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## Special needs, special approaches

**S** pecial Needs Dentistry is concerned with the oral health management of medically compromised patients and of people with disabilities. This includes the frail elderly, people with mental illness and intellectual disability. As oral health professionals, we are compelled to understand the needs of the disabled, identify dental implications and customise treatment plans to address their needs. In this article, I would like to identify two problems that I see regularly in the special needs population that can have a devastating effect if not managed properly.

### 1. Rampent root caries in dentate patients with dementia

Over the past 25 years, there has been a five-fold increase in the number of people who live past the age of 85. Almost 50% of people over 85 will develop dementia and many will be frail and disabled in other ways. In the past, most older adults were edentulous, however, more people are now retaining their natural dentitions. Furthermore, older adults are presenting with complex restorations including crowns, bridges and implants. All dental professionals will be exposed to the complexity of maintaining good oral health in this very special population, the frail eldery.

Why can a patient with dementia develop rampant root caries?

• Poor plaque removal due to lack of dexterity;

• Reliance on carers who may not have good oral health behaviours or find it difficult to deliver oral care;

• Dietary changes, which include more frequent ingestion of smaller meals that are high in carbohydrates;

• Poor oral clearance of foodstuff leaving food debris in the labial sulcus;

• Drug induced xerostomia; and/or

• Inadequate use of preventive products (Fluoride, Chlorhexidine, Phenolic compounds, CPP ACP).

Caries can reach rampant proportions in a short space of time and healthy dentitions can be destroyed by root caries in a matter of months. In addition to dietary counseling and consideration to xerostomia, the dentate patient developing dementia needs to be placed on a preventive regime that will stop root caries developing.

The preventive regime needs to cater to the patient's abilities and caries risk. Some patients will be prescribed small meals regularly by their dietician to maintain weight. These patients require fluoride delivery more often that twice daily. Chemical and professional regimes to prevent caries can include:

• The use of Fuji V11 to seal susceptible root surfaces;

• Professional application of fluoride with attention to root surfaces every three months in high risk patients;

• Construction of fluoride trays for home use on a weekly basis with a fluoride gel;

• The use of a high fluoride level toothpaste;

• The use of fluoride tablets. If the patient fails to clear food from their mouth, they are also likely to leave a fluoride tablet to dissolve in their sulcus without swallowing it. If the patient is in a nursing home, it can be included on their medication chart to ensure that the patient is given the tablet after each meal;

• The use of an atomizer. If the patient cannot rinse, use an atomiser to spray mouthrinse into the mouth. These atomisers can be used with chlorhexidine mouthrinse, phenolic compounds or fluoride mouthrinse. Carers are often happy to comply with the use of atomizers to deliver mouth rinses and the efficacy of spraying compared to rinsing is favorable. The use of atomizers can also be added to the patients medication chart in nursing homes to ensure that the product is delivered regularly; and/or

• CPP-ACP in tooth mousse may be acceptable to the patient and carers.

Without a high level of prevention and adaptations to suit both the patient and the caregiver, many patients with dementia will develop rampant caries and conservative treatment will require a general anaesthetic. In addition to the use of chemical and professional regimes to prevent caries, oral hygiene competence in carers need to be addressed since there is a strong correlation between plaque levels and the incidence of root caries.



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#### 2. Management of tooth wear in patients with intellectual disability

In young adults with intellectual disability, tooth wear is often overlooked and can cause considerable distress and ultimately tooth loss. There is an increased incidence of tooth wear in patient with disabilities due to a higher prevalence of gastrooesophageal reflux disorder (GORD). However, these patients are unlikely to communicate the symptoms of GORD. Dental erosion may be the first evidence of GORD that a health professional can identify in a patient with intellectual disability. If a patient with an intellectual disability presents with tooth wear, the level of tooth wear should be recorded using study models or photographs so that tooth tissue loss can be monitored over time. If a patient is losing tooth tissue, the cause needs to be identified. Referral to a gastroenterologist is indicated if non-occluding surfaces are heavily worn. The gastroenterologist can investigate the possibility of reflux disorder and provide the appropriate management.

Grinding is also more common in patients with intellectual disability. However, it is often in combination with GORD that rapid loss of tooth tissue occurs in patients with intellectual disability.

#### Summary

Two devastating processes in special needs populations are rampant root caries in the demented elderly and dental erosion from GORD in patients with intellectual disabilities. The oral health professional is in a unique position to effect the quality of the life of these patients by appropriate prevention and early diagnosis of these problems. These patients will suffer in silence without appropriate care.

Dr Peter King is a visiting staff specialist in Special Needs Dentistry in the Hunter Area Health Service and also at the Westmead Centre for Oral Health. He conducts a restricted private practice in Special Needs Dentistry. He is also on the board of studies for the RACDS fellowship in Special Needs Dentistry and is a mentor in Special Needs Dentistry in an Australasian project sponsored by Colgate and Alzheimers Australia.