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## Twelve tips for medical students to make the best use of ward-based learning

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### ABSTRACT

**Background:** With a multitude of healthcare professionals willing to teach, a placement on a ward is an invaluable learning opportunity; yet as students, we often struggle to maximize this placements' potential.

**Aim:** This article provides 12 tips for medical students to optimize their learning in a ward-based environment.

**Methods:** Current literature and personal experiences of the authors were used to develop the tips.

**Results:** The 12 tips are (1) prepare yourself, (2) identify knowledge, skills, and attributes, (3) engage in peer-to-peer learning, (4) get to know the interprofessional team, (5) talk to the patient first, (6) present findings and gain feedback, (7) tap into seniors' experience, (8) immerse yourself and be proactive, (9) check patient notes, (10) manage the clock, (11) enhance your CV, and (12) embrace the spirit of lifelong learning.

**Conclusion:** These tips will enable us to effectively improve our learning and positively shape us into outstanding future doctors.

### Background

Ward-based learning forms one of the central pillars of clinical medicine (Morris 2010), yet students often struggle to maximize the vast array of opportunities presented to them. As senior medical students, we have both felt a desire to know how to practically make the most of these opportunities. While there has been a call for further ward-based teaching (Morton et al. 2006; Begum et al. 2016), an awareness of etiquette, conduct, and the required prior knowledge are important to maximize existing chances for ward-based learning. Furthermore, given the demands that a resource-strained healthcare system places on its workforce (NHS England 2013; Carter 2016), it may prove to be increasingly difficult to provide adequate teaching in the hospital environment and therefore, students should be more proactive and take responsibility for their own learning. With a multitude of healthcare professionals and patients who are often willing to aid medical students, a placement on a ward, regardless of specialty, is a chance for students to immerse themselves and engage in a fruitful experience. These tips are designed to aid students to fully realize the possibilities this placement provides and become better doctors: by practicing their examinations, perfecting history-taking skills, refining clinical competencies, and developing their teamwork and professional attributes. It is not only an important activity to aid clinical knowledge and awareness, but also an opportunity to appreciate the organizational processes that take place to enable the smooth-running of the hospital.

### Tip 1

#### **Prepare yourself: do your background reading and seek out learning opportunities**

The preparation for such a placement begins before stepping onto the wards. Preparing yourself mentally and doing

prior background reading will be essential to ensure that you are able to gain the most from the placement. But to do this correctly, it is important to know the type of ward where the placement is, as this will help to focus and direct learning. Make sure to target your learning towards what you expect you will be doing on the ward, or at the very least, make sure to have a broad overview of the type of conditions that patients are likely to have. A baseline knowledge is vital to help both understand and answer questions asked by consultants on a ward round. Furthermore, speaking to your peers will give you a chance to learn from their experiences and prepare you to function in a busy and interprofessional ward environment. Being well-informed will not only impress doctors, but will help you to develop good networks and relationships that may open up opportunities elsewhere. Lastly, doctors who see a strongly, intrinsically motivated student are also perhaps more likely to reciprocate the enthusiasm and provide better quality teaching (Lin 2006).

### Tip 2

#### **Identify the knowledge, skills, and attributes required to succeed on the ward**

A ward-based learning environment offers an array of opportunities to learn from, however it is important to clearly delineate a few specific learning objectives to focus learning. These objectives could range from knowledge that you need to gain, as well as skills and personal attributes you may need to develop. It is argued that the best objectives are those that are smaller in number and are well-defined, as these are more likely to be met within a specified time period than more general ones (Wang et al. 1993), and a good way to set learning objectives for a ward session is to ensure that your goals are S.M.A.R.T: that is they are *specific, measurable, attainable, results-based, and*

*time-bound* (Conzemius & O'Neill 2006). For example, “practice the special tests of a knee examination in the next patient” is much more specific than “perform a clinical examination”. Such targeted learning will also help you to direct questions and queries to relevant healthcare professionals or to patients that will ensure that you are able to maximize the potential of your time on the ward.

### Tip 3

#### ***Engage in peer-to-peer learning and collaboration***

A busy ward, combined with having to find a doctor to guide you in the right direction can be an intimidating prospect. Having a friend to help to identify and navigate the ward, as well as be your accomplice in asking for teaching or patient notes can be extremely useful. In recent years, there is increasing evidence in favor of Peer-Assisted-Learning (PAL), which is defined as “people from similar social groupings who are not professional teachers helping each other to learn and learning themselves by teaching” (Topping 1996). Engaging in discussion with your peers can be mutually beneficial in helping to encourage and improve your confidence in talking to and examining patients (Glynn et al. 2006).

