Clinical Oncology Society of Australia

CLINICAL CASE STUDY

Prehabilitation

SITUATION	**39M refugee "John Smith" with upper gastrointestinal cancer presenting to hospital with oesophageal dysphagia and suspected malnutrition, for feeding tube insertion and treatment planning. Requiring neo-adjuvant treatment at tertiary referral hospital for a period of 5 weeks and surgical prehabilitation in his local community prior to surgery. Recently moved to rural NSW with no English language skills (all interactions required interpreter).**
WHAT care was provided? **(Action)**	▪ **Initial malnutrition screening:** - **45kg on admission with history of 20kg weight loss (33%) in 3-6 months. MST= 4 (at risk of malnutrition). SARC-CalF = 16 (at risk of sarcopenia).** - **Referral to dietitian, speech pathologist and physiotherapist** ▪ **Initial nutrition assessment:** - **Weight 45.2kg** - **PG-SGA 16 severely malnourished (C)** - **Muscle mass assessed. ALM/height (m)^2= 6 kg/m^2** - **Identified at risk of refeeding syndrome** ▪ **Initial physiotherapy assessment:** - **Muscle strength assessed. Hand grip strength = 23 kg** - **Muscle function assessed. Gait speed = 0.6 m/sec** - **Sarcopenia diagnosed using EWGSOP 2 diagnostic criteria** ▪ **Repeat malnutrition screening:** - **Weekly MST during admission performed by nursing staff.** ▪ **Nutrition reviews:** - **Regular review during inpatient admissions (at both tertiary referral hospital and rural hospital after transferring closer to home) prior to neoadjuvant treatment.** - **Regular review by oncology dietitian (2x/week) during neo-adjuvant chemotherapy and radiation at tertiary referral cancer service.** - **PG-SGA repeated at end of treatment (PG-SGA 12 B moderate/ suspected malnutrition) and 3 months post treatment (PG-SGA 8 A moderate/suspected malnutrition) indicating improvement in nutritional status.** - **Support from local community dietitian following handover of nutrition plan by oncology dietitian on return home to rural setting post treatment.** ▪ **Nutrition interventions:** - **Education of soft HEHP diet.** - **Food from home allowed as hospital food not culturally appropriate.**

	- Recommended nasogastric tube (NGT) insertion due to inadequate oral intake and regurgitation of food. - Monitoring for refeeding syndrome on commencement of feeds. - Ongoing review post treatment for weaning of NGT feeds and optimisation of oral intake prior to surgery. ▪ Physiotherapy reviews: - Regular review during inpatient admission to provide mobility recommendations and prescription of individualised exercises. - Regular review by prehabilitation physiotherapist to supervise exercise completion and to review and update home exercise program. - Muscle mass and function tests repeated 6 weekly. ▪ Multidisciplinary care: - Clear communication required between surgical and oncology multidisciplinary team and rural health care professionals. - Referral to social work and refugee service. - Ongoing nutrition and physiotherapy for multimodal prehabilitation prior to surgery. Screened for psychological distress, anxiety and depression.
WHO delivered the care? **(Actor)**	• Malnutrition screening – *nursing staff* • Nutrition assessment and review – *hospital dietitian, specialist oncology and community dietitian* • Functional mobility strength assessment and review – *inpatient and prehabilitation physiotherapist* • Symptom management – *medical staff* • Multidisciplinary care - *social work, speech pathologist, interpreter service and refugee service*
WHERE was care delivered? **(Context)**	Inpatient and outpatient setting Metropolitan tertiary referral hospital, rural NSW hospital and home-based care.
WHO received care? **(Target)**	Adult patient (≥18 years) undergoing neo-adjuvant treatment and prehabilitation prior to surgery.
WHEN was care provided? **(Time)**	• Initial nutrition screening – *day 1 of inpatient admission* • Initial nutrition/physiotherapy assessment – *day 2 of inpatient admission* • Rescreening – *weekly during admission and neo-adjuvant treatment* • Nutrition/physiotherapy review – *at regular intervals during the diagnostic, neo-adjuvant treatment and prehabilitation period of care* • Repeat nutrition/physiotherapy assessment - *post neo-adjuvant treatment and prior to surgical intervention to continue to optimise nutritional and functional status*
OUTCOMES	John was able to optimise nutritional intake with the use of early intervention NGT feeding and therefore proceeded with curative intent chemo-radiation. The prehabilitation prior to surgery allowed John to improve his nutritional status and physical function.