NHS Education for Scotland
Clinical Effectiveness
Oral Surgery Education and Training Programme Pilot
NHS Forth Valley Report

The General Dental Council states that oral surgery encompasses the diagnosis, investigation, and management of conditions of the teeth, mouth and jaws including medical and surgical interventions.

Primary care dentists are expected to undertake routine oral surgery care. High numbers of patients are referred to secondary care departments across Scotland for oral surgery concerns contributing to long waiting times. Many of these patients could be managed within primary care with further education and training of the workforce.

This report describes the findings from a pilot oral surgery education and training programme (OSETP) for primary care dental teams developed and implemented by the Dental Clinical Effectiveness (CE) workstream within NHS Education for Scotland (NES) in collaboration with NHS Forth Valley Royal Hospital (FVRH) to help improve the care of patients with oral surgery concerns.

Key Points

- The programme was piloted in NHS Forth Valley (FV) throughout 2025.
- The programme consisted of two parts:
  - Part A - online via Microsoft Teams with learning based on the Project ECHO model[1].
  - Part B - six sessions of clinical attachment at NHS FVRH.
- Five teams, each consisting of a dentist and dental nurse, from Dental Vocational Training (DVT) practices within NHS FV enrolled in the pilot with four teams completing training.
- The specialist content knowledge experts were oral surgeons from NES and NHS FVRH.
- Evaluation of the pilot was incorporated throughout using the Kirkpatrick model[2].
- Participating teams' feedback on the programme was positive with increased confidence, knowledge and competence reported.
- Improvements have been identified for inclusion in a proposed second pilot.

NHS Education for Scotland

Clinical Effectiveness

The Clinical Effectiveness workstream operates within the NES dental directorate.

This report presents

The findings from the OSETP pilot in NHS Forth Valley from February-December 2025.

Background

The purpose of this project was to develop and deliver initiatives to provide new education and training opportunities for members of the dental team. The primary aim was to enhance patient care by improving the knowledge and skills of the workforce.

Findings from a workforce survey, semi-structured interviews with interest holders and analysis of secondary care waiting list data identified oral surgery as a key focus for the development of a new education and training programme.

Survey findings identified face-to-face training and webinars as the most popular type of learning requested, and respondents suggested they would like verifiable CPD and an increase in confidence. This pilot was therefore designed to capture the wants of the primary care workforce and the needs of secondary care.

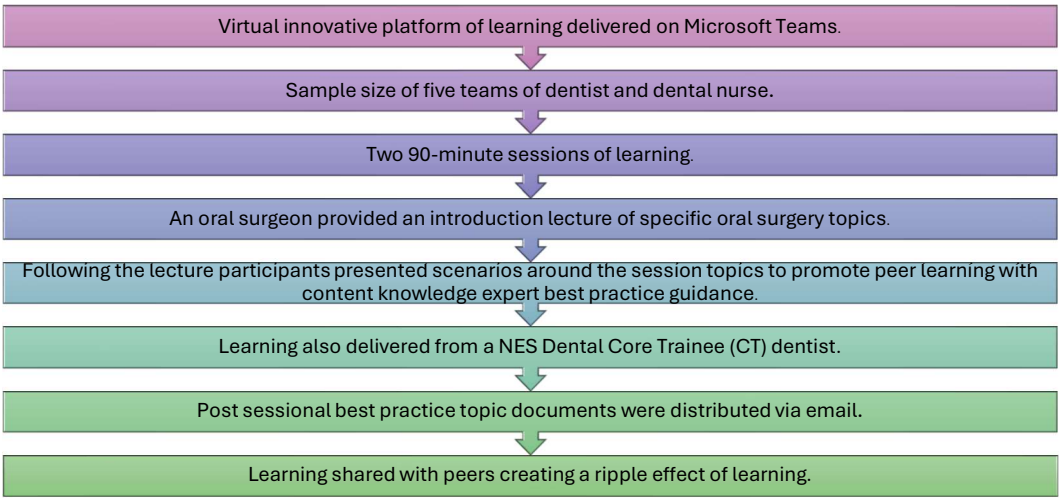
Aims

The aims of the OSETP pilot were to increase knowledge, understanding, clinical skills, competence and confidence of the diagnosis and management of patients requiring surgical intervention of the mouth and or jaws to enhance patient care while also improving collaboration and communication across the different dental services.

Methods

Recruitment
Dental teams working in DVT practices were identified as the target participants. A participant information sheet and recruitment message was circulated via the NES DVT workstream with interested teams encouraged to register their interest via email. Once participation was confirmed, participants were asked to complete a consent form before the training began. Honorary contracts were established by NHS FV allowing the dentists to perform hands-on training.

