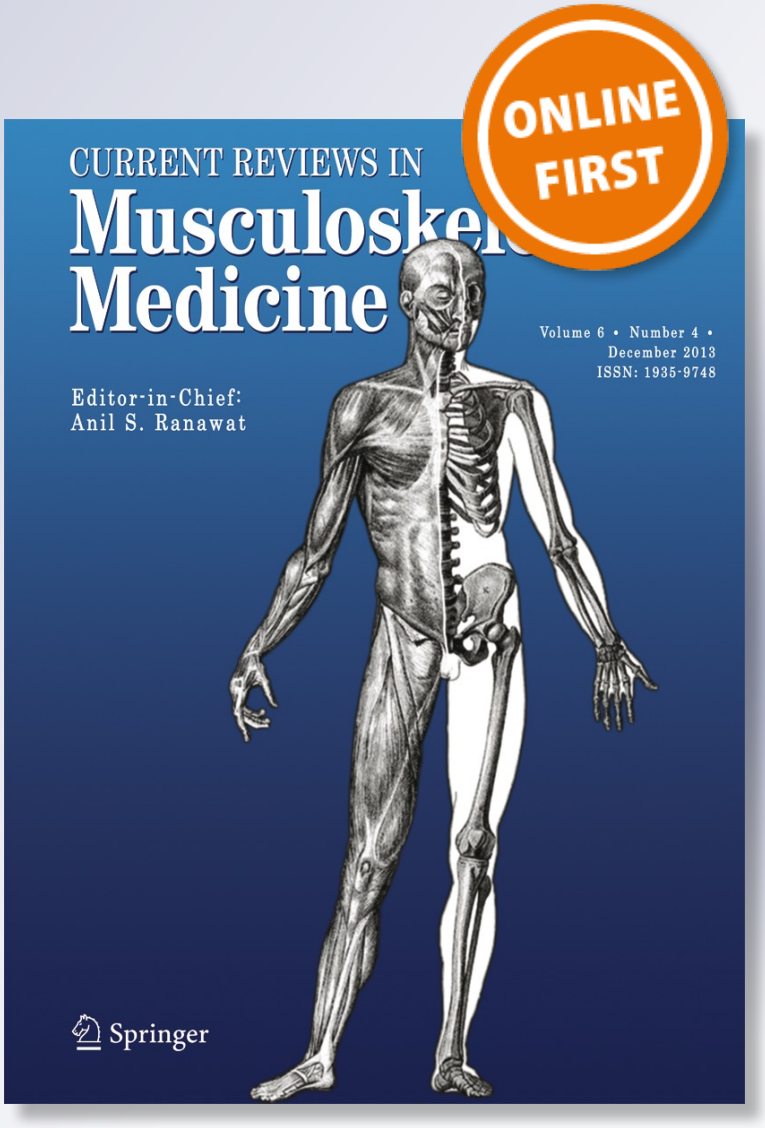
What makes a great resident? The programme director perspective

Matthew Barry

Current Reviews in Musculoskeletal Medicine

ISSN 1935-973X

Curr Rev Musculoskelet Med
DOI 10.1007/s12178-014-9205-3



Springer

Curr Rev Musculoskelet Med
DOI 10.1007/s12178-014-9205-3

RESIDENT EDUCATION (P ACHAN, SECTION EDITOR)

What makes a great resident? The programme director perspective

Matthew Barry

Abstract A career in orthopedic surgery in the United Kingdom is highly competitive. Great residents are trainees who understand that ultimately, they are responsible for their own training. They need to work with their Training Program Director to plan their career, to develop as surgeons, to reflect on their performance and any feedback they receive, be flexible, and plan ahead. There is competition but it is fair for everyone and the great resident will excel within this environment and will be successful in the long term.

Keywords Orthopedic training · Resident · Work based assessment · Higher surgical training · Competition

Introduction

In the United Kingdom, surgical training generally occurs in 2 phases. Core training is typically 2 years in length, and during this phase, trainees will rotate through various surgical specialties and are designated as CT1 and CT2. The trainee will then apply for entry into Higher Surgical Training and if successful, will start as ST3. This separation into 2 phases has been termed "uncoupled training," however, in neurosurgery, there is "run through" training and the neurosurgical trainee will start as ST1 [1,2].

Entry into Higher Surgical Training in Trauma and Orthopedics is by competitive interview. The application is made through a centralized, national recruitment process. From 2013, there has also been a national interview at a single site with all eligible trainees being offered an interview. Typically, there will be 500–550 candidates being interviewed for about 120 posts. Once appointed, the orthopedic trainee will start at ST3 and will then progress through 6 years of training. Onward progression each year depends on the successful outcome of a formal review of the trainees' progress at the Annual Review of Competence Progression (ARCP.) A successful final ARCP at the end of training will result in a recommendation that a Certificate of Completion of Training (CCT) is issued [3].

