

Elective experience

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My elective was spent with the TPN team at my base hospital (St. George's). Although many of the TPN test requests go through our biochemistry sendaway service, we do not have a great deal of interaction with the team and much of the work is isolated from us. My objectives were to learn more about what the TPN team does and how we can improve interaction with the biochemistry department. I contacted the nutrition team and they were very happy to involve me in their work. They were also interested in auditing the results from their TPN patients to identify any common abnormalities. I therefore included this audit into my objectives to see what common abnormalities occurred and how this could potentially be improved.

My elective was carried out part-time whilst at my base hospital. During this time I attended ward rounds, multi-disciplinary team (MDT) meetings and spent an afternoon observing the TPN manufacturing process. I also met with the pharmacist and gastroenterologist consultant to determine the best method for auditing TPN results before collecting and analysing the data from archived TPN patients.

During the ward rounds I was able to observe how the TPN team interacted with the patient and carried out clinical procedures including checking for any line infection, reviewing the patient's latest blood results and their fluid status. As a biochemist we do not have much patient interaction in the day-to-day job so it was interesting for me to see how a patient's clinical situation is explained to them and how they can be involved in their clinical management. During the MDT meetings, current patients with IBD and related disorders were discussed. This involved a review of their recent bloods, biopsy results and reports from both histopathology and radiology. The results were brought together to aid in the diagnosis and management and a decision was made on the next step in treatment for the various patients. As part of my elective, I also observed the TPN manufacturing process. I watched the procedure for making the TPN packs for both adult and paediatric patients. I was also aware of the additional procedures that take place in the pharmacy including the manufacture of steroids, chemotherapy treatments and other drugs for patient treatment. It was an interesting process to see what goes on 'behind the scenes' at the hospital.

One of the main objectives of my elective was to carry out a retrospective audit of patient data in order to highlight any abnormalities that are seen in TPN patients at St. George's hospital. Results were taken from patients covering a two year period and involving two groups – those on short term TPN (7-14 days) and those on long term TPN (15-35 days). I also carried out a literature review of calcium, phosphate and bone disorders in TPN patients since this was the area of greatest interest in our patients. The results were summarised into a report and discussed at the TPN team meeting.

Overall the elective allowed me to cover many aspects of patient care that I do not normally get involved with. I particularly enjoyed the ward rounds and patient interaction. However, the audit and literature review were also useful activities since these are important features of a biochemist's job. I hope this elective will help to form more bonds between the biochemists and various departments within the hospital in the future.