Method of learning
A two-part model combining online learning with hands-on training was developed.
Part A: an innovative model based on Project ECHO[1] was used, which involved:



Topics Delivered

Part A session 1 (05/02/25) focus:	Part A session 2 (26/02/25 and 16/06/25) focus:
• What is safe to carry out in primary care • Medical histories and what to be aware of • Consent DCT presented: Commissioning oral surgery in England	• Equipment, materials and instruments • Appropriate investigations • Haemorrhage control DCT presented: Significant Event Analysis on haemostasis

Part B

Each team attended NHS FVRH for a six-session placement of hands-on clinical teaching, resulting in 24 hours of individual team training with an oral surgeon working on cases that had been referred in from primary care.

Learning outcomes for the dentists (dental nurses to assist)

- Obtain accurate patient history including medical history.
- Establish a differential diagnosis.
- Perform and/or refer for special investigations including appropriate radiographs.
- Obtain and record relevant verbal and written patient consent to treatment.
- Manage and treat patients locally that have pathology of the mouth and or jaws requiring surgical intervention that does not require initial onward secondary care referral.
- Manage haemorrhage following surgical intervention as well as diagnose and treat post operative surgical complications that do not require secondary care treatment.
- Justify and judge when to refer patients for specialist diagnosis and treatment and refer with appropriate urgency.

Evaluation model

Evaluation was based on the Kirkpatrick Model, a globally recognised method of evaluating the impact of informal and formal education and training at four levels of impact: reaction, learning, behaviour, and results. Behaviour change questions were included based on the COM-B model[3]. Results of the programme were linked to NES strategic themes of People, Partnership and Performance[4].

Data collection

Data was collected via anonymous online surveys at three stages of the pilot: before training, immediately after sessions, and post-training. A continual dialogue was maintained with the cohort via email throughout the pilot.

Data analysis

Descriptive statistics were used to analyse quantitative data. Qualitative data from the free text boxes were analysed to identify recurring patterns and key themes.

Post training certificates

Following the pilot the participants were awarded continual professional development (CPD) certificates. Those in the General Dental Service (GDS) could use their GP214 forms to enable them to claim CPD allowance for this programme.

Governance

Permission was granted by the NES Dental Directorate and the Clinical Lead for Oral and Maxillofacial Surgery at FVRH. Data collected from feedback forms and questionnaires were anonymous and managed according to NES information governance policies and procedures.

Results

Pretraining questionnaire results

Pretraining anonymous questionnaires asked the participants about their clinical background, their current practice in managing patients with oral surgery needs, the barriers they may have encountered, what they were wishing to gain and achieve from this programme and which oral surgery topics they would like explored. Dentists and dental nurses had separate questionnaires.

Pretraining response summary from the four dentist respondents

All dentists were dental associates with three working in independently owned dental practices and one in a corporate practice. Half of the respondents had been qualified for over 10 years with three working in a DVT training practice for over 5 years. The option selected by all as the reason for taking part in the programme was personal interest and all wanted to gain improved clinical skills. None had received any previous oral surgery job roles or clinical or non-clinical oral surgery training. Three selected that they were confident treating routine oral surgery with all selecting they were not confident managing complex oral surgery. Half of the respondents selected that they had the appropriate instruments and materials to perform oral surgery within practice. All responded they had good communication with secondary care. Options selected to improve the oral surgery referral process were reducing patient waiting times, more collaboration with oral surgery departments and NHS local referral options for routine cases. The cohort estimated they referred between 2-5 patients to secondary care for oral surgery per month with two selecting they estimate their practice refers greater than 15 referrals per month. The group selected that they referred to secondary care due to lack of experience and lack of resources with all requesting education in part A of the programme to include guidance on what is safe to carry out in primary care. One respondent commented requesting more information about the consent process.

"I think it would be helpful to understand more about the consent process for more complex cases within oral surgery".

Pretraining response summary from the four dental nurse respondents

Three dental nurses worked in an independently owned dental practice and one in a corporate practice. All dental nurses had been qualified less than 5 years with one working in a DVT training practice for less than 2 years. All selected they were taking part in the programme due to personal interest, and all selected that they wanted to gain oral surgery knowledge. None of the group had had any oral surgery job roles or further oral surgery clinical or non-clinical training. None selected they were confident to set up the surgery for routine or complex oral surgery cases. When asked about assisting in oral surgery cases three responded they were confident in routine cases and one not confident. For complex cases three responded neutral and one not confident. When asked if they knew of the different instruments and materials required to carry out oral surgery in practice one selected yes, one no and two were unsure. When asked and if they had these available in practice one selected yes, one selected no and two were unsure. Reducing waiting times for patients was selected by three respondents as an improvement that could be made to the oral surgery referral process. The group was asked to estimate how many oral surgery referrals their practice refers per month two selected between 5-10 and two selected that their practice refers greater than 15 patients. When asked to select the reason for referrals two selected that these patients need to be seen by a specialist with two selecting sedation would be required. All requested training in equipment, materials and instruments for part A of this programme and there were no responses to the open suggestion box at the end of the questionnaire.

