has relevance to the course content, has broad relevance to clinical practice and a sufficient level of challenge | The case exemplifies a highly relevant issue relating to the course content, of broad relevant to clinical practice. The case is probing and presents a high degree of challenge |
|  |  |  |  |
| **Formulation of challenging question(s)** | The questions are not directly relevant to the course materials or poorly framed | The question(s) are relevant but poorly discriminating i.e all students might be expected to do well | The question(s) are relevant to the scenario but only moderately challenging | The question(s) are highly probing and challenging, and will allow discrimination between students |
|  |  |  |  |
| **Quality of model answer and references** | The answer(s) and references demonstrate very little understanding of the course materials or don’t answer the question | The answer(s) and references demonstrate some understanding of the course materials generally answer the question | The answer(s) and references demonstrate broad understanding of the course materials and directly answers the question | The answer(s) and references demonstrate thorough understanding of the course materials and directly answers the question(s) |
|  |  |  |  |
| **Clarity of presentation** | Presentation lacks clarity, confusing or difficult to follow, lacks interesting method/ style | Presentation is average – clear in places, style could be improved and AV aids could have been used to better effect | Generally clear with some thought given to the use of presentation style and AV aids | Focussed and clear presentation. Excellent use of AV or presentation style |
|  |  |  |  |
| **Total /12** |  | | | |

# **Using the Radiology Department – how to be good referrers for imaging?**

Dr Ravi Lingam BSc(Hon) MRCP FRCR

Consultant Radiologist: Northwest London Hospitals NHS Trust

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# **Cancer, Treatment and the Patient**

Introduction:

Cancer is a major cause of morbidity and mortality, and doctors across many specialities are involved in the treatment of cancer. A basic grounding in the principles of management and care of cancer patients is vital for doctors in all specialities. Communication is particularly important given the nature and type of information that needs to be discussed with both patients and relatives concerning treatment options and prognosis.

Aims:

To provide the basic principles of oncology related to risk factors and treatment, an overview of the development of new targeted treatments, the goals of treatment and the effects on the patient.

To explore effective communication skills, including the breaking of bad news.

**Learning objectives:**

**At the end of the session students will be able to:**

Outline the basic principles of oncology

Recognise effective communication strategies

Recognise the challenges and problems with communication

Understand the basic principles of breaking bad news

Acknowledge the challenges when breaking bad news

Appreciate the patients prospective in receiving a cancer diagnosis, the treatment and life after treatment.

Be aware of the range of career options in cancer medicine

**Additional Reading:**

Women’s Cancers; Pathways to Healing. Smith JR, Del Priore G.

# **Multisystem Diseases That You Should Know About**

Professor Edwina Brown, Dr Jeremy Levy, Professor Karim Meeran, Dr Sonya Abraham

Introduction:

By focusing on patients with lupus, rheumatoid arthritis, diabetes, hypertension and chronic kidney disease, the day explores the patient journey with chronic disease from the acute presentation and then through the many years that patients live with the disease.

**Learning aims and objectives:**

1. Integrate different medical specialties in relationship to investigation, management and pathogenesis
2. Understand that many medical conditions result in long-term chronic disease which can have many different features to original disease, e.g. rheumatological disease or diabetes resulting in kidney disease
3. Consider how scientific advances may impact on medical management and whether this may affect long term outcomes
4. Understand how disease affects cardiovascular risk and how this is managed
5. Become aware of importance of recognising drug interactions when prescribing for different components of chronic disease
6. Increase awareness of impact of chronic disease on lifestyle
7. Understand that patients die from chronic disease
8. Become aware of transition from active to supportive management with increasing complications and age, and therefore need to involve patients in advance care planning

**Additional Reading:**

SLE, rheumatoid arthritis, diabetes, chronic kidney disease, hypertension in standard medical text books

**WORKSHEET 1- LUPUS**

**Tutors:** Prof Edwina Brown, Dr Jeremy Levy, Prof Karim Meeran

1. **Write list of ways that lupus can present**

.

