Twelve tips for medical students to improve personal outcome in the surgical department

Lennart Barthel[1]

Corresponding author: Mr Lennart Barthel lennart.barthel@uk-essen.de
Institution: 1. Department of Neurosurgery; University Hospital Essen
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Abstract

Surgical clerkship is essential for medical students to gain practical knowledge and insight into a toughly organized clinical environment. Usually, it is applied to the students themselves to find their place in the team and to take on tasks, whereby the clerkship can give satisfaction and success. For many students, however, this is difficult to implement, and in case of failure, the learning outcome deteriorates and consequently negatively affects the desire to pursue a career in surgery. This article is written for medical students with a view to offer twelve tips to gain valuation from their surgical clerkship based on personal experience, exchange of views with colleagues, and a review of literature.

Keywords: , Community-oriented, Teaching & Learning, Curriculum, Feedback, Assessment Surgery, Clerkship

Introduction

At most universities, it is compulsory for medical students to undergo a surgical clerkship. It is not easy for students to find their place in the doctor’s team, organize the work, and call for teaching in an appropriate manner. Long working days, special processes, and heavy workload and all such requirements could stress the student. Instead of being a helpful part of the team, the student needlessly becomes a source of friction. Instructions from the staff are rarely given (Fernando et al., 2007). As Cook et al. (2014) describes students mistreatment can arise in various conditions (e.g. gender and racial discrimination, physical intimidation, and humiliation). Thus, the clerkship becomes agonizing, potentially resulting in student burnout (emotional exhaustion, depersonalization of others, feeling of reduced personal performance) (Cook et al., 2014). Residents play a significant role as teachers (Bing-You & Sproul, 1992), a defined affiliation is important. Many students are inexperienced on correct behavior, their rights, and limits. It is difficult to find a balance between self-directed progressiveness and self-effacement. As most medical students decide the career path during their clerkships (Al-Heeti et al., 2012), it should be the surgeons’ responsibility to provide them a good experience. It is not only just witnessing the operational proceedings but also
the quality of educational experience that influences the medical students’ choice for embarking on a surgical career (Hagopian et al., 2015). Unfortunately, medical students are frequently uncertain and seek advice. If there is no guidance from the department, the following twelve tips should fill this lack or at least provide a supplement. They may help the students avoid conflicts, gain a good standing, and make the most out of their clerkship. Working experience in a surgical department could develop under various conditions, such as rotations, internships, or other practical tutorials. Here, the term clerkship is used.

**Tip 1**

The morning round is important to an organized day and a good opportunity to draw attention.

Every department has special procedures, but there are some general procedures that can be exploited. Most surgical departments conduct morning rounds. Prepare yourself by a pre-round. Peruse relevant data on blood counts, x-rays, consultation letters, etc. It will be easier to follow the discussions on treatments. In the beginning, it may require efforts, but gradually, it will be easier and less time consuming. By developing this routine, you learn to prepare yourself for your own residency. Make a list of patients and write down the key points (e.g., diagnosis, day of admission and surgery, outstanding procedures, parameters etc.). Some residents maintain such a list. Usually, treatment strategies are planned during the morning round. Prepare your notes. You will receive a “to do” list. All residents are thankful if you participate in completing the tasks in this list during the course of a day. Clarify with your residents about the tasks you can cover and the order of priority. You should avoid being left out without a task. If there is no morning round, prepare your list nevertheless. In every department, the residents gather to discuss about the patients before starting daily work. Moreover, be eager to present patients during the rounds. It is important to deliver focused and brief presentations (Kroenke, 1985).

**Tip 2**

Take the work in the ward seriously.

There is nothing bad about being at the bottom of the surgical hierarchy. You may feel under pressure; but if you finish all the tasks, you can decide to go to the theater, outpatient clinics, join the resident on a call, or learn more about a patient’s history. Do not give up if you — for example — fail to organize an investigation or to transfer of a patient. Keep trying and be pleasant. The people with whom you are negotiating are usually in the same situation. Medical students typically think that the more often they go directly to the theater, the better it is for them as it may provide them with an insight into surgery; this makes them try and avoid the work in the ward. It is certainly essential to observe surgical procedures — it is all about the theater — but pre- and postoperative care and organization also comprises a large part of a surgeons’ work. If you can efficiently organize a surgical ward, you may be suitable for a career in surgery. Improve your communication skills with the patients. Trust between the patients and their surgeon is of course of great importance.

**Tip 3**

Be a team player.
You cannot survive in the field of surgery without being a team player. Plans change quickly, and tasks have to be (re-)organized several times a day. Resources are scarce; thus, you may be asked to undertake tasks previously assigned to someone else and vice versa. In a well-managed department, nobody would want to pass unpleasant tasks on you. Although you may not hear about complaints from others, they may also have to conduct similar work. Nonetheless, you should ask for assistance when the work exceeds your abilities. If you are fortunate, at least one more medical student is on your ward. Working together means more time for both of you to visit other places you are interested in. Moreover, you can discuss medical issues, and concerns regarding your clerkship; this could be a source of great mutual support. To pass the chance of being a team player means choosing to be more isolated, which leads to frustration, more work, and increased stress, and you are probably not able to garner the same knowledge. Additionally, your graduate colleagues will quickly identify whether you are a team player or not. Working in a deceitful manner is inappropriate in a professional environment. In addition, do not forget that withholding information can sabotage patient safety. And do not declare work that was conducted by others as yours. Report all relevant information primarily to your resident on the ward; this is important as he is the principal person organizing the ward.

