Advice for junior doctors working in a trauma unit

Introduction

At the start of a new post junior doctors' performance in certain key areas is important in creating a good impression and obtaining competencies. Before starting a new post any protocols and policy documents relating to clinical care or the logistics of that specific unit should be read. However, the aim of this short guide is to detail the skills required in four key areas for junior doctors working within a trauma unit. These are:

1. Presenting at a morning trauma meeting
2. Performing or assisting at an operation you are not familiar with
3. Ward round annotation
4. Presenting at a departmental meeting.

How to present a patient at a morning trauma meeting

Preparing written data

Draw up a table giving the details of each patient to be discussed. Include both demographic and clinical data. For the demographic data include name, age, date of birth, hospital number, occupation and location. If the patient is at home include his/her mobile and home telephone numbers. The clinical data should include diagnoses, date of surgery, co-morbidities, complicating factors and, if relevant, the expected discharge date. If there have been any overnight developments update the data and prioritize the patients in order of clinical importance for the meeting. For example, consider patients with open fractures and children first.

Save the information on a computer and print hard copies for all the admitting team (consultant, specialist registrar, and foundation year), anaesthetic staff, theatre staff and the trauma coordinator.

If necessary research the patient's condition using textbooks, colleagues or the internet (Wheeless' Textbook of Orthopaedics – www.wheelessonline.com, Orthoteers – www.orthoteers.org, or AO Foundation – www.aofoundation.org/wps/portal/surgery).

Mr Benedict A Rogers *is Specialist Orthopaedic Registrar, St Peter's Hospital, Chertsey, Surrey KT16 0PZ and* **Mr David M Ricketts** *is Consultant Orthopaedic Surgeon, The Princess Royal Hospital, Haywards Heath, Sussex*

Correspondence to: Mr BA Rogers

Preparing spoken data

Make sure you are on time, well presented and ensure the computer image system is working properly. Your presentation is important and people will pay more attention if you look professional. Do not appear unshaven or wear casual clothes. You want to retain the interest of the audience so practise talking clearly and concisely. Do not use slang (i.e. this 55-year-old male patient; not 'this middle-aged chap') and try not to say 'um' too many times. Make sure the patient's radiographs appear as you start talking.

Have a basic outline of what you are going to say for each patient based on the following headings:

a. Demographic data (name, age, occupation, dominance for upper limb, ward)
b. History (injury, co-morbidity)
c. Findings on examination
d. Diagnosis with radiographic findings
e. Assessment of the patient's problem in no more than three sentences if possible
f. Plan of management including blood tests, imaging and plan for operation.

This basic scheme can be adapted to suit the type of problem to be presented, for example:

Complex patient (new problem)

Present all relevant information using the headings suggested above.

Complex patient (old problem)

State the patient's demographic details. Then make clear this is an old problem previously managed by another consultant. For this admission provide the diagnosis and presenting problem. Briefly discuss the current situation and emphasize what action is required to safely hand back the patient to the previous consultant's team.

Simple problem

Patients with simple fractures can be presented by showing the radiograph and briefly stating the history and examination. Concentrate on deviations from normal and co-morbidities that will hold up management.

At the end of the presentation stop and await questioning. If asked what you know about a condition, start with basics such as a concise definition and the incidence. Consider the clinical aspects and the investigations available to make the diagnosis, before giving some treatment options. If you are asked 'how would you treat this patient?' make it clear that you don't have all the skills required yet but then be confident about which treatment option you would choose. Do not answer 'by asking the consultant what to do' or 'referring to a consultant'. Remember there is rarely just one option for treatment.

How to perform an operation you are not familiar with

The night before

An operating theatre is no place for original thought. Make sure before the start of the operation that you have undertaken all the necessary preparation. If you have not previously done the operation read up about the positioning and surgical approach. Try to discuss the procedure with an experienced surgeon and gain some technical tips. Make sure you examine the patient and you understand the principles and indications for the planned operation.

It is often helpful to write out the operation note before the procedure using the following standard headings. This will help clarify the steps involved:

- Indication
- Preparation (tourniquet, diathermy, antibiotics, position, draping)
- Incision
- Findings (add information to history, examination, X-ray classification)
- Procedure (step by step)
- Closure (which sutures, local anaesthetic)
- Postoperative care (drains, antibiotics, deep vein thrombosis prophylaxis, blood tests, X-rays, dressings, plasters, weight bearing, discharge, outpatient department visits).

The morning of the operation

Check the basics again (consent, side and marking), and ensure that all the necessary radiographs, blood tests and imaging are available.

When the patient is in the anaesthetic room

Make sure the radiographs are on display and that any necessary imaging equipment and staff are ready. For some operations this is a very important step (e.g. long bone intramedullary nailing). Write out on the white board in theatre the operation steps from induction to dressings using the same headings as for the operation note, making sure you detail all the consumables required (e.g. metalwork, prostheses, sutures, dressings).