### Tip 4

#### ***Teamwork is essential to a well-functioning ward: get to know the interprofessional team***

In modern-day medicine there has been an increasing shift towards the multidisciplinary model of care, where a multitude of specialties and professions work together to provide more effective and holistic care (Epstein 2014). As a result, it is extremely worthwhile to introduce yourself to all the team members on the ward and not just the doctors. The constant care provided by the multidisciplinary team often make them a valuable resource who are able to aid you by providing you with “good” patients to learn from, as well as providing opportunities for clinical skills. Gathering perspectives from various healthcare professionals (including, e.g. dieticians, occupational health therapists, physiotherapists, etc.) on the ward will also broaden learning and provide a complete view of a patient’s history, current care, and future needs.

### Tip 5

#### ***Talk to the patient before heading straight to their notes***

At times, you may have a temptation to look through patient medical records prior to seeing a patient, as it can be perceived as a quicker way of understanding the history of the admission, disease progression, and management plans. This however, is detrimental to your learning; patients presenting to hospital will seldom come with a set of complete, up-to-date medical notes. In fact, it is thought that the history contributes to almost 90% of the diagnosis (Peterson et al. 1992; Gruppen et al. 1993, 1988), so a doctor will need to have the ability to take a succinct history and competently carry out the relevant examinations to

arrive at working diagnosis. Wards provide the perfect opportunity for doing so, where patients are often happy to discuss what brought them into hospital allowing you to begin to form a list of differential diagnoses. Moreover, in this era, interacting with patients and gaining some awareness of social determinants of health is particularly useful. Taking a good history is an artform in itself, which can direct you to the appropriate system that requires examining and allow you to identify pertinent signs of conditions as well as gain confidence in physical examinations. After doing this, it is at this point that it is useful to look at the patient’s medical notes, as it now enables you to confirm the diagnosis as well as identify the pertinent points in the history and examination, along with any key aspects that you may have missed. Talking to a multitude of patients across multiple specialties is a vital exercise that will effectively prepare you for taking a thorough history and examination by the time you qualify.

### Tip 6

#### ***Present your findings and gain feedback***

Feedback is defined as the “transmission of evaluative or corrective information about an action” (Merriam Webster 2017). Its benefits are twofold, it helps to not only strengthen the good aspects of performance, but iron out errors as well. As students, unless there is an accompanying doctor present it can be difficult for us to acquire feedback on history and examination skills. Following tip 3 will ensure that you have a peer along with you and they can be an easy source of feedback; asking them to assess three core aspects of your performance:

1. What did I do well?
2. What did I do not so well?
3. How can I improve next time?

Haist et al. (1997) have shown peer-led teaching to be an effective method of learning and this further reinforces the benefits of PAL. Feedback is described as a two-way process: the act of receiving as well as the act of giving feedback and both together help to improve the performance of both you and your peer. If you can find a friendly face on the ward, then another option may be to ask a doctor to observe you take a history and examine the patient, thereby also giving you direct performance observation and objective feedback.

### Tip 7

#### ***Seniors have a wealth of knowledge and experience that you can tap into***

This goes hand-in-hand with the tip 1; if you are well-informed, you are less likely to be intimidated by consultants. First impressions are essential when approaching consultants; having an air of confidence and a warm approach are likely to make a lasting, good impression on the doctor and facilitate a more willing teaching environment. Many senior doctors have a passion for teaching students and are more than happy to teach if asked politely. Furthermore, their understanding of the ward makes them

an ideal signpost for patients with good signs and histories. Often, they are also able to offer tips for examinations and useful aide-memoirs that make features of conditions more memorable. With vast experience and a huge knowledge base, consultants are an invaluable resource who can considerably enhance ward-learning.

## Tip 8

### *Immerse yourself within the team and be proactive*

Perhaps one of the most critical aspects to succeeding in any environment is getting involved as much as possible. As a medical student, you are in a unique position of being able to access all aspects of a patient's care. Such a privilege must not be wasted, and instead you should aim to engage in ward rounds and offer to perform and hone your clinical skills when you can. This is not only beneficial for future careers but also in OSCE's, where such skills are often examined. By challenging yourself to adapt through heightening your competencies and broadening your skill-set, you can better integrate within the ward community of practice (Wenger 2008). Indeed, with increasing global healthcare demands (Deloitte 2017), medical students may even prove to be a valuable strategic resource that can add value to an overburdened healthcare system (Crilly et al. 2013).

