

Transforming Conscious Sedation in Dental Care

Developing and Delivering a Community of Practice and Training Centre

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The Senedd, June 24

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Patient stories

Bringing dental care to people who need a little extra help

'A Journey to Dental Wellness'

Meet JF, a 57-year-old, severe mental health challenges, dental phobia.

Avoided dentists over 20 years. Poor dental appearance led to social withdrawal, isolation, and embarrassment.

Received care comfortably with deep sedation. Relief dental pain, improved dental appearance, reduced social exclusion.

'Overcoming Dental Phobia'

Meet MA, a 35-year-old, severe dental phobia.

Needed dental extraction, had sleepless nights, missed work. Referred to University Dental Hospital requesting GA.

Used new, short-acting sedative (Remimazolam). Supported by a dental nurse, tooth extraction took less than 30 minutes with minimal discomfort. Overwhelmingly positive feedback.

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“The vision fits”

- What is conscious sedation?
 - ❖ use of a drug(s) to depress the central nervous system to allow dental treatment¹
 - ❖ verbal contact is maintained¹
 - ❖ Drug(s) have a margin of safety to render loss of consciousness unlikely¹
 - ❖ Can be delivered by a dentist or dental care professional
- Providing adequate anxiety control
 - ❖ a right for the patient and a duty placed on the dentist²
- Significant unmet need for dental care under sedation
- Lack
 - ❖ access to dental sedation services
 - ❖ sedation training for dentists/dental teams (Wales)

46% of people in Wales have moderate-to-severe dental anxiety^{3,4}; 45,000 adults in CAVUHB

¹The Inter-Collegiate Advisory Committee for Sedation in Dentistry

²General Dental Council

³Oral health needs assessment of people requiring conscious sedation for dental care in CAVUHB area, Public Health Wales, March 2021

⁴Adult Dental Health Survey - England, Wales, Northern Ireland, 2009: Wales key findings report. 2011

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“The vision fits”



University Dental Hospital, CAVUHB



Principal provider of conscious dental sedation services


Over-reliance (service users and clinicians) on GA for Elective and Emergency Dental Care (twelve months ending March 2024)

Almost all of service users having GAs for single tooth extractions likely to be dentally anxious.

- ❖ 216 GAs for dental extraction
- ❖ 20% (44) GAs for a single tooth extraction (conscious sedation very effective)
- ❖ In 62% (134) sedation was not offered/ recorded
- ❖ Mean waiting time for GA 84 weeks for an operation which lasted (mean) 47 minutes, including anaesthesia

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“The vision fits”


Llywodraeth Cymru
Welsh Government

The oral health and dental services response

A Healthier Wales:
our Plan for Health and Social Care

WHC (2018) 009

WELSH HEALTH CIRCULAR


Llywodraeth Cymru
Welsh Government

Issue Date: 18 June 2018

STATUS: COMPLIANCE

CATEGORY: QUALITY & SAFETY

Title: Dental Services: Service Standards for Conscious Sedation in a dental care setting

Date of Review: May 2021

For Action by: Chief Executives, Local Health Boards
All dental services providing or planning to provide conscious sedation in a dental care setting in Wales

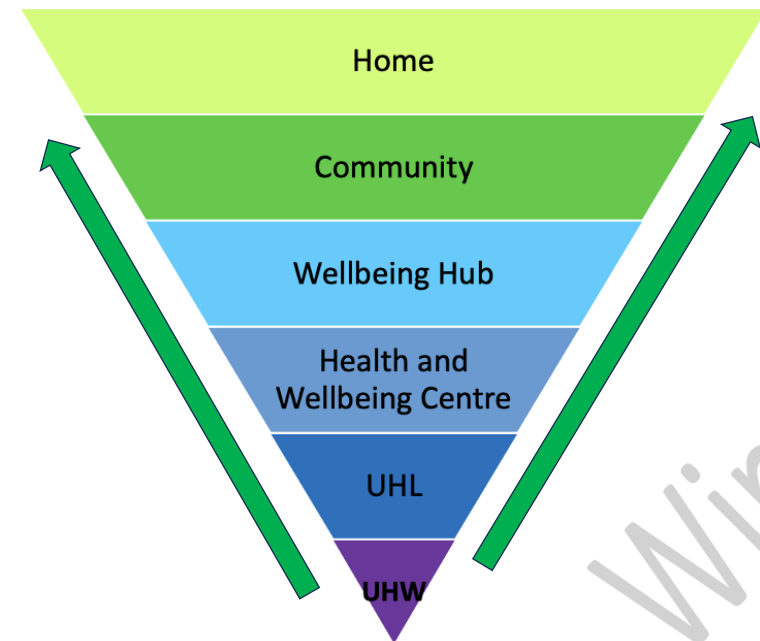
Action required by: Immediate

Sender: Kairn Phillips, Deputy Director of Primary Care
Colette Bridgman, Chief Dental Officer

Health and Social Services Group, Welsh Government Contact: Lisa Howells, Deputy Chief Dental Officer
Lisa.howells4@gov.wales
Tel: 0300 025 1482

Enclosure(s): Annex 1: Service Standards for Conscious Sedation in a dental care setting