1. ……………………………………………. 5………………………………………………

2. . ……………………………………………. 6………………………………………………

3. . ……………………………………………. 7………………………………………………

4. . ……………………………………………. 8………………………………………………

1. **Watch video and list symptoms at presentation**

1. ……………………………………………. 5………………………………………………

2. . ……………………………………………. 6………………………………………………

3. . ……………………………………………. 7………………………………………………

4. . ……………………………………………. 8………………………………………………

1. **“SLE – clinical features and diagnostic tests” Dr Levy**
2. **Watch patient video**
3. **“Presentation with renal disease and investigations” Dr Levy**

1. ……………………………………………. 5………………………………………………

2. . ……………………………………………. 6………………………………………………

3. . ……………………………………………. 7………………………………………………

4. . ……………………………………………. 8………………………………………………

Write down ways that renal disease can present:

1. **Watch patient video**
2. **Mrs J is on multiple medications – write down the aims of management at this stage**

1. ……………………………………………. 5………………………………………………

2. . ……………………………………………. 6………………………………………………

3. . ……………………………………………. 7………………………………………………

4. . ……………………………………………. 8………………………………………………

1. **“Individualising drug management in chronic disease” Dr Levy**
2. **Watch patient video**
3. **“End-stage kidney disease: when to start dialysis” Prof Brown**
4. **Watch patient video**
5. **Summarise how lupus has affected Mrs J’s daily life**

1. ……………………………………………. 5………………………………………………

2. . ……………………………………………. 6………………………………………………

3. . ……………………………………………. 7………………………………………………

4. . ……………………………………………. 8………………………………………………

1. **Do you regard the outcome for Mrs J as a success?**

**WORKSHEET 2 - HYPERTENSION**

A 45-year-old bank executive decided that it was time to get fit, and hired a personal trainer. He had many years of being extremely busy at work, and was hence obese (90kg with a height of 1.69m: BMI 31.5 kg/m2) and rather unfit. He joined a gym, and at initial screen, his blood pressure was found to be 200/120 mmHg. He was a smoker of 30 cigarettes daily and enjoyed a glass of wine each evening.

He drove to work and back each day, and really had no time for any real exercise. He had never seen a doctor for any serious illness, and thought he was well. He is on no medication.

1. What are his cardiovascular risk factors?

a.

b.

c.

2. What is your ideal BMI?

3. What would you advise the gym, if you were the sports doctor?

4. What SIGNS should you look for particularly (on examination) in his eyes? First list the features of hypertensive retinopathy below:

Grade 1:

Grade 2:

Grade 3:

Grade 4:

What OTHER SIGNS might you find in a patient with longstanding hypertension?

a.

b.

c.

5. What does this finding show?

6. List here as many possible CAUSES of hypertension that you can think of.

a.

b.

c.

d.

e.

f.

He is referred to a hypertension clinic.

7. What baseline investigations should be performed and why?

8. What proportion of patients have a recognised cause of secondary hypertension.

9. What specific (diagnostic) investigations looking for secondary causes of hypertension should be carried out?

You can make some short notes on the secondary causes of hypertension here and then have a go at the mini quiz....

10. What is the actual diagnosis?

11. What clinical features commonly occur in patients with this condition?

12. What is the first therapeutic step?

13. What does this investigation show?

14. And what about this investigation?

15. What should we do now?

16. His blood pressure is now 155/95

What should we do now?

