

Prehabilitation and rehabilitation in action

Case study template

	Description
<p>Summary of patients social history and relevant past and current medical history</p>	<p>Mr X is a 45 year old gentleman. He had a previous history of laryngeal cancer for which he had received laser surgery and radiotherapy in London in 2016. He made a good recovery although he reports that he was unable to sing as well, he had belonged to a band. He moved to Dorset with his partner 4 years ago. His partner is unable to work due to chronic fatigue and fibromyalgia. He works as Head grounds man for a large holiday park which involves a lot of physical work. He is an ex-smoker but regular social drinker at his local pub. He has a son by a previous marriage and a good social support network. The couple are dependent on his income.</p> <p>He was referred in February 2023 to UHD with recurrence of his laryngeal tumour and new synchronous palate tumour. The extent of his tumour meant that the proposed treatment would involve removal of his soft palate, total removal of his Larynx (voice box), his pharynx and upper part of the oesophagus. This was repaired by, pulling up his stomach. He had a new airway via a stoma in his neck and lost the ability to speak and swallow. The rapid growth of the tumour meant that from diagnosis to surgery X had only just over two weeks to prepare for his surgery.</p> <p>He recovered well from surgery and was discharged home 15 days post-surgery. He started to take some oral diet and was able to return to a soft diet and fluids by 6 weeks after surgery so the feeding tube was removed. He experiences on-going issues with loss of taste and smell, poor appetite and regurgitation of food due to changes in his anatomy post-surgery. He has learnt to cope with his stoma and is using external neck devices to protect the stoma and rehabilitate his pulmonary function.</p> <p>He communicates using a mixture of alternative technology text to speech via his voice which was recorded and banked preoperatively, mouthing and an electrolarynx. His communication options have widened with resolution of significant post operative oedema and treatment by specialist lymphoedema nurses.</p> <p>He struggled to cope when first discharged home after surgery and spent long periods of time in bed. Regular, intensive AHP outpatient clinics and some home visits were set up to help him through his recovery and rehabilitation. He declined referral onto psychological support services</p>

	<p>but his mood and activity improved with successive rehabilitation interventions, directed at small achievable goals and focused on routine, exercise and well-being.</p>
<p>Type of prehabilitation, rehabilitation screening undertaken and by whom (which roles)</p>	<p>X was seen with his partner in the AHP Head and Neck pre-treatment clinic on 2 occasions due to complexity of his proposed surgery by the Oncology Dietitian, Specialist Nutrition Nurse and Specialist Speech and Language Therapist (SLT). He was also seen by the SLT on 2 other occasions to further advice, counselling support and advocacy and support with Voice banking prior to surgery.</p> <p>Type of Prehabilitation: Information Sharing – All professionals Psychological support- All professionals and CNS Nutritional Screening- Height/weight Diet history Swallowing assessment, Standardised PROM MD Aderson Dysphagia Inventory (MDADI) ¹, 100ml water swallow and Head and Neck Performance status Scale. Communication screening Manual dexterity No physiotherapist in clinic but early referral made for post operative intervention.</p>
<p>Type of prehabilitation/rehabilitation assessment(s) undertaken and by whom (which roles)</p>	<p>Nutrition: Baseline weight, dietary history, MUST screen. Advice on optimising nutrition and provision of oral nutritional supplements. Dietitian Swallowing: Preoperative instrumental swallow assessment videofluoroscopy SLT/Advanced practice radiographer Communication: AX of ability to use alternative technology(key board skills/use of IPAD) SLT Assessment of ability to cope with altered anatomy/airway; eye sight manual dexterity and ability to cope with suction, nebulising and care of a neck stoma to maintain airway post op. SLT Social/extended case history: to determine what factors important to patient and partner; work, social life response to previous cancer treatment. ALL professionals</p> <p>HNA completed by cancer support worker</p> <p>Rehabilitation assessment: Physical function: Stairs, shoulder function, cough and airway clearance Physiotherapist</p>

