
The sale and supply of oral sugar-free liquid medicines

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Type of audit

Structure	x
Process	✓
Outcome	✓

Who to involve?

Consider involving/informing the following individuals from the start:

- All community pharmacy staff – including locums and your pre-reg trainee.
- Local Practices: dental and/or GP.
- Patients/customers receiving oral liquid medicines from your pharmacy.
- Local pharmacist group if established, or other pharmacists in your area.
- Local audit facilitator.
- Local Health Promotion department, department of Dental Public Health.

Background – Why is this audit worth doing?

- Dental Health is listed as a national priority area by the government. The Scottish Oral Health Strategy specifies target reductions in dental caries for both adults and children ¹. By the year 2005, children aged 12 should have on average no more than 1.5 teeth decayed, missing or filled. By the year 2008, 90% of 18 year olds should have all of their own teeth and 80% of dentate adults aged 35-44 should have 21 or more standing teeth.
- There is clear evidence of a link between sugar-containing medicines and dental caries ¹.
- The message contained within the recent report ² from the National Pharmaceutical Advisory Committee on Sugar Free Medicines is ' Sugar-free medicines make a difference. Prescribe, promote and ask for sugar-free medicines to preserve dental health'.
- Cost is not an issue. Pharmacists who dispense a sugar-free product and endorse the prescription 'sugar-free' will be fully reimbursed. This has been confirmed by the pricing bureau and applies to all prescriptions – GP, dental etc.
- This audit provides pharmacists with the opportunity to promote good oral health to their patients and to increase manufacturers' awareness of the need to produce sugar-free formulations through changes in ordering patterns.

Benefits of doing this audit

- Benefits to patients ✓
- Benefits to the pharmacist ✓
- Benefits to the health care team ✓

Aims and objectives of the audit

- Aim** To encourage the supply of sugar-free liquid medicines and promote good oral health.
- Objectives**
- To supply sugar free (SF) liquid medicines on prescription.
 - To supply SF liquid medicines over-the-counter (OTC).
 - To record reasons for non-supply of SF liquid medicines.
 - To provide patients/customers receiving liquid medicines with either verbal or written information on:
 - the link between sugar and dental decay.
 - 4 ways to minimise damage to teeth from sugar-containing medicine.

The audit cycle

1 Defining criteria and setting standards

Criteria (i.e. the aspects of care which you are going to be measuring)

Suggested criteria which may be appropriate for this audit are:

Criterion	'Must do/could do'
OTC and dispensed liquid medicines should be supplied in a SF formulation.	Must do
Patients/customers receiving liquid medicines should be provided with verbal or written information on the link between sugar and dental decay and ways to minimise damage to teeth from sugar-containing medicine.	Could do
Patients/customers receiving liquid medicines should be able to list at least 2 ways of minimising damage to teeth should they have to take a sugar-containing medicine.	Could do

Standards (i.e. the proportion of times you feel the criteria can be fulfilled)

It will be essential to agree these locally. An example of standards which may be appropriate for this particular audit are:

- 80% of OTC and dispensed liquid medicines should be supplied in a SF formulation ^{E3}.
- 80% of patients/customers receiving liquid medicines should be provided with verbal or written information on the link between sugar and dental decay and ways to minimise damage to teeth from sugar-containing medicine ^A.
- 80% of patients/customers receiving liquid medicines should be able to list at least 2 ways of minimising damage to teeth should they have to take a sugar-containing medicine ^A.

Footnote: The standards listed in this table are either 'anecdotal' (A) i.e. based the opinion of 2 or more Scottish Audit Facilitators, or 'evidence-based' (E) i.e. drawn from the literature or data from previously completed audits (see reference section at end of template).

2 Assess local practice

Getting things started

- Decide whether the audit will be run on an individual pharmacy or locality basis.
- Decide which criteria you wish to focus on, through discussion with local Dental/ GP practices (see 'defining criteria and setting standards' – some criteria are only 'could do').
- Decide which prescriptions/products/types of patients you wish to include/exclude from your audit e.g. dental Rx's and/or GP Rx's; OTC sales and/or Rx's; all patients or children under the age of 12; all liquid medicines or exclude certain types of medicines e.g. methadone. The choice is yours and should be discussed and agreed with everyone involved in the audit.
- Agree the information sources you are going to use in the audit to inform patients of: the link between sugar and dental decay; ways to minimise damage to teeth from sugar containing medicine. It makes sense that patients receive consistent advice from all those involved in their care e.g. local pharmacies, GP practices, dental surgeries. See attached sample patient information leaflet as a starting point for local discussion.
- Ensure you have a sufficient volume of patient information in stock.
- Decide on a suitable local mechanism for assessing customer knowledge of ways to minimise damage to teeth should they have to take a sugar-containing medicine. See attached 'sample patient questionnaire' as a starting point for local discussion.
- Choose a suitable local mechanism/timescale for administering the questionnaire to a sample of patients receiving liquid medicines, before and after the audit, to assess change.

What data to collect?

- See attached data-collection forms (OTC and prescription) and patient questionnaire.
- It may be useful to keep a brief tally count of prescriptions/OTC sales/patients which could have been included in the audit and the proportion which actually were i.e. a note of missed opportunities/patients who refused to participate.

How much data to collect?

This should be agreed locally. The size of your audit will be defined either by the number of patients/prescriptions/OTC sales which are available for inclusion, or by the time period over which it is run.

You may be able to calculate the average number of prescriptions or OTC sales of liquid medicines for your pharmacy by looking at last month's prescription data or OTC sales figures.

