

**SECONDARY PREVENTION OF MI & Stroke**  
**Aspirin audit - People taking nitrates**  
Baseline

**INTRODUCTORY WORK BOOK: Baseline/Pre-Audit**  
*Review date: August 2002*

# Introducing the Ready-to-go series for Quality Improvement

How often do we do something and think of ways that it could be improved if only....? In a busy practice it is all too easy to continue dealing with the same problems time and time again without stopping to think of solutions. Often the solutions require the co-operation of others, and this is time consuming. But if we do stop and think, a small investment of several people's time may be fruitful in the longer term.

## AUDIT

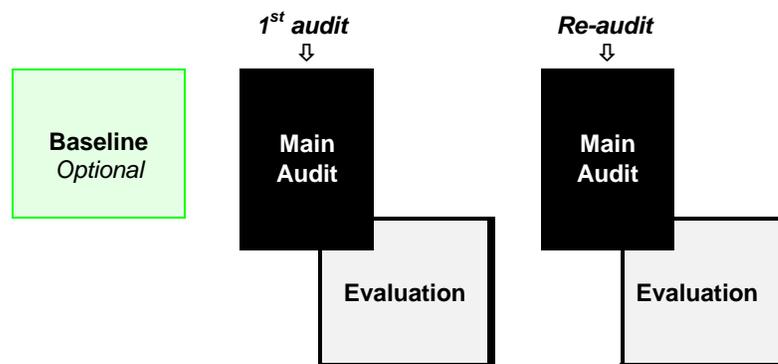
**Quality improvement**, as a professional responsibility for all the caring professions, is often undertaken through a process of peer review or audit. Audit is used as a tool to deliver quality improvements and encourage the evaluation of interventions. The baseline is optional: it is designed for pharmacists coming to audit for the first time, or for those who want to establish whether or not there is a problem that needs to be addressed in their own practice and to think about possible interventions before proceeding with a full audit.

## WORK BOOKS

The **Ready-to-go** series has been developed by *The Royal Pharmaceutical Society of Great Britain* to support quality improvement in Pharmaceutical Care by encouraging the adoption of evidence based practice and supporting established good practice.

The **Ready-to-go** series is designed for ease of use by busy practitioners in their work place through the use of *Work Books*. A *Resource Pack* provides a reference source for the series.

The Work Books that support Topic Audits are shown in the diagram below.



The programme has been designed to ensure that changes effected though audit reflect the standards and good practices set by the health professions.

## Baseline audit

Baseline audits are a quick way of getting a feel for the size of a problem. By looking at your records and drawing on your knowledge of customers you can get a better idea of the numbers of people taking nitrates that are also receiving aspirin from you on prescription or by buying it each month. The information you gain can then be used to begin a dialogue with other professions who may share your interest and concern in achieving quality improvements, and delivering health gain to people at high risk.

## Is there a problem?

There is considerable evidence<sup>1,2</sup> that the use of low dose aspirin in patients at high risk reduces the incidence of heart attacks (MI) or stroke. Research has shown that patients who should be receiving long term low dose aspirin therapy include:

- Previous myocardial infarction (MI)
- Transient Ischaemic Attacks (TIA)
- Atrial bypass surgery/angioplasty
- Angina
- Stroke

The following table indicates to what extent aspirin therapy might be expected to reduce the risk of heart attack, stroke or vascular death in the above patients.

<u>Patient history</u>	<u>Approx reduction in risk</u>
Previous myocardial infarction	25%
Unstable & stable angina, angioplasty, atrial fibrillation	33%
Valvular disease, peripheral vascular disease	20%
Previous stroke or TIA	22%

GP aspirin audits have become popular in recent years, often focusing on patients with known risk factors as indicated by prescription for nitrates, or by their medical history. Some practices have been more successful than others in meeting the targets they have set themselves. Many GPs remain unaware of the proportion of their patients that purchase aspirin over the counter, and some assume that all these patients are acting on their GP's advice.

An audit undertaken by community pharmacists in Ealing, Hounslow and Hammersmith found that 20% of customers said that their GP was unaware that they were taking aspirin.

