# MEDICAL SCHOOL INTERVIEWS CRASH COURSE

2020-21 EDITION A FREE EBOOK



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#### **WELCOME**

This crash course will help you prepare for medical school interviews. It is based on the preparation I did myself to succeed.

Inside, you will find

- advice on structuring, developing and enhancing your answers;
- guidance on panel interviews, MMIs and good-to-know knowledge.

Throughout, you will find quick-fire questions which will challenge you to come up with your own opinions and original ideas. This will help your answers to stand out from other candidates'.

Don't forget to <u>check the GMS Blog</u> for more advice and tips.

You can help the continual improvement of this free ebook by providing feedback. <u>Click</u> here to rate!

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### What happens in panel interviews?

Panel interviews constitute the traditional interview setup: interviewers sit on one side of a table, and you sit on the other. Much like a regular job interview. The interviewers will ask you several questions and will likely take notes when you answer them.<sup>1</sup>

You'll either have one set of interviewers or multiple. You are likely to move between rooms if the latter is the case.<sup>1</sup>

Before or after the interview you may be given additional tasks e.g. written tests.<sup>1</sup>

### What happens in MMIs?

MMI stands for <u>Multiple Mini Interviews</u>. If you're familiar with speed dating, the format is quite like that. You will find yourself part of an interview group – you will all be interviewed at the same time. Spread throughout one room, or multiple rooms, will be a series of tables or booths (the stations!) with interviewers sat behind/inside them. Each station will feature a different challenge.

Each of you will be told the first booth/table/station you should go to. You'll all be starting at different ones. For a minute or few you will stand outside of each station before you are asked or signalled (e.g. a buzzer or a bell) to go in. Your time in each station is timed and when the time is up (e.g. 5 minutes) a signal will be made indicating you need to leave the station and head to the next one. All candidates in your group do this simultaneously.

Sometimes, you will be given supplementary information just outside of a station (e.g. pinned up on a board). Other times, it will only be provided once you're sat down at the station. In some cases, you will find more than one member of staff in a station e.g. an actor who will play a part in a scenario and an interviewer who will observe and score your performance.<sup>1</sup>



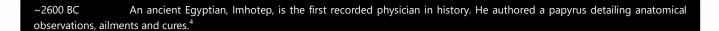
#### Watch this video explanation of the MMI format.

Since MMIs were first implemented several years ago, more and more medical schools have adopted them. MMIs subject candidates to a series of standardised situations, allowing, it's believed, more objective assessment of a candidate compared to in a panel interview. Interviewers have no prior knowledge of your credentials or any idea of how you've done in other stations. The impact of performing badly on one question/scenario/task is lessened, allowing you to still score well overall.<sup>2</sup>

Medical schools vary in terms of the type and number of MMI stations that they use. Make sure to research your top choice medical schools lest you prepare for the wrong types of stations or setup!<sup>1</sup>



### **History of Medicine Flowchart**



~ 460 - 370 BC An ancient Greek, Hippocrates, laid the foundations for rationalised medicine; he attributed illness to living habits, diet and environmental factors. However, he also postulated an incorrect theory of four humours. Read more here.<sup>4</sup>

He is most famous for setting out an ethical code for physicians called the Hippocratic Oath. Read it here. It is the basis of many modern day professional codes, including the General Medical Council's Good Medical Practice and Duties of a Doctor.

 $\sim$  27 BC - 395 AD / Roman Empire A surgeon called Galen studied anatomy via dissection and vivisection. He was one of the greatest surgeons of his time and his books were the basis of medical teaching for centuries to come. <sup>3</sup>

The ancient Romans revolutionised public health; they built aqueducts, public baths and underground sewage systems. In turn, citizens could access fresh water, clean themselves and were less exposed to pathogens.<sup>4</sup>

~5<sup>th</sup> to 15<sup>th</sup>century / Middle Ages One of the earliest hospitals (closest to our modern concept of one) was the Hôtel-Dieu, built in Paris in 651.<sup>5</sup> One of the earliest in the Islamic world was built in the 9<sup>th</sup> century in Baghdad. Hospitals soon spread throughout Europe and the Islamic world. The very earliest hospitals functioned not only as treatment centres and places to train physicians, but also as refuges for the ill, injured, elderly, mentally ill and poor.<sup>6</sup>

Following the fall of the Roman Empire, public health systems receded significantly. Over time, rationalised, evidence-based medicine was also largely forgotten. Religious institutions, such as the Christian Church, took over the running of many hospitals. Treatments were largely ineffective, barbaric and made patients worse. Surgery was done without anaesthesia and by barbers (hence why surgeons have the title Ms/Miss/Mrs/Mr to this day, rather than Dr).<sup>5</sup>

In the 14<sup>th</sup> century, the Black Death occurred and was one of the worst epidemics in history. It wiped out 30-60% of Europe's population. Doctors wore bill-shaped masks to "scare off" the disease, earning them the nickname "quacks".

16<sup>th</sup> & 17<sup>th</sup> centuries It was discovered that certain diseases are caused by objects outside of the body and huge progress was made understanding the circulatory system, for example that the heart bumps blood round the body. Additionally, the first human to human blood transfusion was performed.<sup>4</sup>

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18<sup>th</sup> century Edward Jenner developed the small pox vaccine after noticing that milkmaids infected with cow pox were resistant to the disease. He is now known as the "father of immunology". Learn more here.

Thermometers began to be systematically used for monitoring body temperature. Physicians discovered that tapping on the chest could help to determine if fluid was in the lungs.<sup>4</sup>

Despite many advances, including the above, the uptake of new techniques was slow. Bleeding, cupping and purging - ineffective treatments - were still commonly practiced.<sup>4</sup>

19<sup>th</sup> century In 1854, Cholera broke out in London. Dr John Snow linked the cases to a particular water pump and had its handle removed. In turn, cholera incidence fell suggesting something in the water was causing the disease.<sup>3</sup>

Edwin Chadwick, a civil servant, determined unsanitary conditions were contributing to sickness in urbanised areas. He advocated for better cleanliness, drainage and ventilation. He is considered the "father of public health". Read more here.

In the second half of the century, the germ theory of illness replaced the <u>miasma theory</u>. Louis Pasteur, a French chemist, showed that microorganisms were the cause of disease. We use <u>pasteurisation</u> today to remove microbes from food and drink and improve their shelf life. Soon after, Robert Koch came up with <u>four postulates to prove an organism is the cause of a disease.</u><sup>3</sup>

In 1842, ether was first used as an anaesthetic. However, it was flammable and could cause excessive vomiting. In 1853, chloroform, another anaesthetic, was given to Queen Victoria as she gave birth. However, chloroform-related deaths were common.<sup>4</sup>

Lack of hand washing was linked to infections during childbirth by Hungarian physician Ignaz Semmel-Weiss. British surgeon Joseph Lister began using carbolic acid to disinfect bandages, in turn reducing gangrene-related deaths.<sup>4</sup>

20<sup>th</sup> century In 1901, Karl Landsteiner discovered the A, B, O blood groups.<sup>3</sup>

Chemicals in plants were used to synthesise medicinal drugs. For example, Paul Ehrlich synthesised the first antibiotic, Salvarsan, which proved an effective treatment for syphilis. In 1928, Alexander Fleming discovered penicillin.<sup>4</sup>

Many new vaccines were developed, including those against polio (leading to its eradiation), measles and smallpox. As were many psychiatric drugs, including <u>lithium carbonate</u>, <u>monoamine oxidase inhibitors</u> and <u>benzodiazepines</u>. The first antiviral drugs were developed, including drugs to combat AIDS.<sup>4</sup>

Following the first use of X-rays to view internal organs at the end of the 19<sup>th</sup> century, ultrasound, CT, PET and MRI imaging modalities were developed. In 1901, the first electrocardiogram (ECG) was performed.<sup>4</sup>

More of the workings of the immune system were unveiled, including the process of phagocytosis and the role of antibodies. This allowed the development of immunosuppressants (which can reduce the chance of a transplanted organ being rejected), and the identification of autoimmune disorders such as muscular dystrophy.<sup>4</sup>

In 1953, the structure of DNA was discovered by James Watson and Francis Crick. The first human disease gene was mapped in 1986. Genetic testing was developed to allow diagnosis of genetic diseases. Novel drugs were also developed based on new understanding of the human genome. The human genome was fully mapped in the early 21st century.