How we see our future health care model

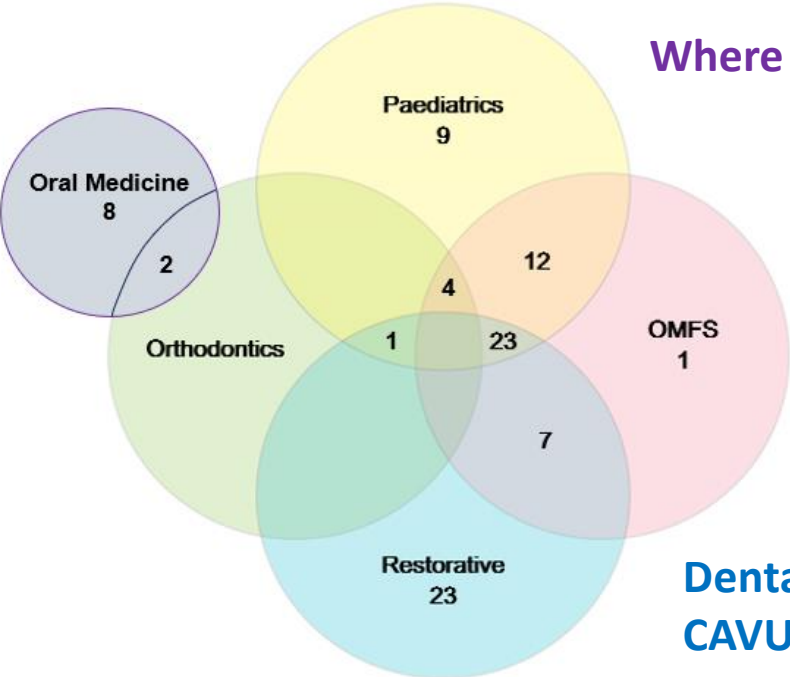


Key Principles

- HBs to provide safe and effective sedation services for the population in Wales
- Shift specialist care (including dental sedation) from hospitals to community settings
- Developing dental practitioners with enhanced skills in sedation

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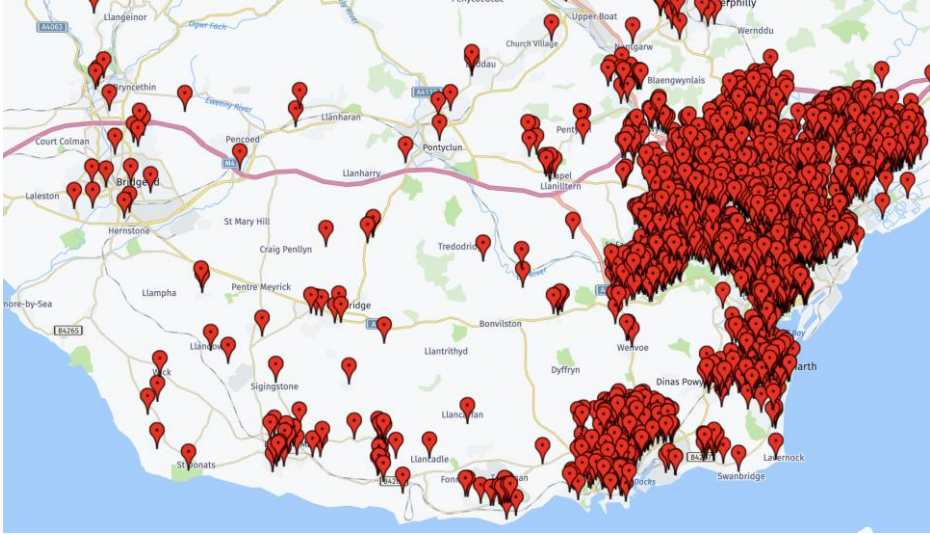
“The vision fits”



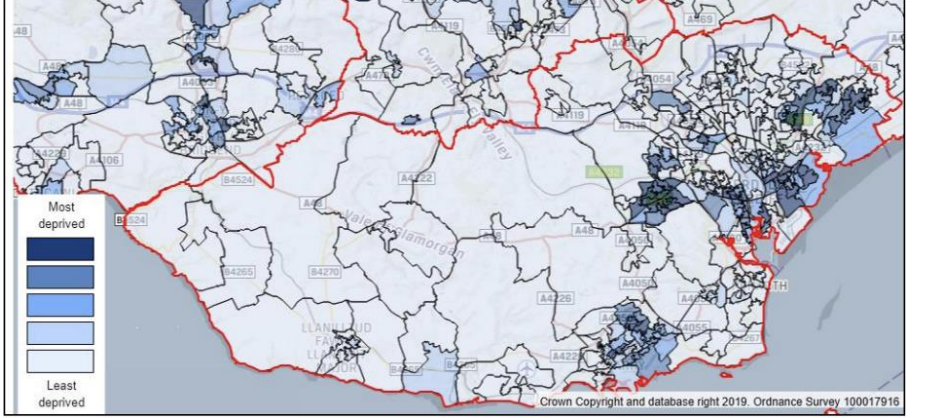
Where do our service users come from?

Dental multi-specialty referral hotspots
CAVUHB

Resident postcodes (n=17,196)



Deprivation gradient, CAVUHB



275 LSOAs studied. 24 months ending 31st March 2024. All-Wales e-DRMS data. Hot-spot analysis using ArcGIS Pro and Getis-Ord Gi.

