



Department of
**Health, Social Services
and Public Safety**

An Roinn

**Sláinte, Seirbhísí Sóisialta
agus Sábháilteachta Poiblí**

www.dhsspsni.gov.uk

Sedation: A survey of General Dental Practitioners

Summary report

March 2005

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1. Introduction

Sedation for dental treatment is carried out in all three sectors of dentistry but, by far, the largest amount is carried out in General Dental Practices.

Information relating to availability of treatment and types of both treatment and patient in the Hospital and Community Dental services is readily available. Until now, the Department of Health Social Services and Public Safety had little information on the availability and quality of sedation services in the General Dental Practice setting.

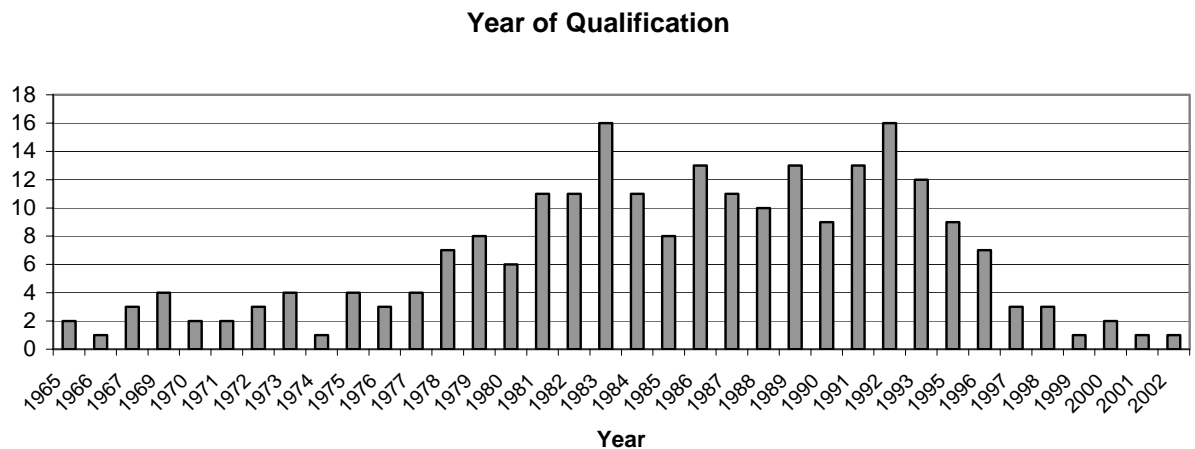
In the financial year ending 2004, General Dental Practitioners claimed some £722K for 52,893 RA items and almost £266K for 10940 IV sedation items.¹ In order to gather further information on the coverage; availability; split; type and other qualitative factors relating to sedation, the Department issued a questionnaire to over 367 General Dental Practices in Northern Ireland on 7th June 2004. We asked that they be returned by 2nd July.

The questionnaire is included, for reference, as Appendix 1.

The Department intends to use the information collected to help inform the Northern Ireland Medical & Dental Training Agency's (NIMDTA) decisions on training needs. It also provides baseline information for bidding for extra resources for dental sedation services.

We would like to thank the 240 (65.4%) General Dental Practitioners who replied.

The age distribution of those 240 is illustrated below. As the age distribution of the respondents is very similar to the age profile of the profession², we feel that the views detailed in the report are representative of the profession.



There follows a series of highlight data.

¹ Source: Central Services Agency

² Source: Central Services Agency

2. Does your practice carry out sedation?

Out of the 240 replies, 138 said that they carried out sedation. 102 (42.5%) do not carry out sedation at all.

Amongst the 138 who carry out sedation:

- 45 practiced IV sedation (32.6%)
- 128 practiced RA sedation (92.8%)
- 37 practiced both (26.8%)

3. IV sedation

Average number of patients treated per week under IV sedation

=12.34

Age range of patients

The number of practitioners who said they treat patients in each of the following age ranges:

0-6	0
7-12	5
13-17	13
18-64	45
65+	12

Drugs

Almost all used a Single Drug Regime for IV sedation (97.8%).

Only 1 practitioner used a combination.

All of the practices that carry out IV sedation had Flumazenil available in the practice.

