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PERIODONTIST

15-3-2011

The Commissioner
Productivity Commission,
Dear Sir,

The previous Minister for Ageing, Justine Elliott, in a media release on December 4th 2010 stated that:
"Under the Aged Care Act, nursing home operators have a legal obligation to provide proper oral and dental health care to residents."
She also said that:
"State and Territory Governments also have a responsibility for the provision of dental services to pensioners and healthcare card holders."

In Australia on 30th June 2010 there were 50,691 high care places. Using AHMAC (Oral Health of Australians, SA Department of Human Services) projections, 70% of these residents (35,484) some or all of their natural teeth in 2011. Potentially all of these people are at risk of contracting Aspiration Pneumonia. It is possible to reduce the incidence of Aspiration Pneumonia by 40% as is demonstrated by the references below. This reduction can result in a saving of $70,968,000 to health expenditure. I am assuming a hospital stay in Intensive Care of 5 days costing $1,000 per day. Data from USA indicates hospital stay can be as short as 5 days up to 14 days.

The following evidence in scientific literature to supports the proposition that regular professional care on a weekly basis in nursing homes reduces aspiration pneumonia and improves the quality of life of the residents.

Aspiration pneumonia under its various names like Hospital Acquired Pneumonia, (HAP), Ventilator Associated Pneumonia (VAP) and Nursing Home-associated Pneumonia (NHP) is being increasingly associated with the bacteria in the mouth particularly natural teeth. HAP can be reduced by 52% by nursing staff in intensive care units cleaning the patients teeth with toothbrush and dental floss as well as using chlorhexidine gluconate (Savacol) to reduce the bacterial count in the oral cavity. (Raghaven et al 2007).

A systematic review by Azarpazhooh and Leake (2006) of medical and dental research articles dealing with the association of oral health to pulmonary disease yielded 19 articles out of 728 which met their inclusion criteria. The main conclusion was that "There is good evidence (1, grade A recommendation) that improved oral hygiene and frequent professional oral health care reduces the progression or occurrence of respiratory diseases among high-risk elderly adults living in nursing homes and especially those in intensive care units."

Raghavendran et al. (2007) analysed the combined data from 5 controlled oral hygiene trials and found that in all cases the intervention reduced the rate of pneumonia by 40%. The pathogenesis of aspiration pneumonia is aspiration of saliva containing dental plaque bacteria. A review of the literature by Paju and Scannapieco (2007) came to a similar conclusion.

The first confirmation that dental plaque had respiratory pathogens in the biofilm was reported by El-Sohl et al. (2004). They showed that the same bacteria could be cultured from direct lung aspiration as could be grown from dental plaque.
That weekly professional oral hygiene care by hygienists consisting of scaling the teeth, tooth brushing, interdental brushing and brushing the dorsum of the tongue and buccal mucosa resulted in less deaths from aspiration pneumonia was demonstrated by Adachi et al. (2002). The figures are 2 out of 40 died from aspiration pneumonia in the professional care group and 8 out of 48 in the non professional care group.

It is possible to teach nursing staff and carers to clean cooperative residents teeth. Peltola, Vehkalahti and Simoila (2006) demonstrated that over an 11month period the oral health of cooperative residents of nursing homes in Finland was far better when trained nursing staff cleaned the residents teeth daily in comparison to those residents seen once every three weeks by a hygienist only.

The preceding literature survey demonstrates the connection between dental plaque (biofilm) and aspiration pneumonia. It shows that periodic professional oral care and daily effective oral hygiene with toothbrushes, interdental brushes and dental floss can improve oral health and reduce the incidence of aspiration pneumonia. The resulting decrease in hospital admission of nursing home residents for management of aspiration pneumonia can free up hospital beds and save money.

ORAL HEALTH CARE: RESIDENT AND FAMILY CAREGIVER VIEWS.

Paley et al. (2008) investigated 12 aged care facilities in Perth. The study population comprised 21 residents, 9 family caregivers and 5 focus groups. Both high and low care facilities were represented. Family care givers noted a lack of dental check-ups and specialized professional oral care, particularly in high-care facilities. In addition, time limitations and lack of expertise in oral healthcare amongst staff in high-care facilities was highlighted. It was suggested that regular professional oral care with timely, appropriate treatment could be carried out within the facilities by a visiting dental professional.