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“The players”

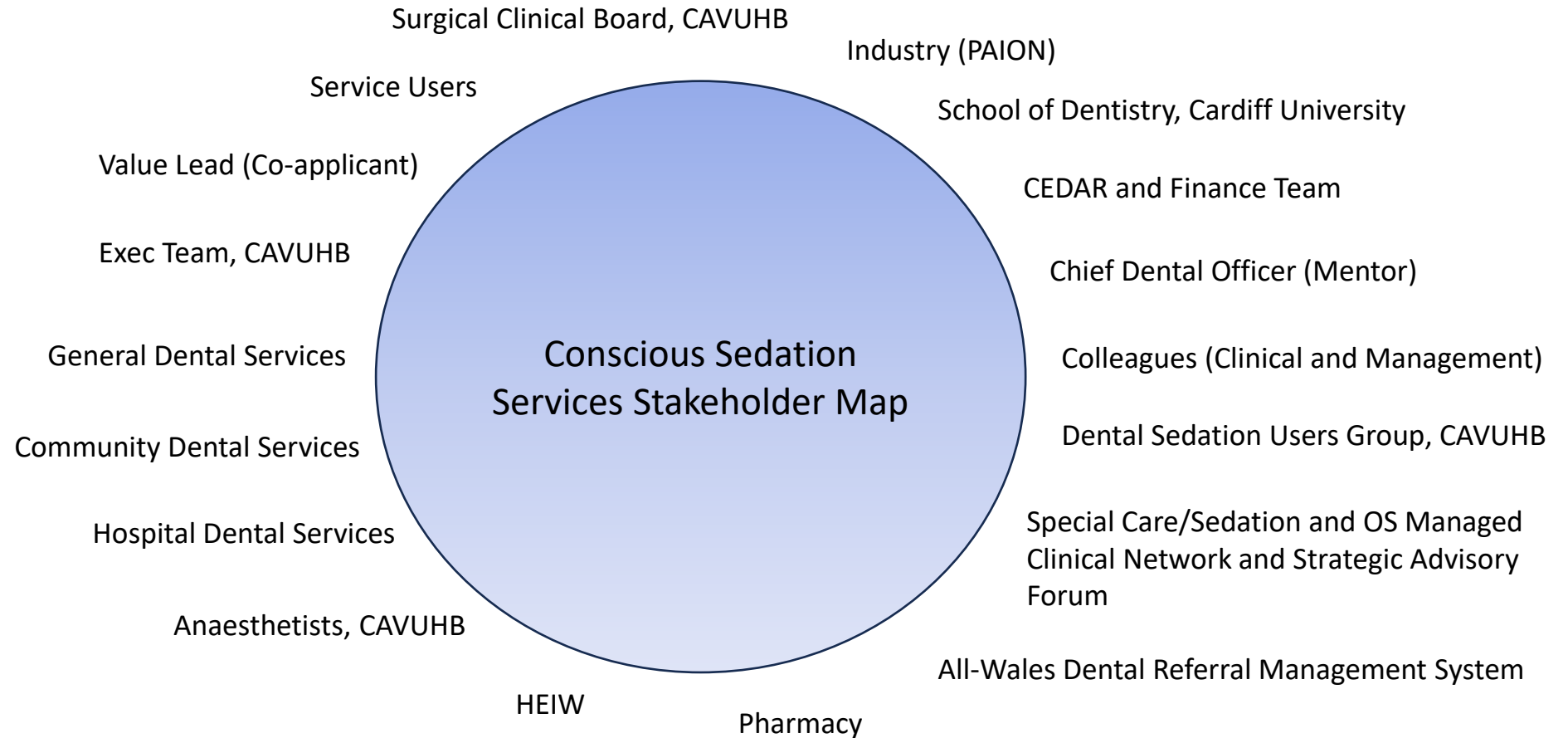


Swim lane workshops to design, re-design and co-produce patient care pathways



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“The aims and goals”

Primary Objectives

- ❖ Develop **Community of Practice**, CAVUHB
- ❖ Develop **postgraduate training** for dentists/dental teams, Wales
- ❖ Services **structured around patient needs**
- ❖ Patients receive **care closer to home** in most appropriate care setting

Secondary Objectives

- ❖ Reduce **waiting times** for GA
- ❖ Free up **secondary care capacity** for patients with more complex needs
- ❖ Promote **most efficient use** of CAVUHB resources

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“The learning”

High level rapid review (patient experiences of sedation vs GA)

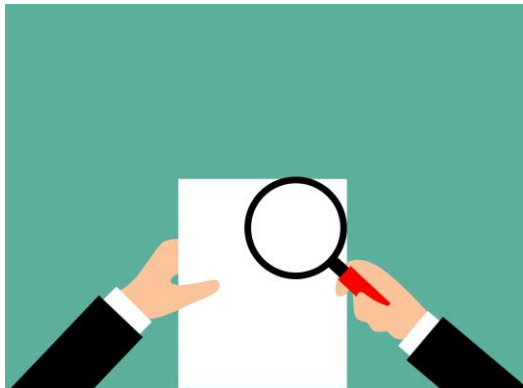
- ❖ Since 1990
- ❖ 908 articles (124 eligible)
- ❖ 18 UK studies

Cost-consequence and outcomes (increased sedation, decreased GA services)

- ❖ **Costs** for room/bed, staff, drugs
- ❖ **Outcomes** – adverse effects, successful cases

GA waiters revalidated (for treatment with sedation)

- ❖ 356 patients on GA for dental extractions (September 2023)



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“The learning”

Conscious sedation patient care pathways (designed, re-designed and co-produced)

- ❖ No NHS primary care sedation service
- ❖ Sedation services (Hospital, Community) working in isolation



Conscious sedation training programme in Wales (collaboration with HEIW)