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#### **Future of Healthcare**

Read the following links and consider the questions I've posed to you. Hopefully, at least 2-3 of these topics will snag your interest. Prepare to talk about these!

#### **Smart Medical Technology and Big Data**

- Patient data and research <u>NHS North Bristol</u>
- Pooling patient data <u>Raconteur</u>
- Microchips <u>TechRepublic</u>

What are the positives and negatives of pooling patient data for the sake of clinical research?

How might remote monitoring of patients' vitals impact the lives of the elderly?

How might implantable smart health tech impact people who live in rural and remote areas?

#### **Personalised Medicine**

- Overview of personalised medicine <u>NHS England</u>
- Hyper-personalised medicine <u>Independent Online</u>
- Personalised medicine and cancer <u>BBC News</u>

What exactly is "personalised medicine"?

What is the 100,000 Genomes Project?

How might personalised medicine impact cancer patients?



#### **Gene Editing**

- What is Crispr and why did it win the Nobel prize? Chemistry World
- First gene edited babies born (Lulu and Nana controversy) <u>Nature</u>

How might gene editing be used to treat your future patients?

Some people are thrilled about this technology, others not so much. What are the positives and negatives of such a powerful tool?

#### **Robotics and AI**

- £140million Al award to fast-track innovation for NHS DigitalHealth.net
- Robots to be used in UK care homes to help reduce loneliness <u>The Guardian</u>
- Al vs radiologists <u>Independent</u>
- The Versius and da Vinci robotic surgery systems <u>Med-TechNews</u>

How might AI improve diagnosis and treatment of diseases?

Can you foresee any issues with Pepper robots? What gap might such robots fill in the healthcare system?

Do you think patients would rather be operated on by a robot or a human surgeon? Why?

#### 3D Printing, Stem Cells & Regenerative Medicine

- 3D printing and healthcare <u>Raconteur</u>
- Lab-grown replacement skin saves boy's life <u>New York Times</u>

What benefits will come from 3D printing in healthcare?

What types of challenges in healthcare will regenerative medicine (e.g. lab grown organs and skin grafts) overcome?

What new challenges might it bring to the table?



### **Challenges the NHS Faces**

You may be asked to describe or to give your opinion on various challenges faced by the NHS.

#### **Ageing Population and Social Care Cuts**

- Tory leadership: How much has social care been cut? <u>BBC News</u>
- Social care crisis: Over-85s needing 24 hour care set to double by 2035 Independent
- "Two-fifths of NHS budget is spent on over-65s" The Guardian

What constitutes "social care"? What knock-on effects are social care cuts having on the NHS?

What factors have contributed to the U.K. having an aging population?

Why does having a greater number of elderly people place more demand on NHS resources?

In what ways can the NHS can overcome the challenges posed by an aging population?

#### **Lifestyle Diseases: Obesity and Diabetes**

- Obesity increases risk of Covid-19 death by 48% <u>The Guardian</u>
- "The war on lifestyle disease needs new tactics" NewScientist
- Obesity is prevalent in the NHS's nursing workforce <u>Independent</u>
- No surgery for smokers or the obese <u>CNN</u>

Can you explain what "lifestyle diseases" are?

Can an individual fully control whether they develop a lifestyle disease or not?

What are the positives and negatives of banning and/or delaying smokers' and obese patients' surgeries? In your opinion, is it ethical? (To help you answer this read more about medical ethics on page **28**)



#### **Mental Health**

- COVID-19 disrupting mental health services in most countries WHO
- Confining students in halls is a mental health crisis in the making The Guardian
- Mental health patients sent hundreds of miles for treatment <u>BBC News</u>

What is meant by the "stigma" around mental health?

What challenges do mental health services face?

What are the benefits of "putting mental health on a par with physical health"?

#### **Antibiotic Resistance**

- Explanation of antibiotic resistance WHO
- Five-year plan to tackle the problem <u>BBC News</u>

What is meant by "antibiotic resistance"?

What can doctors do to tackle the problem? And the NHS?

#### **Privatisation and Local Service Closures**

- Is the NHS being privatised? Kings Fund
- 21 NHS contracts offered to private companies despite the health secretary's promise to prevent more privatisation <u>Independent</u>
- Local surgeries closures has caused millions of patients to change GPs <u>Independent</u>

When did private companies start having a role in the NHS?

Are certain NHS services being privatised more than others? If so, which ones?

What are the pros and cons privatising the NHS?



#### **Staff Shortages & Five New Medical Schools**

- Healthcare staff shortfall of almost 250,000 predicted by 2030 <u>Kings Fund</u>
- Five new medical schools = 1,500 more medical students each year <u>BBC News</u>
- UK chancellor to ease pension tax relief curbs to aid NHS Financial Times
- Junior doctor burnout rising <u>Independent</u>

What factors have contributed to staff shortages?

What are the impacts of staff shortages on patients?

How can staff numbers be increased?

#### **Financial Strain**

- The NHS 2020 Spring Budget <u>The King's Fund</u>
- NHS overcharged by millions for key drug <u>BBC News</u>
- Ways the NHS can save money BBC News
- Cheap innovations the NHS could take from sub-Saharan Africa The Guardian

Why has the NHS been under financial strain?

How can lack of funding affect patients?

How could the NHS save money?

#### **Winter Pressures**

- Warwickshire hospitals given £5 millon cash boost to prepare for winter geh.nhs.uk
- COVID: at least six English NHS trusts could be overwhelmed this winter The Guardian

Why can winter be an especially challenging time of year for the NHS?

What might be the impact of COVID-19 on top of already existing winter pressures?

If you were the prime minister, what would you do to mitigate winter pressures?



### Hot Topics in U.K. Healthcare 2020-21

#### COVID-19

- How the virus can spread via aerosols El Pais
- Ventilators: how they work, shortages and COVID-19 European Lung Foundation
- PPE shortages during the first wave <u>The Guardian</u>
- Long Covid: 'I thought I'd get over this no problem' <u>BBC</u>
- Face masks The Lancet
- Lockdown: timeline of key events since first UK lockdown <u>Independent</u>
- Impact of COVID: elderly, mental health, domestic violence

What do you think about the UK response to COVID-19?

Should everyone wear a mask?

How has the COVID-19 pandemic affected you?

If you had been the prime minister, how would you have handled the pandemic?

If you were a doctor and the intensive care unit (ICU) at your hospital was full, how would you decide who to give care to?

