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Prevention and the patient with early stage dementia. Introduction to topic and evidence base.

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Delivering Better Oral Health.

Delivering Better Oral Health or DBOH describes itself as an "evidence based toolkit for prevention".[1]

In summary it provides advice on how to meet best practice standards in dental prevention and provides an indication of the quality of evidence which backs these standards. Additionally it discusses additional measures which may be used for patients with vulnerabilities which increase their risk of developing dental disease.

This toolkit is an extremely useful resource for planning preventive care for both the dental profession and those other health care professional dealing with dementia patients.

Increased dental disease risk of patients with dementia.

Patients with dementia appear to have an increased risk of dental disease.[2] This is not difficult to understand when one considers some of the consequences of dementia including:

- Being less able to maintain a good standard of oral hygiene due to decrease in manual dexterity, lack of awareness for need for good self-care and reluctance to allow others to do it.[3]
- The effectives of medication on causing Xerostomia, therefore increasing dental caries (dental decay) and periodontal (gum) disease risk.[4]
- Change in diet due to changes in appetite, and changes in types of food preferred/able to be eaten.[5] This is also likely to be effected by change in accommodation, if a move into residential care is needed. There is also potential increase in caries susceptibility if dietary supplements are used.[6]
- Loss of cognition leading to reduced cooperation making routine dentistry a lot more difficult.[4]

There is some conflicting research[7] which suggests there may not be difference in oral health between those with or without dementia but these results may be influenced by cultural factors, and how well the patients in this study are looked after in that particular part of the world.

Effective management of dental caries (dental decay).

Dental Caries risk can be positively influenced by both good dietary control and fluoride supplementation.[1]

Diet and dementia can cause problems due to loss of normal control of the normal contributory factors as noted above. However, if good dietary practice can be reinforced and fully embedded before the dementia progresses to a more severe state then hopefully some of the extensive oral breakdown often seen can be avoided. Anecdotally, there are cases where family members report that after moving to residential care, their loved ones who never had sugar added to their tea or coffee are now having regular hot drinks with added sugar as that's what all the residents have. Hydration is very important for chronically ill people living in often warm nursing home environments. Unfortunately hot drinks are often served with biscuits which add to the frequency of sugar intake for the patient even if sugar isn't automatically added to the drink itself.

Chronically ill patients including those with later stage dementia often have different appetites for food and therefore may end up eating more sugary, energy dense foods rather than healthy meals with fruit and vegetables.[5]

It is important that the patients themselves and their family members are well informed so they can ensure that where at all possible, the patient's diet has a low frequency of sugar. As the disease progresses it will be the responsibilities for supportive family members to act as advocates for the person with dementia as they perhaps moves into residential care where the dietary provision is most likely to undergo a change, possibly for the worse.

When the caries risk is unintentionally increased by the need for often sugary dietary supplements, then additional precautionary measures as outlined in guidance such as those produced by SIG Wales should be taken into account.[6] The main additional advice provided by this document being the rinsing of any residue of sugary supplements with water after each use.

The recommendation suggested by the toolkit for those who are caries prone is to have prescribed a high strength toothpaste such as Colgate's Duraphat 2800 or 5000. Additionally regular application of fluoride varnish by the dental team to tooth surfaces including those susceptible to caries (including exposed root surfaces) is recommended.[8]

The need for monitoring oral hygiene.

Patients with early dementia are going to be a stage where the level of oral hygiene achieved will still be influenced by their habits formed over many years. This may be the last chance for a dental profession to instil correct brushing techniques as well as ensure interdental cleaning is practised regularly.

As the disease progresses the duty of regular, effective cleaning will pass on to carers and/or family. The required skills may need to be taught in advance to these other people who may not necessarily have these skills themselves for effective tooth cleaning. In these cases, it is important to review levels of oral hygiene and

provide instruction to the patient and any others involved in the patient's oral care on a regular basis as well as monitoring for deterioration which may signal that the patient now need help.

Everyone involve needs to be aware of the consequences of poor oral hygiene. As well as being a cause of periodontal (gum) disease, poor oral hygiene is involved in a disease processes known as root caries, where the necks of the teeth quickly decay. This will be more prevalent in older patients, and the devastating consequences of this type of pathology if left to develop unchecked, is that the teeth will often snap off leaving just the root behind.

Lifelong learning for the dental team and other health care professionals.

The likelihood of all health care professionals managing patients with early stages of dementia is likely to rise markedly in the future. As for the reasons already discussed, patients with early dementia are likely to benefit from an increasingly robust prevention plan.

Every dentist and dental care professional is trained in the importance of preventing dental disease from very early on in their career, but with the advent of the ageing dentition (including the teeth of those patient with dementia) being more of an issue in contemporary dental practice, a reminder of best practice is well worth advocating. Professionals in other branches of health care also need quality information and training to ensure that the oral health needs of their patients are being met.

With this in mind, those involved in Special Care Dentistry or Geriatric Dentistry should be involved in offering training to their local healthcare communities to ensure awareness of the issue is both raised and encouragement given in how these communities can be pro-actively involved in improving oral care for this group of patients.

Further reading.

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