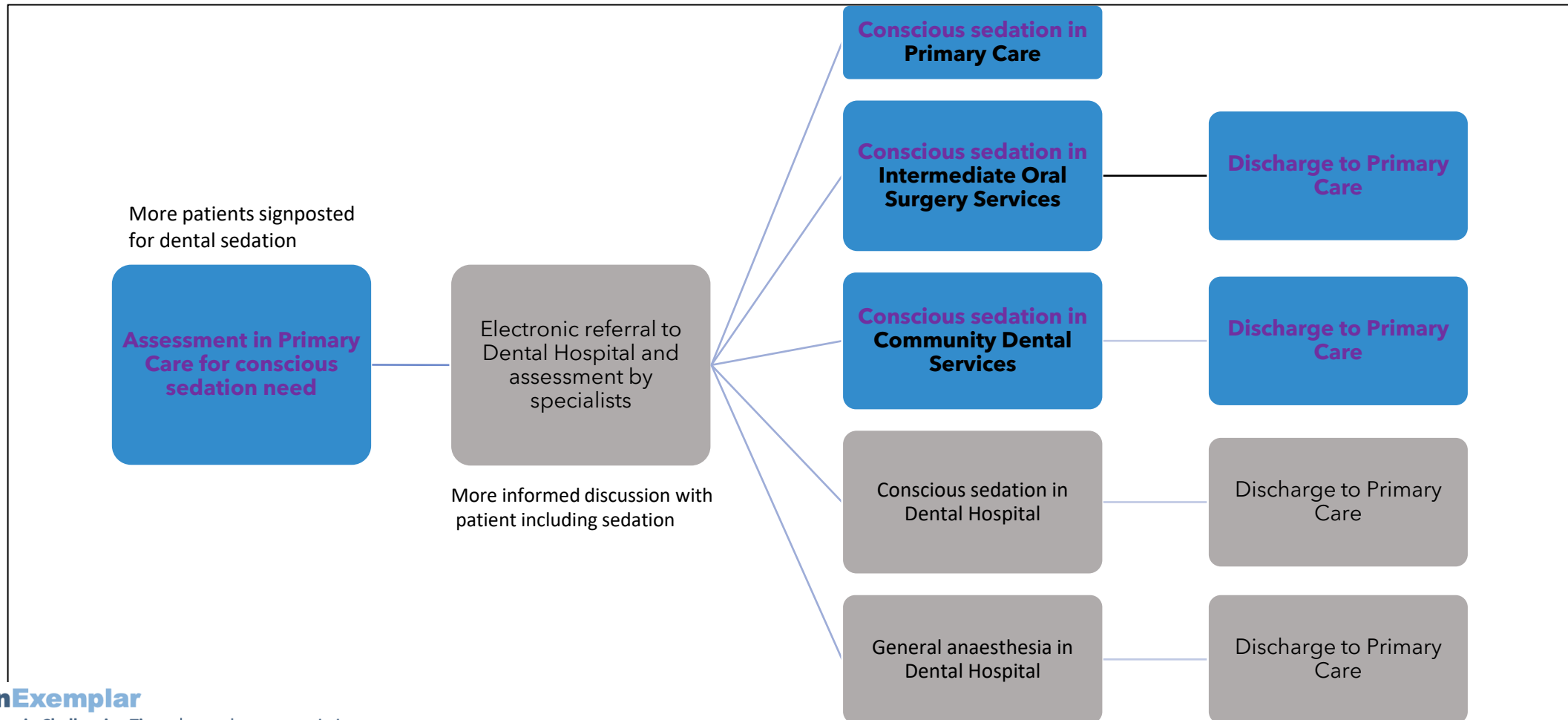
- ❖ No sedation training programme for dentists and dental teams in Wales
- ❖ Rely on training provided in England



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“How it works”

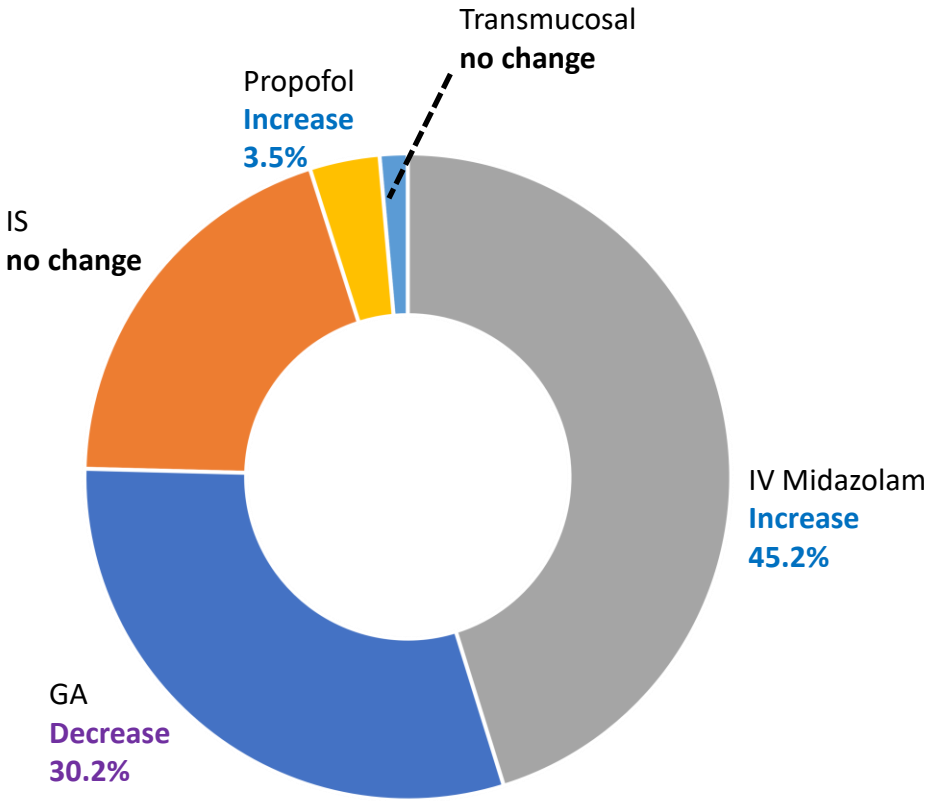
New conscious sedation care pathways in blue



