

Beyond the Ward

A Doctor's Guide to Non-Clinical Careers

4th Edition



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ABOUT THE AUTHOR

Paul graduated from Nottingham medical school in 2002. After completing a Basic Surgical Training rotation he went on to undertake a Higher Specialist Training in Emergency Medicine. He left full time medicine in 2010 to pursue other interests but continued to work as a locum A&E Registrar until 2015. He completed a Graduate Diploma in Law, then founded a medical device start-up company, Mantra Medical Ltd.

In 2016 Paul secured a position as Medical Advisor for a multi-national pharmaceutical and life science company. He is now a medical entrepreneur.

1 - INTRODUCTION

STEPPING BEYOND THE WARD

"If you always do what you've always done, you will always get what you've always got".
- Henry Ford

It was during the bedlam of a winter's A&E night shift sometime in late 2010 that I realised I needed to take a different direction in my medical career. Tired, stressed, overworked and hopelessly over-run, I knew there and then that I just couldn't do this for the rest of my working life. Stepping out of resus and groaning inwardly at the line of paramedics waiting to disgorge yet more patients into the already heaving-full department, I stole off to the bathroom for just a moment's solace. I was a doctor, and I was really good at my job. My family and friends were always telling me how well I was doing and how proud of me they all were.... and yet. Something was missing. Something was desperately wrong. Looking in the mirror I saw hollow eyes staring back at me. I looked older than my years. Is this really what I'd trained for? All those long nights of study, all the things that I'd sacrificed to get where I was. Was this really it? Is this all I get? I felt as though something was evading me, like there must be a world of opportunities just beyond my grasp, beyond the ward, beyond the world of clinical medicine.

Wasn't there something else I could do with my medical training?

If you've ever asked this question, and especially if you are asking it right now, this book is for you. This is the situation I was in; I felt trapped, frustrated, and angry. I'd spent so many years training and was constantly surrounded by people saying that I was great at my job and must be so proud of myself - but I wasn't. I felt guilty for my discontent but I couldn't hide from it any longer and I knew I needed to start listening to what I wanted.

I wanted to try something new, something exciting, something that tapped into my other interests – travel, business, creating something, creating change. I thought about how exciting it would be to use my training to develop new treatments and to push therapy horizons and so I started looking into the pharmaceutical and life science sector. I knew that some medics worked within this field (I'd heard people talk about doctors that went into "Pharma") but I really had no idea what they did or how they got there. What use would a doctor possibly be in the world of medical industry or commerce? I didn't know anything about working for a business. Sure, I could throw a cannula in from across a room and if someone had a cardiac arrest in the office I'd be on familiar ground. But realistically what else could I offer? I didn't have any answers and I felt like I had nowhere to turn for information. I didn't personally know anyone who'd made the transition and I didn't know who to ask for advice. I really didn't know where to start.

I needed to understand:-

- What career options exist for doctors outside clinical medicine
- What working in the pharmaceutical and life science sector really entails
- What I could offer a drug or medical device company
- What skills I already have that would be useful to them
- How my skills match up against those required for specific roles
- How to identify and address any deficiencies that I may have
- How to find out about live opportunities and keep up to date as new ones develop
- How to stand out as a candidate
- What practical steps I could take today to start moving in this direction

- What to expect from the selection process and how to ace it
- How to hit the ground running in a new career

As doctors, I believe we have a responsibility to look out for each other. That's why I've written this book. I made enough mistakes and suffered enough frustration during my transition from clinical practice to learn important lessons, and now I want to pass these lessons on to you. Working in healthcare is incredibly tough. We get very little time for self-development and few real opportunities to look after ourselves career-wise beyond the veil of the ward. It could also justifiably be said that we don't support each other enough. My aim in writing this guide is to address these issues in some small way.

From the outset I want to make it clear that I genuinely believe it is a privilege to be a doctor in clinical practice. I always did. To have the opportunity to impact upon so many lives in so many ways is something unique and precious and I know this is something every doctor feels. But this privilege mustn't become a burden and if you've read this far then you must be at least curious to explore your options outside clinical practice. Looking back, if I could really define what I was upset about during that fateful night shift, it was the lack of information about what else was out there.