#### **Brexit**

- Incorrect claim that if the UK left the EU there'd be £350m per week to spend on the NHS instead <u>Full Fact</u>
- Brexit: NHS put on no-deal planning alert, letter reveals <u>Independent</u>
- EU citizens in UK could be shut out of vital services The Guardian
- Six questions Brexit poses for the NHS <u>BBC News</u>

How might the NHS change as a result of leaving the EU?

What concerns do doctors and patients have concerning Brexit?

What positives may come as a result of Brexit for the NHS?



#### **Vaccinations**

- WHO head calls herd immunity approach to COVID 'immoral' <u>BBC</u>
- Should a COVID-19 Vaccine Be Mandatory? <u>Discover Magazine</u>
- The Hidden Reason Behind Low Vaccination Rates In The U.S Forbes
- £2,000 fines in Germany for parents who don't vaccinate children <u>Telegraph</u>

What is meant by 'heard immunity'?

Why are vaccination rates low?

What could increase vaccination rates?

#### **Dr Bawa-Garba's Conviction of Manslaughter**

- What led to six-year-old Jack Adcock's death? <u>Independent</u>
- "Is medical culture complicit in covering up the reality of NHS care?" BMJ
- In 2020 Dr Bawa-Garba will return to work BBC News

Why are medical circles allegedly "rocked" by the Bawa-Garba case?

What failings did she make as an individual that contributed to Jack's death?

What failings of the healthcare system contributed to his death?

Do you agree with the conviction and why/why not?

#### **Baby Charlie Gard**

- A paediatrician's thoughts <u>Independent</u>
- Death threats were received by staff at GOSH BBC News
- Charlie's parents wanted to develop "Charlie's Law" <u>BBC News</u>

Describe the case of Charlie Gard. Explain why it attracted so much controversy.

Do you think Charlie received the best treatment possible? Why/why not?



#### **Toddler Alfie Evans**

- A look back on the case after Alfie sadly passed away <u>BBC News</u>
- Doctors received threats and 'Alfie's Army' attempted to storm the hospital <u>Independent</u>

Would you be able to describe the case of Alfie Evans and explain why it attracted so much controversy?

Do you think Alfie received the best treatment possible? Why/why not?

#### **Opt-out Organ Donation**

- England brings in opt-out organ donation <u>The Guardian</u>
- What are the pros and cons of 'opt out' organ donation? The Week
- Spain leads the world in organ donation <u>Independent</u>

What do you think about the new opt-out system in England? Do you agree/disagree?

#### **GP and A&E Waiting Times**

- "Do you need to come to A&E?" Royal Free NHS
- Health secretary suggests four hour waiting time target be scrapped **The Guardian**
- GP waiting times are driving A&E visits <u>Telegraph</u>
- Are patients waiting over 2 weeks for a GP appointment? <u>FullFact</u>

Where can a person go for help if they are unwell?

What is the difference between A&E and urgent care centres (UCCs)?

When should a patient go to one over the other?

What are the dangers of long A&E waiting times? And GP waiting times?

What targets have the government laid down for A&E departments to meet?



#### **BAME individuals and diversity the NHS**

- Health inequalities figures and discussion Melanin Medics
- "Mind the Gap" St George's medical student creates handbook of clinical signs on black and brown skin <u>SGUL website</u>
- BAME staff experiencing higher levels of bullying, harassment and abuse HSJ

What would you do if a patient or colleague was verbally abused because of the colour of their skin at work?

What challenges might you face as a doctor?

Should doctors who are more vulnerable to COVID-19 be allowed to refuse to work?

#### **Medical Cannabis**

- NHS guide to medical cannabis NHS website
- 20,000 patient UK medical cannabis trial The Guardian
- NHS 'refuses' medical cannabis for children with epilepsy BBC

When was medical cannabis legalised in the UK?

Who can access medical cannabis in this country?

What medical conditions could it be used to treat?

#### **Medical Licensing Assessment (MLA)**

- What is it GMC
- Another guide Medical Schools Council

Consider the positives and negatives of the soon to be implemented MLA.

Make sure you understand what it is!



#### **Junior Doctors' Contract**

- Features of the new contract <u>BBC News</u>
- The new contract was met with resistance **BBC News**
- End of the dispute: In 2019 amendments to the new contract were accepted by junior doctors <u>The Guardian</u>

Are junior doctors being paid more or less than before?

What are the benefits and drawbacks of the new contract vs the old contract?

What amendments to the new contract were agreed in 2019?

Do you agree that the contract should have been changed?

Do all junior doctors' in the U.K. have a new contract?

What is a junior doctor?



#### **How U.K. Healthcare Works**

The NHS employs 1.5million people making it one of the <u>world's</u> largest employers.<sup>7</sup> The 2018/19 budget for NHS England was £114 billion.<sup>8</sup>

#### A brief history

The NHS was founded in 1948 thanks to the then health minister Nye Bevan. He believed that care should be provided based on need, not ability to pay. The NHS was then and still is funded from general taxation and free at point of use. Before its creation, hospitals were run by charities or local authorities.<sup>9</sup> Read more here.

#### 7 Key Principles of the NHS

A set of principles found in the NHS Constitution. Learn more <u>here</u>.

- 1. Comprehensive service, available to all.
- 2. Access to services is based on clinical need, not a person's ability to pay.
- 3. NHS aspires to the highest standards of professionalism and excellence.
- 4. The patient is at the centre of everything the NHS does.
- 5. NHS works across organisational boundaries.
- 6. Commitment to providing the best value for taxpayers' money.
- 7. NHS is accountable to the communities, public and patients it serves.

#### NHS England / Wales / Scotland / Northern Ireland

The NHS is funded centrally from taxes. However, the services in England, Wales, Scotland and Northern Ireland are managed separately. Read more about each devolvement here.

For example, NHS England oversees the delivery, planning and budgeting of the NHS in England. It also allocates funding to Clinical Commissioning Groups (CCGs). GPs and dentists have contracts with NHS England.<sup>10,11</sup>

#### **Secretary of State for Health**

They have overall responsibility for the business and policies of the Department of Health. They are an elected MP who has been appointed to the position. Matt Hancock was appointed 9<sup>th</sup> July 2018.<sup>12</sup>

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#### **Department of Health**

Responsible for funding and strategic leadership of health and social care in England. It is supported by 28 agencies and public bodies.<sup>13</sup>

#### **Primary vs Secondary vs Tertiary Care definitions**

Primary: first point of contact in the healthcare system (e.g. GP, pharmacist).8

Secondary: hospital- or community-based. Urgent or planned. (E.g. surgery).8

Tertiary: highly specialised treatment (e.g. neurosurgery).8

#### **Clinical Commissioning Groups (CCGs)**

NHS bodies responsible for commissioning and planning healthcare in their local area. Membership is made up of local GPs, nurses and other members of the community. CCGs are responsible for most of the NHS budget, two-thirds approximately.<sup>11</sup>

#### **NHS Long-Term Plan**

The plan was published in January 2019 and sets out how a £20.5 billion budget increase to the NHS will be used. In a nutshell, it is hoped more will be done with less, saving both lives and money. Prevention and early intervention are key in the plan and hence there is a focus on primary care and supporting individuals to live healthier lives.<sup>14</sup> Read more here.

