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Presidential Address

What Is a Physician?

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On social occasions I am sometimes asked what I do for a living. When I say I am a doctor I am often asked "what type of doctor?", and when I say I am a physician, I am often then faced with the next question "What is a physician?" I have been a consultant physician for 27 years and for most of that time I have not had to think too hard about what a physician does-it seemed obvious, at least to me. As a student and later as a junior doctor the main activities in the general hospital divided into "Medicine" and "Surgery" The main thing that differentiated them was that operative procedures were performed in Surgery and not in Medicine but today even that differentiation is blurred with interventional cardiology, interventional radiology and endoscopic operative procedures performed in gastroenterology.

As a Senior Lecturer in Medicine and Academic Head of Clinical Medicine I am responsible for devising the curriculum in Medicine and delivering it to undergraduate students. I and my colleagues in the Centre of Medical Education at Queen's became aware that our students were confused and unhappy about the nature of "General Medicine" This is illustrated by the results of a recent focus group of third year students, asked to comment on their experience on attachment to General Medicine (Fig 1).

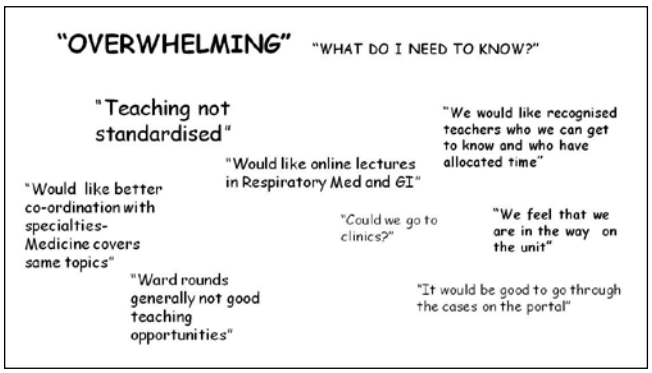

Fig 1 Comments of 3rd year students about their attachment in General Medicine The frequency of comments is indicated by the size of wording

The attachments in General Medicine and General Surgery have been enshrined in the curriculum well before when I was a student right up to the present day, but medical practice and medical education have changed considerably. In Table 1, I have outlined what I consider to be the service-related and student-related factors that have led to student dissatisfaction: mainly the disappearance of "general medicine" as an entity from most hospitals with fragmentation into a large number of specialties in relation to service and from a student perspective the increasing difficulty of enjoying a prolonged apprenticeship due to the increasingly large number of students and limited time allocation.

What are the difficulties?

Service related
- Less "General medicine", Medicine is more fragmented with specialist units.
- More complex-multiple co-morbidities
- Patients acutely ill in hospital, fewer relatively well enough for teaching
- Pressure of work for staff, loss of culture of teaching
- "Shift working", loss of the "firm"

Students
- Uncertain about what General Medicine is, as opposed to Specialties
- Variability of experience determined by attachment
- Time limited
- Expectation of didactic teaching - transition to self-learning and less structured programme difficult. In 2nd year clinical skills teaching provided appropriate cases on the day, in 3rd year and final year more opportunistic.
- They don't feel that they rightly belong in a unit, and are therefore inclined to be less involved.

Table 1 Suggested factors leading to student difficulties with general medicine attachment

There has always been emphasis on student self-directed learning, especially for senior students, but when the subject is large and diffuse and getting ever more complex it can appear overwhelming. Because of the lack of general medical units, it has been necessary to allocate students to specialist units such as Gastroenterology and Respiratory Medicine. Inevitably this leads to quite different student experience and a sense of a lack of standardisation and hence inequality.

Getting back to the polite enquiry at a party "What is a physician?" I usually manage to say something about being a medical detective-it is my job to try to make an accurate diagnosis of what is causing a patient to be unwell and then organise an effective treatment plan. On one occasion, a young man recognised my description as relating to the fictional character Gregory House in the TV series House. Although House is a wonderfully gifted diagnostician he is rude and egotistical, which works well for a TV series but is not really a suitable role model for a physician. I would much rather prefer to compare myself to the greatest detective of them all-Mr Sherlock Holmes. His creator, Sir Arthur Conan Doyle (1859 - 1930), trained as a doctor in Edinburgh where he later worked for a time, and based Sherlock Holmes on Sir Joseph Bell, with whom he worked. Bell was an eminent surgeon, and surgeon to Queen Victoria when she went to Scotland. Bell liked to emphasise the importance of close observation

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in making a diagnosis. To illustrate this he would often pick a stranger, and by observing him, deduce his occupation and recent activities. Because of these skills he was considered to be a pioneer in forensic science at a time when science was not yet widely used in criminal investigation. Such skills and systematic collection of evidence feature in the Sherlock Holmes stories. When his narrator Dr Watson is astonished at how he arrived at a certain conclusion, Holmes frequently refers to "the method". The parallels with medical practice are clearly evident. As well as close observation, deduction is evidence based. Holmes has an encyclopaedic knowledge of criminal activity based on newspaper reports, equivalent to our medical journals. He recognises recurrent common patterns. He has a minute knowledge that is helpful to him, such as the different composition of paper depending on its origin, the idiosyncrasies of hand writing and how type writer characters wear with use. He has done his own research, such as the changes with time of blood stains, and published his findings. These are all reminiscent of a top physician.