In my experience it's very unlikely that any clinical colleagues are going to go out of their way to offer advice about alternative careers. The level of understanding amongst medics on this topic is generally pretty low, perhaps because of an almost institutional assumption that a 'traditional' clinical path is going to be followed. It's also fair to say that not all doctors are keen on the idea of other doctors 'abandoning' the NHS. As I began to explore the topic of life beyond the ward some of my colleagues reacted as though the mere mention of it was tantamount to treason. Maybe this is true for you too. Perhaps you feel like a traitor for even considering leaving the NHS. Well, you shouldn't. In 2015, 48% of junior doctors completing Foundation training chose to leave the NHS, and statistics obtained by the BBC showed that across the NHS there were 6,207 doctor vacancies in 2017, projected to hit 10,000 during 2018. These figures stand as clear evidence that if you are considering life beyond clinical practice, you are not alone. Undoubtedly these statistics underpin the Department of Health's recent proposal to introduce a "lock-in" period for newly qualified doctors, mandating them to work for a minimum of 5 years in the NHS or be liable to refund the cost of their training. It's hard to see how a provision of this nature would have anything other than a negative effect on morale amongst doctors and medical school recruitment, both of which are already falling.

Let's get this out of the way now:

- It's perfectly OK to think about other career options
- It's perfectly OK to look out for yourself
- It's perfectly OK to do what you want to do
- You don't owe anyone anything
- If you don't look out for yourself, no one else will.

There, I've said it. If anybody asks, blame me. Now we can move on.

What follows is an honest, warts-and-all summary of what I learned during my six-year path from A&E locum doctor to established and valued Industry medic. I hope to provide answers to questions you may have about careers in 'pharma' (more on this terminology later...) and to give you a guide which you can use to find out if industry medicine is for you, and exactly how to get there if it is. In essence, this book contains what I wish I'd known when I first started looking for a career outside clinical practice.

"Are there any jobs in Industry for GPs?...."

In 2016 I represented my company at the BMJ Careers fair held at the Business Design Centre in Islington, London. By then I was a medic working in industry so I had a fresh perspective on the event which, primarily, is there to help doctors learn about different career options. I was struck (and actually a little concerned) by the sheer number of medics who came to our company stand and were clearly interested in leaving clinical medicine and learning about options elsewhere. Nearly all of them asked a version of the question above. It's a fair question, and it's certainly the type of question I was asking when my journey to industry first began. In many ways though, it is the wrong question.

As we will discover, it is nearly always your core 'transferable' skills rather than your specific role that is of most interest to companies (although specialisation in particular fields can be an advantage too). Additionally, considering how roles within industry actually come about can help to offer some insight into what is required for different opportunities. Within clinical medicine the various roles are often extremely well established – there has always been a need for a "Gastro Registrar" or an "A&E SHO" – but within industry, positions often spring into existence according to commercial need. There may be a strong fit if you bring something specific that relates to a particular commercial drive or a new product or therapy area focus. Understanding this can be central to staying on top of employment opportunities as they emerge.

The rotating nature of core medical/surgical/GP training means that doctors are exposed to a number of different clinical career options as they progress through their training programmes. And yet at no point is there any real exposure to career choices outside clinical medicine, many of which would make superb use of a doctor's training and skills. It's remarkable to think that so little attention is given to the world of medical industry when every single medical intervention uses a drug, device, or other product that has been developed, tested, marketed and sold by a company within the industry.

This book is intended to allow doctors to develop a detailed understanding of some of the fantastic career options available to them within 'Industry Medicine' – a catch-all term for those career options that see doctors working in a medical capacity for companies within the pharmaceutical and life sciences sector.

We are going to explore why medics make such attractive employees for these companies through an in-depth analysis of the core transferable skills all doctors have. This will develop into an exploration of the multitude of roles available within the Industry Medicine sector, and the specific skills required for each. We then consider how to analyse your individual skills to develop an objective assessment of which sectors of industry may be the best fit for you. This analysis will enable you to start matching your strengths and weaknesses against those required for any interesting areas. We will then discuss what steps you can take today to begin addressing any weaker areas in readiness for your next move.

Then we will explore how to actually begin the process of transitioning into industry if you decide that this is something you'd like to do. Where do you go first? Who do you approach? What tools can you use? How can you get noticed? What can you expect from the selection process? And how can you apply for, be short-listed for, and secure that industry position?