**Tip 4**

Show a professional attitude.

An adequate and appropriate attitude makes your life much easier. Be eager to learn and be helpful. Be active but not too clinging. If you act with a lack of interest, your colleagues are likely to care less about you. Be dedicated to minor jobs. You should ask about where you can help at best. Be punctual. It is always harder to attract positive than negative attention. Consult with your resident prior to taking on tasks by yourselves, such as performing blood counts; if not, this could potentially have a negative impact on patient care. It can very quickly lead to problems if you are too self-assertive. When the residents notice find you trust worthy, your ability to work independently will be extended. Do not leave tasks without permission from your resident. Instead, ask twice for help if asking once is too little; it is not a sign of weakness if you do so. On the contrary, the colleagues will develop more confidence in you if you show that you know your limits. It is a sign of unreliability if you are absent without notifying beforehand. Try to avoid conflicts. Even if you think you are treated unfairly, do not react and think twice before you complain as you are in a position where you depend on the opinion of others. The way you speak about others will be recognized. If you want to deal with a particular problem, first speak with a professional you trust before doing so in public. Most importantly, if you think that a patient is at risk act immediately. If there is no resident around and an emergency occurs, contact the nurses. The nurses and other professionals are an invaluable resource of knowledge and help. Always interact with them with respect and maintain a stable partnership. This is applicable to all employees in the clinic, regardless of their position and job. Note that others pay attention to your appearance. Be honest to others and yourself; give an impression of integrity.

**Tip 5**

Take theater etiquette seriously.

In the theater you can have unique experiences. Mostly, the operation schedule has been completed in the afternoon on the previous day. If you find a procedure that particularly interests you, discuss with your resident if it would be helpful to attend it. Sometimes, it is more valuable for you to participate in a surgery that is unpromising at first
appearance. There is usually more time for teaching during common procedures, and it is more probable that you are allowed to scrub in. Moreover, you should be familiar with common cases. Ask the surgeon who is performing the surgery to attend. Anyway, be informed about the patient's history and leastways the basics of the procedure. It could be embarrassing not to be properly informed. Do not jump around to get the best place for viewing. Keep distance from the table if you are not scrubbed in. If you are polite and guarded, it is more likely that you are allowed to scrub in. Introduce yourself to the team. A good contact to the scrub nurses is essential for obtaining a good experience. Always be friendly and follow their instructions. When things get a little difficult, do not take it personally. The team has to work effectively in a time-efficient manner. If you suspect that you may have made something unsterile, declare it. This is not a time to hope that you did not. Even if you see another person making something unsterile, declare it swiftly and friendly. The patient will be thankful. Every surgery has moments of tension and relaxation; be sensitive in this regard and know when to speak. It could be a good idea to ask the surgeons prior to the surgery if they are fine with you addressing issues to them. If you are insecure, you are not wrong if you only speak when spoken to. Do not consider leaving if the surgeon suddenly asks you questions. Questions are commonly asked to estimate the students' knowledge before teaching. Do not necessarily expect a relaxing atmosphere if music is playing. There is evidence that music in the theater improves efficiency (Ullmann et al., 2008) and surgeon performance (Moris & Linos, 2013). Ask if you can help in any way; even the henchman work is often of great value. Never start doing things on your own, wait or ask for advice. Observe the surgeons attitude; a lot can be learned from it. Even if you cannot see anything, stay. It does not make a good impression to leave the theater. Wait until the surgery is finished. You can learn a lot off the situs. If you are asked to be scrubbed in, your job is primarily to not get in the surgeon's way. Your job will be explained. Thank the surgeon and team before leaving. If possible, find your way to the theater before the patient arrives, and ask the patient in advance if it is possible to join the surgery. There is evidence that conversation between the patient and an informed medical student (after discussing the case with a resident) improves the understanding of the surgery of both parties (Chiapponi et al., 2015).

**Tip 6**

Resident shadowing.

Try to complete a call with a resident. Consult the resident you have interacted with the most. In the near future, it is up to you to organize a ward, being on call. Observe the advantages and disadvantages that apply. Hopefully, you will not make these mistakes later on. Respect, that "your" resident may need some time alone. If questions arise, ask them later when things are relatively quiet. Save his contact details (pager, telephone). Shadowing a resident before your clerkship starts could help you to get a good start in your clerkship (Turner et al., 2012), but you can encounter uncomfortable situations and being with the patient and their relatives during the most difficult hours for them. Turn to your resident if there is a situation that you are not comfortable with.