17. Remains hypertensive

**WORKSHEET 3 - DIABETES**

**Tutors:** Prof Edwina Brown, Prof Karim Meeran

1. Write list of long-term complications of diabetes

1. ……………………………………………. 6……………………………………………

2. . ……………………………………………. 7……………………………………………

3. . ……………………………………………. 8……………………………………………

4. . ……………………………………………. 9……………………………………………

5. . ……………………………………………. 10………………………………………………

1. Watch video and list symptoms

1. ……………………………………………. 6……………………………………………

2. . ……………………………………………. 7……………………………………………

3. . ……………………………………………. 8……………………………………………

4. . ……………………………………………. 9……………………………………………

5. . ……………………………………………. 10………………………………………………

3. From the list of symptoms, which complications of diabetes does Mrs B have?

1. …………………………………………………………………………………………………

2. . …………………………………………….…………………………………………………

3. . …………………………………………….…………………………………………………

4. . …………………………………………….…………………………………………………

5. . …………………………………………….……………………………………………………

4. “Presentation of type 2 diabetes and its complications” Prof Meeran

5. Patient video – description of angina

6. List cardiovascular risk factors that may be present in this patient

1. ……………………………………………. 6………………………………………………

2. . ……………………………………………. 7………………………………………………

3. . ……………………………………………. 8………………………………………………

4. . ……………………………………………. 9………………………………………………

5. . ……………………………………………. 10………………………………………………

7. List diabetic drugs used by patients you have clerked

1. ……………………………………………. 6………………………………………………

2. . ……………………………………………. 7………………………………………………

3. . ……………………………………………. 8………………………………………………

4. . ……………………………………………. 9………………………………………………

5. . ……………………………………………. 10………………………………………………

8. “New diabetic drugs” Prof Meeran

9. Patient video – kidney and eye problems

10. “Diabetic kidney disease: epidemiology and natural history” Prof Brown

11. List implications of developing diabetic nephropathy for the patient

1. ……………………………………………. 6………………………………………………..

2. . ……………………………………………. 7………………………………………………..

3. . ……………………………………………. 8………………………………………………..

4. . ……………………………………………. 9………………………………………………..

5. . ……………………………………………. 10………………………………………………

12. Patient video: discussion about dialysis

13. “Elderly on dialysis: conservative care” Prof Brown

14. Patient video: end of life wishes and management

15. “Chronic disease pathway: role of active and supportive treatment” Prof Brown

**WORKSHEET 4**

**All you need to know about Rheumatoid arthritis from one case**

Checkpoint 1a: What was typical about her presentation?

* .............................................................................................................
* .............................................................................................................
* .............................................................................................................
* .............................................................................................................

Checkpoint 1b: What was atypical about her presentation?

* .............................................................................................................
* .............................................................................................................

Checkpoint 2: Why did it take 3 years to diagnose? (tick which is correct)

* Joint swelling may be absent in early disease
* Diagnostic tests, e.g. rheumatoid factor, not available to GPs 30 years ago
* Insufficient awareness of RA in general practice
* Joint pains caused by hormonal changes are common in teenagers
* RA is extremely rare in teenagers

Checkpoint 3: If gold was so “Brilliant 2 in Lee’s case, why don't we use it anymore?

* .............................................................................................................
* .............................................................................................................
* .............................................................................................................

Checkpoint 3: What are the standard DMARDS in modern treatment of RA?

* .............................................................................................................
* .............................................................................................................
* .............................................................................................................

Checkpoint 4: What are the causes of tiredness in RA?

* .............................................................................................................
* .............................................................................................................
* .............................................................................................................

Checkpoint 5: Why is anti-TNF beginning to lose its effect?

Checkpoint 6a: Which coping strategy has helped Lee to live with her RA? Tick those that apply.

* Support from her family
* Confronting the disease and dealing with it
* Denial
* Religion
* Giving in to it and crumbling under the strain

Checkpoint 6b: Which typical deformities of the hands and wrists does Lee have?

* .............................................................................................................
* .............................................................................................................
* .............................................................................................................

# **Quality of Life and Joint Disease**

Professor Justin Cobb

Introduction:

The musculoskeletal system can fail acutely, when a bone breaks or a ligament ruptures for instance. While some fractures with good treatment can be literally as good as new, most ligament ruptures cause permanent loss of function, even with the best treatment. Each one of the elements of the musculoskeletal system can also wear out. While these failures are not immediately life threatening, they are very common, afflicting almost all of us, and can lead to pain and disability. Today, we can make some difference to the lives of patients, but at a cost. This morning will introduce the technologies of today and those in development in College for the surgeons of tomorrow.

Quality of life and orthopaedic surgery

Aims:

* to appreciate the strengths and limitations in our understanding of disease processes, and the range of technologies that are available today to allow the orthopaedic surgeon to restore function and quality of life to those with musculoskeletal damage.
* to become aware of the cost-effectiveness of different interventions

**Learning objectives:**

* outline the basic mechanisms of musculoskeletal failure
* understand the principles of history and examination of the musculoskeletal system
* recognize the strengths and limitations of diagnostic investigations
* understand the range of materials, and designs available today for repair and reconstruction of the different tissues
* appreciate the differences between regenerative surgery and replacement
* understand the impact of surgical skill on outcome in musculoskeletal disease
* understand the principals of surgical navigation and robotics and their place in modern surgery
* appreciate the economic, social and socio-economic impact of the different elements of joint replacement
* become aware of the scope of careers in trauma and orthopaedics