At present there are no treatment facilities available in Nursing homes, yet most of them have a room set aside for the hairdresser. It is possible to place mobile dental equipment into these rooms for a State Health Department dental professional to use. The cost of the equipment is shown in Appendix 1. Agreement will need to be reached with the owners

of the nursing homes so that the room used by the hairdresser and podiatrist can also be used by a visiting dental team.

DENTAL WORK FORCE

It is recognized that there are insufficient able dental academics in Australian Dental Faculties. This can be overcome by attracting able graduates into Dental Faculties by increasing salaries. Facilitating state and federal government funded research with increased funding. More academics will increase the number of graduate dentists and create a critical mass of people to make academia an attractive career choice. This in turn will provide dental graduates to be recruited into Public Dentistry.

An attractive salary package and career pathway is required to attract and retain dentists in the public sector. Inducements such as paid conferences and postgraduate degree opportunities should be included. Starting salaries and increases as seniority increases should be equivalent to private practice incomes excluding all the costs of running a private practice.

HEALTH PROMOTION

Training courses for nurses, carers, dentists and doctors need to be improved. In dentistry a module dealing with geriatric medicine and restorative strategies needs to be improved (Prof of Geriatric Dentistry involvement). A module should be included in the final year of the courses for nurses, doctors and carers outlining dental anatomy, the effect of plaque (biofilm) on teeth and soft tissues (gums), interaction between periodontal disease (gum disease) and general health and oral hygiene techniques. Dental faculty members could be involved with the training courses of allied professions.

Continue with postgraduate degree and research in Special Needs Dentistry.

PROFESSIONAL DEVELOPMENT

Staff in aged care facilities professional development can be improved by instruction material provided by State and Federal governments such as
2002 Department of Human Services Victoria
‘Oral Health for Older People
A practical guide for Aged Care Services’

And

2009
Better Oral Health in Residential Care.
Staff Portfolio (for residential aged care staff).
Professional portfolio (for General Practitioners and Div 1 nurses).
ORAL HEALTH AIDS

Materials such as small soft toothbrushes, high concentration fluoride toothpaste, fluoride mouth washes, interdental brushes, floss holders and large circumference toothbrush handle covers are some of the things that should be available in nursing homes.

Yours faithfully
Dr Rain Papli

REFERRENCES

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APPENDIX 1.
COST OF EQUIPMENT AT EACH NURSING HOME

This quotation was obtained on 6/8/2008.
Permanent equipment kept on location but movable for storage at nursing homes.
In this instance we will be able to use a proper mobile dental suction system and we have two options for facilitating patient's wheel chair we could use a tilting type of wheel chair available from the USA for approximately $3695 AU this is a calculated figure including freight from USA .Other option is a docking station for normal wheelchair that tilts to 45 degrees it operates on screw drive motor 24 volts and is transportable vie two of set wheels on the rear the **ESTIMATED** cost of docking station is $5000.I will now do a summery quote for your requirements with option one tilting chair and option two docking station at these estimated cost.

This package consists of the following items:

- Operating Cart with Fibre Optics to Two Lines & Built in Scaler with Clean water system and work tray.
- LED operating light on mobile stand
- Cattani Mobile suction
- Led Curing Light cordless rechargeable.
- 24 Volt Power Supply For Scaler & Fibre Optics
- Air Motor
- 3 x NSK fibre Optic High Speed
- 1 x NSK Fibre Optic Coupling
- 3 x NSK Slow Speed Handpieces
- 1 x Straight Handpiece
- Hand Held X Ray Unit
- Manual X Ray Developer
- S class Autoclave
- Oil Free Silent Air Compressor
- Tilt Type Wheel Chair
- Labour

Total For Option One $40,923.00 Inc GST

Total For Option Two With Docking Station $42,358.00 Inc GST

Please note this is a perception of your requirements.

We trust the above covers your main points and we look forward to being of further assistance with your requirements.

Yours Faithfully
For Borg Dental