

Pathology Integrated Clinical Attachment Recommendation

Nepean Clinical School

Kathleen B. Manning, 2014

I spent three weeks of a four week ICA with the Pathology Department at Nepean Hospital. What follows is a description of my experiences during the attachment and my opinion on how this ICA might best have been approached.

Prior to commencing this ICA, an approach to following patient cases was discussed. It was suggested that the following cases be followed: 6 biopsy cases including upper and lower gastrointestinal tract biopsies, a uropathological biopsy, a gynaecological biopsy, a skin biopsy and a liver biopsy, 2 cytology cases including a fine needle aspirate and one other fluid, and 4 large cases dealing with wholly resected tissue including breast, lung, urological and gastrointestinal cases. Following a case included watching the case at "cut-up" where specimens were described and sampled for embedding, and following that embedded specimen through to analysis and discussion with a pathologist. Initially it was discussed that results could then be followed back to the patient and the treating doctor with the intent of determining the impact that pathological diagnosis had on treatment. This was difficult to achieve, however, because in some instances the case had not come from Nepean Hospital and in many cases, such as with biopsies, the patient would see the doctor out of hospital.

As an orientation I was introduced to laboratory staff and instructed on laboratory safety (eg the necessity of wearing a gown in lab and washing hands before leaving lab etc.). Case selection took place at cut-up with a pathology registrar. This was an excellent learning opportunity with large cases because the registrar would offer instruction while working with the specimen, discussing things such as how such a tumour may be graded, how to orient specimens outside of the body, general anatomy of specimens and pathophysiology of the particular disease process. The registrars were particularly helpful and handy fielding questions.

From cut-up I was given the opportunity to follow specimens through the processes of embedding, cutting on the microtome and staining. The laboratory staff were especially helpful and keen to teach about the workings of the laboratory. I was given tutorials about special histological stains used at Nepean to include viewing of stained samples with an explanation of what each stain achieved. I was also given a tutorial on immunohistochemical staining, the various uses for it and the principles behind the staining.

I was given tutorials by the cytologist regarding microscopy of specimens such as sputum, urine and pleural fluid. The cytologist worked through several slides with me, showing normal and abnormal examples and explaining various stains while teaching me methods of screening for abnormal cells in oftentimes a very cluttered field.

Cases that were selected were seen with pathologists as they became available. Normal tissue was seen first, if a sample was available in a selected case. The pathologists would screen slides with me and demonstrate and discuss abnormal findings. The process of evaluating a specimen and then grading any tumours was discussed. Differences between cancers within a similar tissue type were demonstrated,

Pathology ICA Recommendation

Nepean Clinical School

Kathleen M Merrick, Year 3

for example how one could differentiate basal cell carcinoma from squamous cell carcinoma histologically.

In the biochemistry department, a tour was given of the laboratory and explanations were given as to the functions of the various machines. Since haematology is already a standard ICA, the only haematological work undertaken was to sit in slide rounds with the haematologists. As cases were presented, the haematologist would help to familiarise me with the normal cell morphologies and then teach me how to recognise abnormalities. In the microbiology department, a plate round was attended and a tour was given of the laboratory. A registrar also worked through several slides with me, helping me to identify several types of bacteria and fungi.

Along with tutorials, the breast meeting was also attended on Thursday afternoons.

Positive outcomes:

- Ample teaching time and tutorials provided a high learning rate versus time spent in this ICA. There was much to see and learn and generally someone in the laboratory was happy to show me something.
- It reinforced haematology, histology, cancer and anatomy teaching we had in years 1 and 2
- It increased knowledge in all these areas as well
- It increased understanding of pathophysiology of certain diseases
- It increased understanding of the workings of the Pathology Department

Suggestions for the future:

- This ICA would require a bit more advanced organisation and cooperation between the pathology subspecialties. The microbiology, haematology and biochemistry work all occurred on the last day. A short time is more than sufficient for biochemistry, and given that haematology is already an ICA the slide round was likely sufficient, but it was suggested that more time could have been spent in microbiology. It was suggested that perhaps an entire week could be organised within the microbiology department. Some discussion and planning between departments could achieve that.
- For the purposes of Long Case practice, perhaps a patient could be seen pre-operatively and their pathological specimen followed through to diagnosis
- The registrars were always happy to show me things and teach me things. Perhaps involve them by scheduling some time when they could review their cases with a student on the multi-head microscopes. This would be a great learning experience for students and perhaps too for the registrars.
- If not already seen, perhaps a morgue visit could be arranged to see an autopsy
- This ICA could only be practical for one student at a time due to space limitations

Pathology ICA Recommendation

Nepean Clinical School

Kathleen N. Menzies, Year 4

I believe it is entirely possible to organise a useful programme in Pathology for the benefit of interested students. I am not sure how it could be fitted in with the new 3rd and 4th year scheduling, but perhaps it could be undertaken in the same way that ophthalmology and acute surgery are currently undertaken, as extra weeks within a year. I think it would be beneficial to students to have the opportunity to have this experience as I found that I learned a great deal, some of which was also helpful in the final exams.

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Edith Cowell University, Year 4

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