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“How it works”

Current practice and new sedation pathways in secondary care



(Source: CEDAR and Finance Team)

	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
Total	1,321	1,817,227	2,592	100
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
Total	1,321	1,773,629	2,524	100
Difference		-43,598	-68	
GA, General Anaesthesia; IS, Inhalation Sedation; IV, Intravenous Sedation				

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“The money thing”

£ The cost of **ten Dental procedures under GA** is equivalent to ...



Inhalation Sedation



Transmucosal sedation



Intravenous Midazolam



Intravenous Remimazolam



Propofol sedation

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“The money thing”

£ The cost of **ten Dental procedures under GA** is equivalent to ...

51



Inhalation Sedation



Transmucosal sedation



Intravenous Midazolam



Intravenous Remimazolam

Propofol sedation

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“The money thing”

£ The cost of **ten Dental procedures under GA** is equivalent to ...

51

13



Inhalation Sedation

Transmucosal sedation

Intravenous Midazolam

Intravenous Remimazolam

Propofol sedation

Sedation Community of Practice and Training Centre

“The money thing”

£ The cost of **ten Dental procedures under GA** is equivalent to ...

51

13

20



Inhalation Sedation

Transmucosal sedation

Intravenous Midazolam

Intravenous Remimazolam

Propofol sedation

Sedation Community of Practice and Training Centre

“The money thing”

£ The cost of **ten Dental procedures under GA** is equivalent to ...

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13

20

33



Inhalation Sedation

Transmucosal sedation

Intravenous Midazolam

Intravenous Remimazolam

Propofol sedation

Sedation Community of Practice and Training Centre

“The money thing”

£ The cost of **ten Dental procedures under GA** is equivalent to ...

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20

33

13

Inhalation Sedation

Transmucosal sedation

Intravenous Midazolam

Intravenous Remimazolam

Propofol sedation

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“The evolving”



Primary Care
Practice setup as sedation provider (October 2023)