M. Barry (✉)
Department of Orthopaedic Surgery, The Royal London Hospital, Whitechapel, London E1 1BB, UK
e-mail: matthew.barry@bartshealth.nhs.uk

What makes a great resident?

A great resident is a trainee who understands that at all stages of his or her career, there is competition. This competition starts when being interviewed for core training, the competition increases when applying for higher surgical training and, at the end of training, there is competition for fellowship posts and, finally, there is competition for consultant posts. Trainees may sit an in-service exam such as the UK In-Training Examination (UKITE) when their scores are compared with their peers and toward the end of training, typically at ST7, all trainees must sit the Specialty Fellowship Examination in Trauma and Orthopaedics. This exam is regulated by the Joint Committee on Intercollegiate Examinations [4], and the pass rate of the FRCS (Tr & Orth) exam is about 80 %. A CCT will not be issued unless the trainee has passed this exam (or equivalent exam such as the American Board exam) and received a satisfactory outcome at their final ARCP. Competition is a thread that runs through training and subsequent career as an Orthopaedic Consultant.

A desire to learn

> "To be conscious that you are ignorant is a great step to knowledge"—Benjamin Disraeli.

Published online: 01 February 2014

Great residents understand that to be a great surgeon, they must have a sound grasp of the facts of orthopedics and trauma. Those facts can only be ascertained by study—text books, journals, on-line resources, lectures. Those facts are tested through examinations. A great resident will, therefore, make the time to sit down and study. They will use their time efficiently and they will take every opportunity—time between cases in the OR could be spent drinking coffee or it could be more usefully spent reviewing their knowledge of perhaps the next case on the operating list.

A desire to gain experience

> "Experience is not what happens to a man. It is what a man does with what happens to him"—Aldous Huxley.

The practice of surgery is the combination of knowledge and manual dexterity. As we have seen above, knowledge can be obtained in a number of ways but manual dexterity only comes through hands-on operating. For patients to be good enough to give their consent, it behooves the trainee surgeon to do their best. They must only undertake surgery in which they are competent but at the same time, they must progress and with appropriate senior supervision, undertake increasingly complex procedures though their training. The trainee surgeon may be more likely to make mistakes but if it was only a fully trained surgeon who ever operated, the training of the next generation would never occur. Trainees can try and minimize risk to their patients and the use of surgical simulators [5] is one way to do that. The good resident will try and make use of simulators when they can and there is evidence that skills learnt on the simulator can be transferred to the OR [6].

Takes responsibility

> "The final forming of a person's character lies in their own hands."—Anne Frank

Ultimately, trainees must take responsibility for their own training. Trainees have their future career in their own hands and they are the only persons who can determine what that future is. The organization such as the Postgraduate School of Surgery or the Denary may be responsible for overall training framework and the Training Programme Director (TPD) can help facilitate that but it is the great residents who will grasp this opportunity and take responsibility for their own destiny.

Participate in the training process

> "Openness and participation are antidotes to surveillance and control"—Howard Rheingold.

Surgeons in training need to be assessed to confirm that their knowledge and technical ability is commensurate with their level of training. One scenario would be to leave this assessment until the end of the 6-year program but that would be very unfair. There might be trainees who have invested 6 years of their professional career only to discover that in fact, they do not have the technical aptitude to be a successful surgeon. It would be much better to discover this early—before too much time has been invested.

In the United Kingdom, trainees are assessed throughout their training with use of Work Based Assessments (WBA) [7–9]. The WBA is an important metric that is used to determine the outcome of the end of year ARCP. A good resident understands that a WBA is a learning opportunity and should not be considered to be a "tick-box" exercise. Reflection on performance and feedback is an important characteristic of a good doctor [10]. The number of WBAs that are required per year varies between specialties but 80 is typical for orthopedics. When study leave and annual leave are taken into account, trainees will realize that they need to undertake about 2 WBAs per week. Great residents will fulfil this commitment at a steady rate and will not present their trainer with 6 months of WBAs all at once.

An open mind

> "The trouble with having an open mind, of course, is that people will insist on coming along and trying to put things in it"—Terry Pratchett.

Even at the start of their training, residents may believe that they know what sub-specialty area of orthopedics they are interested in. A great resident at the start of their training will not have "tunnel vision." They will take every opportunity to see and experience as much of the variety of orthopedics. This will give them a more rounded knowledge base, they will be in a better position when it comes to examinations as they will have a broader breadth of experience and, finally, it will permit an informed choice with regards to their subspecialty interest and that choice is best made toward the end of training.

A career plan

> "Luck is what happens when preparation meets opportunity"—Seneca.