When my colleagues and I started to think about how we should deal with the disenchantment of our medical students for general medicine we came across a definition by the Joint Royal Colleges of Physicians Training Board which they have used in developing their new curriculum for internal medicine

"*The practice of Internal Medicine encompasses the knowledge and skills to manage patients presenting with a wide range of medical symptoms and conditions. It involves particular emphasis on diagnostic reasoning, managing uncertainty, dealing with co-morbidities, and recognising when speciality opinion or care is required."*

If we accept that Physicians practice Medicine then this definition takes us close to answering the question "What is a physician?" In essence it embodies a certain philosophy and outlines a particular approach or "Method". The analogy with being a detective is central but also includes the important familiar aspects of managing uncertainty, dealing with co-morbidities and recognising your own limitations and the need for specialist input.

On this basis the JRCPTB have developed a curriculum encompassing generic skills and systematic clinical skills related to symptoms rather than systems, which has tended to be the approach in the past. It is timely and looks useful (1).

At Queen's we have put the diagnostic process at the heart of the curriculum in Medicine (Fig2).

It will be familiar to all doctors whatever their specialty and in an effort to give students a common experience, we are introducing a standard set of virtual cases as case-based-discussions, that all students will do on attachment, facilitated by a teacher. In this way the course will be standardised, at least in part, and makes it easier for students to be aware of what they should know for assessment and easier for teachers to know what they should teach.

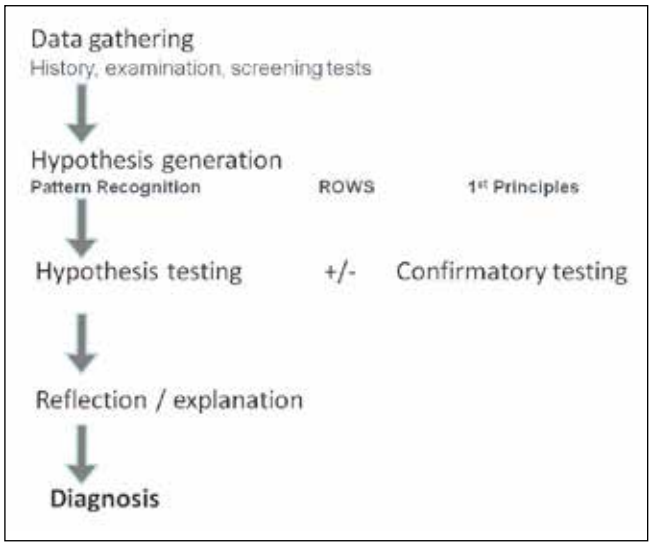

Fig 2. The diagnostic method. ROWS = Rule Out Worst-Case Scenario By kind permission of Dr Michael Trimble QUB

The skills of a physician are core skills and useful for all clinicians but in terms of a role with the title "physician", Accident and Emergency physicians and acute physicians at the front door of the hospital perhaps come closest. Interestingly because of the rush to form lots of specialties it has become necessary to invent a new grade of health worker: Physician Assistants in the USA or Physician Associates in the UK. They do some of the things that physicians used to do, in particular co-ordinating care for patients with multiple co-morbidities, which of course these days is most patients.

There is another group of doctors who can lay claim to being true physicians, the definition adopted above is virtually an exact fit for their job description: these are our primary care physicians. Everything in the definition is their "bread and butter", so perhaps it is they who have inherited the true mantle of being physicians. Also bearing in mind that physicians are key educators, primary care physicians deal with a wide range of undifferentiated cases and are in a particularly good position to apply and teach the diagnostic method. In almost all UK medical schools students are now rightly spending more and more time in primary care to benefit from such experience.

In summary the role of the hospital doctor practicing medicine (a physician) has rapidly evolved into various specialties but the core skills of diagnostic reasoning and professionalism are a necessary and integral part of every doctor's skill set. We are medical detectives and problem solvers. During my Presidential year I have arranged a series of talks that will explore aspects of these skills and deepen our understanding. It is these core skills that we need to highlight and pass on to our students when we practice and teach Medicine.

REFERENCES

1. New Internal Medicine Curriculum, Joint Royal Colleges of Physicians Training Board 2019. http://www.jrcptb.org.uk/imt Last accessed March 2019.