

# Transforming Conscious Sedation in Dental Care – Developing and Delivering a Community of Practice and Training Centre

Vaseekaran Sivarajasingam, Consultant Oral Surgeon, CAVUHB  
 Claire Dunstan, Consultant Anaesthetist, CAVUHB  
 Mick Allen, Consultant in Sedation and Special Care Dentistry, CAVUHB

Contact: Sivarajasingam@Cardiff.ac.uk

## Project Background:

There is a significant unmet need for dental care under conscious sedation, with approximately 10,200 adults in CAVUHB alone. Patients with dental anxiety present late with high treatment needs.

Lack of access to sedation services in Wales leads to overreliance on general anaesthesia (GA) and worsens existing health disparities.

Currently, there are no conscious sedation training programmes for dental teams in Wales.

## Project Aims/Objectives:

To develop a Community of Practice in conscious sedation in CAVUHB.

To develop training programme for dentists and dental teams in conscious sedation in Wales.

## Project Outcomes:

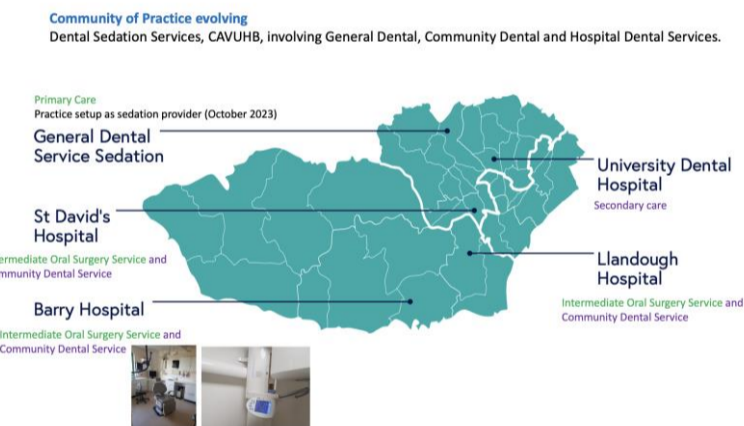


Figure 2: Conscious sedation services, CAVUHB.

## Project Approach:

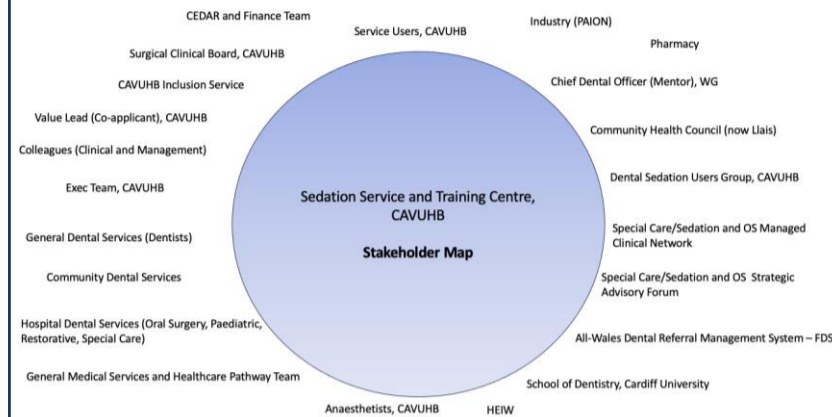


Figure 1: Stakeholder engagement focused on people, services (General, Community, Emergency and Hospital Dental) collaboration and commissioning.

Cost-consequence and outcomes approach was used to **simulate the impact** of increased conscious sedation. **Existing GA waiters were reassessed for suitability** for treatment with conscious sedation. In collaboration with HEIW, the feasibility of a conscious sedation training programme for Wales was evaluated.

**Conscious sedation patient care pathways were designed, re-designed, and co-produced across different dental services.**

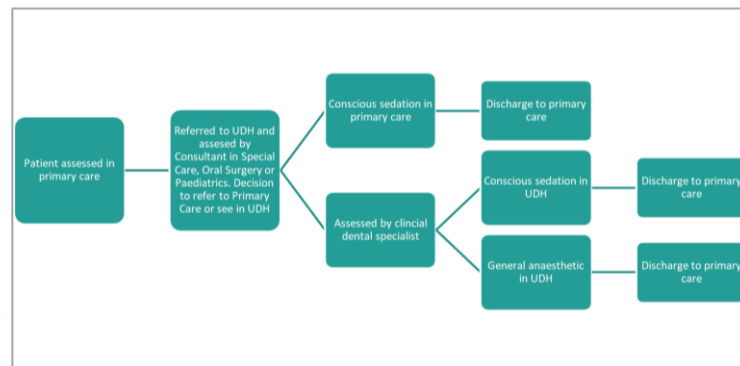


Figure 3: New patient care pathway for adults and children in conscious sedation, CAVUHB.

	Number of patients	Total annual costs (£)	Total procedure time (hours)	Proportion of services (%)
Current practice				
GA	529	1,096,598	1,381	40
IS	260	116,249	182	19.7
IV midazolam sedation	486	530,285	925	36.8
Deep sedation	27	41,419	50	2
Transmucosal sedation	19	32,677	54	1.4
<b>Total</b>	<b>1,321</b>	<b>1,817,227</b>	<b>2,592</b>	<b>100</b>
New Service Model				
GA	399	933,349	1,119	30.2
IS	260	116,152	182	19.7
IV midazolam sedation	597	621,880	1086	45.2
Deep sedation	46	69,571	83	3.5
Transmucosal sedation	19	32,677	54	1.4
<b>Total</b>	<b>1,321</b>	<b>1,773,629</b>	<b>2,524</b>	<b>100</b>
<b>Difference</b>		<b>-43,598</b>	<b>-68</b>	

Table 1: Comparison between current practice and new sedation pathway showing increased sedation and decreased GA.

In October 2023, a new primary care conscious sedation service commenced with new referral criteria and patient care pathways.

A new conscious sedation training programme was developed in collaboration with HEIW. This innovative programme combines didactic teaching and hands-on clinical experience to equip staff with essential skills and knowledge in conscious sedation techniques.

## Project Impact:

In secondary care, 130 patients would transition from GA to conscious sedation, with 111 receiving IV midazolam and 19 undergoing deep sedation, resulting in **cost savings of £43,598 per annum and efficiency savings of 68 hours.**

In primary care, the introduction of the new sedation service would make **275 additional capacity** for adults and children eligible for treatment with conscious sedation.

In September 2024, Dental Core Trainees (DCTs) at CAVUHB will begin, **HEIW certified, conscious sedation training marking the first program of its kind for DCTs in the UK.**

## Key Conclusions:

The establishment of a Community of Practice and the implementation of a training programme for conscious sedation, CAVUHB, represent significant steps towards achieving **equity in dental care and reducing reliance on GA.** Conscious sedation offers **cost benefits** over general anaesthesia in both primary and secondary dental care settings.

## Next Steps:

- **Evaluate** conscious sedation Community of Practice from user perspective.
- **Integrate** primary care conscious sedation services into dental clusters across CAVUHB and the rest of Wales.
- **Expand** training in conscious sedation for primary care dental teams and establish a dedicated training centre at CAVUHB to serve other HBs in Wales, through collaboration with HEIW and Cardiff University.