There are clearly opportunities to audit the use of aspirin from different angles which, when combined, give a much more complete picture of its use. Pharmacists are well placed to reinforce simple secondary prevention measures - a baseline audit will help assess the likely benefits to your customers of your involvement in promoting aspirin use.

### References

1. Aspirin and myocardial infarction. Effectiveness Matters. Vol 1 Issue 1, April 1995
2. Antiplatelets Trialists' Collaboration. Collaborative overview of randomised trials of antiplatelet therapy. I. Prevention of death, myocardial infarction, and stroke by prolonged antiplatelet therapy in various categories of patients. BMJ 1994;**308**:81-106

How big an issue is it?

It is difficult to know where to start with audit without some baseline information. It might be useful to know more about the numbers of people who use nitrates and aspirin. It would also be interesting to see how many sales of aspirin to regular customers are recorded on the PMR.

What can be measured

Information that you can easily collect might include:

- The proportion of nitrate scripts that also include aspirin
- The proportion of prescriptions presented for nitrates that are accompanied by an OTC aspirin sale
- The strength of aspirin most commonly supplied
- The number of OTC nitrate sales in a month
- Times when you are more likely to record OTC sales on your PMR

You can record all this data on a daily basis or alternatively you may be able to collect it from you PMR. The latter will be quite easy if your system allows you to search your database for people on any drug in BNF section 2.6.1, but may take longer if you have to search by each drug product.

What might be learned?

You might find out for example

- How many people take nitrates but may not be take aspirin
- that GPs in your area appear to favour 150mg of aspirin for prevention
- that your PMR does not reflect the use of aspirin by your regular customers who are taking nitrates

Data to be collected

- Whether people receive nitrates on prescription or OTC sale
- How people on nitrates receive aspirin (Rx or OTC sale)
- The strength of aspirin most commonly supplied
- Whether people who purchase nitrates also purchase aspirin
- Whether aspirin use (or contra-indication) is recorded in PMR

Planning data collection

Before starting to collect data it is helpful to check through the data collection form. **The form can be removed from this booklet and placed next to the work area where the data is collected.** Consider the variations in daily work load and staffing to avoid starting data collection at the most busy part of the week/month/year. Collect data for all patients who present with a prescription for a nitrate or who purchase a nitrate e.g. GTN.

Planned start date:

## Dosage Instruction - Baseline Data Collection

Selection Criteria	Customers whom you know to be taking nitrates oral, sub-lingual (tabs/spray), transdermal (patch) identified from prescriptions presented, OTC sales made or from your PMR
Data Collection period	One month .....(month/year)

	Nitrate prescription			Nitrate sale			PMR record	
	Nitrate Rx	Aspirin Rx (mg)	Aspirin OTC (mg)	Nitrate OTC	Aspirin Rx (mg)	Aspirin OTC (mg)	* Regular Customer	Complete PMR record
<b>e.g.</b>		75mg					✓	-
<b>1</b>								
<b>2</b>								
<b>3</b>								
<b>4</b>								
<b>5</b>								
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<b>Total</b>								
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>

\* Many pharmacists restrict the use of PMRs to regular customers

**Simple calculations**

Measure		Result	
<b>Nitrate prescribed</b>			
Number of customers receiving prescribed nitrates	<b>A</b>		
Number of customers receiving aspirin on Rx	<b>B</b>		
Number of customers purchasing aspirin OTC	<b>C</b>		
Numbers of customers receiving aspirin by Rx or OTC	<b>B+C</b>		<b>=W</b>
<b>Nitrate sales</b>			
Number of customers purchasing nitrates	<b>D</b>		
Number of customers receiving aspirin on Rx	<b>E</b>		
Number of customers purchasing aspirin OTC	<b>F</b>		
Numbers of customers receiving aspirin by Rx or OTC	<b>E+F</b>		<b>=X</b>
<b>PMR record</b>			
Number of customers that receive medicines from the pharmacy on a regularly basis	<b>G</b>		
Number of these with an accurate PMR	<b>H</b>		
<b>Combined Prescription and OTC nitrate supplies</b>			
Total number of customers receiving nitrates	<b>A+D</b>		<b>=Y</b>
Total number of customers receiving aspirin (Rx & OTC)	<b>W+X</b>		<b>=Z</b>