#### **Primary Care Networks (PCN)**

PCNs were established as part of the <u>NHS Long-Term Plan in 2019</u>. They enable greater collaboration e.g. sharing of staff and facilities between GP practices. Each PCN aims to serve 30,000-50,000 people.<sup>15</sup> Watch a video explanation <u>here</u>

#### **Social Prescribing**

Established as part of the NHS Long-Term Plan in 2019. Social prescribing is when non-medical interventions (often provided by the voluntary and community sector) are used to improve health and manage medical conditions. PCNs are funded to employ one social prescriber each. The hope is to reduce the strain on primary care and demand for secondary care services. 16, 17

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#### **Public Health England**

Delivers and coordinates public health in England, empowering the public to make healthier choices. Works with the NHS and local government to respond in public health emergencies.<sup>18</sup>

#### **World Health Organisation (WHO)**

WHO is a specialised agency of the United Nations that is concerned with public health. Its headquarters are in Geneva, Switzerland but it has offices all over the world. One of its responsibilities is coordinating international responses to disease outbreaks.<sup>19</sup> WHO declared the COVID-19 outbreak a pandemic on 11th March 2020.<sup>20</sup>

#### **National Institute for Health and Care Excellence (NICE)**

Develops guidelines and gives recommendations on the use of medical devices, clinical procedures, pharmaceutical drugs and more in England and Wales. It utilises cost-benefit justification to help the NHS spend its tight budget effectively. One metric used is the *quality-adjusted life year* (watch this explanatory video). NICE's Scottish equivalent is the Scottish Medicines Consortium.<sup>21</sup>

#### **Care Quality Commission (CQC)**

The CQC ensures the safety and quality of healthcare services in England. It carries out checks, inspections and monitoring of numerous services, for example hospitals, care homes and dental practices.<sup>22</sup> Following inspection, a service will often receive one of the following ratings<sup>23</sup>:

- Outstanding;
- Good;
- Requires improvement;
- Inadequate.



#### **General Medical Council (GMC)**

Regulates and certifies doctors and keeps an official register of all practicing medical doctors in the UK. It suspends and removes members when necessary. It also sets standards for UK medical schools.<sup>26</sup>

#### **British Medical Association (BMA)**

A trade union for doctors in the UK. It is the sole recognised contract negotiator for doctors employed in the NHS.<sup>27</sup>

#### **Royal Colleges**

Professional bodies that set standards, coordinate training and provide exams for each medical speciality.<sup>28</sup> For example, the <u>Royal College of Surgeons</u>, <u>Royal College of Physicians</u> and <u>Royal College of Psychiatrists</u>.

#### **Medical Defence Union / Medical Protection Society**

Two of many defence unions that insure doctors against lawsuits. They also provide education on medico-legal matters and a medico-legal helpline doctors can call for advice.<sup>27</sup>



### **Comparing Healthcare Systems Around the World**

Watch the following videos on the English, USA, Australian and French healthcare systems:

- NHS in England (6min11sec)
- USA (7min35sec)
- France (5min42sec)
- Australia (6min57sec)

Pick three out of four of the above systems and compare and them in your own words. Which healthcare system of your three would you judge as the "best"? Explain why. Was there anything you learned that surprised you? Consider:

- Ease of access to healthcare;
- Comprehensiveness of cover;
- Overall patient satisfaction;
- Degree of patient choice e.g. where to get treatment and what treatment;
- Costs to patients vs nation / government;
- GDP vs quality of healthcare in that country;
- Ratio of private to public healthcare.



#### **British Healthcare Scandals**

The NHS wouldn't be where it is now without learning from a painful history. You should know about the most damning UK healthcare scandals.

#### **Shropshire Maternity Deaths**

Read the following two article:

- Shropshire baby deaths review: What do we know?
- <u>'Failing leadership'</u> at Shrewsbury and Telford Hospital Trust

Some questions to get you thinking:

How did the babies die?

What factors contributed to poor care?

How many cases are now being investigated?

What does it mean when an NHS trust is put into "special measures"?

What has been the role of the CQC in addressing this tragedy?

#### **Mid-Staffs Hospital**

Read the following two articles:

- Mid Staffs Scandal Guide
- Mid Staffs Inquiry Calls Care Failings a Disaster

Some questions to get you thinking:

What campaign exposed the scandal which led to a public inquiry?

What shocking examples of poor care were mentioned in the articles?

What factors contributed to poor care?

What factors contributed to poor care persisting despite feedback from staff and patients?

Following the Francis Inquiry published in February 2013, what recommendations have been made to prevent this happening again?

What is meant by "duty of candour"?



#### **Harold Shipman**

Read the following article on Dr Harold Shipman:

• Q&A Harold Shipman

Some questions to get you thinking:

How did Shipman kill his victims?

How many patients is it estimated that he killed?

What factors contributed to Shipman's murders not being detected for so long?

What motives have been suggested for why he became a serial killer?

Following the various reports published on this case, what recommendations have been made to prevent this happening again?

#### Andrew Wakefield & the Anti-Vax Movement

Read the following articles:

- Andrew Wakefiled Struck Off
- Measles outbreaks can't be blamed only on anti-vaxxers

Some questions to get you thinking:

Of what exactly was Wakefield found guilty that led to him being struck off the GMC register?

What year was the problematic research paper published and what did it suggest?

Why was the paper concluded to be fraudulent?

What is meant by "herd immunity"?

What effect is the fraudulent paper thought to have had on the number of MMR vaccinations done, and the number of measles cases both in the UK and abroad? What factors other than the anti-vax movement have contributed to measles outbreaks since the study was published?



### NHS Values<sup>30</sup>

Learn these! As a medical student or doctor, you are expected to uphold these values.

- Work together for patients e.g. the patient comes first ALWAYS.
- Respect and dignity e.g. be honest, protect patient dignity, seek to treat each patient as an individual, offer patients choices where possible.
- Commitment to quality of care e.g. have a positive attitude to both positive and negative feedback, suggest improvements, create positive patient experiences.
- Compassion e.g. seek to be non-judgemental and take initiative when caring for patients.
- Improving lives e.g. innovating.
- Everyone counts e.g. maximise resources and distributive justice.



### Doctor-specific qualities and skills<sup>31</sup>

Which of these qualities and skills do you possess the most? Which do you possess the least? Pick 3-4 from the below that you'd say are necessary for doctors to possess more so than other healthcare professionals.

- Concern for people Do you tend to feel caring towards others, including strangers, and show them empathy and compassion?
- Enquiring mind You are highly curious and have a natural pull towards finding out more information when you encounter something you don't understand. You also like to update your knowledge.
- Interest in people's thoughts and feelings Self-explanatory!
- Rational You approach problems logically, like to establish facts, enjoy testing ideas and like to consider multiple solutions to a problem.
- Open mind –You welcome new and different ideas and attitudes.
- Imagination You like to play with ideas and formulate creative solutions. Others tend to look to you for ideas.
- Handle pressure –In high-pressure situations, your behaviour and demeaner change little from normal; you are good at keeping a cool head.
- Hard-working Self-explanatory!
- Patience You don't easily become impatient. You are happy to go at another's pace even if it's much slower than yours.
- Determined You bounce back from set-backs. Failure may even motivate you.
- Decisive You can make decisions with confidence.
- Humility You are realistic about your limits as well as your strengths. You can admit when you are out of your depth and ask for help.