Later sections aim to ensure that you are better prepared than any of your competitors both for securing an industry position and making a huge success of it once you are there. These sections provide an outline of what to expect from the transition process by identifying some of the core concepts and important regulatory and governmental bodies that it's crucial to be aware of. We also discuss some of the general features and principles of working as an industry medic. By being forearmed in this way, you will not only stand head and shoulders

above competitors during the selection process, but you will be primed and ready to hit the ground running when you start in your new role.

This book is not intended to 'convert' anyone. Everyone's path is their own to follow. My only aim is to inform; to condense into a few pages information, tactics and pointers that took me six years of trial and error to learn.

I hope you find it useful.

2 - WHAT IS INDUSTRY MEDICINE?

INDUSTRY MEDICINE – AN INTRODUCTION

"Your present circumstances don't determine where you can go; they merely determine where you start". – Nedo Qubain

Before we start I would like to define what I mean by 'Industry Medicine'. I use 'Industry' or 'Industry Medicine' to encompass a multitude of roles that see doctors working for companies within the pharmaceutical and life sciences industry. You will notice that I am deliberately avoiding the term 'Pharma' - a term often used colloquially to refer to opportunities for doctors outside clinical practice. I prefer to avoid the term 'pharma' because it is a truncation of 'Pharmaceutical Medicine', and this may be taken to imply that industry opportunities for medics are limited to those companies that develop, refine, and/or sell Although the pharmaceutical sector still represents the majority of pharmaceuticals. opportunities for doctors within industry, it is now very much the case that the scope of work in the commercial environment has extended far beyond this sector. Companies that make medical devices are an important example. The medical device sector is likely to be an expanding area of opportunity for doctors because the new Medical Device Regulations (MDR), coming into force in 2018, will require devices to be held to the same standard of clinical evidence as pharmaceuticals are at present. This is a significant change. It is a disconcerting (but accurate) thought that up until recently many medical devices were released with very little in the way of clinical data to support their efficacy. MDR will force that to change across the European Union.

Other sectors which provide opportunities for medics include regulatory bodies (entities such as the MHRA that enforce standards upon the industry), Notified Bodies (that assess devices for compliance with relevant legislation for the granting of a CE mark), medico-legal work, insurance or disability assessments, and repatriation work, amongst others.

With this in mind, I hope you agree that the term 'Pharma' would be unfairly restrictive. For the purposes of this text, the key determinant of an 'Industry Medicine' position is that it involves working in a role that is not 'traditionally' clinical, and that is within a sector of the life sciences industry that develops, works with, or relates to products intended to promote the betterment or maintenance of human health. I use "Industry" (with a capitalised 'I') to differentiate *Medical Industry* from 'industry' as a general, non-medical term.

WHY WOULD ANY COMPANY WANT A MEDIC?

It is easy to understand why medics are useful in clinical practice. After all, that is what we train for. Alongside our colleagues in nursing and allied health professions we form the very essence of any health service. Our core knowledge of basic sciences such as physiology, pathology, anatomy, and biochemistry allows us to develop a deep understanding of disease processes and how, by modifying conditions, we might restore health. We have excellent communication skills and are adept at adapting our communication style to employ language that is appropriate for a range of audiences, whether technical or lay. We are conditioned for working under intense pressure, dealing with multiple competing priorities, and sorting them according to most pressing need. We have detailed knowledge of treatments, drugs, surgical devices, medical devices and other tools and interventions that can halt, reverse or slow the disease process. We are keenly aware of our professional commitments to our patients, have at least a basic understanding of important medico-legal principles, and hold ourselves accountable to the highest standards of ethical conduct, confidentiality and probity. We are – generally – respected by the public and are held in a rare status – one in which we are trusted by our patients to act as their advocate and ensure their safety.

