

WELCOME

This is a <u>free</u> crash course guide to help you prepare for medical school interviews! Inside, you will find

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

Throughout, I will challenge you to come up with your own opinions and original ideas. Why? Because this will make your answers stand out from other candidates. If you find this guide helpful, please share it with friends.

I offer private interview coaching both online and face-to-face. If you have any questions or feedback, I'd love to hear from you – drop me an email at eleanor@graduatemedicinesuccess.com or see my website.

CONTENTS

ORIENTATION	
What happens in panel interviews?	2
What happens in MMIs?	3
KNOWLEDGE BASE	
History of Medicine Flowchart	4
Future of Healthcare	6
Challenges the NHS Faces (U.K. Only)	8
Hot Topics in U.K. Healthcare (U.K. Only)	11
How the NHS Works (U.K. Only)	14
Comparing Healthcare Systems Across the World	16
British Healthcare Scandals (U.K. Only)	17
NHS Values (U.K. Only)	18
Doctor-Specific Qualities and Skills	19
Journey to Becoming a Consultant or GP (U.K. Only)	20
Distinguishing Doctors from Nurses and Physician Associates	21
Medical Ethics – The Quick Guide	22
GENERAL PREPARATION ADVICE	23
ABSOLUTELY KEY QUESTIONS TO PREPARE FOR	
Why do you want to be a doctor?	23
Why this medical school?	24



Tell me about your work experience.	24
STRATEGIES FOR ANSWERING QUESTIONS ENCOUNTERED IN BOTH MMI	
AND PANEL INTERVIEWS	
STARRR	25
Intro/Body/Conclusion	26
Roles and Lives of Doctors (CRAMP)	26
Clinical Research-Related Questions	27
"How do you cope with criticism?"	27
Handling Conflict	28
Lateral Thinking	29
Prioritisation / "You're stranded on a desert island"	29
MMI SPECIFICS	
The Six Types of MMI Stations	30
All Possible MMI Stations	31
Collaboration Stations	32
Role Plays & Scenarios	33
Data / Chart Analysis	35
Photo / Image Analysis	36
Video Analysis	36
Clinical Maths	37
FINAL EXTRA TIPS	38
Free Sample Questions	40
Recommended Further Reading	40
References	41

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 to take notes when you answer them. ¹

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

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



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 that will be interviewed all 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 your group members and yourself will be told the first booth/table/station you should go to – you'll all be starting at different ones. You'll have around a minute standing 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 you're at 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 staff member 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.¹ Watch this video explanation of the MMI format: https://www.youtube.com/watch?v=MAdD1cjkpNQ

Since MMIs were first implemented several years ago, more and more medical schools have adopted them. MMIs are thought to allow a highly objective assessment of candidates by subjecting them to a series of standardised situations. Interviewers will 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.²

Medical schools vary in terms of the type and number of MMI stations that they use. So, make sure to research your choice medical schools lest you prepare for the wrong types of stations or setup!¹



History of Medicine Flowchart - just the highlights, of course!

~2600 BC An ancient Egyptian, Imhotep, is the first recorded physician in history. He authored a papyrus detailing anatomical observations, ailments and cures.⁴

~ 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.⁴

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.⁴

~ 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. ³

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.⁴

~5th to 15thcentury / Middle Ages

One of the earliest hospitals (closest to our modern concept of one) was the Hôtel-Dieu, built in Paris in 651.⁵ One of the earliest in the Islamic world was built in the 9th century in Baghdad. Hospitals soon spread throughout Europe and the Islamic world. The very earliest hospitals functioned not only as treatment centres and a place to train physicians, but also as refuges for the ill, injured, elderly, mentally ill and poor.⁶

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).⁵

In the 14^{th} 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". ⁷

In the 14th and 15th centuries there was a shift towards favouring evidence-based medicine over the word of someone notable.⁴

16th & 17th centuries It was discovered that certain diseases are caused by objects outside 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.⁴

Page | 4 |



18th 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 tapping on the chesi helped determine if fluid was in the lungs.⁴

Despite many advances, including the above, the take up of new techniques was slow. Bleeding, cupping and purging - ineffective treatments - were still commonly practiced.⁴

19th 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 spreading the disease.³

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>³

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.⁴

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

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

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.⁴

Many new vaccines were developed, including those against polio (leading to its eradiation), measles and chickenpox. 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.⁴

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

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.⁴

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. ⁴ The human genome was fully mapped in the early 21st century). ³

Page | 5 |

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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!