**Additional Reading:**

Apley's Concise Orthopaedics and Trauma (Hodder Arnold Publication)

Practical Fracture Treatment  Ronald McRae

Question time

# **Ethics in medicine, surgery palliative care and mental health**

Dr Wing May Kong, Dr Adrian Raby, Dr Catherine Urch and Dr Angharad Rutley

# **Medical law at the end of life**

Dr Wing May Kong and Dr Adrian Raby

**Introduction:**

This session will take the form of a 1-hour ‘Question Time’ style discussion followed by a   
1-hour law session covering your professional and legal obligations in end of life care. The law teaching forms part of the year 3 medical law curriculum which will be examined in your Year 3 written paper. The ethics session is designed to raise awareness of ethical problems in clinical medicine, to refresh your skills and knowledge gained in the Year 2 ethics course, and help prepare you for the Year 3 ethics exam.

The material for the ‘Question Time’ session will come from clinical experience gathered in the first firm, and every firm will have to prepare a case, submitted on Blackboard, which raises an important question which must relate to ethics in medicine, surgery, palliative care or mental health. The session will be interactive with students being involved in presenting cases and questioning the audience and clinicians.

**Aims:**

Reflect on ethical problems in medicine, surgery, palliative care and mental health from the first Year 3 clinical attachment.

Apply the principles from the year 2 ethics course to clinical medicine

Raise awareness of ethical issues in medicine, surgery, palliative care, and mental health

Understand the legal framework for end of life decision making

**Learning outcomes:**

By the end of this session students should be able to:

* Identify cases from their clinical attachments that raise ethical, palliative care or mental health issues
* Apply and critically discuss professional and legal obligations to clinical scenarios at the end of life
* Work effectively as a group to prepare a short case presentation for a lecture theatre setting
* Construct an ethical question relating to the case
* To develop tools for critically analysing ethical aspects of a clinical case

**Preparation:**

Prior to this session students **must** prepare a case presentation in their firm. The case should be one that highlights a dilemma in the areas of ethics, palliative care or mental health. The presentation should last no longer than 5 minutes. The case should end with a **question** that will then be put to a panel of clinicians. A brief outline of the case must be submitted on Blackboard using the assignment on the e-Lecture programme before midnight of 23rd November. Prior to the session a number of cases will be selected for students to present to the year. A panel of an ethicist, a psychiatrist and a palliative care consultant will take questions from the group and the audience. Firms that have cases that are chosen for the day will receive a small prize.

Herring J *The Law at the End of Life*. In Medical Law and Ethics. 2010. 3rd Edition. pp469-496

# **An Ophthalmology Taster**

Dr Vickie Lee

**Introduction:**

Ophthalmologists diagnose and treat diseases of the eye, the surrounding structures (the extraocular muscles, the orbital structures and the lacrimal system) and the visual pathways. They practice both as physicians and surgeons and work in a multidisciplinary team with a substantial variety of machines to magnify and analyse the small, transparent, delicate and complex ocular structures. The specialty has been graced with a plethora of recent technological, surgical and therapeutic innovations making Ophthalmology a very exciting field to be involved in.

As there is very little time on the clinical curriculum devoted to the specialty, the best way to see whether this is a career students may be interested in is to spend some time in an eye department either during a Specialist Study Module or elective, or as a FY2.

There are also materials available on the intranet – e-modules, e-lectures and videos of clinical examinations that students may find useful.

**Aims:**

Introduction to the leading causes of acute visual loss globally and in the UK and their

Management Introduction to eye emergencies requiring immediate management and specialist referral

**Learning objectives:**

* At the end of the lecture students should have some insight into:
* Global and UK perspective of causes of visual loss
* Variability of causes between developed and developing countries
* Current concepts of cataract, glaucoma and age related macular degeneration and diabetic retinopathy
* Eye emergencies
* Ophthalmology provision and organization in the UK and career structure

**Additional Reading:**

E-learning resources on the Imperial intranet

<http://www.who.int/topics/blindness/en/>

Ophthalmology: An Illustrated Colour Text by Battenbury et al

**Global visual impairment and blindness**

***(from the WHO website)*** *Fact Sheet N°282*

*May 2009*

**

**

Blindness is the inability to see. The leading causes of chronic blindness include cataract, glaucoma, age-related macular degeneration, corneal opacities, diabetic retinopathy, trachoma, and eye conditions in children (e.g. caused by vitamin A deficiency). Age-related blindness is increasing throughout the world, as is blindness due to uncontrolled diabetes. On the other hand, blindness caused by infection is decreasing, as a result of public health action. Three-quarters of all blindness can be prevented or treated.