What many people don't often consider is the huge value of these same skills to Industry Medicine. Just imagine for a moment that you are the CEO of a pharmaceutical company that has developed a new drug, and you are now trying to assemble a team to bring that drug to market. Who would you need? A talented sales rep with many years of experience working in pharmaceutical sales would be sure to bring good customer relations and a detailed understanding of the features and benefits of the new drug. However, a sales rep generally hasn't had the training to possess a detailed understanding of the underlying disease process, the way it affects patients, and the challenges doctors encounter in treating that condition using existing treatments. They may also be unable to understand and communicate complex clinical data relating to the product. Additionally, while the rep will almost certainly enjoy a good relationship with customers, any interaction will be perceived by customers to be primarily commercial in nature. As a result, they are likely to be sceptical about any claims made by the rep and may be partially guarded during interactions.

Imagine that you also have an experienced marketing lead. Marketing leads usually have a background in sales and are responsible for crafting and executing a product's marketing plan. While a marketing lead would undoubtedly also possess great customer relationships and a detailed understanding of the market, along with great product knowledge, they would not usually be equipped to design a medical communications plan or to objectively communicate the outcome of any clinical trials. Furthermore, while they would almost certainly be experienced in upholding ethical, regulatory and professional standards, without the benefit of a medical training it is almost impossible to fully understand how severely a breach of these standards would affect doctors and patients in practice.

The CEO may also feel that it would make sense to have someone in the team who is not incentivised by sales so that they can assure professional impartiality and bring clinical credibility to the product team and any external interactions. What if there was a potential safety signal generated at some future time? Wouldn't there be a risk that the commercial team might be compromised in this situation? It may be difficult for them to effectively handle product complaints or safety issues, especially if the outcome of an investigation may impact or halt sales. How could they be truly impartial if it is their job to drive sales?

This deliberately simplified example hopefully serves to highlight just a few of the areas of Industry Medicine where doctors (and the various roles they can occupy) bring incredible value into a company. With the inclusion of medics, our imaginary CEO could assemble a rounded and well-balanced team that would optimally support the new product. Product safety

would almost certainly be improved by having a doctor with overall responsibility for safety signal and complaint handling. The commercial team could benefit from having a medic working alongside sales staff, offering an open, honest, and impartial peer-to-peer discussion of the evidence around the product rather than a sales pitch. Peer-to-peer conversations, positioned as non-commercial in nature, may also help to generate honest feedback from customers who may speak more freely to a peer than to a member of the commercial team, and help to enhance relationships between the company and those that use its products.

A doctor would be able to develop a medical communication strategy that best utilised any evidence and clinical data relating to the product, and could act as the internal expert on such data. They could inform the design of promotional material that properly upholds expected standards and doesn't make claims that are unjustified or clinically spurious. A doctor could oversee the generation of new clinical evidence in response to need, designing trials, supervising their conduct and writing any reports. They could adopt a leading role in educating the sales team about the disease process the product relates to and in implementing a wider education strategy to enhance the clinical knowledge of the company as a whole.

It is possible to conceive of roles for medics throughout the product lifecycle. In the early stages of product development doctors would have a crucial role in ensuring the safety of human volunteers during first-in-human testing. At the very earliest stage of development it is easy to imagine a medic acting as the driving force behind identifying new opportunities for product development in the first place. At the end of a product's lifecycle a doctor is likely to be well positioned to advise on product senescence and how to communicate the reasons for a product's withdrawal to a clinical audience. A little thought will reveal many more reasons why a doctor could be a valued asset for a pharmaceutical or life science company.

Now that we have seen in theory some of the ways in which medics can be useful to companies within Medical Industry, the next section takes a detailed look at some specific Industry roles.

3 - OPPORTUNITIES

INDUSTRY OPPORTUNITIES

"I say luck is when an opportunity comes along and you're prepared for it." – Denzel Washington.

In this section we explore some categories of well-established roles for doctors within Industry Medicine. It's really important to spend some time here – it's impossible to move on without a detailed understanding of what these types of position entail. The descriptions in this section are intended to serve just as an introduction; there is significant variance across the Industry landscape and the exact responsibilities and requirements within each category will vary according to company size, need, focus, and sector. Note also that this section is not intended to be exhaustive – the opportunity landscape is changing all the time and an ongoing assessment of your own skills matched against the requirements for each type of role can be a great way to keep on top of new opportunities as they emerge.