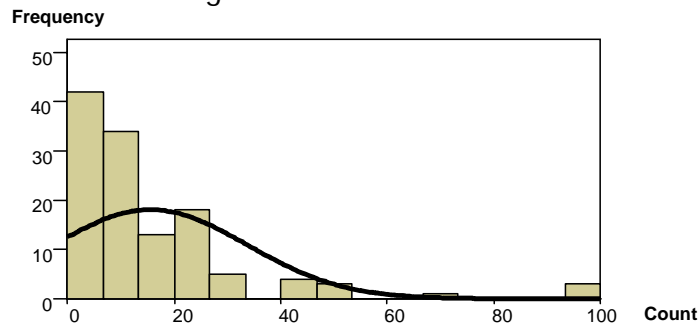
Drugs used

Midazolam	44
Diazemuls	0
Nubaine	1
Pethidine	0
Propofol	0
Other	0

4. RA sedation

Number of patients treated, per practice, per week with RA sedation

The number of patients treated ranged between 1 and 100 with an average of 15.6.



Age range of patients

The number of practitioners who said they treat patients in each of the following age ranges:

0-6	80
7-12	118
13-17	117
18-64	116
65+	29

RA practices & procedures amongst those practitioners who carry out RA sedation

Dedicated RA machine	98.4%
Documented maintenance	92.0%
Active scavenging	66.0%
Monitoring of nitrous oxide levels	12.0%

5. Procedure & practice

Equipment/ materials used in the practices that carry out sedation

	IV	RA
Butterfly needle	75.6%	--
Cannula/Venflon	48.9%	--
Pulse oximeter	95.6%	8.6%
Blood pressure monitoring equipment	82.2%	5.5%
ECG	4.4%	0.8%
Consent forms	97.8%	41.4%
Written pre and post sedation instructions	95.6%	25.0%

Defibrillator

6 (4.3%) of the practices that carry out sedation have an automated defibrillator available in the practice.

Medical history

126 (91.3%) of the practices that carry out sedation have a written medical history for each patient that is updated for every course of treatment.

Suitability

53 (38.4%) of the practices that carry out sedation assess patient suitability for sedation based on the ASA³ Grade.

Among the practices that carry out sedation, the following are the grades of patient they feel happy treating:

Grade	Definition (from ASA)	Count	%
I	Healthy patient	50	36.2
II	Mild systemic disease with no functional limitation - for example, controlled hypertension	41	29.7
III	Severe systemic disease with definite functional limitation - for example, chronic obstructive pulmonary disease	1	0.7
IV	Severe systemic disease that is a constant threat to life - for example, unstable angina	0	0.0

³ American Society of Anaesthesiologists

6. Training

The prevalence of externally validated training, in practices that carry out sedation, is shown below:

	IV	RA
Practitioner	44.4%	53.1%
Nurse	19.6%	28.9%

109 (79%) of the practices that carry out sedation participate in ongoing postgraduate education in sedation.

176 (73.3%) of respondents feel training/further training in sedation would be advantageous.

The breakdown of these responses is detailed below:

	Dentists Only	Whole Team
IV sedation	22.2%	47.2%
RA sedation	33.5%	77.8%
Hands on courses	30.7%	72.2%
Lectures/Theory	31.8%	46.0%
Web enabled/Online training	15.3%	25.0%
Within working hours	15.3%	46.6%
Evenings	36.9%	42.0%
Weekends	15.3%	12.5%

7. Referrals

- 142 (59.2%) of respondents refer patients who require sedation (excluding GA) to another GDP
- 86 (35.8%) of respondents refer patients who require sedation (excluding GA) to the Community Dental Service
- 63 (26.3%) of respondents refer patients who require sedation (excluding GA) to the hospital sector

8. Service Provision

128 (53.3%) of respondents feel that there is adequate provision of sedation services in their area

Improvement for the future

The following is a summary of the issues raised by practitioners (in no particular order of merit) on how the provision of services might be improved:

- Improved IV sedation facilities in the CDS (to improve waiting times)
- Better provision for treating phobics and RA for children
- Increase in access to sedating practices in the GDS (a 'send-to' list)
- Increased IV sedation for restorative dentistry (a facilities/real estate issue)
- Establishment of dedicated sedation centres
- Better referral protocols (including advice & guidance on consent & procedures)
- Mobile IV sedation team to visit surgeries (treating patients in a **familiar** environment)
- More money for training & resources
- More incentives for IV trained dental nurses to stay in the GDS

Appendix 1

Survey Questionnaire

Sedation Questionnaire

A Survey of General Dental
Practitioners



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To be completed by the Practice Principal or main provider of sedation services.

