

# Dental interventions in patients taking anti-resorptive medication for the treatment of osteoporosis and other bone disease: an audit of current practice in the Dublin Dental University Hospital

## ABSTRACT

Medication-related osteonecrosis of the jaws (MRONJ) is a well-established complication of anti-resorptive and, more recently, anti-angiogenic therapy. The dental profession has a pivotal role to play in the prevention and management of this debilitating condition, and all dentists have a responsibility to remain cognisant of national and international best practice guidelines in the prevention of this disease process. The management of patients in the Dublin Dental University Hospital at risk of MRONJ when carrying out dental interventions was audited against nationally- and internationally-published guidelines. The results of the audit showed compliance with the national and international guidance in 5% and 0% of cases, respectively. The most common measures implemented in the management of patients at risk of MRONJ were: preoperative antibiotics in 49% of cases; preoperative chlorhexidine mouthwash in 76%; plain local anaesthetic in 51%; and, post-operative antibiotics in 80%.

In conclusion, we found a low level of absolute compliance to both guidelines included in this audit. This highlights a need to re-examine the evidence underpinning these guidelines to ensure best practice patient care. Early recommendations have been made based on the findings of this audit, which will help to maximise its impact on clinical care delivery and generate discussion to stimulate and support action planning. Guidelines that are not followed are indicative of differing clinical opinions, highlighting the need for clarification and guidance as our understanding of this pathological entity broadens.

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# An audit of the baseline dental status and treatment need of individuals referred to Dublin Dental University Hospital for a pre-radiotherapy dental and oral assessment

## PRÉCIS

Increasing numbers of patients are referred for pre-radiotherapy dental assessment. Advice and support regarding prevention of dental disease will maintain oral health and reduce the need for surgical intervention in the future.

## ABSTRACT

**Objectives:** The objectives of this audit were to establish the baseline dental status and treatment need of pre-radiation head and neck cancer patients in Ireland.

**Material and methods:** A review was carried out of the dental status and treatment need of 746 adult patients who were scheduled to commence radiation therapy for head and neck cancer. These patients were referred to the Dental Oncology Treatment Centre and there were 76% male and 24% female individuals.

**Results:** The numbers attending the clinic increased from 20 in 1998 to 239 in 2013. The age range was 17 to 89 years, with a mean age of 57.4 years, standard deviation (SD) = 13.0 years. The diagnosis was of squamous cell carcinoma in 85% of cases and the main subsites were the larynx and tongue. Some 51% of patients smoked or had very recently quit smoking, and 25% had never smoked. A total of 97% were dentate, of whom 65% had more than 16 remaining teeth. Of the dentate patients, 66% had dental decay. Some 12% had vertical mouth opening of less than 30mm, complicating access for dental care. Moderate to severe chronic periodontitis was noted in 21%. Dental treatment need was as follows: (1) oral health instruction (OHI), diet and dry mouth advice, and jaw exercises – all dentate patients; (2) periodontal and caries preventive treatment – 86%; (3) dental extractions – 72%; (4) restorative dental care – 59%; and, (5) radiation stents – 5%.

**Conclusion:** This study highlights the increasing numbers of referrals for dental assessment and treatment prior to radiation treatment. The group was dentate but its oral health was generally poor. A significant number of individuals required dental extractions, and restorative and periodontal care, to render them dentally fit prior to radiation treatment. Pre-radiation dental assessment and necessary care must be provided without delay to prevent delay with the start of radiotherapy.

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