Gene Editing

- Gene editing history to now: https://www.raconteur.net/healthcare/timeline-of-scientific-discovery-gene-editing
- Implications and applications of gene editing: https://www.theguardian.com/science/2018/jan/15/gene-editing-and-what-it-really-means-to-rewrite-the-code-of-life
- CRISPR 2.0: https://www.wired.com/story/whats-next-for-crispr/

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

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

Robotics and Al

- Pepper robots: http://www.bbc.co.uk/news/education-38770516
- IBM Watson: http://www.wired.co.uk/article/ibm-watson-artificial-intelligence
- Robot surgeons: http://www.telegraph.co.uk/business/2017/11/28/robotic-revolution-robot-could-next-surgeon/

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 in your country?

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: https://hbr.org/2016/03/3d-printing-is-already-changing-health-care
- Lab-grown replacement skin saves the life of a boy with a genetic disease:
 https://www.nytimes.com/2017/11/08/health/gene-therapy-skin-graft.html

What benefits will be reaped 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?

Big Data, Smart Tech, Remote Diagnosis and Treatment

- Pooling patient data: https://www.raconteur.net/healthcare/would-you-share-your-patient-data-to-save-lives
- NHS patient data, AI health advisors and cybersecurity:
 https://www.raconteur.net/technology/breathing-new-life-into-the-nhs
- Microchips: https://www.techrepublic.com/article/how-human-microchip-implants-could-lead-to-the-democratization-of-healthcare-via-iot/
- Bitcoin, blockchain technology and healthcare:
 https://www.technologyreview.com/s/608821/who-will-build-the-health-care-blockchain/

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?

How can blockchain technology (the same technology underlying the Bitcoin) be used in healthcare? What is meant by a "health-care blockchain"?



Challenges the NHS Faces

Aging Population

- "Two-fifths of NHS budget is spent on over-65s"
 <u>https://www.theguardian.com/society/2016/feb/01/ageing-britain-two-fifths-nhs-budget-spent-over-65s</u>
- "Meeting the challenges of an ageing population" NHS England blog: https://www.england.nhs.uk/blog/catherine-thompson/

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?

Obesity & Lifestyle Habits

- "The war on lifestyle disease needs new tactics"
 https://www.newscientist.com/article/2099950-beyond-drugs-the-war-on-lifestyle-disease-needs-new-tactics/
- Obesity is prevalent in the NHS's nursing workforce
 http://www.independent.co.uk/news/health/nhs-nurses-obese-stats-figures-survey-results-a8091781.html
- Surgery ban for smokers and obese http://www.telegraph.co.uk/news/2017/10/17/nhs-provokes-fury-indefinite-surgery-ban-smokers-obese/

Can you explain what "lifestyle diseases" are?

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 22)

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



Cuts to social care

- Cuts to council care http://www.bbc.co.uk/news/health-40416105
- Adult and child social care challenges in numbers
 http://www.communitycare.co.uk/2017/11/21/social-cares-funding-crises-numbers/

What is the "dementia tax"? What constitutes "social care"? What knock-on effects might social care cuts have on the NHS?

Mental Health

Mental health services are arguably the shunned and neglected sibling of "general health services". But the discrepancy in funding, resources, staffing and support has not gone unnoticed. What are the issues? Read more below...

- Mental health sector set to undergo reform and receive extra funding <u>https://www.theguardian.com/healthcare-network/2017/oct/09/mental-health-services-political-backing</u>
- Prime minister pledges to tackle mental health stigma (Jan 2017)
 http://www.independent.co.uk/news/uk/politics/theresa-may-mental-health-stigma-funding-government-nhs-a7516461.html
- Employers' role in helping the mental health crisis
 https://blogs.spectator.co.uk/2017/10/theresa-may-cant-just-expect-employers-to-solve-the-mental-health-crisis/
- Mental health patients sent hundreds of miles for treatment: http://www.bbc.co.uk/news/uk-england-cornwall-39720167

What is meant by the "stigma" around mental health? What challenges face mental health services? What are the benefits of "putting mental health on a par with physical health"?