### Journey to Becoming a Consultant or GP

See a visual guide of the journey to becoming a consultant or GP on the following webpage: Medical Training Pathway (BMA)

#### Some key takeaways:

- Following completion of a medical degree, "it takes at least 5 years to become a GP, and at least 7-9 years to become a hospital consultant".<sup>32</sup>
- Once you've finished your medical degree, you will undertake your two foundation years. The first year is referred to as FY1 or F1, the second year as FY2 or F2. During this time, you will be rotated round 6-8 medical and surgical specialities.<sup>33</sup>
- All doctors in the UK must be registered with the GMC. Upon graduation from medical school, you gain a provisional GMC registration. You only obtain full GMC registration at the end of FY1.<sup>33</sup>
- After completion of your foundation years, you can pursue a specialty (several years) or become a GP (3 years). Specialist training works like so: you can go for a run-through training programme (e.g. paediatrics) or an uncoupled training programme. Uncouple programmes consist of a 3-year Internal Medicine Training (IMT) programme OR 3 years of Acute Care Common Stem (ACCS) training, followed by higher speciality training (e.g. cardiology, dermatology, anaesthesia). For run-through programmes, you only apply once and are recruited for the full duration of your speciality training. For uncoupled programmes, even if you successfully complete the initial core training, you will have to apply to continue onto your higher speciality training and entry tends to be competitive.<sup>32,33</sup>
- There are currently 60 different specialities to choose from. Which speciality you choose
  determines how long you must train before you can attain a <u>Certificate of Completion of Training</u> (CCT) from the GMC. The CCT makes you eligible for entry onto the specialist or
  GP registers, so you can apply for consultant and GP posts. 32

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### **Distinguishing Doctors from Nurses and Physician Associates**

Modern-day nurses can undertake further study after their nursing degrees and in turn carry out duties that in the past were exclusive to doctors e.g. diagnosing. Physician associates are a new, doctor-like profession. Soon, they will likely have their own governing body which will allow them to do many things doctors do without supervision. So, why not be a 'super nurse' or physician associate?

In the table below, I've done my best to compare the three roles using information from various sources. Given the huge overlap between the roles, can you discern 2-3 reasons why you personally want to pursue being a doctor over the other two? (Hint: You're not limited to the information in the table).

Doctor	Nurse Consultant / Clinical Nurse Specialist / Nurse Practitioner	Physician Associate
MBBS degree + further training and study to become a registrar and consultant <sup>32,38</sup>	Bachelor's degree + Master's degree and/or PhD <sup>34</sup>	Bachelor's degree + Postgraduate diploma <sup>37</sup>
Can prescribe medicines <sup>34</sup>	Can prescribe medicines <sup>34</sup>	Can carry out treatment under supervision of a doctor <sup>37</sup>
Can diagnose <sup>34</sup>	Can diagnose <sup>34</sup>	Can diagnose under supervision of a doctor <sup>27</sup>
Can specialise <sup>34</sup>	Can specialise <sup>34</sup>	Can specialise <sup>37</sup>
Can refer patients <sup>35</sup>	Can refer patients <sup>35</sup>	Can refer under supervision of a doctor <sup>37</sup>
Legally has ultimate responsibility for the patient <sup>34</sup>	Shares some responsibility for the patient <sup>34</sup>	Shares some responsibility for the patient <sup>37</sup>
High income e.g. GPs may earn between £60,45 and £91,228. Consultants earn between £82,096 and £110,683.40	Depending on the country and education level, "super nurses" can earn as much as, if not more than, some doctors <sup>34</sup> Pay may vary between £31,000 and £81,000. <sup>35</sup>	Earn between £31,365 and £51,668. <sup>39</sup>
Longest clinical training <sup>34</sup>	Shorter clinical training <sup>34</sup>	Shorter clinical training <sup>37</sup>
Highest "social status" <sup>36</sup>	Lower "social status" than doctors <sup>36</sup>	New and relatively unknown profession <sup>39</sup>



### **Medical Ethics - The Quick Guide**

I aim to make this one of the quickest - yet effective - tutorials on medical ethics, ever.

In your interview, you are likely to be presented with an ethically tricky scenario. You will need to reason your way to a solution using medical ethics principles. Alternatively, you will be asked to provide your opinion on an ethically controversial matter, e.g. euthanasia (see below). In either case, you will need to show you know the "four pillars of medical ethics":

Autonomy	Non-Maleficence	Justice	Beneficence
Respecting the	Not causing harm	Consequences upon	
individuality of the	and suffering to the	the wider population	The patient stands to
patient and their right	9	e.g. fair allocation of	benefit.
to make choices.	patient.	finite resources.	

Alternatively, you could use the "ABCDE of medical ethics" framework: Autonomy, Beneficence, Confidentiality, Do No Harm and Equality. I personally use the latter because I find it easier to remember. However, it is less well known, and you should always mention the "four pillars of medical ethics" when answering questions either way.

Watch this video tutorial on using the ABCDE of medical ethics.

Using either framework, complete this <u>medical ethics guiz</u>. Then, <u>check your answers here</u>.

Lastly, make sure you can explain the following terms and/or understand the ethical issues surrounding them (click each term for more information):

<u>Euthanasia vs assisted dying | Living will | Mental capacity & the Mental Capacity Act | Power of attorney | Patient confidentiality | Consent | Gillick competency & Fraser guidelines | Abortion | Organ donation | Medical staff strikes | Clinical negligence | Research on humans & the Declaration of Helsinki | Allocating finite medical resources</u>

Boom! You now have nailed the essentials of medical ethics. Further reading:

- A Very Short Introduction to Medical Law by Charles Foster
- A Very Short Introduction to Medical Ethics by Tony Hope



### **General Preparation Advice**

Keep answers to 2-3 minutes max. Time yourself when you practice to get an intuitive sense of this timeframe.

Practice your answers out-loud and ideally with someone else.

Keep to 3-4 points per answer maximum.

Practice using the various example questions and ethical scenarios that can be found both online and in print. See page **48** for recommendations.

### **Absolutely Key Questions to Prepare For**

#### Why do you want to be a doctor?

(Graduates only) Explain why now and not at 18.

Initial steps you took to learn more about the profession e.g. spoke to your GP, read blogs by junior doctors.

Outline the clinical work experience and volunteering you have done.

Attributes you saw first-hand in work experience or volunteering that good doctors have, and that you realised you had too upon reflection.

Describe an "aha" or "click" moment you might have experienced whilst doing work experience/volunteering that signified the point where you became 100% convinced Medicine was for you.

Summarise e.g. some re-working of "my attributes and interests most closely align with Medicine".



#### Why this medical school?

Steps you took to learn more about the medical school and the nuances of its course e.g. open day visit, reading the course website.

State the aspects of the course that attract you and explain why you find them attractive e.g. is the course PBL, CBL or lectures-heavy and how does that suit your learning style? Does it feature <u>dissection and/or prosection</u>?

Read more on course variations <u>here</u>.

A feature of the local community or university that attracts you e.g. diversity, local sports teams, local landmarks, <u>campus vs city</u>.

An aspect of student life and/or clubs & societies that attracts you e.g. you're a keen basketball player and you saw that the school's team just got promoted.

#### Tell me about your work experience.

Explain why you chose a particular work experience placement or volunteering role.

Describe what you observed during your work experience.

Describe what you learned from that work experience. Give specific examples.

Explain how what you learned made you develop as a person (be clear on the difference you observed in yourself before vs after the experience).