## Tip 9

### *Check patient notes*

Patient notes contain a wealth of information, from admissions slips to test results and any relevant medical information concerning the patient can be found here. With increasing litigation, documentation of medical practice is more important than ever and it is important to understand not only what to write in patient notes, but how to write in patient notes. This can be learnt by simply looking at patient notes and seeing how healthcare professionals document various aspects of patient care. This includes:

- Documentation of history and examination in a systematic way;
- The planning and interpretation of diagnostic tests;
- Interpretation of imaging tests;
- Differential diagnoses;
- Management plans;
- Referral and continuity of care plans (when patients go home).

## Tip 10

### *Learn to manage your time constraints*

It is important to learn to respect the opportunity that you get to be placed on the ward. Among others, this includes being aware of the meal times and patient visiting hours so as to not disturb patients during these times. It is a potential source of distress and hindrance so it is advised that during such times, avoid the ward and work in the hospital library perhaps consolidating what has been learnt. Moreover, identify the doctors based on the ward and try

to find out when the ward rounds occur so that a further learning opportunity can be accessed. Finally, it is easy to spend hours talking to patients but be aware that in an OSCE you may only have a few minutes, so be conscious of the time and try to simulate these situations. But do not be rude and hurry a patient too much; it is equally important to learn to extract the information you require in an efficient manner – a skill that will be beneficial throughout your career.

## Tip 11

### *Use the ward opportunities to enhance your CV*

As certain medical and surgical specialties become ever-more competitive, it is increasingly essential to enhance your Curriculum Vitae (CV) at all available opportunities. By getting involved with extra opportunities that are on offer, you will develop your academic skill set and make your application more attractive when it comes to applying for jobs.

Evidence-based medicine has become the norm within healthcare and as such, there are often plenty of projects being carried out to add to existing knowledge (Evidence-Based Medicine Working Group 1992). These represent an excellent opportunity to get involved with research and form collaborative relationships with healthcare professionals from an early stage in your career. There are also audits that staff often lack the time to carry out, presenting opportunities to get involved and help with the data collection or survey distribution. Such projects can be presented at both national and international conferences and this not only improves your essay writing and poster-making skills, but also provides the chance to improve communication skills and enhance your CV with an array of presentations, publications, and prizes. Other research ideas also include writing up case reports of interesting or unique cases on the ward.

Asking trainee doctors and education fellows about such research opportunities is very worthwhile. More often than not, they are more than willing to have a keen medical student on board to help with data collection and write up.

## Tip 12

### *Embrace the spirit of lifelong learning*

Behind every successful doctor is an ethos of lifelong learning that drives them to continuously analyze and build on their skills in order to be the best doctor they can be (Teunissen & Dorman 2008). In fact, Becker, Milad, and Klock showed that doctors who do not continue to learn become dissatisfied (Becker et al. 2006); a motivated and well-informed doctor continues to learn so as to ensure that they are always providing the best possible care for their patients. Beginning this process early will help to crystallize habits that stand you in good stead for the rest of your careers. This love extends to learning from reflection, which is an indispensable resource in itself. Reflection is a powerful tool for all professionals and even senior clinicians can benefit from feedback to inform their self-assessment and direct learning (Helyer 2015). Reflection on feedback, subsequent goal-setting, and developing a learning plan can

help to put feedback into action (Yardley et al. 2012), which combined with constant learning, will enhance patient care.

## Conclusions

From learning key diagnostic skills to developing knowledge about disease progression to understanding the patient's perspective of their health, the ward environment provides a multitude of educational opportunities. Being able to follow a patient at a critical stage in their journey gives insight into their initial presentation and diagnosis, the investigations that were requested and their results as well as the treatment options that the patient was offered. In addition, apart from doctors, there are a variety of healthcare professionals present on the ward including nurses, phlebotomists, dieticians, physiotherapists to name a few, who are all a valuable source of information and knowledge. These twelve tips are examples of active learning which has shown to be significantly more effective than passive learning (Melo Prado et al. 2011) and by putting the above tips into practice, you will be able to effectively use resources and opportunities to help to improve your learning and positively shape you into outstanding future doctors.

## Disclosure statement

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

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