Bed Shortages

- NHS hospitals ordered to cancel all routine operations
 http://www.telegraph.co.uk/news/2018/01/02/nhs-hospitals-ordered-cancel-routine-operations-january/
- Bed shortages increases infection risk http://www.bbc.co.uk/news/health-38330110
- "NHS hospital drops Airbnb-style plan to tackle bed shortage"
 <u>http://www.theweek.co.uk/89275/nhs-hospital-drops-airbnb-style-plan-to-tackle-bed-shortage</u>

What is meant by "bed-blocking"? Why have the number of hospital beds fallen? What are the negative effects of bed shortages?

Staff Shortages

- "Staff shortages the 'single biggest risk' facing NHS" https://news.sky.com/story/staff-shortages-the-single-biggest-risk-facing-nhs-11116975
- It has been reported that the number of doctors has risen since 2010, but... http://www.theweek.co.uk/checked-out/88286/the-truth-about-nhs-staff-shortages

What factors have contributed to the staff shortages? What are the impacts of staff shortages on patients?

Financial Strain

- NHS overcharged by millions for key drug http://www.bbc.co.uk/news/business-42063274
- Ways the NHS can save money http://www.bbc.co.uk/news/health-33071066
- Cheap innovations the NHS could take from sub-Saharan Africa https://amptheguardian.com/healthcare-network/2017/oct/27/cheap-innovations-nhs-take-sub-saharan-africa
- NHS attempts to save £3 per flu jab fuelled winter flu crisis https://apple.news/AZOyxK3OySOWpJZzTNRi6AQ

Why is the NHS under financial strain? How can this affect patients? What ways can the NHS save money?

Page | 10 |



Hot Topics in U.K. Healthcare 2017-18

Brexit

Let's face it, Brexit has shook up Britain in various ways. That doesn't mean to say Brexit is necessarily bad (that's ultimately your judgement to make!), but it is undeniably different. So, how is it affecting healthcare in the U.K.?

Read:

- Uni of Birmingham weighing in on Brexit's impact pre-referendum: https://www.birmingham.ac.uk/research/perspective/nhs-and-brexit.aspx
- A GP's Thoughts Post-Brexit (Jan 2018): https://www.newstatesman.com/politics/health/2018/01/nhs-already-crisis-brexit-could-finish-it

What are the positive and negative impacts of Brexit on the NHS?

Baby Charlie Gard @ GOSH

The case of Charlie Gard is tragic. It received a huge amount of media attention and controversy. I feel it's safe to say that many people were passionate about Charlie's situation and story, regardless of where they stood on the issue. The decisions made around Charlie's care were medical ethics in action.

- A paediatrician's thoughts: http://www.independent.co.uk/Voices/charlie-gard-gosh-great-ormond-street-hospital-life-support-pope-donald-trump-a7827276.html
- Death threats were received by staff at GOSH: http://www.bbc.co.uk/news/uk-england-london-40691478

Would you be able to describe the case of Charlie Gard and explain why it attracted so much controversy? Do you think Charlie received the best treatment possible? Why/why not?



Seven-Day NHS

The government is keen that the NHS provide an equal level of service on weekends as it does on weekdays. Seems like a great idea, right? Why would anyone have an issue with this? Find out below...

- What "Seven-Day NHS" means: https://fullfact.org/health/what-seven-day-nhs/
- The evidence used to justify the change is questionable and implementation will face difficulties: https://www.nuffieldtrust.org.uk/news-item/seven-day-nhs-a-frontline-perspective#nhs-englands-seven-day-services-forum
- Accusations that the government is "scapegoating" GPs:
 <u>http://www.independent.co.uk/news/uk/politics/theresa-may-seven-day-week-gp-surgeries-jeremy-hunt-nhs-hospitals-accident-and-emergency-a7526951.html</u>

Can you describe what is meant by a "seven-day NHS"? What are the challenges facing its implementation? All things considered, do you agree with the change? Why was the prime minister recently accused of "scapegoating" GPs?