Link the above personal development to how it has made you more suited to a career in Medicine.



### Strategies for Answering Questions Encountered in Both MMI and Panel Interviews

#### "Discussion" Questions

When the question is about YOU e.g. "What are your weaknesses and strengths?"

Use the S T A R R R framework to provide interviewers a well-explained example of when you've exhibited a particular attribute or overcome a particular challenge.

**S** ituation – set the scene e.g. last summer I was a team captain in a football tournament.

**T** ask – what was required when, where and with whom to overcome or achieve something e.g. my team needed motivating as they were down after losing a game.

A ctions – what did you do and what skills did you use to rise to the task.

**R** easons for why you decided to take these actions ("because I...").

**R** esult – what happened as a result of your actions e.g. my team had a comeback and finished second in the tournament.

**R** eflection - link your answer back to how you'd suit Medicine e.g. my ability to keep calm and motivate others in high-pressure situations will be useful as a doctor.



When the question asks for your OPINION or to EXPLAIN something e.g. "Should the NHS offer alternative therapies?"

Intro: X is a contentious topic / X differs from Y in many ways		
<u>Body:</u>	Arguments for: On the one hand / Some would say	
	Arguments against: On the other hand / Others might say	
	<u>Different groups' perspectives:</u> For example, group A would support Whilst group B would support because they	
Conclusion: Upon consideration of the arguments / Overall		

#### **Roles & Lives of Doctors**

e.g. "What do doctors do other than treating patients?" When faced with a question such as this, run through the C R A M P framework to help give an excellent answer.

**C** linical – e.g. patient care, treatment, diagnosis

 ${f R}$  esearch – facilitating research e.g. recruiting patients to clinical trials

A cademic – e.g. teaching and life-long learning

**M** anagement – e.g. planning and running services, improving services and aspects of the healthcare system, having leadership roles in their teams

**P** ersonal life – e.g. hobbies, family, friends

Also, consider the lists below of the pros and cons of being a doctor. Reflect on them and consider why some of the advantages attract you personally, and equally why some of the disadvantages may make you apprehensive at the same time.



#### Advantages of being a doctor:

- Getting to know patients
- Leadership role (this is not the same as "getting to be in charge" or "be the boss")
- Unique chance to help people
- Intellectually challenging
- Salary
- High and worldwide demand
- Research opportunities
- High social status and a unique position in society
- Teamwork
- Life-long learning

#### Disadvantages:

- Life-long learning! You will spend a very long time training
- Some antisocial and long hours
- Impacts on relationships with family, significant others and friends
- High responsibility
- Risk of your mistakes permanently changing or ending someone's life

#### **Clinical Research-Related Questions**

Be prepared to outline your personal experience of research and the role doctors can have in research, a particular area of medical research you find interesting and its potential applications, the pros and cons of certain focuses of research and the different phases of clinical trials. Read more <a href="here">here</a>.



#### "How do you cope with criticism?"

Using the STARRR framework (see page 31):

- 1. Intro: Medics are always under the microscope and are placed on a pedestal (or similar).
- 2. Example of when you've received or given feedback which has allowed you or the other person to reflect and improve (positive experience)
- 3. Example of when feedback made you or the other person defensive (negative experience)

Also consider the possible of sources of criticism you might come across e.g. patients, mentors, peers, <u>ARCPs</u> and <u>PALS</u>.

#### Handling Conflict or Sources of Tension in a Group

One-on-one:

- 1. Talk to the person in question directly. Do this privately by taking them to one side e.g. "Could I talk to you about something in private quickly?"
- 2. Use the AIM framework:

Describe the...

**A ctions** that have made you concerned (tip: be specific and not too general) e.g. "I noticed that the past two times we were meant to meet as a group, you didn't turn up and gave no reason."

**I mpact** it has had on <u>you</u> e.g. "I feel worried because I want us to get the best score possible for all our hard work and I feel frustrated because it seems like you are putting in less effort than the rest of us."

**M oving forward**: Tell them how you would like them to behave differently from this point onwards (tip: be specific about the actions you'd like them to take and avoid being too general) e.g. "In future, I'd like it if you were at meetings and if you could complete the research that you agreed that you would."



3. If the above does not solve the problem, consider escalating the issue to someone more senior e.g. a tutor, lecturer or manager.

#### Groups:

- 1. For example, if one person is causing most of the conflict or tension, consider talking to others in the group to see if they've also observed this.
- 2. Talk to the person in question directly. Do this privately by taking them to one side e.g. "could I talk to you about something in private quickly?"
- 3. Use the AIM framework:

Describe the...

**A ctions** that have made you concerned e.g. "I noticed that the past two times we were meant to meet as a group, you didn't turn up and gave no reason."

**I mpact** it has had on you e.g. "I feel worried because I want us to get the best score possible for all our hard work."

**M oving forward**: Tell them how you would like them to behave differently from this point onwards e.g. "In future, it'd be great to have you at meetings."

- 4. If the above does not solve the problem, consider escalating the issue to someone more senior e.g. a tutor, lecturer or manager.
- 5. If all the above fails to solve the issue, consider suggesting to the others that you all pick up the slack. At the very least, you will still complete the group task even if it feels unfair.

#### **Lateral Thinking**

- Read or listen to the scenario you are given and ensure you've understood it. Ask
  questions to clarify details to ensure you've understood.
- They will be looking for you to show you can think outside the box.
- If you get stuck, start brainstorming out-loud.
- Verbalise your reasoning as you answer.

To test your lateral thinking skills and to get some practice, check out The Medic Portal's quide.



### Prioritisation / "You're stranded on a desert island..."

- 1. Reflect on your needs. These will be context dependent. For example, if you're on a desert island, of paramount importance is finding food, water, shelter and a way to be rescued.
- 2. State and explain the primary needs you've identified.
- 3. Then, consider the list of people/items/etc that you've been offered. Which 3, 5 or 10 satisfy your needs best. What are the pros and cons for each you've picked?
- 4. Communicate to the interviewer your top 3, 5 or 10 and give pros and cons for each choice.
- 5. Compare your choices against those you did not pick to help further justify your decision.



## **MMI Specifics**

### The Six MMI Station Types

- 1. Discussion
- 2. Healthcare knowledge
- 3. Collaboration
- 4. Acting / scenario
- 5. Written task
- 6. Ethics

**Discussion stations:** You might be asked about your short- and long-term goals, your strengths and weaknesses, why you choose their medical school and more. On the station door might be information on an issue they'll want you to discuss.<sup>41</sup> See pages **29-33** for a framework for answering most of these types of questions.

**Healthcare knowledge stations**: You might be queried about the career pathway of a doctor, the history of medicine, current hot topics in healthcare and your general knowledge about the workings of the healthcare system. See page **32** for a framework for answering these types of questions.

**Collaboration stations**: On the station door, or in the form of a written note, you will be given instructions for the task you will be expected to attempt, or the topic you will be expected to discuss. Upon entering you will find another person with whom you will need to work or debate. The interviewer will observe your teamwork and communication skills and take notes.<sup>41</sup> See page **39** for advice for tackling these stations.

**Acting/scenario stations**: On the station door, or handed to you as written text before the role play begins, will be a brief on the situation you are about to walk into e.g. "While your best friend was away on holiday, you accidentally broke their most prized family heirloom. You must break the news to your friend." Engage with the actor (and never the interviewer!) as if it is a real situation. The interviewer will observe and take notes.<sup>41</sup> See pages **40-42** for advice for tackling these stations.



