NZHPA Conference Report – Cancer Pharmacy Education Grant

ANZTCT Annual Scientific Meeting 2025 – Gold Coast

Rebecca Lovelock – Wellington Hospital (inpatient oncology and haematology pharmacist)

With funding support from MSD and NZHPA, I had the privilege of attending the Australia and New Zealand Transplant and Cellular Therapy Annual Scientific Meeting (ANZTCT ASM), held from the 6th to the 8th of August this year in Tweed Heads/Coolangatta in the sunny Gold Coast. This multidisciplinary conference, now in its third year, focuses on transplant and cellular therapies and is held annually in Australia over three days. There were over 300 attendees at this ASM including physicians, nurses, quality and data managers, scientists, dietitians, physiotherapists, occupational therapists, psychologists, and pharmacists. The number of pharmacists attending this conference has rapidly grown in its first 3 years – with only 3-4 in the first year and up to at least 25-30 this year. This year's ASM included 3 concurrent full workshops on the 5th of August, prior to the meeting – a pharmacy education day which I attended, as well as a data manager workshop and a nursing workshop.

One particularly interesting poster explored optimising the timing of plerixafor administration for stem cell mobilisation. The peak window of activity of plerixafor is 10-14 hours post administration, which translates to an administration time of around 11pm to enable stem cell collection the following morning, and this necessitates an inpatient admission to ensure the correct timing of administration. Gold Coast University Hospital reported some evidence supporting sustained peripheral CD34+ counts at 18 hours post plerixafor administration, and because of this, they changed the administration time of plerixafor at their hospital from 11pm to 4pm in 2021. They observed higher median and interquartile CD34+ counts in the 4pm group compared to the 11pm group. Also, there was no significant difference in the percentage of patients who met the target CD34+ yield required to proceed with an autologous transplant. This supported the change in plerixafor administration time from 11pm to 4pm, which avoids a hospital admission for patients requiring plerixafor – in an overstretched health system an extra inpatient bed for a night is very valuable!

There was a session on complications of CAR-T, and an interesting talk from Associate Professor Mastura Monif from The Alfred in Melbourne on neurological complications and innovative ways to monitor for these post CAR-T cell therapy. She spoke about the CARTCog phone application they trialled – they developed an app where patients would have 3 tasks to perform each day – one to assess reaction time, one to assess accuracy (by distinguishing colours) and the final task was memory based. They found the app to be successful way to monitor patients for ICANS (immune effector cell-associated neurotoxicity syndrome) post CAR-T cell therapy.

This conference is great because there is one "stream" for everyone so you can really get an appreciation for the holistic multidisciplinary aspects of a stem cell transplant – and you don't have to choose between simultaneous interesting talks! A dietitian from Queensland presented one of the oral abstracts. They had investigated the benefit of pre-biotic fibre enteral nutrition in allogeneic transplant patients, and the impact of this on GI microbiome diversity. The prebiotic group had a relative abundance of Lactobacillus compared to patients on standard enteral feeding. These bacteria produce short chain fatty acids, which are important for providing energy to colon cells, strengthening the gut barrier and regulating immune responses. Conversely, the prebiotic group had less Faecalicatena gnavus, a bacteria in the gut which produces ethanol and is disruptive to the gut barrier.

Aside from the vast learnings from attending this conference, the other major highlight was being able to network with other BMT and cell therapy pharmacists from around Australia and New Zealand. Although the first successful allogeneic transplant was way back in the 50s, there is still a lot of inter-state and international

variations in patient management. Some centres routinely use valganciclovir prophylaxis for transplant patients at high risk of CMV, where others are concerned about the myelosuppressive nature of the drug affecting stem cell engraftment. There are also differences in dosing of conditioning agents in obesity for example with busulfan – some centres use ABW25 for all patients, while others use ABW25 for patients with BMI>30 and TBW for all others. It was also enlightening to learn about the differing pharmacist resources and roles across Australia. Some BMT pharmacists manage as few as 12 inpatients and participate in outpatient follow-up clinics, an approach that serves as an inspiring model of comprehensive pharmacist involvement in transplant care.

The ANZTCT ASM is held annually in Australia, usually in the second half of the year – with the potential for future meetings to be held in NZ. I highly recommend this conference to anyone with an interest in stem cell transplants or cell therapies. Thank you to MSD and NZHPA for the opportunity to attend this year.