We consider the following categories of Industry role:-

- Medical Science Liaison (MSL)
- Medical Adviser (MA)
- Clinical Research Physician
- Medical Writer
- Medical Director
- Pharmacovigilance Physician/Drug Safety Physician

As you go through this section it would be a good idea to begin forming a picture of which category of role you think might suit you best. What sounds most interesting to you? How closely do your skills match those required? Don't worry about any firm decisions or about any areas where you feel you may fall short of stated skill requirements – we will cover this later. Just try to get a feel for now of the characteristics of the different types of role and how closely they may correlate with what you want.

Throughout this section, and the remainder of the book, I will introduce some terms that may be unfamiliar to you. These will be written in **bold**. For your reference, all of the words in **bold** are explained fully in the Glossary at the end of the book.

MEDICAL SCIENCE LIAISON (MSL)

The Medical Science Liaison (MSL) role was originally developed in the late 1960s following recognition of the need to provide a qualified, scientifically literate interface between companies in the life sciences sector and important customers. The MSL role is now very well established across Industry and is an attractive proposition for science graduates, PhDs, allied health professionals, and doctors new to Industry. MSLs have a varied range of responsibilities but the core of the role is the discussion and dissemination of scientific and clinical data, and establishing and maintaining peer-to-peer relationships with leading physicians, often referred to in Industry as **Key Opinion Leaders (KOLs)**.

A typical MSL can expect to be predominantly customer facing and it will usually be a field-based rather than office-based role. MSLs spend their days travelling to see customers and discussing clinical evidence with them as a scientific peer, often in support of conversations previously held by the commercial team. The balance between remaining professionally impartial while also supporting commercial colleagues isn't always easy. However, it can be exhilarating to really know a subject inside-out and to be able to confidently respond to very detailed and difficult questions from highly qualified professionals. The commercial team often hold MSLs in extremely high regard.

The MSL will frequently operate as an internal company expert in a particular disease state or product (from a functional and clinical perspective rather than a features and benefits one) and the role requires a deep understanding of the relevant disease process. Developing an in-depth knowledge of competitor products and alternative treatment philosophies is also likely to be required. The depth of understanding of a particular therapy area developed by good MSLs can be very substantial indeed and may even exceed that of clinicians working in the therapy area. Being constantly involved in new developments before they reach the wider medical community, along with a narrow focus and a requirement to stay bang up-to-date with the literature, fuels this knowledge development.

The size of geographical territory will vary by company dynamic and the depth of necessary customer interaction, from local coverage only (where specific customer interaction is likely to be frequent and detailed), through regional, UK & Ireland, or even European/EMEA. Travel can be expected to be frequent. It is not an ideal role for anyone who would struggle to be regularly away from home.

Some people regard MSL to be a low entry position for medics with a general expectation that medics will enter Industry at Medical Adviser level. However, I believe this to be an incorrect opinion. MSL roles can be incredibly engaging. They offer superb Industry experience, great opportunities to travel, and usually very generous remuneration along with car allowances, bonus provision and other perks. Many MSL roles can also be a great way to train towards **Final Signatory Status** (see later) and may serve as a springboard to higher positions within a company. They are also free of some of the pre-requisites for entry to Medical Adviser level and above that new-to-Industry medics may find difficult to satisfy. In summary, MSL is a great potential first Industry option.

Variably, the role may involve:-

- Peer-to-peer discussions of clinical evidence and data
- Relationship building with KOLs
- Presentation of data in formal settings to groups of KOLs and other stakeholders
- Listening to and responding to complaints
- Attending conferences & symposia as a subject-matter expert

- Connecting expert clinicians and KOLs with different functions within the company for mutual benefit (e.g. research collaboration)
- Developing a deep understanding of literature in the therapy area, and communicating this information to internal and external stakeholders
- In some situations, initiating study design and execution
- Work with other MSLs and **Medical Affairs** colleagues to share and pool knowledge
- Training colleagues
- Responding to Medical Information Requests (MIRs)
- Some medical writing (depending on company role)

WOULD SUIT YOU IF:

- You are adept at understanding and conveying clinical data to multiple different types of audience
- You have excellent communication skills
- You have excellent presentation skills
- You are comfortable working independently, without direct supervision, and taking the initiative for your own time management
- You would prefer to be out and about rather than office based
- You want to become really knowledgeable about a particular area and be a subject matter expert
- You have specific subject matter expertise that correlates with the focus of a particular MSL opportunity.