

Elective Reflection in the Anaesthetic Department at Chase Farm Hospital

I carried out a 6 week elective in the anaesthetic department at Chase Farm Hospital in London. It was an opportunity to work in the newly formed Royal Free NHS Foundation Trust as well as in a field I am interested in pursuing in my career. Prior to the elective period I outlined a number of objectives that I hoped to achieve during my time on placement. I hope to outline what I have experienced during my time at Chase Farm with regards to those objectives.

Firstly, I felt it was important to gain an understanding of the health demographic and co-morbidities in North London as it will outline common conditions and considerations that need to be made for these patients. First of all, I noted quite early that a high number of patients requiring anaesthesia also suffered from type 2 diabetes mellitus. These patients are at high risk of a number of life threatening complications. During surgery they can become hyperglycaemic and dehydrated as well as infection. Furthermore, they are risk of post procedure embolic events such as myocardial infarctation and stroke. As a result it is important that these patients have their diabetes and diabetic complications optimised pre-operatively. This shows the importance of pre-operative assessment. In my time at Chase Farm I introduced a leaflet for pre-operative diabetic patients. This aimed to inform them of diabetic issues surrounding their surgery and the methods that would be used to reduce the risk of those adverse events. Topics covered included outlining: Stopping their oral hypoglycaemic drugs 6 hours before surgery, pro-operative oral intake as well as intra and post-operative diabetic management. A patient questionnaire is being distributed to assess if the leaflet reduced operative anxiety and if the information was understood. The hope is that be easy to understand, reduce anxiety as well as keep patients better informed of their care plan. NHS evidence outlines that better patient understanding corresponds with better treatment compliance so that they are optimised for surgery. The leaflet will be re-audited in a year. Furthermore I also noted surgical patients tend to be older or elderly individuals. A number of these patients are on anticoagulant medication such as warfarin as they are at risk of emboli (e.g. atrial fibrillation). This increases their international normalised ratio (INR) which reduces their risk of forming a clot but subsequently increases their risk of bleed. This is clearly an important consideration for surgical patients; especially for open or lengthy procedures. Usually, patients are taken off warfarin 5 days before surgery and converted to low molecular weight heparin as it is easier to reverse if needed than warfarin. I noted again there was minimal pre-operative patient information given out which is an area that needs to be addressed. Overall, I noted some common comorbidities as well as some of the methods that can be employed to improve patient satisfaction and subsequently safety in those areas.

Another objective I aimed to look at was what systems exist to manage anaesthetic complications and emergencies. This can range from relatively common arising problems such as difficult intubation to rare life threatening conditions such as malignant hyperpyrexia. With regards to difficult airway intubation a number of measures are taken to be prepared. Patients are ideally assessed by the anaesthetist who will induce them or a member of the same anaesthetic team on the day of their procedure. The healthcare professional will attempt to ascertain if the patient potentially will be difficult to intubate. This is useful as if the impression is that they may have difficult intubation then the team can outline how they will approach the situation so that they are clear on how to manage it. Furthermore the patient's induction could also be deferred to a senior member with more experience. The toughest situation is where intubation is difficult in a patient

where it is not expected. There is quite a lot of pressure in this moment as you have a patient who has been induced and has had his respiratory muscles paralysed and requires rapid intubation to maintain adequate oxygenation. A number of considerations have been made to effectively manage difficult intubation in this setting. For instance an induction is often carried out by 2 members of the anaesthetic team for instance a senior such as a consultant or specialty trainee along with a more junior professional such as a core trainee. This allows a more experienced member to take over as needed but still allows the junior doctor to expand his learning. If a senior is needed but not readily available for instance (e.g. during night shifts) they can be bleeped. Help can also be easily found as all the anaesthetic bays are next to each other so someone can be sought after in one of the adjoining bays. Furthermore, trainees are given a number of training sessions as well as given the opportunity to attend day courses to improve their techniques. Finally, standardised protocols reside in the same place within each anaesthetic bay. These can therefore be accessed easily if needed and indicate an algorithm to employ to approach the situation with.

Another emergency as mentioned previously is malignant hyperpyrexia which is a life threatening autosomal dominant condition characterised by rapid changes in patient basic observations upon induction with inhaled anaesthesia. Often patients are not known to suffer from it as there are no manifestations of the condition until volatile substances have been administered. It is a rare condition which on average affects 0.02% of surgical patients. Due to the rarity often trainees may know how to diagnose the condition but not know gold standard therapy. During my time on placement I produced mark scheme to manage the condition to the required standard outlined by the royal college of anaesthetists. If there is a deficiency in knowledge of team members it may mean training sessions are required to improve patient safety. Early data indicates that trainee knowledge is below the expected standard. This outlined to me that considering the rarity of the condition that refresher courses are offered on a yearly basis to enable skills and treatments to remain clear in the anaesthetist's mind if it arises.

The placement afforded me the opportunity to carry out a number of anaesthetic procedures, ranging from: pre-operative assessments, anaesthetic histories, intubation and airway management as well as cannulation and arterial line placement. I found the team to be very forthcoming with teaching as well as allowing my involvement in patient care as much as possible. These skills will stand be in good stead during my foundation training; especially in high pressure emergency situations.

In conclusion I found the placement stimulating and wholly useful for my personal development as a potential anaesthetist in my career. It created an environment to fulfil the objectives I outlines as well as learning the day to day requirements of a trainee anaesthetist. I am confident the skills and experience I have gained will be directly transferrable to the A&E, surgical as well as intensive care settings.

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