**Written task stations**: A question will be posted on the station door or available as a written note. On a computer or piece of paper you will need to compose a response. You will be scored by the clarity, organisation and content of the response, and your spelling and grammar. Alternatively, you may be asked to solve clinical maths problems, or describe and explain what you see in a video or image.<sup>34</sup> See pages **42-44** for advice for tackling these stations.

**Ethics stations**: You may be asked how you would act in an ethical dilemma, or to discuss a controversial topic within medical ethics. Knowledge of the "four pillars of medical ethics" is key to answering these questions. See page **28** for guidance tackling these stations.

### All Possible MMI stations

I have attempted to create an exhaustive list of the MMI stations you might encounter.

Discussion	Personal attributes
	Motivation to be a doctor
	Prioritisation / "desert island" style task
	Lateral thinking
	Future of healthcare
	Observation and analysis e.g. of a video,
	image, graph, diagram or data table
Healthcare knowledge	Healthcare system knowledge
	Healthcare scandals
	Hot topics in healthcare / news
Collaboration	Group debate
	Group task
Acted scenario	Breaking bad news
	Professional judgement
	Coping with a complaint
	Giving instructions
	Explaining a concept
Written task	Clinical maths
	Written test
	Observation and analysis test e.g. of a video,
	image, graph, diagram or data table



### **Collaboration Stations**

<u>Group discussions & tasks</u> are a chance to show interviewers your communication, general interpersonal and team-working skills. Keep in mind the following when tackling a group task or discussion situation:

- 1. Offer introductions / names.
- 2. Offer to time-keep or make notes.
- 3. To encourage discussion, ask open questions (what, how, when, why).
- 4. Make eye-contact with your group members, especially whilst they speak.
- 5. When group discussion gets stuck or off track, offer a summary of all you've discussed so far (the note taker should have notes you could look at to help you). This can get discussion back on-track and inspire new ideas.
- 6. Reflect on comments made by others e.g. "I agree, that would make sense since..." or "I think that's a good idea; although, I'm not sure if... because..."
- 7. Pull quieter people into the discussion by asking their opinions directly e.g. "John, can you think of anything we've missed?"
- 8. Use examples and statistics you might know to back your points.
- 9. Complement and encourage others *genuinely* (flattery is easily detected and can cause the opposite of good feelings) e.g. "That's a great idea!" or "Great thinking. We could do that too."



## **Role Plays & Scenarios**

<u>Breaking bad news</u> is a common role play. What you will be breaking bad news about varies e.g. you lost someone's pet, broke a prized possession, or need to tell a patient that they have a lifechanging diagnosis.

- 1. Once you've entered that station, glance across the area for any props e.g. pens, paper and chairs. You might want to rearrange these as part of the task (you don't need permission to do this).
- 2. Introduce yourself.
- 3. Ask their name or ask how they're doing lately (depends on your fictional relationship with them). If you both haven't sat down yet, suggest sitting.
- 4. Make small talk for a minute or so.
- 5. Deliver a "warning shot" e.g. "There's something I need to tell you..."
- 6 Pausel
- 7. Deliver the "final shot" e.g. "I'm sorry but..." Explain what the bad news is.
- 8. Pause for the actor's reaction.
- 9. Empathise e.g. "I realise this must be hard."
- 10. Offer to help "Is there anything I can do to help?"
- 11. If they've become emotional and are crying, offer them a box of tissues (if available as a prop) or anything similarly comforting.
- 12. Invite them to talk more about the bad news e.g. "What was it about \_\_\_ that was important to you?"
- 13. Throughout the scenario, you'll want to be using active listening (read more about what that means <a href="here">here</a>).



<u>Professional judgement</u> stations place you in a position where your professional integrity is tested. For example, you see a colleague drinking alcohol or taking drugs on their lunch break. The <u>GMC's Good Medical Practice guidelines</u> and standard law are central to what is right or wrong to do in such circumstances.

- 1. Make polite conversation with the person/patient/colleague.
- 2. Ask them to talk with you 1-on-1 somewhere private e.g. "Could I chat with you quickly about something?"
- 3. State, without judgement, what you saw or heard.
- 4. Describe the impact this has on you and patients "...it makes me feel concerned/worried/etc because it's important to me that..."
- 5. Encourage the colleague to take a day off or talk to someone.
- 6. Offer to talk to them 1-on-1 privately in the next few days e.g. for coffee.
- 7. If you are unable to resolve the issue between you, you might want to escalate it to a senior, or ask for advice from peers.
- 8. If it continues to be a problem, you might consider reporting your concern to the GMC or university.

### Coping with a complaint...

- 1. Introduce yourself, ensuring to give your name.
- 2. Ask their name.
- 3. Listen to the complaint without interruption. Use active listening.
- 4. Apologise.
- 5. Reassure everything is being done or has been done to rectify the issue.
- 6. Explain the fault, and why it occurred (in a non-defensive way, using easy-to-understand and plain language).
- 7. Offer to refer the patient to where they can file an official complaint i.e. PALS (Patient Advice & Liaison Service). Alternatively, NHS England or the CCG.
- 8. Offer solutions or ask the person what solutions they'd like to see. Listen without interruption.



### Giving instructions ...

- 1. You might be provided with a diagram, object or other item. Take a moment to really look at it and make sure you understand it.
- 2. State the goal of the task (e.g. "By the end of my explanation, you should have successfully drawn a map").
- 3. Signpost each step in your explanation with words such as "next", "then", "now"
- 4. Be very specific and clear with your instructions. For example, "look to your left/right", "move the blue/red/yellow marker".
- 5. Give encouragement to your interviewer e.g. "Yes, exactly like that."
- 6. If they're struggling to follow your last instruction, consider re-explaining it in a different way; adapt to the person in front of you.



### Explaining a concept...

- 1. Introduce yourself.
- 2. Get their name.
- 3. Ask them what they judge their current level of knowledge to be.
- 4. Break the concept into chunks whilst you explain.
- 5. Use simple, jargon-free language.
- 6. Don't speak too fast and feel free to use pauses in your speech. This helps information sink in effectively.
- 7. Use analogies, examples, metaphors and allegories to help your listener understand.
- 8. After each "chunk", check their understanding. The best way to do this is to ask them to explain it back to you in their own words. (People sometimes nod and say "yes" when they're not actually entirely clear on what you've just said trust me, I see this all the time as a tutor!)
- 9. Summarise everything you've explained so far.
- 10. When you're not entirely sure about a part of what you're trying to explain, or when you're asked a question you're not sure of the answer to, ADMIT IT! For example, "I'm afraid I'm not too sure / I've never looked into that myself. However, based on what I understand, I'd suggest that..."
- 11. If they still don't understand, explain it again but in a different way.

## **Data or Chart Analysis**

- **1.** If it's a graph, check the axes and key (if there is one) before anything else. If it's a data table, check the column or row headings first.
- **2.** Outline patterns and trends in the graph or data.
- **3.** When the interviewer asks about a particular part of the data, double check you're about to refer to the relevant data e.g. are you looking at the correct condition, patient, line, column or row?
- **4.** Explain the patterns and trends that you see as best you can with your own knowledge.
- **5.** If you get stuck start brainstorming. Verbalise your different trails of thought to the interviewer so they can hear what you're thinking.