Great residents will have an understanding about how they want their training to proceed. They will understand that when they are in year ST6 they will need to be working toward sitting the FRCS(Tr & Orth) exam in ST7 and so do they really want spend a lot of time travelling to and from their hospital when that time could be spent revising? Clearly their hospital placements will be organized and coordinated by their TPD but the good resident will discuss their requirements early in their training with the TPD and produce sensible

reasons as to why they might want to work in a particular hospital at a particular point in their training.

Flexibility

> "The measure of intelligence is the ability to change"—Albert Einstein.

It would be nice for residents to commence their 6 years of training with all of their hospital posts mapped out in front of them by their TPD. This ideal situation does not always happen. There are many reasons why an initial plan may have to change and great residents understand this, they will "roll with the punches" and make the most of a change in plan. The reasons why the planned postings may change could be related to the trainees themselves, other trainees on the program or changes outside of the control of the TPD. The residents' personal circumstance may change—they might for instance have to take time off for maternity leave. Or, during their training, the resident might decide to take some time out to do something else—that might be an Antarctic expedition, some full time research, or a MBA in Business Studies. Time out of the program can be classified as an Out of Program Experience (OOPE), Out of Program Training (OOPT), Out of Program Research (OOPR), or Out of Program Career Break (OOPC) [11] and will not count toward their CCT. There may be good reasons why the planned placement of another trainee might have to change, and that change may have an impact on their fellow trainees. The TPD tries to balance all the trainees' hopes and expectations. Finally, there may be factors outside of the control of the TPD or the resident which may alter the planned program—a hospital might lose its' training status and can no longer accept trainees, for example.

Forward planning—fellowships

> "It's not what you achieve, it's what you overcome. That's what defines your career"—Carlton Fisk.

Great residents will realize that at the end of their 6-year higher surgical training, they will have obtained a sound level of core knowledge but what they will not have obtained is the knowledge and surgical expertise in their chosen sub-specialty interest. That comes through fellowship training of at least 1 year and perhaps 2. Good fellowships are popular and so a trainee will need to start thinking about fellowships perhaps 2 years in advance. That can be difficult—the residents may be unsure where their sub-specialty interest lies and as has been noted above, an open mind to all aspects of orthopedics in the first few years of training is to be encouraged. A great resident might perhaps arrange a short visit to 1 or 2 centers—this will help them to confirm where their interests lie and with the contacts made, this will be valuable when applying for a fellowship.

Conclusions

Great residents are persons who will take every opportunity that they are presented with, they will understand that on occasion there will be setbacks, that the plan may not happen quite as envisaged but they can turn a set-back to their advantage and gain something. Reacting to feedback and reflection is one of the hallmarks of a good doctor, and great residents will understand this early in their training and take advantage of the opinion and comments provided by their trainers. The acquisition of knowledge and the technical skills of surgery only come with time and the great residents will realize that six years of training in the United Kingdom is barely enough time—further fellowship training is mandatory to obtain adequate sub-specialty knowledge. Finally, the great residents will realize that after obtaining their CCT and completed their fellowship, as they are about to embark on their consultant career, the real training is about to begin.

Compliance with Ethics Guidelines

Conflict of Interest Matthew Barry declares that he has no conflict of interest.

Human and Animal Rights and Informed Consent This article does not contain any studies with human or animal subjects performed by the authors.

References

1. Syed S, Mirza A, Ali A. A brief comparison of orthopaedic training in English-speaking countries. Ann R Coll Surg Engl. 2009;91:226–31.
2. Available at: https://www.iscp.ac.uk/surgical/curr_pathway.aspx. Accessed December 1, 2013.
3. Available at: http://surgicalcareers.rcseng.ac.uk/trainees/st3-and-beyond/arcp. Accessed December 1, 2013.
4. Available at: http://www.jcie.org.uk. Accessed December 1, 2013.
5. Michelson J. Simulation in orthopaedic education: an overview of theory and practice. J Bone Joint Surg Am. 2006;88:1405–11.
6. Howells N, Gill H, Carr A, Price A, Rees J. Transferring simulated arthroscopic skills to the operating theatre. J Bone Joint Surg Br. 2008;90-B(4):494–9.
7. Available at: http://www.faculty.londondeanery.ac.uk/other-resources/files/BJHM%20WPBA%20article.pdf. Accessed December 1, 2013.
8. Available at: https://www.iscp.ac.uk/surgical/assessment_wba.aspx. Accessed December 1, 2013.
9. Norcini J. Work based assessment. BMJ. 2003;326:753–5.
10. Available at: http://www.gmc-uk.org/guidance/ethical_guidance/11817.asp. Accessed December 1, 2013.
11. Available at: http://www.jcst.org/mmc_trainee_info/takingtimeout_html. Accessed December 1, 2013.