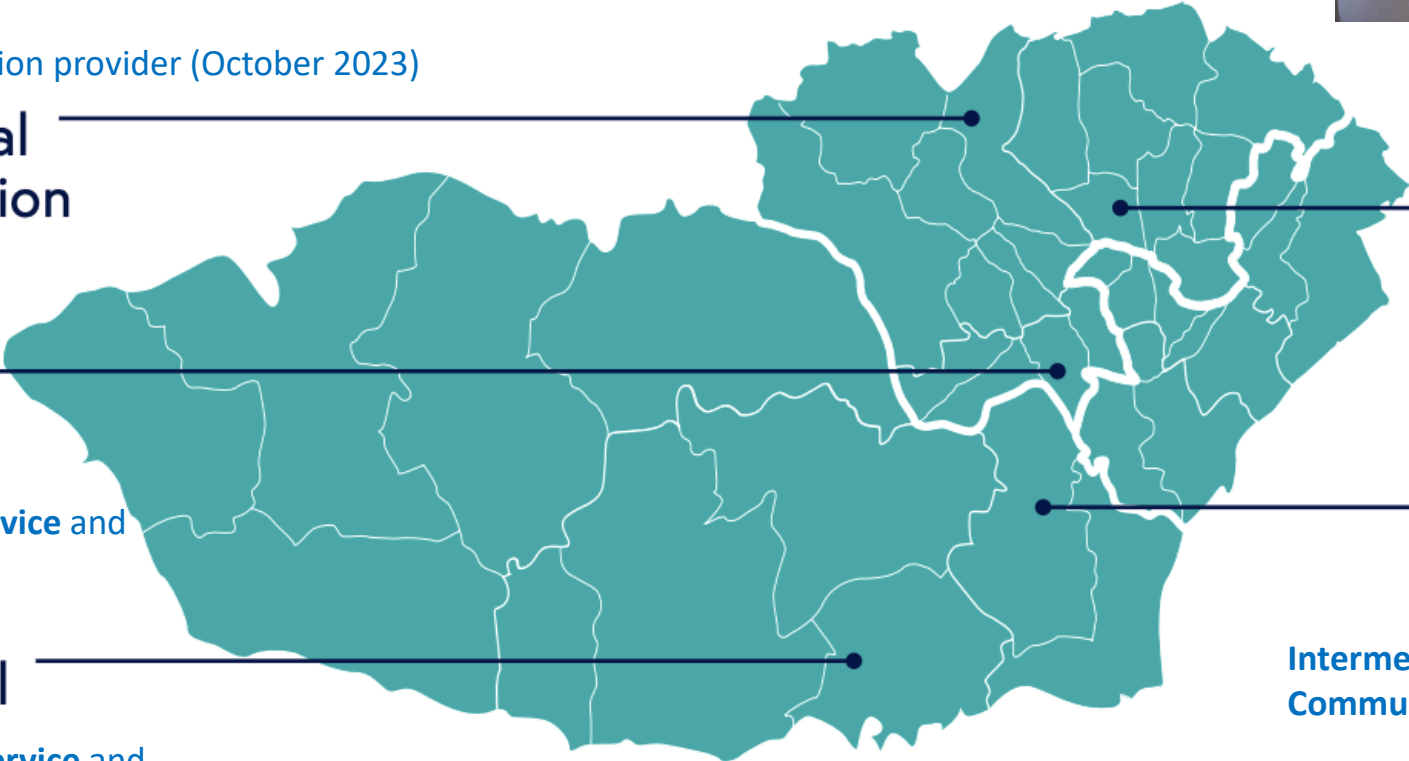
**General Dental
Service Sedation**

**St David's
Hospital**

Intermediate Oral Surgery Service and
Community Dental Service

Barry Hospital

Intermediate Oral Surgery Service and
Community Dental Service



**University Dental
Hospital**

Secondary care

**Llandough
Hospital**

Intermediate Oral Surgery Service and
Community Dental Service

Sedation Community of Practice and Training Centre

“The success”



Primary Care
Practice setup as sedation provider (October 2023)

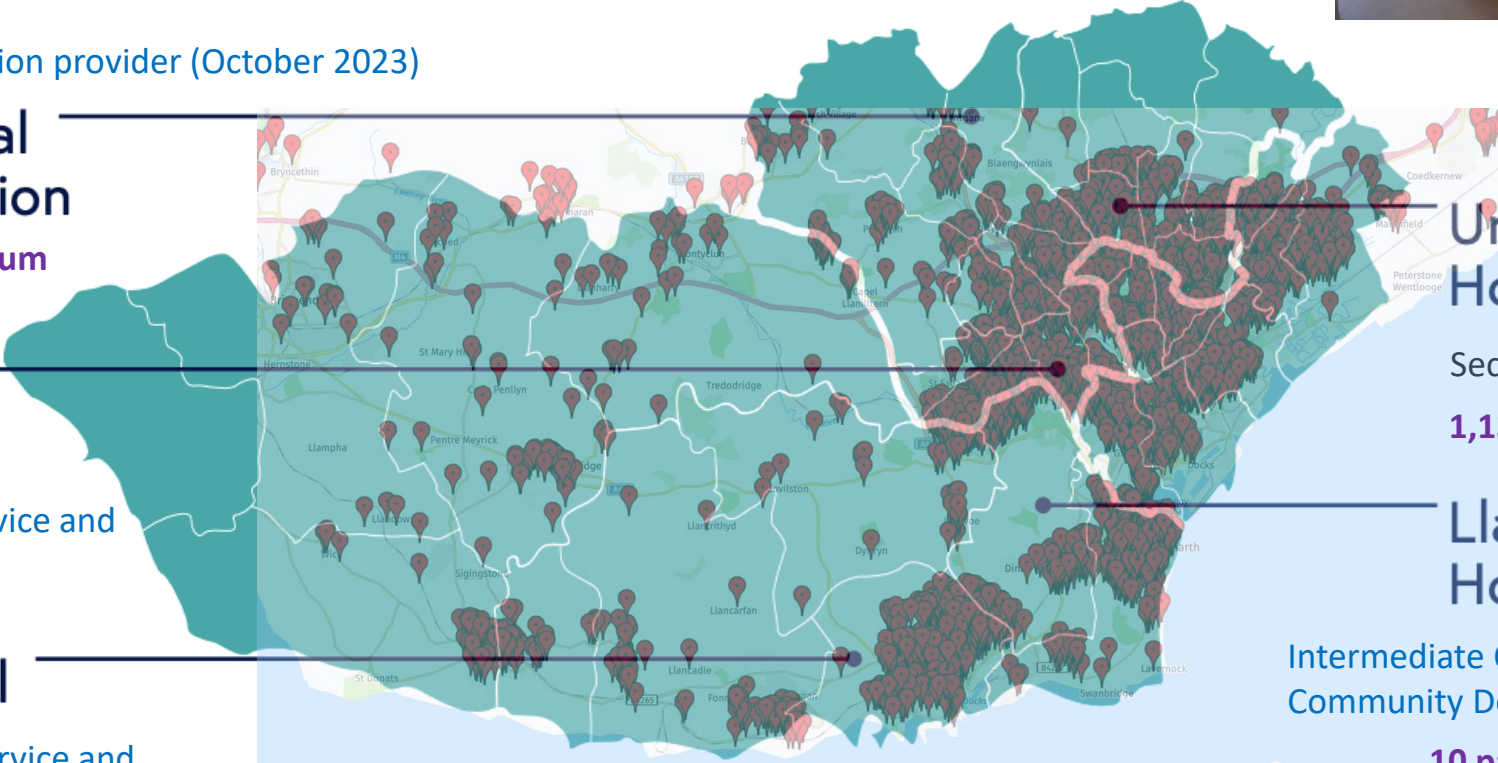
General Dental Service Sedation
275 patients per annum

St David's Hospital

Intermediate Oral Surgery Service and Community Dental Service
15 patients in 2023/24

Barry Hospital

Intermediate Oral Surgery Service and Community Dental Service
134 patients in 2023/34



