

B.SAP.1 – Summary essay. Word count: 1379

I enjoyed the Cert(AVP) B-module essays as they gave me chance to look into areas I had not visited since university and gave me an opportunity to investigate new drugs or techniques which had developed since then. It is imperative for practitioners to stay up to date but in busy day-to-day practice it is easy to fall into habits and not question procedures and protocols. Although I try to keep my knowledge current with CPD and reading veterinary literature I find that having to research, read, digest then write about a subject cements the knowledge in my mind.

The case I chose for anaesthesia involved a dog which required hindlimb amputation but had concurrent mitral valve disease necessitating treatment to control signs of congestive heart failure. Surgery was necessary to remove a synovial sarcoma. Returning to this case's management allowed me to refresh my knowledge of the effects of commonly used perioperative drugs especially on the cardiovascular system. I found it interesting that I could not find specific data that detailed the relative risk of anaesthesia in animals with cardiac disease compared to those without. With further reading around the pharmacology of the drugs we used I am confident we are using the best combination to provide the safest anaesthesia for our patients in similar situations. However learning the significant reductions in isoflurane MAC(minimum alveolar concentration) of constant rate infusions (CRI) and epidural anaesthesia spurred me on to be able to offer these to our patients. Consequently I have found a 'recipe' for a morphine, ketamine and lignocaine CRI which is now in use at the practice I work in. I personally have found anaesthesia is much smoother with less isoflurane use and the recovery quicker in patients receiving this and feel this has been a major improvement in our standard anaesthetic protocols. I also have attended CPD and learnt more local anaesthetic techniques including epidurals which I am putting into practice in suitable patients. I still need to refine this technique but with more practice this should become a routine part of multimodal anaesthesia and analgesia. These changes will benefit all animals as they will have reduced needs for inhalant anaesthetics plus this will prevent nociceptor 'wind-up' and ultimately reduce post-operative pain. The assessor's feedback also prompted me to discuss with practice managers what monitoring options we have and what could be desirable to invest in at a suitable juncture.

The radiography essay gave me a good opportunity to learn the technology behind the digital radiography system which had been recently installed. We had had some brief information about use of the system on installation but as digital radiography had not been taught during university I was unaware of different systems and how they operated. By investigating the physics it allowed me to understand and therefore more accurately assess exposure settings and the new artefacts we were seeing. I also learnt that some manipulation of the image can make up for slight inaccuracies with exposure factors but too much can affect what you are seeing and thus alter the interpretation of the image. The importance of the correct look up table became apparent which previously I was unaware of. Because I had to go back to first principles both practically and theoretically I feel that I am more analytical when reading radiographs and thus yield more information from each exposure which is beneficial for animals, clients and me as a clinician.

I chose a case of pyometra for the surgery essay because it is an extremely common surgery performed in my practice and is treated almost routinely. Revisiting the pathophysiological changes in such a condition and finding new data and information allowed me to ensure our practice

protocols and procedures were the most appropriate. I believe our peri-operative management of these cases is generally good using appropriate antibiotics, fluid therapy and diagnostics. Sometimes I feel these surgeries are done too soon after admission, something that the veterinary team have discussed prompted by my reading and reflection on this and similar cases. Subsequently we all now endeavour to ensure the timing of surgery is as optimal for the patient as possible. It was informative to be able to look into the aseptic technique including kit preparation in what is a new practice to me. It is something that previously I often overlooked i.e. once the surgery is complete and the sharps are removed the kit and drapes disappear and later that day they are ready to be used again. I am now much more conscious of the work and protocols used in providing sterile materials and any lapses from gold standard techniques. Some of the deviations from gold standard cannot be rectified but I am more mindful of ensuring all nurses are aware of the import of using high concentration chlorhexidine, not over wetting the patient to discourage wicking of cloth drapes (and hypothermia) and the use of sterile gloves to complete a final scrub in theatre.

Therapeutics and pharmacology is an area which has always interested me and as such I enjoyed being able to choose four different drugs which I felt my knowledge was not as good as I would like. The first drug was trimethoprim-sulphonamides. I find that practitioners are disinclined to use these older drugs but I have found them to be efficacious, generally safe and cheap. I enjoyed expanding my knowledge so to be able to fully justify their use as, like all antibiotics, choosing the right drug for the right situation is imperative.

I have always found glaucoma therapeutics an area in which I struggle to remember what drugs are the most appropriate when. Research into dorzolamide and the wider reading this has required has solidified the pharmacology and the appropriate treatment options open to glaucoma patients.

Hypertension is a condition that I am increasingly seeing, most likely due to my increased vigilance and testing. Amlodipine is the drug I use first in hypertensive cats but I had no independent knowledge of its pharmacology and suitability. It was interesting to discover the difference in actions between this calcium channel blocker and others e.g. effect on heart muscle vs vascular smooth muscle and the relative few side effects seen (Elliot, et al., 2001). I have found being able to reassure owners (and colleagues) that with appropriate dosing hypotension is uncommon improves compliance.

The case I chose for the medicine essay was that of a cat with intermittent vomiting. I find this is a fairly common presenting complaint and the further study required for this essay has significantly helped me in my approach to similar, if not all, cases. I feel I am more aware of newer, less invasive tests that are now available to the general practitioner e.g. feline pancreatic lipase, faecal α 1-proteinase inhibitor. These tests could be useful in such cases although the cost constraints of working in charity practice mean that these are often only considered after extremely rigorous justification of the cost:benefit ratio. This was often similar to explaining the need for further costs to a client in general practice. Working towards the certAVP and this essay especially has honed my thought processes with this. The case was frustrating at the end due to the owner's non-compliance. Looking back I may have been able to emphasise the importance of re-visits or a certain treatment regime better and now I will routinely give antimicrobials to all cases before and during any anti-inflammatory treatment. I also have learnt that anti-inflammatory treatment without vitamin B12

supplementation is less effective (Ettinger & Feldman, 2005 and Sturgess, 2005) so now I always give the both together.

The work required for these essays has been enjoyable and I feel that I have been able to expand my knowledge base and skills in all areas, both clinical and non-clinical e.g. information gathering and critical appraisal of scientific documents. I am better aware that scientific writing requires a more professional style and I have worked hard to achieve this. There have been several elements in my day-to-day practice that have been improved from my studies here and I feel I am able to bring this further knowledge forward to colleagues to formulate protocols that benefit both patients and their owners and improve my job satisfaction as a clinician.

References

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