Sessional evaluation results

Participants were asked to complete a short anonymous feedback forms after each session in Part A. The questions focused on the participants: reactions to the session, learning from the sessions, behaviour changes because of/belief about the sessions, environment of the session and opinion of the oral surgeon speaker. All these questions were scale response with participants asked to select the extent that they agreed on a statement with the options of strongly agree, agree, neutral, disagree, strongly disagree. A final open box space allowed participants to give comments, suggestions or improvements that could be made about the programme.

There were 8 responses to session one and 6 responses to session two.

For both sessions feedback was positive with all respondents strongly agreeing or agreeing that each session was relevant to their role. All reported that both sessions met the learning outcomes and enabled them to recall previously learned knowledge. In both sessions all strongly agreed or agreed that the sessions were well organised, they were comfortable contributing and that the model of learning based on Project ECHO was an effective way for them to learn. The oral surgeon speaker received positive feedback in both sessions with all strongly agreeing or agreeing they were well informed, made effective use of time, and communicated their subject matter effectively.

For session one 7 respondents strongly agreed or agreed that the session was engaging, enjoyable, that it had given them the motivation and opportunity to improve their professional practice and 1 respondent selected neutral to these questions. Six respondents strongly agreed or agreed that the session would most likely increase their confidence in managing oral surgery patients with two remaining neutral.

For session 2 all respondents strongly agreed or agreed that the session was engaging, enjoyable, they had gained new knowledge, it would improve their oral surgery skills and that they would incorporate learning into their clinical practice. All strongly agreed or agreed that the session had given them the motivation and opportunity to improve their professional practice with five strongly agreeing or agreeing that it had given them the capability to improve their professional practice and one remaining neutral to this. All selected the session would likely increase their confidence in managing oral surgery patients.

Session 1:

"This was a very good introduction to the course. I enjoyed the case-based learning and the use of real-life examples to help learning points"

"Really enjoyed the session, ample opportunity to ask questions and discuss cases"

Session 2:

"I found the sessions very enjoyable and knowledgeable. I feel that I can effectively carry out good practice in surgery and know how to manage these kinds of patients"

"I really enjoyed this course. I enjoyed the openness of it and the opportunity to ask more questions with it being a smaller group."

Post training questionnaire results

Post training the group were given a Microsoft form questionnaire to give detailed data on their thoughts, opinions and suggestions for this programme. Dentists and Dental nurses were given separate questionnaires.

Four teams completed the training and the post training questionnaire. Evaluation of responses was mapped to and reported using the four levels of the Kirkpatrick model**.**

Level 1 **Reaction** - All participants agreed or strongly agreed that the programme was enjoyable, relevant to their role and beneficial to complete with a member of their team. All would recommend this programme to a colleague.

Dentists: *"Found the programme very worthwhile and enjoyed it very much. Would definitely recommend to other GDPs."*
"*Very good programme and hopefully it can keep running*."
Dental Nurse: *"…would like to thank everyone who organised this course."*
"*Thought the course was amazing."*

Level 2 **Learning** - All participants agreed or strongly agreed that they had increased their oral knowledge, understanding, competence, confidence, clinical skills and that the programme had met the learning outcomes.