University Dental Hospital

Secondary care
1,137 patients in 23/24

Llandough Hospital

Intermediate Oral Surgery Service and Community Dental Service
10 patients in 2023/24



Dental referral post code

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“The success”

Project impact:

- In secondary care, 130 patients move from GA to conscious sedation - **cost savings of £43,598 per annum and efficiency savings of 68 hours**
- In primary care, the new sedation service with **275 additional capacity** for adults and children
- In September 2024, Dental Core Trainees (DCTs) at CAVUHB will begin, **HEIW certified, conscious sedation training (including IV sedation)** marking the **first program of its kind for DCTs in Wales**

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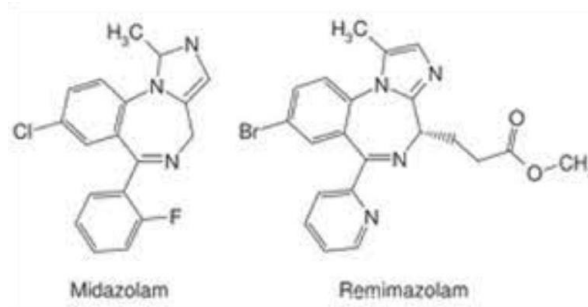
“The future”



Remimazolam is here!

Evaluation

Collaboration with Pharmacy



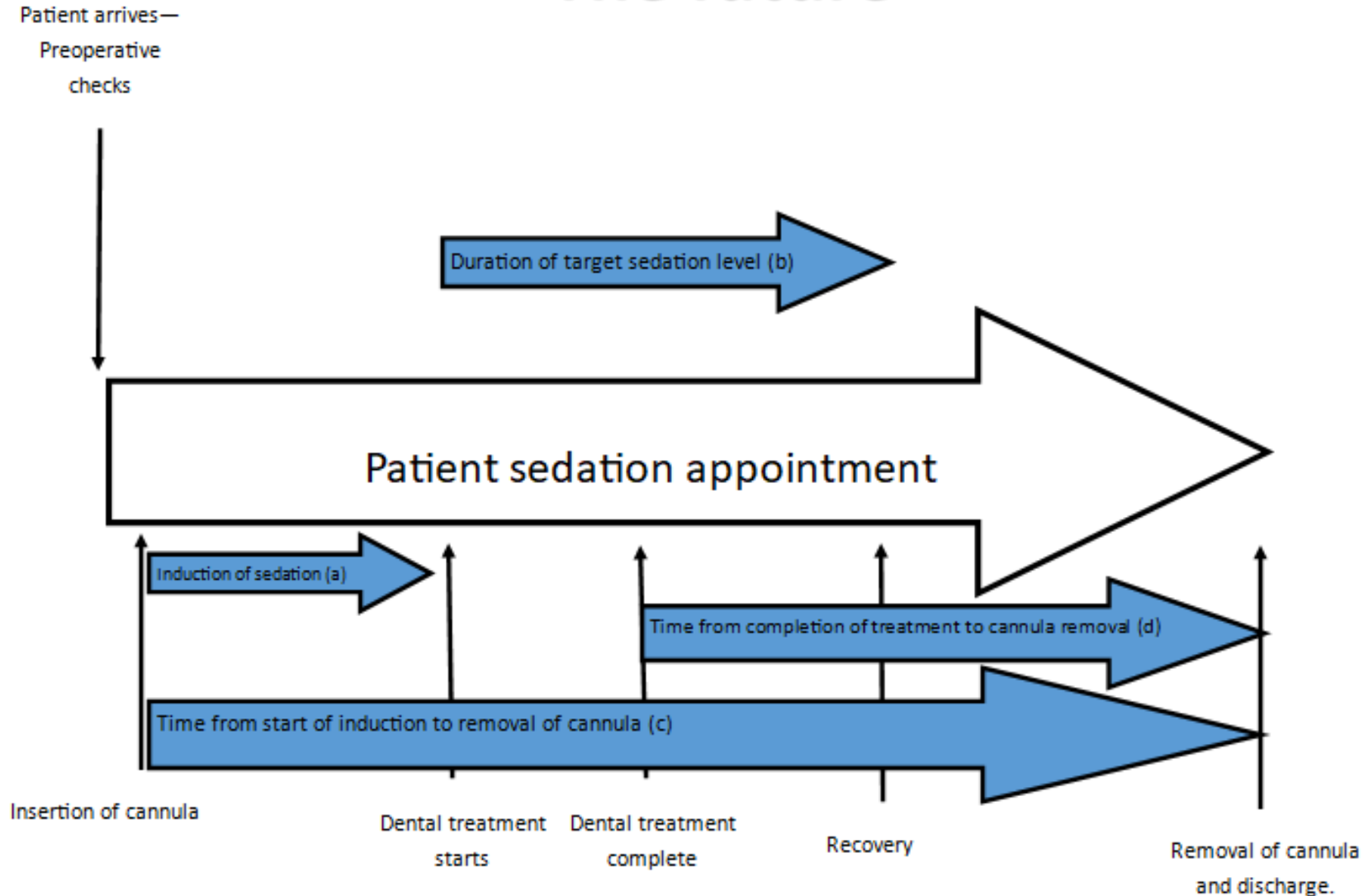
£0.73 per 10mg

£9.38 per 10mg

- ❖ Ultra-short acting (current drug of choice Midazolam)
- ❖ Metabolised by tissue esterases
- ❖ For shorter dental procedures



Sedation Community of Practice and Training Centre “The future”



Remimazolam Vs Midazolam

“The future”

Early indications

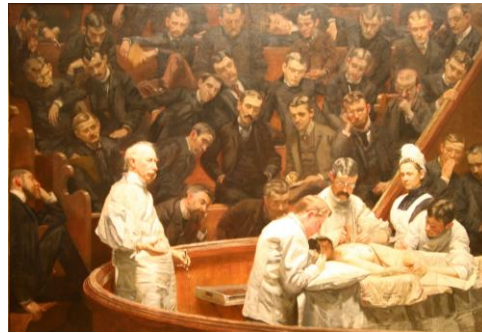
For ten short dental procedures (each 25 mins or less), Remimazolam is ...



