

Appendix 3 – Fluoride Varnish Peterborough

Fluoride varnish applications delivered by NHS general dental practices to children living in Peterborough.

Background

Delivering Better Oral Health: an evidence-based toolkit for prevention Third edition March 2017 recommends that all children (aged three years and above) and young adults up to the age of 18 years receive an application of fluoride varnish to teeth twice a year (2.2% NaF)

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/605266/Delivering_better_oral_health.pdf

Fluoride varnish is one of the best options for increasing the availability of topical fluoride, regardless of the levels of fluoride in the water supply. High quality evidence of the caries-preventive effectiveness of fluoride varnish in both permanent and primary dentitions is available and has been updated recently. A number of systematic reviews conclude that applications two or more times a year produce a mean reduction in caries increment of 37% in the primary dentition and 43% in the permanent. The evidence supports the view that varnish application can also arrest existing lesions on the smooth surfaces of primary teeth and roots of permanent teeth.

Fluoride varnish for use as a topical treatment has a number of practical advantages. It is well accepted and considered to be safe. Further, the application of fluoride varnish is simple and requires minimal training.

Some fluoride varnishes contain alcohol but it has been agreed on the authority of the West Midlands Shari'ah Council that they are suitable for use by Muslims as they are being used as a medicament and are not an intoxicant, and are used in small amounts well below that which would intoxicate and they are not being used for reasons of vanity.

Application of fluoride varnish to children and young adults attending NHS dental practices in Peterborough

On average around half of the children and young adults aged 2 to 18 years attending an NHS dental practice in Peterborough, receive an application of fluoride varnish as part of a course of dental treatment.

In 2016/2017 47.9% in this age group received an application of fluoride varnish as part of a course of treatment and in 2017/2018 the figure was higher at 54%. These figures compare favourably with England averages of 41.1% and 47.9% for 2016/2017 and 2017/2018 respectively.

Tables 1 and 2 show the rate of application by age group.

Table 1: Number of NHS courses of dental treatment and the rate per 100 that included a fluoride application by age 2016/2017

2016-17			
Patient Age	FP17s with Fluoride Varnish	Total FP17s	Rate per 100
2	231	1,422	16.2
3	793	2,076	38.2
4	1,247	2,718	45.9
5	1,617	3,151	51.3
6	1,801	3,433	52.5
7	1,842	3,404	54.1
8	1,896	3,417	55.5
9	1,836	3,121	58.8
10	1,703	2,982	57.1
11	1,526	2,768	55.1
12	1,463	2,646	55.3
13	1,328	2,514	52.8
14	1,259	2,465	51.1
15	1,016	2,212	45.9
16	797	2,180	36.6
17	576	2,166	26.6
18	210	1,482	14.2
Total	21,141	44,157	47.9

Source: NHS BSA

Table 2: Number of NHS courses of dental treatment and the rate per 100 that included a fluoride application by age 2017/2018

2017-18			
Patient Age	FP17s with Fluoride Varnish	Total FP17s	Rate per 100
2	233	1,405	16.6
3	876	2,136	41.0
4	1,403	2,702	51.9
5	1,826	3,279	55.7
6	2,105	3,478	60.5
7	2,247	3,663	61.3
8	2,139	3,484	61.4
9	2,282	3,484	65.5
10	2,048	3,123	65.6
11	1,856	2,860	64.9
12	1,664	2,830	58.8
13	1,605	2,796	57.4
14	1,387	2,505	55.4

2017-18			
Patient Age	FP17s with Fluoride Varnish	Total FP17s	Rate per 100
15	1,268	2,437	52.0
16	936	2,178	43.0
17	669	2,050	32.6
18	206	1,475	14.0
Total	24,750	45,885	54.0

Source: NHS BSA

It is not known from these figures if two applications a year are delivered to every patient. One application a year is likely to be less effective.

Children and young adults attending an NHS dentist in Peterborough

Over a two year period 64.9% of the population, aged 0 to 18 years, living in Peterborough attended an NHS dentist for a course of treatment. This compares with an England average of 67.9% as shown in Table 3.