1. Name of respondent
2. Surgery name & address
3. Postcode
4. Email Address
5. GDC Number
6. DS Number
7. Year qualified
8. Qualifications
9. Date of last CPR training

10. Does your practice carry out sedation?

Yes

No ⇒ **Go to Q24**

11. Does your practice carry out intravenous (IV) sedation?

Yes

No ⇒ **Go to Q15**

a. On average how many patients does your practice treat using IV sedation per week?

b. Age range of patients treated under IV *(Tick all that apply)*

- 0-6
- 7-12
- 13-17
- 18-64
- 65+

12. Do you have Flumazenil available in your practice? Yes No

13. What drug regime is used in your practice for IV sedation? *(Tick all that apply)*

- Single Drug
- Combination

14. What drugs are used in your practice for IV sedation? *(Tick all that apply)*

- Midazolam
- Diazemuls
- Nubaine
- Pethidine
- Propofol
- Other *(Please list)*

15. Does your practice carry out treatment under Relative Anagesia (RA)?

- Yes
- No \Rightarrow **Go to Q17**

a. On average how many patients does your practice treat using RA sedation per week?

b. Age range of patients treated under RA *(Tick all that apply)*

- 0-6
- 7-12
- 13-17
- 18-64
- 65+

16. Are the following used/carried out in your practice? *(Tick all that apply)*

- Dedicated RA machine
- Documented maintenance
- Active scavenging
- Monitoring of nitrous oxide levels

17. Are the following used routinely in your practice? *(Tick all that apply)*

- | | IV | RA |
|--|--------------------------|-------------------------------------|
| Butterfly needle | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Cannula/Venflon | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Pulse oximeter | <input type="checkbox"/> | <input type="checkbox"/> |
| Blood pressure monitoring equipment | <input type="checkbox"/> | <input type="checkbox"/> |
| ECG | <input type="checkbox"/> | <input type="checkbox"/> |
| Consent forms | <input type="checkbox"/> | <input type="checkbox"/> |
| Written pre and post sedation instructions | <input type="checkbox"/> | <input type="checkbox"/> |

18. Is an automated defibrillator available in your practice? Yes No

19. Does your practice have a written medical history for each patient that is updated for every course of treatment? Yes No

20. Do you assess patient suitability for sedation based on the "ASA" Grade?

- Yes
No \Rightarrow **Go to Q21**

a. Which grades of patient would you feel happy to treat in your practice?

- I II III IV

21. Does your practice have a nurse with externally validated training in the following?

(Tick all that apply)

- RA
IV

22. Have you had externally validated training in the following? *(Tick all that apply)*

- RA
IV

If yes please give brief details of qualifications obtained, course(s) completed/exams passed (including year undertaken)

23. Do you participate in ongoing postgraduate education in sedation?

Yes

No

24. Do you feel training/further training in sedation would be advantageous?

Yes

No ⇨ **Go to Q25**

a. What type of training do you feel would be most suited to your practice?

(Tick all that apply)

	Dentists Only	Whole Team
IV sedation	<input type="checkbox"/>	<input type="checkbox"/>
RA sedation	<input type="checkbox"/>	<input type="checkbox"/>
Hands on courses	<input type="checkbox"/>	<input type="checkbox"/>
Lectures/Theory	<input type="checkbox"/>	<input type="checkbox"/>
Web enabled/Online training	<input type="checkbox"/>	<input type="checkbox"/>
Within working hours	<input type="checkbox"/>	<input type="checkbox"/>
Evenings	<input type="checkbox"/>	<input type="checkbox"/>
Weekends	<input type="checkbox"/>	<input type="checkbox"/>

25. Does your practice refer patients who require sedation (excluding GA) to the following? (Tick all that apply)

Another GDP

Community Dental Service

Hospital

26. Do you feel there is adequate provision of sedation services in your area?

Yes

No ⇨ **Go to Q27**

27. Please state how the provision of services might be improved?

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