Faster acting



Shorter recovery



Reduced clinic utilisation



Patient throughput per day



Cheaper

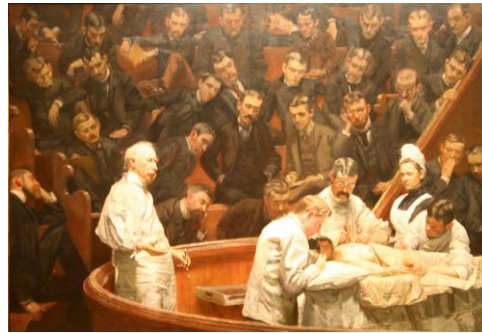
Remimazolam Vs Midazolam

“The future”

Early indications

For ten short dental procedures (each 25 mins or less), Remimazolam is ...

3_x



Faster acting

Shorter recovery

Reduced clinic utilisation

Patient throughput per day

Cheaper

Remimazolam Vs Midazolam

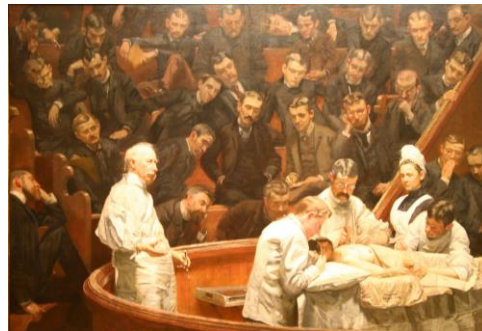
“The future”

Early indications

For ten short dental procedures (each 25 mins or less), Remimazolam is ...

3_x

2_x



Faster acting

Shorter recovery

Reduced clinic utilisation

Patient throughput per day

Cheaper

Remimazolam Vs Midazolam

“The future”

Early indications

For ten short dental procedures (each 25 mins or less), Remimazolam is ...

3_x

2_x

2.5_x



Faster acting

Shorter recovery

Reduced clinic utilisation

Patient throughput per day

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Remimazolam Vs Midazolam

“The future”

Early indications

For ten short dental procedures (each 25 mins or less), Remimazolam is ...

3_x

Faster acting

2_x

Shorter recovery

2.5_x

Reduced clinic utilisation

5_{more}

Patient throughput per day

Cheaper



Remimazolam Vs Midazolam

“The future”

Early indications

For ten short dental procedures (each 25 mins or less), Remimazolam is ...

3_x

Faster acting

2_x

Shorter recovery

2.5_x

Reduced clinic utilisation

5_{more}

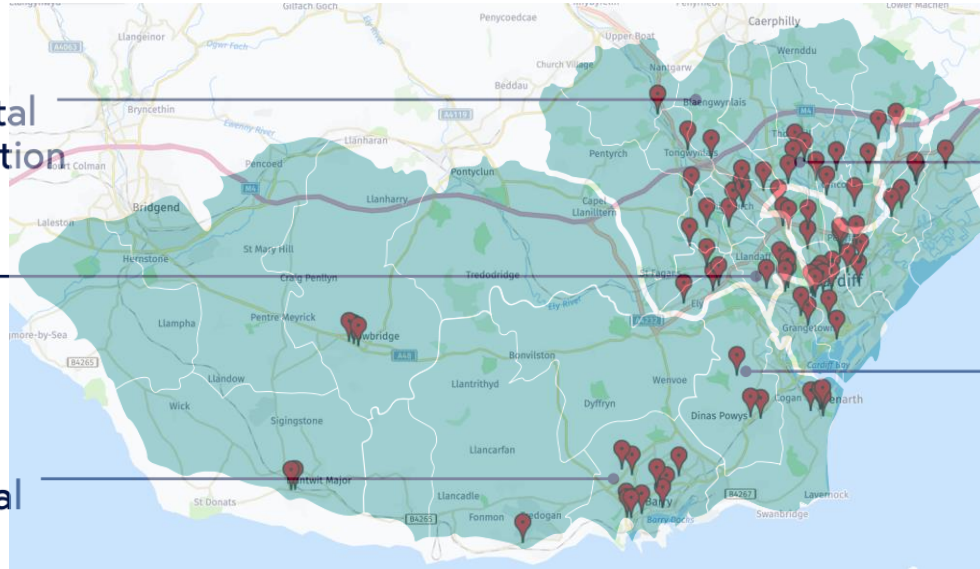
Patient throughput per day

£4k

Cheaper

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“The future”



General Dental Service Sedation

St David's Hospital

Barry Hospital

University Dental Hospital

Llandough Hospital



General Dental Practice, CAVUHB

- ❖ Evaluate - conscious sedation community of practice from user perspective
- ❖ Integrate - conscious sedation within dental clusters
- ❖ Expand - training for dental trainees and primary care dental teams (collaboration with HEIW)

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Thank you!

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