Factors to consider include:

- Total no. of pharmacies participating in the audit.
- Total no. of dental/GP practices participating in the audit.
- Total no. of patients/prescriptions/OTC sales per pharmacy available for inclusion in the audit.
- Time available for data collection.

Further advice on selecting a suitable time period over which to run the audit can be obtained from your local audit facilitator.

How to collect it?

- Collect continuously for a defined time period, remembering to inform all staff, especially locums, if data is to be comprehensive.
- Collecting data for a proportion of patients/prescriptions/OTC sales, or on certain days/during quiet periods, will bias your results.

3 Compare practice with standards

4 Change

Some suggestions:

- Feedback the results of your audit to your staff/participating dental/GP practices.
- It will be worth examining the reasons why SF medicines were not supplied. You may identify: a training need amongst your staff on the sugar content of medicines; the need to increase stock levels of SF alternatives; a particular product which your local GP or dentist consistently prescribes as a non-SF formulation: can you feed this back? is there an alternative product?
- You may wish to consider displaying a poster within your pharmacy on sugar-free medicines (see attached sample poster). This may raise public awareness further.

5 Re-audit

6-12 months after completion of your first audit.

Resources

- Sample patient questionnaire (attached).
- Sample patient information leaflet (attached) and photocopying costs.
- Sample data collection forms (attached).
- NPA sheet highlighting examples of sugar-free medicines (extract attached – copies of the full document available from NPA, Tel: 01727 832161).
- Sample pharmacy poster (attached).
- Estimated time to complete the first audit (during normal working hours): 2 months to set things up, X weeks to run the audit (dependent on your decisions reached under 'how much data to collect'), project write-up within 1 month.
- Estimated time to complete the re-audit (during normal working hours): X weeks to run the audit (dependent on your decisions reached under 'how much data to collect'), project write-up within 1 month.

References

- 1 Scotland's Health: The Oral Health Strategy for Scotland. Scottish Office, Department of Health, 1995. HMSO, Edinburgh.
- 2 Sugar Free Medicines. National Pharmaceutical Advisory Committee. Scottish Office Department of Health, 1998. HMSO, Edinburgh.
- 3 Improving attitudes towards sugar-free medicines. Greater Glasgow Health Board Pharmacy Audit Programme. UKCPA Conference Proceedings, November 1999.

Date of production

April 2000

Suggested review date

April 2001

Prescription data collection sheet The sale and supply of oral sugar-free liquid medicines

Date	Sale no.	GP practice name	Preparation requested? (give details)	Was S/F requested?		Was S/F dispensed?		S/F not dispensed, why not? (enter code*)	Info given (tick if given)	
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NPA INFORMATION LEAFLET

SUGAR CONTENT OF MEDICINES

This leaflet contains information about the sugar (sucrose) content of oral liquid medicines. Products that do not contain sucrose, glucose or sorbitol are listed as being sugar free. Preparations containing hydrogenated glucose syrup (maltitol, xylitol or xylooligosaccharide) are also listed as sugar free as there is evidence that they do not cause dental caries¹. The artificial sweeteners used, if known, are also indicated.

The first chart lists products alphabetically and a second chart lists products in therapeutic groups.

We are grateful to all the manufacturers who have responded to us to produce this leaflet. Please note this list is not a register.

Product	Contains Sugar (Sucrose)	Sugar (Sucrose) Free	Artificial Sweetener
Abidec drops	✓		
Actifed Children's Elixir	✓		Sorbitol BP
Actifed Expectoant	✓		Sorbitol BP
Actifed Syrup	✓		
Alpigen suspension		✓	Sorbitol solution, Calcium saccharin
Alsigite suspension		✓	Sorbitol BP
Alsigite Plus suspension		✓	Saccharin sodium BP
Aluphos liquid		✓	Saccharin sodium BP
Alupren Syrup		✓	Saccharin sodium BP, Sorbitol BP
Amoxil Paediatric suspension	✓		
Amoxil Syrup		✓	Sorbitol BP, Saccharin sodium BP
Asilone Syrup	✓		Sorbitol BP
Asilone Anorectic Syrup		✓	Saccharin sodium BP, Sorbitol BP
Asilone Straburn Liquid		✓	Saccharin sodium BP
Asilone suspension		✓	Saccharin sodium BP, Sorbitol BP
Augmentin Duo suspension		✓	Aspartame
Augmentin suspension		✓	Aspartame

¹ HSE 0111/01

This is an extract from the National Pharmaceutical Association's (NPA) information leaflet on the sugar content of medicines. Copies of the full document are available from the NPA – Tel: 01727 832161.

Sugar in medicines

Sugar is the main cause of dental decay. In Scotland, we consume too much sugar. Some liquid medicines contain as much as 50% sugar.

This pharmacy supports the supply of sugar-free liquid medicines.

**Keep your child's teeth healthy:
Choose sugar-free liquid medicines**

If you have to take a sugar-containing medicine, try to:

- **Take your medicine at mealtimes, if appropriate**
- **Rinse your mouth with water afterwards**
- **Avoid taking it last thing at night**
- **Brush your teeth after swallowing the dose**

Working together for a healthy, happy smile!

Sugar in medicines

Sugar is the main cause of dental decay. In Scotland, we consume too much sugar. Some liquid medicines contain as much as 50% sugar.

Keep your child's teeth healthy - choose sugar-free medicines:

- **Ask your doctor/dentist to prescribe sugar-free medicines**
- **Ask your pharmacist to recommend sugar-free medicines**

If you have to take a sugar-containing medicine, try to:

- **Take your medicine at mealtimes, if appropriate**
- **Rinse your mouth with water afterwards**
- **Avoid taking it last thing at night**
- **Brush your teeth after swallowing the dose**

Working together for a healthy, happy smile!