**Key facts**

* About 314 million people are visually impaired worldwide; 45 million of them are blind.
* Most people with visual impairment are older, and females are more at risk at every age,
* in every part of the world.
* About 87% of the worlds visually impaired live in developing countries.
* The number of people blinded by infectious diseases has been greatly reduced, but age-related impairment is increasing.
* Cataract remains the leading cause of blindness globally, except in the most developed countries.
* Correction of refractive errors could give normal vision to more than 12 million children (ages five to 15).
* About 85% of all visual impairment is avoidable globally.

There are four levels of visual function:

1. normal vision
2. moderate visual impairment
3. severe visual impairment
4. blindness.

**Global trends**

Global trends since the early 90s show reduced rates of visual impairment worldwide and a shift in the causes. Visual impairment and blindness caused by infectious diseases have been greatly reduced (an indication of the success of international public health action), but there is a visible increase in the number of people who are blind or visually impaired from conditions related to longer life expectancies.

Globally about 314 million people are visually impaired; 45 million of them are blind.

Presbyopia, the inability to read or perform near work that occurs with ageing, causes visual impairment if it is not corrected. The scope of the problem is not known, but preliminary studies indicate that the problem could be vast, especially in developing countries.

**Who is at risk?**

**By age:** About 82% of all people who are visually impaired are age 50 and older (although they represent only 19% of the world's population).

Increasing numbers of people are at risk of age-related visual impairment as the global population grows and demographics shift to a higher proportion of older people, even in developing countries.

Child blindness remains a significant problem globally. An estimated 1.4 million blind children below age 15 will live in blindness for many years. In addition, more than 12 million children ages five to 15 are visually impaired because of uncorrected refractive errors (nearsightedness, far-sightedness or astigmatism): conditions that could be easily diagnosed and corrected with glasses, contact lenses or refractive surgery.

**By gender:** Studies consistently indicate that females have a significantly higher risk of being visually impaired than males, in every region of the world, and at all ages.

**Geographically:** Visual impairment is not distributed uniformly throughout the world.

Approximately 87% of visually impaired people live in developing countries.

Source: WHO/Prevention of Blindness

**Causes of blindness**

Globally, the leading causes of blindness, in order of frequency, are:

* cataract (a clouding of the lens of the eye that impedes the passage of light),
* uncorrected refractive errors (near-sightedness, far-sightedness or astigmatism),
* glaucoma (a group of diseases that result in damage of the optic nerve),
* age-related macular degeneration (which involves the loss of a person's central field of vision).

Other major causes include corneal opacities (eye diseases that scar the cornea), diabetic retinopathy (associated with diabetes), blinding trachoma, and eye conditions in children such as cataract, retinopathy of prematurity (an eye disorder of premature infants), and vitamin A deficiency.

**Prevention**

Globally, about 85% of all visual impairment and 75% of blindness could be prevented or cured worldwide.

Since the 90s, areas of significant prevention progress on a global scale include:

* further development of eye health care services, which has led to increased availability and affordability;
* increased commitment to prevention and cure from national leaders, medical professionals and private and corporate partners;
* higher awareness and use of eye health care services by patients and the general population; and
* implementation of effective eye health strategies to eliminate infectious causes of vision loss.

Brazil, China, Ethiopia, the Gambia, India, Mauritania, Mexico, Morocco, Nepal, Oman,

Pakistan, and the United Republic of Tanzania, among others, have reported notable progress.

Global partnerships of Member States, nongovernmental organizations and community groups (such as Vision 2020 the Right to Sight and Global Elimination of Blinding Trachoma by 2020) have played key roles in eliminating avoidable visual impairment.