## **Photo / Image Analysis**

You may be given, for example, a photo showing a person exhibiting symptoms of a medical condition.

Use the mnemonic SPECL SCAB ("special scab")

S ize

P attern (e.g. if more than one lesion)

E levation (flat, raised, sunken)

C olour

L ocation

S hape (oval, round, irregular)

C onsistency (soft, hard, fluid filled)

A nd

B orders (regular, irregular)

For example, "I observe a female, elderly patient of Caucasian ethnicity. She has a small, singular, flat, round, asymmetric lesion on her nose that's red on the edges but pale in the middle."



## **Video Analysis**

For example, you might be asked to watch a video of an interaction between a doctor and a patient, and then provide your thoughts. Example video: <u>Doctor Patient Relationship (YouTube)</u>

Use the II (H) A P E E E framework (sounds like "I Happy!")

I ntroductions – does everybody in the room know who the other is? If a student or trainee is shadowing the doctor, has the doctor asked the patient if they mind them observing?

I nteractions with others – Does the doctor talk respectfully and politely to their colleagues? How about other patients and members of the public?

**A ctive listening** – when the patient speaks, is the doctor listening without interrupting? When they reply, is it evident that the doctor really heard and understood what the patient was saying?

**P sychosocial** – Are there any psychological or social factors potentially influencing the interactions?

**E nvironment** -is it dirty or clean? Is the room organised well e.g. the furniture arrangement?

**E xplanations** – is the language used jargon-free, is the language appropriate for the patient's level of understanding or knowledge, is speech clear and are you confident the listener understood what they were being told?

**E xpectations** – if there is a potential choice involved, has the patient been advised of all the options and encouraged to make an informed choice, or have they been dictated to or manipulated? Could there be a hidden reason for the patient's visit that they're unwilling to discuss straight away – does the doctor successfully identify this and coax it out of them?



### **Clinical Maths Stations**

You may be required to calculate drug doses, intravenous flow rates or tackle other clinical maths problems. *Nursing Calculations* by JD Gatford and NM Philips is a fantastic little book full of practice questions, tests and solutions to help you prepare.

I recommend revising the following topics that you would have learnt at school:

- Addition, subtraction, division and multiplication
- Multiplying by multiples of 10
- Dividing by multiples of 10
- Converting units e.g. milligrams to grams
- Factors
- Decimals
  - o Addition, subtraction, division and multiplication
  - Rounding off decimal numbers
- Fractions
  - o Addition, subtraction, division and multiplication
  - Mixed numbers and improper fractions
  - Simplifying fractions
- Percentages
- Converting between percentages, fractions and decimals
- Changing the subject of a formula
- 24-hour time



## **Final Extra Tips!**

### Dress to Impress.

How do you expect your own doctor to dress? Consider this when selecting your outfit. If in doubt, just wear a suit.

#### Look smart.

Make sure your hair looks neat; consider getting a haircut. Men might consider shaving off stubble and neatening beards. Ensure you've washed your face, got the sleep out of your eyes, showered and brushed your teeth. If you're paranoid about having bad breath, consider taking mints with you. Cover tattoos. Don't wear anything too short or low-cut. Remove face and tongue piercings.

### Have good posture.

Sit up straight, feet flat on the floor, elbows off the table. When you're standing or walking have a straight posture.

### Look keen and enthusiastic.

Smile, lean slightly forward and shake the hands of interviewers if there's an opportunity. Use <u>active listening</u> to show you're engaged when they speak.

### Speak clearly and confidently.

Try not to talk too fast (common when people are nervous). Instead, speak at a good, even tempo. Punctuate your speech with short and frequent pauses. Aim to have an even-keeled voice in terms of pitch. Avoid verbal ticks such as "like", "you know" "uh" and "um" – they're informal, distracting and dilute the impact of what you're saying.<sup>42</sup> Also, avoid repeating yourself. Keep hand gestures at chest height or lower to avoid them becoming distracting. See more tips <u>here</u>.



### Re-read your work experience diary and personal statement.

There's a good chance you'll be asked about your personal statement and your work experiences. Keep these fresh in your mind so you're well prepared to answer questions on them.

### Do not feel the need to fill the silence after you've finished answering.

This is tempting, but just don't do it. You might turn an excellent answer into a dud. If you do add to your answer, make sure it is truly adding to what you've already said. Equally, do not feel the need to make small talk.

### Don't ruminate on the previous question or MMI station.

We all tend to get distracted by what we feel was a mediocre performance and fall into a rumination of sorts. However, during the interview you need to stay focused, enthusiastic and positive throughout. So, push any perceived bad performances to the back of your mind so that the rest of your interview is not affected. (Besides, you might not have performed as badly as you think!)

### Use "power" and "action" words to increase the impact of your answers.

Power words can turn your answers from forgettable to emotionally impacting. For example, "energised", "coordinated", "negotiated". For more guidance on power and action words, see <a href="here">here</a> and <a href="here">here</a>.

### Use inclusive and bias-free language.

As a doctor, you are expected to adhere to principles of medical ethics and treat everybody with the same respect regardless of who they are as a person, their personal circumstances or choices. Read the following "Bias-Free Language Guide" published on the University of New Hampshire website for more guidance.



## **Virtual Interviews Tips**

COVID-19 has led to many medical schools holding video call interviews. Below are some tips to help you ace it.

- 1. Still dress professionally and sit up straight.
- 2. Make sure the background behind you is neutral / professional e.g. a blank white wall or a bookcase.
- 3. Aim to be well-lit, ideally by natural light falling on your face, rather than coming from behind you.
- 4. Check your camera/webcam's preview and position yourself so that your face and shoulders are central.
- 5. Say hello and greet the interviewers the same way as if it was a face-to-face interview (minus the handshaking, of course)
- 6. Look at the webcam/camera lens rather than the screen. This way it seems to them that you are maintaining eye contact.
- 7. Practice virtual interviews with friends, family, mentors etc. to help you get used to the set up.
- 8. Make sure the room / environment you're in is quiet. If there could be noise, use headphones or earphones with a mic.
- 9. Ensure your internet connection is strong and reliable. It can help to plug your laptop physically into the internet with an ethernet cable. This is instead of relying on WiFi. If your internet is truly awfully slow, additionally you could ask other members of your household to not use the internet at the time of your interview.
- 10. Turn off notifications and incoming calls on the device you are using.
- 11. If you have flatmates/housemates, warn them a few days in advance you'll have an interview and you'd really appreciate minimal noise and distractions during this time. Then warn them again on the day of the interview.
- 12. Plug your laptop or tablet into the mains so you can be confident it won't run out of battery.



## **Free Sample Questions**

Can be found at the following websites:

- "Medical School Interviews Questions" ISC Medical
- "Medical Interview Questions" The Medic Portal
- "Multiple Mini Interview (MMI) Questions & Answers" BlackStone Tutors
- "Medical School Interview Questions" Royal College of Surgeons of England

## **Recommended Further Reading**

- Medical School Interviews All You Need To Know: The Knowledge by Mona Kooner
- Medical School Interviews by Olivier Picard and George Lee
- Do No Harm by Henry Marsh
- This is Going to Hurt by Adam Kay
- Your Life in My Hands by Rachel Clarke
- A Very Short Introduction to Medical Law by Charles Foster
- A Very Short Introduction to Medical Ethics by Tony Hope



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