While the experienced surgeon will know the make and name of all the consumables, it is a valuable learning exercise for the junior doctor to detail what materials will be needed and when. Discuss with the theatre staff so they know which consumables to prepare. Discuss with your assistant what you want him/her to do. It may be helpful to tape the operation note on the lights or drip stand where you can see it and refer to it during the procedure.

When the patient comes through the doors

Help the anaesthetic staff transfer the patient from the bed to the operating table and take time to position the patient correctly, with sufficient protection of potential pressure areas. Following this ensure that the lighting is positioned well so that the operating light shines into and not across the wound. Lights are ideally placed behind and to one side of the surgeon's head shining around him/her into the base of the wound. It is the surgeon's responsibility to ensure that any tourniquet used is correctly applied.

Once scrubbed

A correct incision is vital, so take time to clearly identify and check the landmarks you need and use a marker pen to mark both these landmarks and the incision that is required. A larger incision is often safer; consider up to 30% larger than the consultant's incisions. Do not make the initial incision without asking the anaesthetist if it is 'OK to start'. This avoids unpleasant surprises for all concerned. Check at this point that any necessary antibiotics have been given.

Most operations can be separated into a series of steps so ensure each step of the operation is completed before you go to the next or you risk having to repeat it later, causing delays and mistakes. The operative plan should not alter for non-clinical reasons (i.e. a celebrity patient).

In general adequate lighting, retraction and haemostasis facilitate all operations and make sure these are always addressed. To this end your assistant is vital so think exactly what you want him/her to do at each step and gently suggest this to him/her.

While operating maintain a good rhythm and always call for help if you come to a halt or the wound is getting hot and macerated. It is under these circumstances that infection, rash decisions and complications occur.

Even if the rest of the operation has gone well, patients frequently judge your ability by the neatness of their scar so take your time and make a neat wound closure. Similarly, plasters and dressings are difficult to do well so make sure you do them personally. Give the anaesthetist a 5-minute warning as to when you plan to finish the procedure. Finally, it is your responsibility to transfer the patient off the table in a safe manner.

After the operation

Thank the theatre and anaesthetic staff. You are likely to need their help again and it creates a pleasant working environment. Allow yourself time to sit at a desk to write and dictate a clear operation note using the headings suggested above. At this point you can consider any stages of the operation that you would do differently in the future.

Finally, go to recovery and make sure the patient is comfortable and that there are no immediate postoperative problems. Remember all surgery can be tiring, so by now you will have earned your cup of tea.

Ward round annotation

Documenting your daily review of the patients you are responsible for is medicolegally important and frequently audited in many units. Patients must be reviewed daily, preferably in the morning and more frequently if the clinical situation dictates. Make sure you write in the notes of each patient each day. Use the table drawn up for the trauma meeting as a guide.

During your ward round document the following in each patient's notes: date, diagnosis, days since admission or operation. For each current problem document the plan of management. Finish each note with your name and bleep number in capitals.

For patients who have sustained a significant limb injury document the following information with any changes that have occurred: neurovascular status (with specific nerve function if necessary), skin colour, distal pulses and capillary return. Quantify the patient's level of pain and assess if this is appropriate for the injury and analgesia. Significant pain usually means a problem that needs investigating. After operations document the condition of scar or dressing, drain and fluid balance.

Following the ward round ensure you update your patient list with changes and decisions, making paper and electronic copies. Draw up a list of jobs to do. Make sure at the end of the day or shift that you allow time to hand over to on-call colleagues.

Presenting at a departmental meeting

An experienced consultant will present a talk without obvious nervousness, presenting the facts calmly while keeping the interest of the audience and injecting some humour into proceedings. These skills are only learned with preparation and practice. For each talk you prepare consider the following: audience, time, audiovisual aids and subject matter. Read widely around the subject and be prepared to answer questions.

Plan each talk around a basic format. Tell your audience what you are going to say and why, tell them and then summarize what you have told them. Include a 'thank you' slide to clearly signal the end of your talk. Try never to confuse your audience.

It is very easy to fill your talk with too many slides. For every one slide, talk for 1 minute, to explain one fact. For a long

presentation with a large amount of data consider printing out handouts or offering to email the presentation. Clear and accurate pictures or diagrams can get across a lot of information very quickly. It is important to acknowledge the sources of information you have used in preparing the talk such as textbooks, journals or the internet.

Try and think of any obvious questions you may be asked. Have a few prepared answers for the most obvious questions. When you are asked a question, stand straight and listen carefully to the point that the questioner is making. Try not to show yourself rattled or annoyed by the subject or tone of the question – be calm and think clearly. Opening statements such as 'that's a good point' or 'we have/have not thought of that point' can buy you time to think. Do not be afraid of saying you do not know. Some questions are rhetorical in nature and do not require more than agreement on your part. When presenting research it is useful to ask a friend to write down the questions you were asked as they are often useful clues to avenues of future research. **BJHM**

Conflict of interest: none.

KEY POINTS

- An ability to communicate relevant facts quickly is a valuable skill.
- Learning the skills outlined needs continual practise.
- Once these skills are learnt they will be of benefit throughout a surgical career.