**Visual Impairment in the UK**

In England and Wales, the most commonly recorded main cause of certifications for both blindness (57.2 per cent) and partial sight (56 per cent), is age-related macular degeneration (AMD. Glaucoma (blind 10.9 per cent, partially sighted 10.2 per cent) and diabetic retinopathy (blind 5.9 per cent, partially sighted 7.4 per cent) are the next most commonly recorded main causes (based on data for 1999-2000). Overall, the age specific incidence of all three leading causes has increased since 1990-1991 – with changes in diabetic retinopathy being the most marked – particularly in the over 65s where figures have more than doubled. Visual impairment exerts significant quality of life impacts, which are often under-recognised by health professionals. One study estimates that very severe AMD causes a 63 per cent decrement in quality of life, a decrease similar to that associated with advanced prostatic cancer with uncontrollable pain or a severe stroke that leaves a person bedridden, incontinent and requiring constant nursing care.

There are also significant adverse health impacts associated with sight loss, such as an increased risk of depression and falls. People with sight problems are also likely to have additional disabilities and are likely to live alone[9]. These factors indicate that those affected by sight loss are among the most vulnerable and isolated.

**Age Related macular degeneration (AMD)**

ʻDryʼ and ʻwetʼ .1/3 of those over 75y will have dry AMD changes 2.2% of UK population

>65y is blind in 1 or both eyes from AMD. Treatment options: Anti VEGF treatments via

intravitreal injections

**Diabetic Retinopathy**

This is a microvascular complication of diabetes. The severity is due to the duration and control of diabetes. All patients over the age of 12 have to attend annual screening and are referred to the eye department if the disease exceeds nationally set criteria. Treatment is with laser, a destructive modality which can control progression but cannot restore vision

**Glaucoma**

A progressive optic neuropathy characterized by typical optic disc changes and commensurate visual field deficits. Blind registration statistics (? Bias) Ireland: Glaucoma accounts for 16% of blind Prevalence and incidence studies2% population over 50 yrs Incidence 0.2% per year 5-10% go blind Overall UK prevalence approx. 1-2 %Up to 75 patients per GPs list. Only 50% of glaucoma patients diagnosed. The principle of screening: glaucoma is more common in certain well defined groups Intraocular pressure is a risk factor for glaucoma Ocular hypertension = ↑ IOP - optic neuropathy1/3 of patients with open angle glaucoma have normal IOP (Normal Tension Glaucoma). Lowering IOP is mainstay of treatment. This is usually achieved with eyedrops and sometimes with laser and surgery

# **Improving Management and Leadership Skills in Undergraduate Medicine**

Module lead

Colin Bicknell, Vertical Theme Heads for Ethics, Professionalism, Leadership and Management.

Introduction:

The NHS is an organisation that is often poorly understood by doctors and students alike, however the day-to-day care of patients is hugely influenced by many organisational factors, such as influences from National organisations (e.g. NICE, CQC and many more) and a focus on audit and service evaluation at a national, regional and local level. There is now a need for all healthcare practitioners to demonstrate routine managerial skills in clinical decision-making. In an organisation that strives for clinical excellence and a high quality of care there is a need for all clinicians to be involved in quality improvement at all levels throughout the NHS.

**Aims:**

The aim of session is to give you an understanding of the wider picture of the NHS, how these wider issues influence the daily care of your patients and teach the vital importance of clinicians leading change in health services.

This session will consist of

* Overview of the NHS structure and workings of organisations
  + The NHS structure will be explained with a focus on how the organisational issues and current initiatives impact on patient care directly.
* Quality improvement
  + What constitutes high quality care in the NHS in 2010? Why should clinicians be leading quality improvement throughout the NHS? These questions will be addressed.
* Quality improvement methodology
  + Techniques for reliable assessing and improving quality including audit, service evaluation and PDSA cycles will be taught.
* An introduction to a clinical quality improvement assignment
  + Students will this year be given the opportunity to think about quality issues within the firms they work, during the second medical attachment of the year. This initiative will be introduced during this session and time set aside to develop ideas and set roles within the teams, with advice from course leads at hand.