Junior Doctors' Contract

Tying in somewhat to the government's aspiration for a seven-day NHS, the pay of junior doctors was recently overhauled. What does it mean for doctors? What could it mean for the public? What could it mean for YOU?

- Features of the new contract: http://www.bbc.co.uk/news/health-36327930
- The new contract was met with resistance: http://www.bbc.co.uk/news/health-34775980
- Over one year on from the implementation of the new contract: https://www.theguardian.com/society/2017/jan/02/junior-doctor-nadia-masood-jeremy-hunt-driven-us-out-of-nhs

What is the link between the new junior doctors' contract and the government's aspiration for a "seven-day NHS"? Will junior doctors end up being paid than before? What are the benefits and drawbacks of the new contract vs the old contract? Do you agree with the change? Are all junior doctors' in the U.K. having a new contract? What *is* a junior doctor?

Page | 12 |



Mental Health Services

Please see page **9**.

A&E Waiting Times

Over the past few years A&E waiting times have not failed to enter the news. What's the fuss all about?

- "A&E patient wait joint-worst on record" https://news.sky.com/story/nhs-winter-crisis-thousands-of-ambulance-delays-11203206
- "Do you need to come to A&E?" https://www.royalfree.nhs.uk/services/services-a-z/emergency-department/do-you-need-to-come-to-ae/
- A&E wait times information http://www.qualitywatch.org.uk/indicator/ae-waiting-times

What is the difference between A&E and urgent care centres (UCCs)? When should a patient go to one over the other? What alternatives do patients have if they are unwell? What are the dangers of long A&E waiting times? What targets have the government laid down for A&E departments to meet?

Dr Bawa-Garba's Conviction of Manslaughter

A junior doctor called Hadiza Bawa-Garba was recently convicted of manslaughter by gross negligence. However, many argue the patient's death was down to failures and shortcomings of the health system and she was doing her utmost best against all odds.

- "Dr Hadiza Bawa-Garba: What led to six-year-old Jack Adcock's death?" https://www.independent.co.uk/news/health/hadiza-bawagarba-jack-adcock-death-gmc-junior-doctor-registrar-legal-case-a8184966.html
- "Stephen Bradley: Is medical culture complicit in covering up the reality of NHS care?" https://blogs.bmj.com/bmj/2018/02/02/stephen-bradley-is-medical-culture-complicit-in-covering-up-the-reality-of-nhs-care/

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?

Page | 13 |



How the NHS Works

This can be both a dry and an interesting topic. If you find the workings of the NHS dry, see this as a chance to understand the grand machine you will be a cog in once you are a doctor – it can only be to your and your patients' benefit to do so. If you are interested, however, I hope this section only feeds your enthusiasm!

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.⁸

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. Jeremy Hunt is the current role holder.¹⁰

Department of Health

Responsible for funding and strategic leadership of health and social care in England. It is supported by 23 agencies and public bodies.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, 2/3 approximately.¹¹

Public Health England

Works with the NHS and local government to respond in emergencies. Delivers and coordinates public health in England, empowering the public to make healthier choices.⁸



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 as effectively as possible. One metric used is the quality-adjusted life year (watch this video). NICE is the UK's equivalent of the USA's FDA. ¹² Its Scottish equivalent is the Scottish Medicines Consortium. ⁹

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. ¹³ Following inspection, a service will often receive a rating of one of:

- Outstanding;
- Good;
- Requires improvement;
- Inadequate. 14

NHS Improvement

Established in 2016 by bringing together various other bodies such as Monitor and the NHS Trust Development Authority, it assesses NHS trusts in terms of leadership, finances and quality. Additional duties include: taking measures to prevent anti-competitive behaviour and reduced patient choice, promoting integrated care, setting prices for NHS-funded care in conjunction with NHS England and protecting essential health care services that fall into financial difficulties.^{15,16}

In March 2016, a "Learning from mistakes league table" was published which ranked NHS trusts according to how transparent they were about medical errors, near-misses and incidents. NHS Improvement works with low-ranking trusts to improve their openness.¹⁷

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.¹⁸

Page | 15 |



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.¹⁹

Royal Colleges

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

Comparing Healthcare Systems Around the World

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

- NHS in England: https://www.youtube.com/watch?v=qMNuxPByEW0 (6min11sec)
- USA: https://www.youtube.com/watch?v=yN-MkRcOJjY (7min35sec)
- France: https://www.youtube.com/watch?v=_yF69KVbUaQ (5min42sec)
- Australia: https://www.youtube.com/watch?v=ylsO0VVy29U (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 about the systems? Prompts to help you:

- 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.

