Audit of Acute Intensity Modulated Radiotherapy (IMRT) Toxicity in Head and Neck Cancer patients at Velindre Cancer Centre 2009-10


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Background
Role of radiotherapy (RT) is well established in head and neck cancer but is associated with significant acute and late toxicity. IMRT allows the delivery of a high dose of RT whilst reducing the dose to surrounding normal tissue, thereby minimising toxicity. Randomised studies show that IMRT can reduce acute and late toxicity in patients undergoing RT for certain sub-sites of H&N cancer.

Aim
To record acute toxicity in the first cohort of H&N cancer patients treated with IMRT at Velindre Cancer Centre and compare with the published literature.

Standard
PARSPORT, a UK phase III RCT comparing H&N IMRT with conventional RT was used as our standard. Primary endpoint of the trial was xerostomia at 12 and 24 months following RT, but acute toxicities were also reported. In an RT alone population, the rate of ≥G2 toxicities were: mucous membranes (MM) 91%, skin 76%, pharynx and oesophagus (P + O) 87%, salivary gland (SG) 80%.

Methods
We established an IMRT review clinic in June 2009 and the RTOG acute morbidity scoring system was used to prospectively record acute toxicities for each patient visit on a single electronic health record database.

Conclusion and Action plan

There were no G4 toxicities. Dysphagia was our most significant grade 3 toxicity (73%) but was often pre-empted by RIG/PEG insertion. In our first cohort of IMRT patients we found comparable toxicities to the RT alone PARSPORT population. We plan to continue our IMRT H&N programme while continuing to collect acute toxicity data on a larger number of patients and also prospectively collect late toxicity data.