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Using immobilisation masks in magnetic resonance imaging radiotherapy planning scans: The experiences of male patients with head and neck cancers

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Abstract

Introduction: The advantages of MRI in the radiotherapy treatment pathway of head and neck patients are putative. MRI crucially facilitates visualisation and volumetric delineation of tumours and organs at risk, allowing a more accurate dose calculation to be made. It is therefore essential to minimise patient refusal in the known claustrophobic environment of MRI plus the restrictive thermoplastic mask.

Purpose: To investigate the experience of head and neck cancer patients undergoing an MRI scan for the purpose of planning radiotherapy treatment, whilst immobilised in a thermoplastic mask. Any common themes highlighted might also suggest areas of practice which could potentially be improved, changed or identified as successful.

Methods: Due to the need to gather thoughts and feelings of participants, a qualitative design was used in this study. A purposively selected sample of eight head and neck cancer patients took part in semi-structured interviews. Reflexive thematic analysis based on a process described by Braun and Clark (2019) was used to allow themes to emerge from the data.

Findings: Emergent themes were grouped together to form three categories, each compiled of three subgroups of themes.

Discussion: Participants described their experience of the MRI in their mask. Pre-scan preparation was discussed alongside feelings of confusion, mistrust of online media and testimonies of being bombarded with written information. Participants' loss of control during the scan was highlighted and coping strategies employed in order to complete the scan were shared. None of the participants acknowledged they were

claustrophobic, yet feelings of restriction, powerlessness and removal of choice were identified leading to resignation and acceptance of discomfort. Significant trust in medical professionals was displayed with confidence in the treatment pathway prescribed. There was an overwhelming reluctance amongst participants to criticise staff and/or procedures with some taking culpability for any perceived shortcomings in their treatment journey.

Conclusion: The results of this study are not only relevant to this unit, but also potentially useful to other oncology departments who are incorporating MRI into the radiotherapy planning process of HNC. All participants in this study were able to tolerate the MRI, in part, due to confidence in skilled staff and endured any discomfort as a means to achieving the goal of becoming cancer free.

Key Words: Head and Neck Cancer • MRI • Radiotherapy Planning • Immobilisation device • Thermoplastic mask • Patient experience • Pre-treatment scan