

In this issue

In this issue there are five original articles covering a range of themes and topics including clinical oral examinations, the productivity of orthovoltage resources, the use of the Internet by radiation therapists, virtual simulation and verification and the role of adenovirus and herpes simplex virus in the treatment of advanced squamous cell carcinoma of the head and neck. There is a case report on the management of an arterio-venous malformation and a short communication on the correlation between mean and lethal dose and organ weight.

In the first article by Leech *et al.*, the authors identify and discuss the issues relating to assessment strategies used to assess clinical competence in radiation therapy. The authors argue that radiotherapy education and the assessment of clinical competence is complex and challenging for educators. In this article, they identify the strengths and weaknesses of using different assessment strategies, in particular, the use of an oral examination to assess factual knowledge and the integration of theory with practice.

In the second article, Sally Donaghey examines the productivity of orthovoltage units and identifies the related factors and treatment times for patients treated on these treatment units. This study seeks to evaluate and quantify patient-related factors and assess tools and data to better inform future service delivery. Sally argues that patients treated with palliative intent present a complex range of issue for radiotherapy departments in terms of their specific care needs. The methodological approach for this study was to use a modified basic treatment equivalent model; it was found that this afforded a valid, reproducible and practical approach for undertaking radiotherapeutic productivity analysis. In this study the author acknowledges the analytical, practical and clinical difficulties in

measuring patient related factors, such as subjective symptom experiences.

In the next article, Tunio *et al.* from the Sindh Institute of Urology and Transplantation in Pakistan, report on their study that contrasts the use of virtual simulation versus old simulation for treatment verification in their centre. This centre leads Pakistan in being the first centre to have the technology to implement virtual simulation. The authors undertake a retrospective study of 289 patients treated from March 2006 to November 2008, to identify the most common tumours and treatment details of patients receiving virtual simulation and the advantages of this method with respect to conventional simulation.

In the fourth article, Madeleine Shanahan reports on her study to investigate the use of the Internet as a resource to support radiation therapists in undertaking professional learning, in Australia. In this study, a large number of Australian radiation therapists were sampled by postal questionnaire, to provide a data set on the professional use of Internet-based tools and resources. One of the findings of this study is that a large number of radiation therapists are unaware of the range of Internet-based resources, which if accessed, can provide knowledge updating and resources for evidence-based practice and research.

In the final original article, Stuart McCaighy undertakes a comparative review of the potential of adenovirus and herpes simplex virus in the treatment of advanced squamous cell carcinoma of the head and neck. Stuart outlines how the advances in molecular biology have led to the development of cancer gene therapies and revived interest in viral vectors as a mechanism to destroy head and neck tumours. In this

review, Stuart evaluates the evidence supporting the potential value of these therapies as future treatment options and the issues related to clinical administration and toxicity.

The next paper is a case report on external beam radiotherapy in the treatment of extensive vascular malformation of the lower extremity refractory to surgery and interventional embolisation therapy. In this report, Mark Trombetta *et al.* discuss the management of an extracranial vascular malformation refractory and the difficulty of surgery and embolisation therapy. Little

has been published on the role of radiotherapy in this challenging disease so they detail a unique case report and discuss the results of this treatment in practice.

To complete this issue, Akber and Kehwar share their conclusions in a short communication on the subject of the correlation between mean lethal dose and organ weight; the authors discuss how the relationship between the mean lethal radiation dose/radiation tolerance dose is dependent on organ weight and identify the complex issues this raises.