**Tip 7**

Prepare yourself for the clerkship.

There are some skills that will help you gain practical experience before your clerkship starts. Learn to tie a surgical knot (manually and per instrument). Usually, there is no time during a surgery to teach these skills from the basics. However, do not worry as everybody knows that you take more time for knotting at the beginning. There is evidence
that students have high stress levels when they are asked to scrub in for theater because of their lack of knowledge (Nutt et al., 2014). You can reduce stress as you gain knowledge before your clerkship. For example, learn to scrub in. There are official recommendations you can look up beforehand (e.g., WHO Guidelines on Hand Hygiene in Health Care, 2009). As in every other subject area, it is worthwhile to make yourself familiar with the most common physical examinations (e.g., ascertainment of abdominal, vascular, or neurological status). Try to reacquaint yourself with the basic anatomy and read about the most common syndromes and be mentally prepared. It could be a stressful time, but do not start your clerkship with prejudice. If you are going biased against surgery, you may prevent yourself from having a good time and will be less likely to find out whether surgery is your future.

**Tip 8**

Pay attention to your own needs.

The work in a surgical department can weaken you if you are not aware of your own needs. If problems occur, turn early to a colleague and talk things over in confidence. Even private issues should be addressed if these affect your performance. Talking to other students may also help. Medical students share common concerns and fears about a surgical clerkship (Pettitt, 2005). Do not forget to drink and eat. Eat breakfast in the morning; especially you are planning to go to the theater. Pay attention to your own health and safety, even if others — also respectable persons — do not. For example, protect yourself with gloves when you collect blood, and ask for medical assistance if you hurt yourself, e.g., if you accidentally get stung by a needle; this is important for your health.

**Tip 9**

Ask for feedback.

Feedback is essential to self-development. If feedback is not offered to you, proactively ask for it. Feedback in clinical education often falls short (Weinstein, 2014). Learn to be self-critical and aware of your strengths and weaknesses. Only you are able to identify them, and therefore, you are able to lead yourself (Sender Liberman et al., 2005). This includes being aware about your attitude, knowledge, skills, and mistakes. Negative feedback is as important as positive feedback. Only those who are well-intentioned towards you will give you both types of feedback. Feedback should be detailed (e.g., communication to patients and colleagues, level of knowledge, work organization, etc.). Tips for giving effective feedback have been published by Ramani & Krackov (2012). You should ask for a letter of recommendation if everything has worked out to satisfaction as these letters can be essential to get another employment.

**Tip 10**

Be perceptive regarding teaching arrangements.

Make sure not to be too offensive with regard to your claim of being taught. The residents know about your teaching demands. If they show no initiative, ask politely when the time would be right to discuss issues. It is best that you agree on topics for which you will be able to prepare yourself. This way, the resident knows that you have a basic knowledge and will more easily adapt to the valuable teaching. Teaching could take place in various arrangements
(e.g., during chart rounds, in the theater, casually in the doctor's room). Teaching is possible almost everywhere, but you have to be there and have to be active. Teaching is a two-way process; it is not only up to the residents to make sure that you gain knowledge. In university hospitals or other academic hospitals, the residents know about their teaching involvement and most of them are eager to teach. However, be cooperative in terms of teaching format and timing.

Tip 11

Be informed about legal issues.

Make sure to know about legal issues of relevance to you. There are a lot of traps. Be informed about what you are allowed to carry out alone, under supervision, and what is not permitted altogether. Even if you are requested to complete tasks you are not allowed to, politely refuse. Explain why you are not allowed to conduct the requested task. If your counterpart still insists, he is breaking the rules of good cooperation. Legal issues differ between countries and single universities. Unfortunately, it is up to you to be informed about the specific regulations.

Tip 12

Try to have fun even if you realize that surgery is not your future field of work.

As mentioned above, go into your surgical clerkship with an open mind. Do not allow any fears to be self-fulfilling prophecy. However, sometimes things will not turn out as expected. But remember, time goes by. It would be a pity, if a situation influences your decisions on your future career. Talk to your peers about where they have had good experiences in surgery and consider spending additional hours in this clinic, optionally. If you are volunteering, things are sometimes much easier because you are not under the pressure to obtain a good score. If you still feel that surgery is not the ideal profession for you, relax. There is more in life, and for sure, you will be a brilliant doctor in another field.

Conclusion

A surgical clerkship can be challenging for medical students in many ways. Workload, various workplaces, and the frequent absence of the residents from the ward make student life challenging. The students have to learn to organize themselves quickly. There are many traps to avoid, and it is often not easy to become part of the surgeon's team and receive the necessary amount and quality of teaching. The twelve tips described in this article should help the medical student to comport in the surgical department and achieve strategies to improving the personal outcome of his surgical clerkship.

Take Home Messages

Notes On Contributors
Lennart Barthel studied Medicine in Berlin, Copenhagen, Edinburgh and Montreal. Actually he is a resident in Neurosurgery, Essen University Hospital.

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Appendices

Declaration of Interest

The author has declared that there are no conflicts of interest.