**Learning objectives:**

At the end of this session you should:

* Understand the principles, structure of and current issues affecting the NHS
* Recognise the importance of quality improvement to the NHS currently and in the future
* Be familiar with simple methods to evaluate a service, including audit
* Understand the importance of clinicians leading change in health services
* Understand the process of development of quality improvement initiatives
* Have received an introduction to the clinical quality improvement assignment planned for later this academic year

**Additional Reading:**

Guidance for Undergraduate Medical Education:Integrating the Medical Leadership Competency Framework Academy of Royal Medical Colleges 2010

# **Paediatrics and Obstetrics and Gynaecology**

Dr Mitch Blair and Mr Martin Lupton

Introduction:

The principle aim of our course is to prepare you for medical practice with women, children and their families in a variety of settings both inside and outside hospital and for you to appreciate the network of services which exist to support children and youth in health and illness

**Learning objectives:**

* To appreciate the scientific underpinnings of obstetrics, gynaecology and paediatrics, and link adult disease with their early origins
* To identify and reflect on ethical issues in paediatrics, obstetrics and gynaecology
* To recognise the seriously ill child and plan emergency management
* To understand the network of services available for parents and children and the importance of the multidisciplinary team, including transition to adult services
* To understand the prevention of disease, promotion of health and the protection of infants and children

# **A Brief History of Medicine and Surgery: The contribution of medical students and junior** **doctors throughout the ages**

Dr Hutan Ashrafian

Introduction:

Medicine and Surgery have a rich history where medical students and young doctors have made significant advances in providing treatments and improving patient care.

Aims:

To convey specific time points throughout medical history where medical students and young doctors have made a significant contribution

**Learning objectives:**

The development of medical care in Ancient Egypt and it derivatives

The development of surgery in Ancient India and its current applications

‘Visionary’ medical concepts in the 18th Century

Modern circulatory history

Surgical and medical luminaries of the modern era

**Additional Reading:**

The Cambridge Illustrated History of Medicine (2001) – Roy Porter

History of Medicine (2000) – Jacalyn Duffin

# **Neurosciences**

Dr Peter Bain and Dr Charles Kaplan

Introduction:

Neurology and neurosurgery can be quite intimidating, as the nervous system is profoundly complex. We hope to provide snap-shots of various neurological or neurosurgical conditions, through a series of case presentations from some of the subjects sub-specialities. Naturally this cannot be exhaustive as the subject is immense.

Aims:

* To develop a ‘case by case’ approach to learning neurology and neurosurgery.
* To gain some insight into the roles of the neurologist and neurosurgeon.
* To encourage participation in neurosciences and diminish ‘neurophobia’.

**Learning objectives:**

* The student should gain some insight into several neurological conditions: peripheral neuropathy, epilepsy, tremor and dizziness and the approach to their management.
* The student should have some insight into the role of EMG in managing patients with peripheral neuropathy.
* The student should understand the principles of managing a patient with head injury.

**Learning Methods**:

The day will consist of a series of case studies (25 minute presentations – as in a Friday neurosciences round) with an emphasis on audience participation through Q and A and brief discussions.

**Additional Reading:**

***Recommended way to examine the nervous system in the limbs:***

1. *Aids to examination of the peripheral nervous system*. Elsevier, 2000. ISBN: 10: 0-7020-2512-7.

***General neurology undergraduate textbooks:***

1. Fuller G. *Neurological examination made easy. 3rd edition*. Churchill Livingstone, 2004.
2. Perkin GD. *Mosby’s Colour Atlas and Text of Neurology*. *2nd edition.* Mosby-Wolfe, 2004
3. Lindsay KW, Bone I. *Neurology and Neurosurgery illustrated. 4th edition*. Churchill Livingstone, 2004.

***A journal for students interested in taking up neurology as a speciality:***

1. *Practical Neurology*. BMJ Journals. Editor: Charles Warlow.

# **Situational Judgement Tests (SJT)**

**What is a SJT?**

Situational Judgement Tests (SJTs) are designed to assess individuals’ judgement regarding situations encountered in the workplace. Candidates are presented with a set of hypothetical work-based scenarios and asked to make judgements about possible responses. Candidates’ responses are evaluated against a pre-determined scoring key to provide a picture of their situational judgement in that particular context. SJT scenarios are based on extensive analysis of the job role, to ensure that test content reflects the most important situations in which to test candidates’ judgement. They are concerned with testing attitudes and ethical values rather than knowledge or clinical skills.

