Alfred Health

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Optimising post-transplant outcomes via the delivery of a contemporary home-based rehabilitation program far Alfred Health patients undergoing Stem Cell Transplantation

It is well known that high-dose chemotherapy and stem cell transplantation (SCT) is associated with treatment- related physical and psychosocial complications and side effects, including decreased nutritional status and quality of life, increased fatigue, and reduced lean body mass. The Optimal Care Pathways (OCPs) framework recommends that cancer patients should receive standardised care across the key phases of their cancer journey; Prehabilitation, Inpatient Treatment, Outpatient Treatment, Follow-up Care and Survivorship.

Evidence suggests that patients who are better nourished at the time of SCT may experience improved outcomes post SCT. Additionally, participants of early multimodal prehabilitation programs have been shown to have improved treatment tolerance and reduced toxicities, improved physical and psychological functioning, improved quality of life, and reduced inpatient length of stay.

Rehabilitation is equally as important, with evidence demonstrating improvement in functional and physical status, and quality of life levels. For successful rehabilitation, this rehabilitation should be delivered by Allied Health clinicians with the appropriate knowledge and specialised cancer recovery skills regardless of their treatment location. Therefore, shared care models with standardised, evidenced based information can help bridge this gap.

Approximately 100 patients with haematological cancers are treated with SCT's at Alfred Health per year. The majority of patients' treatment journey occurs whilst they are at home during the pre-transplant and post- transplant periods. Currently, patients only receive AH supportive care at Alfred Health during inpatient admissions, with adhoc nutrition management following discharge. Currently, there are insufficient resources to provide adequate AH prehabilitation or rehabilitation to this patient group in the outpatient or home setting.

On average, 60% of patients receiving cancer treatment at Alfred Health reside outside of Alfred Health's direct catchment area, and approximately 20% of patients receiving SCT reside in the Gippsland Region. Pre and post SCT treatment may be delivered to patients at their local health service, in which AH provision and skill mix is also varied. Currently there is no standardised education or care plan for the nutritional and physical/ functional management across their treatment journey, and no consistent referral and communication pathway between AH across health services for patients who are receiving care at multiple sites.

This project aims to align nutrition and exercise management of SCT patients with best practice guidelines and the OCPs, by providing a prehabilitation and rehabilitation service at Alfred Health. It aims to standardise the care provided to patients receiving treatment across multiple sites or require AH supportive care closer to home and improve referral and communication pathways between health services under a shared-care model.

Whilst nutrition and exercise programs for patients undergoing SCT exists at other cancer service hospitals, this fundamental care remains a significant service gap at Alfred Health. This project will provide the opportunity to create and embed evidenced based practice that is well researched and documented, while doing it in a thorough way to develop, evaluate and build a sustainable, scalable model of care.