Table 3 shows the number and percentage of the population of patients aged 0-18 years resident in Peterborough attending an NHS dentist in the previous 24 months up to 31/03/2018

Data uses 24 month patient list, a measure which describes the number of patients seen in the previous 24 months (from 31/03/18). The measure provides a count of the number of distinct patient identities scheduled during the last 24 months. This metric is an indication of the number of unique patients that are considered NHS patients. Age for the patient derived from patient date of birth as recorded on the FP17. The age is calculated in relation to the period when the data is extracted.

Therefore in the 24 month counts patients are defined as aged 0-18 on the last day of the 24 month period (31/03/2018). As a result, patients treated in the period whose ages changed to outside the parameters (example 18-19) will not be included.

Population figures are taken from ONS mid-year estimates

"Peterborough" data based on patients resident in the Local Authority of Peterborough.

"Q56" data based on patients resident in the Q56 local health board area.

"England" based on patients resident in the country of England.

Resident: Refers to where a patient was resident at various geographies (such as local authority). Based on the home postcode recorded in the personal details section of each FP17 submitted, therefore is dependent on this information being included and accurate in the records. This is not dependent on where the patient received treatment, so can either be in or outside the Local Authority area.

Table 3: Number and percentage of the population of patients aged 0-18 years resident in Peterborough attending an NHS dentist in the previous 24 months up to 31/03/2018

Age	Population	Number of Patients	Peterborough Rate per 100	Q56 Rate per 100	England Rate per 100
0	3,168	40	1.3	1.2	3.0
1	3,233	267	8.3	13.3	22.5
2	3,227	814	25.2	33.7	43.4
3	3,296	1,337	40.6	50.1	56.0
4	3,340	1,709	51.2	58.9	62.2
5	2,998	2,082	69.4	69.3	71.7
6	2,979	2,235	75.0	75.9	78.3
7	2,865	2,422	84.5	79.0	82.3
8	2,799	2,402	85.8	79.3	81.8
9	2,680	2,382	88.9	82.9	84.1
10	2,461	2,368	96.2	85.0	85.2
11	2,365	2,101	88.8	84.9	85.6
12	2,374	2,009	84.6	81.8	84.6
13	2,156	2,056	95.4	85.1	85.7
14	2,239	1,970	88.0	86.6	85.5
15	2,235	1,882	84.2	79.2	78.7
16	2,294	1,770	77.2	74.0	73.5
17	2,264	1,760	77.7	71.4	69.3
18	2,275	1,666	73.2	67.3	65.3
Total:	51,248	33,272	64.9	65.9	67.9

Source: NHS BSA, ONS 2016

Key Facts

Delivering Better Oral Health: an evidence-based toolkit for prevention Third edition March 2017 recommends that all children (aged three years and above) and young adults receive an application of fluoride varnish to teeth twice a year

Over a two year period, up to 31st March 2018, 64.9% of the population aged 0 to 18 years living in Peterborough attended an NHS dentist for a course of treatment. This is lower than the England average of 67.9%.

On average around half of the children and young adults aged 2 to 18 years (54%) attending an NHS dental practice in Peterborough in 2017/2018, received an application of fluoride varnish as part of a course of dental treatment.

It is not known from these figures if two applications a year are delivered to every patient. One application a year is likely to be less effective.

The percentage of this sector of the population of Peterborough as a whole, aged 3-18 years, receiving two applications of fluoride varnish a year as a preventive intervention under NHS arrangements is likely to be lower.

Dental care under NHS arrangements is free, at point of delivery, to all children up to the age of 18 years. Preventive treatment, including the application of fluoride varnish is available as part of a Band 1 course of treatment. For most children this would be delivered as part of a routine dental check-up.

No information is available about dental care delivered under private arrangements.

There are no community fluoride varnish programmes currently being commissioned or provided in Peterborough.

References.

Delivering Better Oral Health: an evidence-based toolkit for prevention Third edition March 2017

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/605266/Delivering_better_oral_health.pdf

June 2018

Amanda Crosse

Consultant in Dental Public Health

PHE East of England

This page is intentionally left blank