SJTs are a measurement method that can reflect complex situations and events are tailored to the particular context and can be designed to assess a variety of job-relevant and professional attributes. Typically, SJTs take the form of written tests, but scenarios and responses can also be video or web-based. A variety of answering formats can be used, e.g. asking candidates to identify the best/worst response, or rate the effectiveness of various responses. Scoring keys are typically derived from the judgements of experts in the relevant field.

**How effective are SJTs?**

SJTs have become increasingly popular over the last 20 years and are used mostly in large-scale selection processes, often at the shortlisting stage, but can also form part of workplace assessment to highlight employee development needs. In the UK, SJTs are used nationally to select GP registrars and in other ‘high stakes’ selection. The research literature indicates that SJTs have significant validity in predicting job performance and can offer incremental validity over methods such as ability tests and personality questionnaires. SJTs typically relate to general experience and ability, rather than job-specific knowledge or experience, therefore may be fairer than other methods in contexts where candidates have little or no experience in the target job. SJTs also tend to show smaller differences in performance between candidate groups defined by a particular feature (e.g. race) than cognitive ability tests. SJTs are often favourably rated by candidates because they appear directly relevant to the job role. Further benefits of SJTs include being relatively easy and cost-effective to develop, administer and score.

**How will SJTs be used?**

The SJT will be taken by all UK, EU and non-EU applicants under invigilated conditions in the UK. There will be more than one assessment venue and date. As such there will be an element of overlap in the questions asked of each candidate to assure the equivalence of assessments. Answers are multiple-choice and marking is automated. Non-UK resident applicants will be expected to travel to the UK to take the assessment.

The use of SJTs will be informed by outputs of the pilots. In particular, the SJT score will be weighted with the educational performance ranking score to provide a composite score that will be used in assigning applicants to Foundation Schools. The relative weighting of two components will be informed by modelling the data gathered during piloting and will aim to produce the most valid and reliable composite score.

**Piloting**

Subject to legal opinion and approval, the first stage will be for Medical Schools Council to set up a small group with appropriate representation, including the UKFPO and employers, to consider the feasibility of the approach and produce a draft standard framework for further discussion. Once agreed, the framework will be carefully piloted during the next stage of the Selection into Foundation Project. This will be carried out according to a detailed project plan.

**What do SJT items look like?** (taken from Patterson et al, 2009):

**1. A 55-year-old woman with ischaemic heart disease has smoked 20 cigarettes per day for 40 years. She requests nicotine replacement patches. She has had these previously but has been inconsistent in their use and has often continued to smoke while using the patches.**

Rank in order the following immediate actions in response to this situation (1 = most appropriate; 5 = least appropriate)

A. Emphasise the dangers of smoking but do not prescribe

B. Enquire about the difficulties she has with stopping smoking and any previous problems with patches

C. Insist on a period of abstinence before prescribing any further patches

D. Prescribe another supply of patches and explain how they should be used

E. Suggest that nicotine replacement therapy is not suitable for her but explore alternative therapies

**2. You are looking after Mrs Sandra Jones, who is being investigated in hospital. You are asked by her family not to inform Mrs Jones if the results confirm cancer.**

Choose the THREE most appropriate actions to take in this situation

A. Ignore the family’s wishes

B. Agree not to tell Mrs Jones

C. Explain to the family that it is Mrs Jones’ decision

D. Ask Mrs Jones whether she wishes to know the test results

E. Ask Mrs Jones whether she wishes you to inform the family

F. Inform Mrs Jones that her family do not wish her to have the results

G. Give the results to the family first

H. Give the results to the next of kin first

**3. You are a second year foundation doctor (F2 or FY2) working in general practice. At the baby clinic the nurse gives you a syringe with fluid already drawn up, an immunization (MMR), to give to a baby. After the parent and child have gone home you realise that the syringe contained only the diluent; the ampoule of active powder is intact.**

Rank in order the following actions in response to this situation

(1= Most appropriate; 5= Least appropriate).

A. Contact the parent immediately and explain what has happened.

B. Inform the practice manager of the nurse’s mistake.

C. Fill in a critical incident form.

D. Send a further appointment for the baby.

E. Take no action.