Page | 16 |



British Healthcare Scandals

The NHS wouldn't be one of the top-rated healthcare systems worldwide without learning from a painful history. You should know about the most damning UK healthcare scandals.

Mid-Staffs Hospital

Read the following two articles: https://www.theguardian.com/society/2013/feb/06/mid-staffs-hospital-scandal-guide and https://www.theguardian.com/society/2013/feb/06/mid-staffs-inquiry-calls-care-failings-a-disaster/

Some questions to get you thinking:

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

What shocking examples of 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:

https://www.theguardian.com/society/2005/aug/25/health.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?



vaccine-festivals

Medical School Interviews Crash Course

Andrew Wakefield & the Anti-Vax Movement

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 Values²⁰

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.

Page | 18 |



Doctor-specific qualities and skills²¹

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. (Hint: *)

- Concern for people Do you tend to feel caring towards others, including strangers, and show them empathy and compassion? (For a better idea, read more <u>here</u>)
- *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.

Page | 19 |



Journey to Becoming a Consultant or GP

See a visual guide of the journey to becoming a consultant or GP on the following webpage: https://www.bma.org.uk/advice/career/studying-medicine/insiders-guide-to-medical-specialties/medical-training-pathway

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."²⁸
- Once you've finished your medical degree, you will undertake your foundation years (two 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.²⁹
- All doctors in the UK must be registered with the GMC. Upon graduation from medical school, you gain a provisional GMC registration. <u>You only obtain full GMC</u> registration at the end of FY1.²⁹
- After completion of your foundation years, you will have the option of pursuing a run-through training programme (e.g. the GP route), or completing a 2-3 year core training programme, followed by higher speciality training (e.g. the surgical, anaesthetics and psychiatry routes). The latter routes are sometimes called "uncoupled". ²⁹ 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.³¹
- There are currently 60 different specialities to choose from. Which speciality you choose will determine how long you'll have to 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, allowing you to apply for consultant and GP posts, respectively. ²⁸

Page | 20 |



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. So, why not be a "super nurse" instead of a doctor? Equally, physician associates are a new, doctor-like profession. Soon, they will have their own governing body which will allow them to do many things doctors do, independent of supervision. So, why not be a 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
MB degree + further training and study to registrar and consultant level ²⁶	Bachelor's degree + Master's degree and/or PhD ²²	Bachelor's degree + Postgraduate diploma ²⁵
Can prescribe medicines ²²	Can prescribe medicines ²²	Can carry out treatment under supervision of a doctor ²⁵
Can diagnose ²²	Can diagnose ²²	Can diagnose under supervision of a doctor ²⁵
Can specialise ²²	Can specialise ²²	General only ²⁵
Can refer patients ²³	Can refer patients ²³	Can refer under supervision of a doctor ²⁵
Legally has ultimate responsibility for the patient ²²	Shares some responsibility for the patient ²²	Shares some responsibility for the patient ²²
High income e.g. GPs may earn between £56,000 and £102,000. ²³ Consultants earn between £76,761 and £103,490. ³⁴	Depending on the country and education level, "super nurses" can earn as much as, if not more than, some doctors ²² Pay may vary between £31,000 and £81,000. ²³	Earn between £30,000 and £48,034. ²⁷
Longest clinical training ²²	Shorter clinical training ²²	Shorter clinical training ²²
Highest "social status" ²⁴	Lower "social status" than doctors ²⁴	New and relatively unknown profession ²⁶



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	The patient stands
individuality of the	and suffering to the	the wider	to benefit.
patient and their	patient.	population e.g. fair	
right to make		allocation of finite	
choices.		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 quiz</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):

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

Boom! You now have nailed the essentials of medical ethics. To improve further, I recommend reading the following books:

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

Page | 22 |



General Preparation Advice

Keep answers to 2 minutes max.

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 **40** 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/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 dissection and/or prosection? Read more on course variations here.

