

In this issue

I am delighted to report that this year, the Journal of Radiotherapy in Practice celebrates its tenth birthday and to celebrate this milestone, in later issues there will be a series of guest editorials written by eminent individuals whose work during the past ten years has had a major impact on practice.

In this issue, there are five original articles and a literature review on a range of themes, including the development and validation of reflective inventories, patient compliance with the use of vaginal dilators, radiation-induced toxicity in cancer patients, comparison of verification accuracy, a lateral total body irradiation technique, the psychological needs of adolescents with cancer and a case study highlighting the need for dental screening for patients receiving head and neck radiotherapy.

In the first article, Findlay, Dempsey and Warren-Forward from the University of Newcastle, New South Wales, Australia examine the use of reflection and reflective writing as a method of documenting professional's continual professional development. The authors outline the development and validation of guided inventories called the Newcastle Reflective Inventories and the validation of the Newcastle Reflective Analysis Tool as an effective tool for assessing short-form guided reflective writing.

In the second paper, Lisa Punt, based at Addenbrooke's Hospital, Cambridge, UK undertakes a study on patient compliance with the use of vaginal dilators following pelvic radiotherapy for either cervix or endometrial cancer. Compliance was defined as the use of vaginal dilators two or more times a week at 6 months post treatment. In this study, Lisa also explores the reasons why women do not wish

to use vaginal dilators despite there being good evidence to suggest that by using them post radiotherapy can minimise the effects of vaginal stenosis and improve sexual function.

In the next article, Baluna et al. from Departments based in the USA, present their study to evaluate the levels of plasma fibronectin in cancer patients undergoing radiation therapy in correlation with outcomes in terms of radiation toxicity. A total of 26 patients with lung and gastrointestinal cancer, treated with radiotherapy were enrolled into this study. Plasma fibronectin levels were determined before and following the course of radiation therapy, the Radiation Therapy Oncology Group criteria were used to determine grade of toxicity. The preliminary results suggest that low base line Fibronectin levels may have a potential as a predictive marker for the development of radiation induced toxicity.

In the fourth article authors Wu et al., based at institutions in Hong Kong, are concerned with the comparison of verification accuracy and radiation dose between megavoltage CT and kilovoltage cone-beam CT. In this study, the authors use phantoms to simulate and evaluate the difference in verification performance and organ dose between megavoltage computed tomography and kilovoltage cone-beam computed tomography.

In the fifth paper, Mesa et al, from the Cancer Therapy and Research Center, San Antonio, USA, describe how they have implemented and evaluated a lateral total body irradiation technique using 6MV photons. In an effort to maximise reproducibility and patient comfort, especially for paediatric patients, a supine lateral total body irradiation protocol

was implemented as preparatory regimen for bone marrow transplant. The resulting data demonstrate a dosimetric variability of anatomical regions of interest from reference prescription dose of less than 3%. The authors suggest that this approach to facilitate successful treatment of children who require total body irradiation while maintaining dose uniformity as recommended by the American Association of Physicists.

In the final paper Kam Sing and Denyse Hodgson undertake a review of the literature to explore the ways in which the multi-disciplinary team can meet the psychological needs of adolescents who have been diagnosed with cancer. Besides the physical effects of the disease, the authors identify that amongst the most psychological challenges are uncertainty and fear round the status and progression of cancer. Body image, sexuality and fertility and appearance have a profound effect on the adolescent. Psychological needs of adolescents are interrelated and dynamic continually changing throughout the illness. The literature suggests

health professionals need to be trained in such areas to give the appropriate care and support. It has also been identified that hopefulness and a positive attitude by patients, families and the multi disciplinary team contribute to positive outcomes.

To complete this issue, Georgiou, Yeoh, and Coleman from Sydney Australia, present a case study on hidden mandibular pathology in a patient planned for radiotherapy highlighting the need for dental screening. This case report documents an incidental radiographic finding of a mandibular cystic lesion and its impact on the radiotherapy planning and decision making process with radiotherapy, highlighting the importance of dental assessment before the commencement of radiotherapy to the head and neck areas to assess the teeth and associated structures lying in the treatment field and to inform the patient of the effects of radiotherapy on the oral cavity.

Professor Angela Duxbury