¹ [MDADI.pdf \(eatspeakthink.com\)](http://MDADI.pdf(eatspeakthink.com))

	<p>Nutrition: Amount of Non oral versus oral intake with titration to promote oral intake as tolerated. Dietitian</p> <p>Swallowing: Post operative Instrumental assessment. Regular clinical assessment to build up to normal diet consistency SLT</p> <p>Airway: education and training provided on stoma care and maintaining altered airway patency and safety e.g. for bathing/showering. SLT</p> <p>Communication assessment to check ability to use alternative means of communication provided .SLT</p>
Interventions delivered	
Universal	<p>Exercise: General advice on maintaining active life style ALL</p> <p>Nutrition: Mild risk as early swallowing symptoms and weight loss reported. General advice on and leaflet provided 'Making the most of your meals' to optimise nutritional intake. Healthy Eating guidance. Dietitian</p> <p>Psychosocial support: Universal support given around diagnosis and treatment decision making using listening and empathy skills and establishing what support networks or coping strategies X and his partner already had to draw on. ALL</p> <p>Other: Advice on alcohol reduction and signposting to life well Dorset resources ALL</p>
Targeted	<p>Exercise: Advice on daily exercise regime (walking) to improve well-being, physical stamina and improve sleep patterns post-surgery SLT/Physiotherapist</p> <p>Nutrition: Provision of Specialist Oral Nutritional Supplements with choice that would allow for patient preference and to fit in with lifestyle and optimise healing post-surgery Dietitian</p> <p>Swallow assessment to inform appropriate diet consistency/modification to optimise intake SLT</p> <p>Psychosocial support: CNS support/signposting</p> <p>SLT arranged with patient agreement for preoperative meeting with another person with lived experience of this type of surgery via video link up as this type of surgery quite rare so had to be arranged from outside local area.</p>

	<p>Other: Referral made to the community occupational therapist for provision of specialist shower aids.</p>
<p>Specialist</p>	<p>Exercise: Pre surgery referral onto local MSK physiotherapy service for shoulder rehabilitation as a result of significantly reduced function post surgery with impact on physical activity and ADL.</p> <p>Nutrition: Specialist advice on jejeunostomy tube to be placed at time of surgery for extended use post op and check patient has manual dexterity skills to use this. Dietitian and Nutrition Nurse</p> <p>Other: Communication :referral onto Specialist Communication aids service for provision of Voice banking(recording of patients own voice for later use on a communication aid) and provision of specialist alternative and augmentative communication aids to allow for text to speech output utilising patients' voice. SLT</p> <p>Swallowing: exercises to strengthen tongue base and techniques to overcome palate insufficiency to aid return to oral intake SLT</p> <p>Airway: intensive input into airway clearance and maintenance techniques and use of protective equipment SLT/Physiotherapy</p> <p>Psychosocial support: Extended preoperative counselling offered by SLT & CNS regarding significant long term/life changing implications of surgery though face to face and on line and telephone support in view of short time frame between diagnosis and surgery and distance to patients' home from hospital. SLT uses anxiety management and Solution focused therapy techniques. X's partner referred on for psychological support in her local area.</p> <p>Other: Referral onto local lymphoedema service to manage neck lymphoedema which will impact on airway patency and ability to use customised neck prosthesis to aid pulmonary rehabilitation.</p>
<p>Monitoring and evaluation</p>	<p>Post-operative monitoring undertaken through weekly specialist SLT clinic with advice support from other AHPs involved in care as indicated. Diet and Nutrition through weight, MUST screening, diet history</p>



	Airway/Swallow/Communication through clinical ax and instrumental ax,
Outcome measures used	TOMS Therapy outcome measures (Enderby 2021) Head and Neck Performance Status Scales (HNPSS) EORTC QOL(HN) patient questionnaire (completed 1,3,12 month intervals) PROMS SOAL (Swallowing outcome after laryngectomy)