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 STARR 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, what skills did you use etc. to rise to the task.

R eason / justification 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?"

<u>Intro:</u> 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

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/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 apprehensive at the same time.

Advantages of being a doctor:

- Doctor-patient relationships
- Leadership (note: this is not the same as "getting to be in charge/the boss")

Page | 26 |



- Unique chance to help people
- Intellectual challenge
- Salary
- High demand / worldwide demand
- Research opportunities
- High social status and a unique position in society
- Teamwork
- Life-long learning

Disadvantages:

- Life-long learning! / very long time spent training
- Some antisocial and long hours
- Impacts on relationships with family 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 here.

"How do you cope with criticism?"

Using the STARRR framework (page 24):

- 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 sources of criticism as a doctor e.g. patients, mentors, peers, ARCPs, PALS.



Handling Conflict / 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 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 and it's frustrating feeling 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 e.g. "In future, it'd be great to have you at meetings and have more of a contribution from you in general."

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 and/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 and it's frustrating feeling 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 e.g. "In future, it'd be great to have you at meetings and have more of a contribution from you in general."



- 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.

Lateral Thinking

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

To test your lateral thinking skills and to get some practice, look at the following lateral thinking skills pages on the University of Kent website:

<u>Lateral Thinking Skills</u> <u>Second Lateral Thinking Test</u>

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.³² See pages **27-28** for a framework for answering 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 pages **25** 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 instruction on 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.³² See pages **32-33** 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 scenario. The interviewer will observe and take notes. See pages 33-35 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.³² See pages **35-38** 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 **22** 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
	Data, diagram or image analysis
	Future of healthcare
	Lateral thinking
Healthcare knowledge	NHS / healthcare system knowledge
	NHS 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 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 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. When offering your own comments, 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; I agree, we could do that too."

<u>Group discussions</u> are also a chance to show interviewers your communication and interpersonal skills.

- To encourage discussion, ask open questions (what, how, when, why)
- Make eye-contact with your group members, especially whilst they speak
- 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.
- 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..."
- Pull quieter people into the discussion by asking their opinions directly e.g. "John, can you think of anything we've missed?"



 When offering your own comments, use examples and statistics you might know to back your points.

Role Plays & Scenarios

<u>Breaking bad news</u> is a common role play. What you will be breaking bad news about varies e.g. losing someone's pet, breaking a prized possession, or telling a patient that they have a life-changing diagnosis.

- 1. Once you've entered that station, glance across the room 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 / ask how they're doing lately. If you both haven't sat down yet, suggest sitting.
- 4. Make general small talk for a minute or so.
- 5. Deliver a "warning shot" e.g. "There's something I need to tell you..."
- 6. Pause!
- 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 here).

<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 / I want ..."
- 5. Encourage the colleague to take a day off or talk to someone.
- 6. Offer to talk to them 1-on-1 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 and/or asking the person which solutions they'd like to see. Listen without interruption.

Giving instructions ...

- 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 information/concepts 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 / 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, and 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 framework PSSSECCC

Patient

Site

Size

Shape (including Symmetry)

Edge

Contours

Colour

Changes

For example, "I observe a female, elderly patient of Caucasian ethnicity. She has a small, round, flat asymmetric lesion 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:

https://www.youtube.com/watch?v=_RVaUV7XJ8o

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/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 patients 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 and/or tackle other clinical math 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
 - Addition, subtraction, division and multiplication
 - o Rounding off decimal numbers
- Fractions
 - Addition, subtraction, division and multiplication
 - Mixed numbers and improper fractions

Page | 37 |



- Simplifying fractions
- Percentages
- Converting between percentages, fractions and decimals
- Changing the subject of a formula
- 24-hour time

Final Extra Tips!

Dress to Impress. Well, at least look smart.

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

Look groomed.

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 to 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, again, make sure your posture is straight.

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); 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 and/or distracting and dilute the impact of what you're saying.³³ Also, avoid repeating yourself. Keep hand gestures at chest height or lower to avoid them becoming distracting. Read more here.



Re-read your work experience diary and personal statement.

There's a good chance you'll be asked about your personal statement and/or 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's 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 here and here.

Do be politically correct / sensitive; 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.



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

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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