**Baseline audit results**

Number of customers receiving nitrates in one month (prescription and OTC sales)

<b>Y</b>	
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**People receiving prescribed nitrates**

Proportion receiving nitrates on prescription

<b><math>(A \div Y) \times 100</math></b>	<b>%</b>
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Proportion of also receiving aspirin on prescription

<b><math>(B \div Y) \times 100</math></b>	<b>%</b>
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Proportion purchasing aspirin OTC

$(C \div A) \times 100$	%
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Proportion who may not be receiving aspirin

$(W \div A) \times 100$	%
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**People purchasing nitrates**

Proportion purchasing nitrates OTC

$(D \div Y) \times 100$	%
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Proportion receiving aspirin on prescription

$(E \div Y) \times 100$	%
-------------------------	---

Proportion purchasing aspirin OTC

$(F \div A) \times 100$	%
-------------------------	---

Proportion who may not be receiving aspirin

$(X \div A) \times 100$	%
-------------------------	---

**Aspirin use by all receiving nitrates (Rx and OTC)**

Total proportion obtaining aspirin (Rx and OTC)

$(Z \div Y) \times 100$	%
-------------------------	---

Total proportion who may not be receiving aspirin

$(Y - Z) \div Y \times 100$	%
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**PMR record**

Proportion of customers regularly receiving nitrates whose PMR accurately reflects nitrate and aspirin use

$(H \div G) \times 100$	%
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**Most popular aspirin strength supplied**

Aspirin strength most commonly prescribed (see columns B and E)

mg
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Aspirin strength most commonly sold (see columns C and F)

mg
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## Conclusions

**What does your baseline audit tell you about the use of aspirin by your customers who also take nitrates?**

**What does your baseline audit tell you about your own records?**

## Preparing to change

***Seeking further information from the customer may raise some practical issues:***

- *How will you identify people at high risk?*
- *What if they don't know why they are taking aspirin?*
- *Do you have any leaflets you can give them?*
- *Where might you obtain a supply?*

You now have some information on the use of aspirin by customers who are also taking nitrates and, perhaps more importantly, the proportion who may not be taking both. You also have some information on the most popular strength of aspirin supplied by each method, and the extent to which your own PMRs reflect the drug treatment of your regular customers.

If you decide to use your position as a pharmacist to more actively promote the use of aspirin in the secondary prevention of coronary heart disease (CHD) you will need to spend some time preparing to change.

To make a successful intervention you will

- a) need to establish whether or not your customer is taking aspirin that they have obtained from another source
- b) need to have thought through the type of information and advice you can give
- c) need to be sure that the advice you are giving does not conflict with other advice the customer is receiving

## Practical Help

The next section of this work book provides you with some very practical support to help you think through the issues before you try to bring about change. These exercises will also be good preparation if you chose to undertake the ready-to-go audit in this series.

These exercises have been designed for use by individual pharmacists or groups of pharmacists working together. If you have the advantage of an audit facilitator in your area, they may take you through this process.

### Plan your approach

**For the best results it is important to think through the change process and plan your approach - so before making any intervention based on evidence you should consider:**

- the opportunities you have to bring about change
- suitable interventions
- any ethical dilemmas you may face
- your motivation to implement change
- gaining support for your planned intervention/s
- your measure of 'success'

### Opportunities to bring about change

List the opportunities that arise during the course of your daily practice to check that people taking nitrates are aware of the benefits of taking low dose aspirin for secondary prevention e.g. prescriptions and OTC requests for nitrates

Do you have a protocol for handing out medicines?

How could this be altered to reinforce the secondary prevention message to people who may be at high risk of MI or stroke?

Do all the pharmacy assistants use the protocol as intended?

Are they aware of the possible contra-indications to the use of aspirin?

