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Foundation seminar in infectious diseases

This seminar was kindly organised by The Society of Hospital Pharmacists of Australia. It is aimed at junior pharmacists wanting to have more understanding of the principles that guide appropriate prescribing for infections. The course consisted of a self-learning package with a total of 12 hours of learning which was followed by a one-day live seminar with case workshops. Being a junior pharmacist, I wanted to build up my knowledge of the diagnosis of infectious diseases and the rationale behind the choice of an antibiotic for a given case. Learning about experienced rationale helped to build up my confidence when making recommendations in clinical practice.

The self-learning package touched on many aspects of antimicrobial prescribing with lectures and talks from numerous experienced physicians and pharmacists.

One of the talks covered the principles of antimicrobial stewardship. A section I was particularly interested in was 'AMS at the bedside.' It was based on the framework 'The Four Moments of Antibiotic Decision Making.'

The four moments and the questions to ask were the following:

1. Name the diagnosis.
 - Does my patient have an infection that requires antibiotics?
2. Cultures and empiric therapy
 - Have I ordered the appropriate cultures before starting antibiotics? What empiric therapy should I initiate?
3. Stop, narrow, and change to oral
 - A day or more has passed. Can I stop antibiotics? Can I narrow therapy or change from IV or oral therapy?
4. Duration
 - What duration of antibiotic therapy is needed for my patient's diagnosis

These were moments that were identified as times when pharmacists could give their input in appropriate prescribing of antimicrobials. The speaker also provided specific examples of scenarios we could encounter in the clinical setting. The talk also touched on penicillin allergy, the bioavailability of antibiotics, and how shorter durations of antibiotics in appropriate patients result in the same outcomes as longer durations of antibiotics.

The online seminar was a one-day event where all the knowledge we learned from the self-learning package was put into practice by working through cases with a group. There were experienced senior antimicrobial stewardship pharmacists who facilitated the case, answered questions, and provided us with insightful feedback.

The cases covered the following:

- Vancomycin and therapeutic drug monitoring,
- Skin and soft tissue infections,
- Urinary tract infections and sepsis
- Respiratory infections.

I found these cases very enjoyable. I learned a lot from not only the pharmacists who facilitated the cases but also from the other participants who had different practices in their workplaces. We covered empiric therapy for infections, what investigations are needed to determine the

cause of infection, how to interpret cultures, the sensitivities, and deciding on what antibiotic is the most appropriate based on bioavailability, availability of the drug, and side effect profiles.

Finally, I would like to thank the NZHPA for the education award which allowed me to attend this event. As a junior pharmacist, I learned a lot about antibiotics and what to consider when optimising treatment. I have come out of this course feeling more confident about what to consider when I do see an antibiotic prescribed in practice.