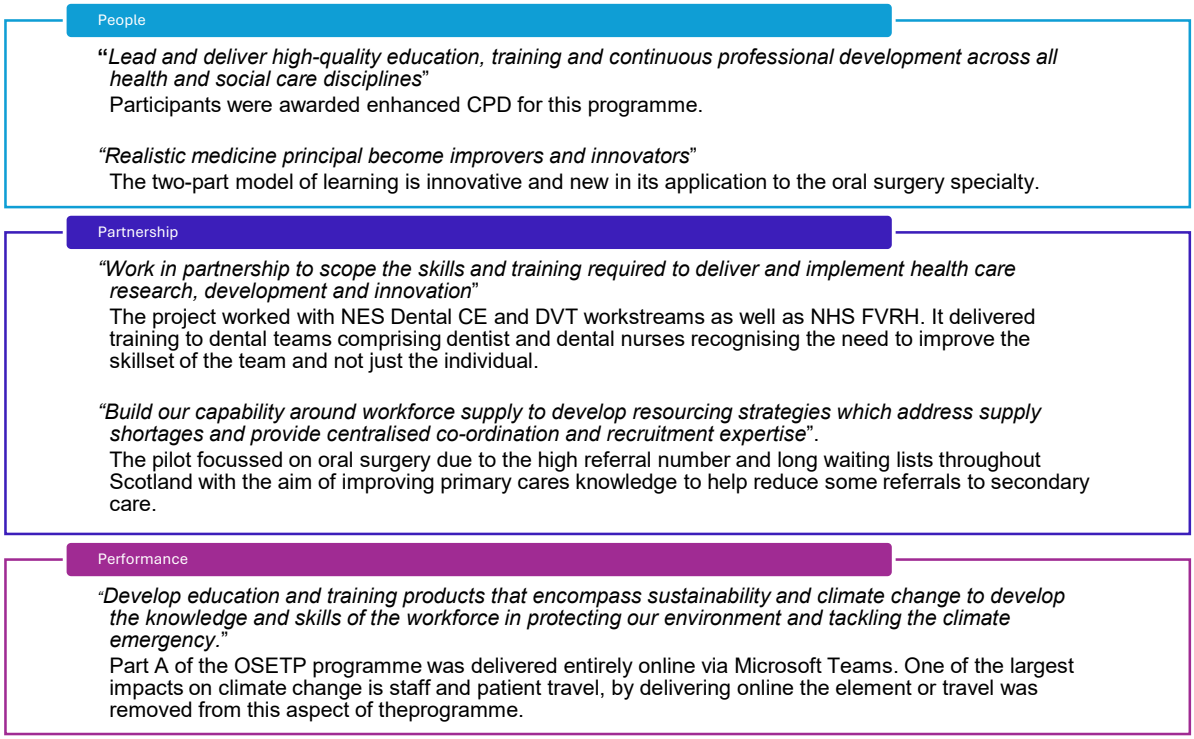
Dentists: *"…this programme has really improved my confidence and skill set"*
"…very helpful to have lots of practical experience with mentoring."
Dental Nurse: *"It gave me the opportunity to fully understand oral surgery"*

Level 3 **Behaviour** – evaluated against COM-B model where behaviour changes are influenced by capability, opportunity and motivation. All participants agreed or strongly agreed that the programme had given them the motivation, opportunity and ability to improve their oral surgery professional practice.

All participants responded they now would be willing to help fellow clinicians within their team in challenging oral surgery situations. Three dentists and dental nurses reported that they had shared learning with other members of their team. Three dentists selected that they had reduced their referrals to secondary care. All responded that their relationship with the oral surgery secondary care department had improved. Statements describing changes that they have made to their oral surgery management because of this programme include:

Dentists: *"Additional equipment and materials ordered at present considering accepting referrals from colleagues in practice"*
"I thoroughly enjoyed the clinical sessions and definitely feel more confident in approaching surgical extractions in practice"
Dental nurse: *"The dentist that I work with now does the surgical extractions in practice and now I can assist with confidence. I have been able to order the correct instruments and materials needed for a surgical extraction."*

Level 4 **Results** - linking with NES Strategic themes of: People, Partnership, Performance.



Discussion

The aims of the OSETP pilot to increase knowledge, understanding, clinical skills, competence and confidence of the diagnosis and management of patients requiring oral surgery within a primary care setting while also improving collaboration and communication across the different dental services have been achieved through this pilot.

Part A facilitated communication, collaboration and relationships built with peers and specialists to share learning and improve confidence in this speciality. Part B ensured that the crucial experience of hands-on teaching to improve clinical skills was delivered to both the dentist and dental nurse participants. Dentistry as profession relies on a team approach to deliver patient care and creating a programme of education and training supporting both the dentist and dental nurse was imperative. The Kirkpatrick model[2] evidence that the pilot groups' positive reaction, shared learning, changed behaviour and the result of introducing a new innovative education model to this specialty highlights the success of this pilot.

There are various insights from this pilot which can be used to inform improvements to this programme in order that it could potentially be rolled out more widely across Scotland. For Part A, a more detailed expectation of what participants are expected to present along with the option of training on how to use Microsoft Teams efficiently would support participants in being better prepared and optimise learning. Increasing the number of participants in each programme would also be of benefit to ensure learning reaches a wider audience. The final team was unable to commit to Part B of the programme due to a change in working pattern between enrolling in the programme and having training dates confirmed. A refinement of the programme would be establishing training dates in advance to manage the expectations of participants, with the possibility of adjusting the number of sessions of hands-on training required for different teams' dependant on individual requirements.

Next steps for the OSETP

This pilot model is currently being discussed with different health boards to establish if they have interest and capacity to replicate. The option to have one oral surgeon delivering training for Part A and then the groups attending Part B at an oral surgery department within their listed health board is to be investigated.

References

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4. https://www.nes.scot.nhs.uk/news/nes-strategy-2023-26-people-partnerships-and-performance/

Report preparation

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