**Suitable interventions**

List the types on intervention that you might make e.g.

- Find out more about why customers think they are taking aspirin - provide further information if required
- Advertise the use of low dose aspirin to reduce risk of MI and stroke and draw it to the attention of those taking nitrates but apparently not taking aspirin

Passive interventions such as posters and leaflets in stands require no knowledge of the customers health status, whilst proactive interventions depend on your having some knowledge of customers' beliefs and motivations for taking aspirin

List the information you would normally need to identify customers who might benefit from the interventions you can offer

**Ethical issues**

*Responding to further information gained from the customer may raise ethical issues*

- If you have any concerns regarding a customer's use of aspirin (purchased OTC) can you discuss them with the customer's GP without their permission?  
e.g. a customer has purchased aspirin and left the shop when you remember they are also taking warfarin. Their GP subsequently pops in for something - do you ask if he/she knows that the customer is taking aspirin as well as warfarin?
- Might information you give conflict with information provided by the customer's doctor or practice nurse?  
e.g. have you recommended 75mg, when the GP practice recommends 300mg for secondary prevention?
- Do you have the full picture?  
e.g. has the customer's consultant said it's OK to take low dose aspirin even though they have asthma?

**Your motivation to implement change**

Note any benefits for you personally to become involved in promoting the use of low dose aspirin by those at risk of CHD.

Interventions will often be more successful if you have gained the support and co-operation of GPs and practice nurses. Remember this is a two way process. The support of others e.g. health promotion units, the Health Authority etc. may also be useful if you require materials such as leaflets and posters

Does your local health authority strategy for the prevention of coronary heart disease? Ask your local pharmaceutical adviser, ring the health authority and ask to speak to someone in public health or ask for a copy of the Health Authority's most recent health strategy

Is there scheme to promote the use of aspirin in secondary prevention already developed for use by other practitioners e.g. GPs , nurses, health promotion specialists, local stroke unit, nearest coronary care unit? Ask your local audit office (MAAG or equivalent), your local GP or your pharmaceutical adviser

Do you have a local health promotion unit? Ask if they are involved or know of anyone else who is actively promoting the use of aspirin for secondary prevention, do they have any locally developed leaflets and posters?

*Think about how you might discuss your ideas with your local GP or practice nurse*

You might want to

- *ask about the ways in which they are trying to promote the use of aspirin*
- *raise their awareness of the numbers of people who purchase aspirin OTC, particularly the lower 75mg strength*
- *explain the opportunity to deliver the secondary prevention message to customers do not visit the doctor regularly but who may be at risk (the walking well)*
- *explain that a number of your customers may be taking low dose aspirin without their GPs knowledge*

**Next Steps**

When you have done this list the three interventions that you would most like to make, the people who can support you, and the issues that you need to address before you start.

Intervention e.g. change to OTC protocol, supporting leaflet	Support e.g. co-operation of GP, nurse, local health promotion unit	Issues to address e.g. how will I 'sell' the idea to the GP?, how can I get the leaflets that I need?

**Your own measure of 'success'**

Describe ways in which you might obtain evidence for your success in promoting the use of low dose aspirin for the prevention of CHD  
e.g. audit, patient questionnaires, feedback from local practices

## **SECONDARY PREVENTION OF MI Aspirin audit - OTC Sales**

The aim of this audit is to improve customers' understanding of the use of low dose aspirin, and to offer appropriate advice, as well as referral to the GP if required. The audit involves determining the dose of aspirin taken, the reason for taking it, and whether or not GPs knows about it. The action taken by the pharmacist is also recorded.

## **SECONDARY PREVENTION OF MI Aspirin audit - People taking nitrates**

The aim of this audit is to identify customers who are taking nitrates on prescription or purchasing OTC who are not aware of the benefits of low dose aspirin and to offer appropriate advice, as well as referral to the GP if required. The audit involves asking whether or not aspirin is currently taken and offering advice according to the response, which may include referral to the GP. the reason for taking it, and whether or not GPs knows about it. The action taken by the pharmacist is also recorded.

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