



## DENTAL TECH GROUP

Dental Tech Group provides dental and denture services both in nursing homes and at home to the ageing population of Ireland from its premises in Dublin and through its mobile dental and denture clinics. Dental Tech Group currently works in more than 100 nursing homes in Dublin and surrounding counties looking after more than 5000 residents per year. Started as a family business in 1970's with two co-founders, the group has grown to over 35 employees.

Dental Tech Group makes bespoke high-quality dentures for clients to improve their quality of life, removing stresses around loose dentures and helping them to eat and socialise with confidence while looking great. Dental Tech Group also provides education and training to carers, family members and older people themselves on the risks of poor oral health, the increased impact on health due to poor oral health and then how with simple practical and daily routines this can greatly be improved.

## About Health Innovation Hub Ireland

Health Innovation Hub Ireland (HIHI) was established by the Department of Business, Enterprise and Innovation and the Department of Health, supported by Enterprise Ireland (EI) and the Health Service Executive (HSE) to drive collaboration between the health service and enterprise.

We offer companies the opportunity for pilot and clinical validation studies and the health service access to innovative products, services and devices that they may not otherwise be exposed to.

HIHI is built on the recognition that collaboration with enterprise can benefit patient care, patient pathways and outcomes.



## The Healthcare Challenge

Good oral health is essential to general health and well-being and greatly influences quality of life. It is defined as a state of being free from mouth and facial pain, oral diseases and disorders that limit an individual's capacity in biting, chewing, smiling, speaking and psychosocial well-being. Poor oral care has been shown to contribute to pneumonia in older people. Transmission of infection can occur when the elements forming the "Chain of Infection" are present. Good oral hygiene can reduce the transmission and reoccurrence of infection by breaking an element of this chain of infection. There is also increasing evidence in the literature that indicates a link between periodontal disease and heart disease.

Many older adults in Ireland have poor oral hygiene. Dental caries is more common in older adults, only 7% of people aged over 65 have healthy gums and many older adults have dry mouth, twice as many as younger adults. Maintaining good oral care practices can be challenging for many older people due to frailty, disability, immobility or disease. While the Health Service Executive has published information and practical advice on oral care for carers, administering dental treatment to these patients can be very difficult. Healthcare staff often feel inadequately prepared to provide oral care.



# The Healthcare Solution

Dental Tech Group has developed an educational programme on oral health care for the ageing population centred around awareness of the risks of not taking action, on basic and routine oral daily care with simple practical solutions including; how to prop open the mouth, to brush teeth without getting bitten or when there is limited mouth opening, to correctly clean someone's dentures and the risks of not cleaning regularly including dry mouth issues. This education and training is aimed at care assistants, nurses, student nurses, family members and older people themselves.

The programme consists of blended learning with online interactive modules and offline practical exercises. The programme presents the education material through text, graphic, photographic and video material. There are also links to resource material for further reading. The key

learning outcomes are assessed by a number of different type of quizzes throughout the programme. The online course takes 30 - 40 minutes to complete, but learners can pause it, return to it later and pick up where they stopped. Practical exercises are also undertaken so the participants can put their learning into practice.

An Bord Altranais, the Nursing and Midwifery Board of Ireland (NMBI) approved the course for Continuous Education Units (CEU) for registered nurses and midwives, describing it as a simple innovative solution to a great need. Having successfully completed the programme the learners are issued with a certificate with 3 CEUs. The programme was delivered for the first time in Institute of Technology Tralee to 58 nursing students in February 2020 and further courses carried out in acute hospital and nursing home settings. The course was very well received by participants.

## HIHI Role

Recognising the gap in the market in terms of provision of education and training for healthcare staff in the area of oral care and hygiene, HIHI supported Dental Tech Group in the development of an innovative educational programme. HIHI brought together an expert group of dental and nursing academics to validate the content and test the first iteration of the programme and provide feedback. HIHI applied for and was granted approval from NMBI for this course. HIHI together with Dental Tech Group piloted the approved course with third level nursing students as well as nurses and care assistants in an acute hospital and nursing home.

HIHI's expertise and network allowed Dental Tech Group to develop, validate, test and pilot this education programme with greater authority, credibility and speed than could have been achieved by Dental Tech Group alone. By bringing this educational programme to care assistants, nurses and student nurses HIHI and Dental Tech Group have helped support the health and wellbeing of older people. Dental Tech has developed a new validated product offering.



## Outcome Report

Following the completion of this HIHI project, Dental Tech Group can offer a NMBI certified educational programme which has been piloted successfully with key stakeholder groups. Training of care assistants and nurses will support practice development in hospital and nursing home settings, where improved oral hygiene will have a positive impact on the health and wellbeing of those who need care.

The company is now ready to take advantage of the expected increased demand for Oral Care training in Ireland. Mandatory requirements from NMBI to have a minimum number of CEU's to maintain registration is being discussed by the NMBI and the Department of Health and is expected shortly. Oral Care is expected to become part of HIQA audit of nursing homes, which will lead to greater attention on oral hygiene of residents in nursing homes and a requirement for staff to be appropriately trained. This training is also applicable for the oral care of other groups such as people with disabilities and people with mental health issues whose medication can lead to dry mouth problems.

### Testimonial

*The experience of working with the Health Innovation Hub since 2018 and in particular Jane O'Flynn and Noreen Lynch has been superb. We set out to pilot our oral care training and see how we could bring it to as many care givers and nurses as possible. The biggest barrier to the training was time and the trainees finding time to complete the training and we set out to try and overcome this challenge while also ensuring the content was accurate and valid for the audience. The project evolved with the support of this great team and exceeded our expectations throughout the process. The project was afforded every opportunity to test and measure so we can stand over it and that would not have been possible to the same extent without their support.*

*The professionalism and drive for success of both Jane and Noreen throughout this project has been phenomenal and we could not have achieved as much as we did without working with them and the HIHI team. Our combined online and practical Oral Care training is the first of its kind in Ireland and the content has now been independently validated and also awarded 3 Continuous Education Units through An Bord Altranais through the support of HIHI. I would highly recommend any company with a health related innovation to apply to the HIHI for this unmatched support.*

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