
Sublingual glyceryl trinitrate and aspirin usage in angina patients

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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 practice(s): GPs, practice nurses.
- Patients/customers receiving glyceryl trinitrate (GTN) preparations from your pharmacy.
- Local pharmacist group if established, or other pharmacists in your area.
- Local audit facilitator.
- Secondary care colleagues: hospital cardiology pharmacist/consultant cardiologist.

Background – Why is this audit worth doing?

- Up to 20% of Scottish men and women aged 65-74 years report symptoms of angina¹.
- Acute attacks of stable angina should be managed with sublingual GTN².
- Patients require medical referral if:
 - the frequency or severity of their angina is increasing (greater than twice weekly attacks require regular drug therapy)²;
 - in an acute attack, no relief is obtained from appropriate sublingual GTN use³.
- Incorrect use of sublingual GTN may result in patients seeking help inappropriately.
- Patients with angina should receive low dose aspirin: 75-150mg daily².
 - Benefits to patients ✓
 - Benefits to pharmacists ✓
 - Benefits to the health care team ✓

Benefits of doing this audit

Aims and objectives of the audit

Aim

To ensure patients can correctly describe when and how to administer sublingual GTN and are appropriately referred for medical advice.

Objectives

- To assess patient knowledge of appropriate sublingual GTN use.
- To educate patients on appropriate sublingual GTN use.
- To quantify the extent of patient referrals by pharmacists to GPs.
- To identify the reasons for referral.

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'
Patients should correctly describe when to administer sublingual GTN.	Must do
Patients should correctly describe how to administer sublingual GTN.	Must do
Patients should correctly describe when to seek medical advice.	Must do
Patients meeting locally agreed criteria should be referred to their GP.	Could do

Standards (i.e. the proportion of times the criteria should be fulfilled)

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

- 85% of patients should correctly describe **when** to administer sublingual GTN ^{E 4}
- 85% of patients should correctly describe **how** to administer sublingual GTN ^{E 4}
- 85% of patients should correctly describe when to seek medical advice ^{E 4}
- 100% of patients meeting locally agreed criteria should be referred to their GP ^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 (see 'defining criteria and setting standards' – some criteria are only 'could do').
- Decide which patients you wish to include/exclude from your audit e.g. all patients supplied sublingual GTN from your pharmacy, or only patients requesting OTC GTN; all age groups of patients receiving GTN, or only certain age groups. The choice is yours and should be discussed with everyone involved in the audit.
- Agree locally appropriate responses to the questions contained within the 'sample patient questionnaire' (attached) designed to assess whether patients can correctly describe: when and how to administer sublingual GTN; when to seek medical advice. Discussions should include local practices (GPs/Practice Nurses) and secondary care colleagues (Hospital cardiology pharmacist/ Consultant Cardiologist).
- It makes sense that patients receive consistent advice from all those involved in their care e.g. local pharmacies, GP practices, hospital cardiology department. You may decide to summarise what constitutes locally appropriate sublingual GTN use and criteria for patients seeking medical advice in the form of a written patient information leaflet. See 'sample patient information leaflet' (attached) as a starting point for local discussion.
- Agree locally appropriate community pharmacist referral criteria with local practices. See 'sample referral checklist' (attached) as the starting point for local discussion.

- Additionally, agree a suitable local referral rate with your local GPs. A high referral rate may produce an unacceptably high workload for practices, in some areas. This could be managed by reviewing your patient inclusion criteria.
- Agree a suitable local mechanism for referral. See 'sample GP referral letter' (attached) as a starting point for local discussion. It may also be useful to debate whether the patient should be: a) instructed to make an appointment with their GP and a referral letter posted independently; b) instructed to make an appointment with their GP and told to take the referral letter with them.

What data to collect?

- See 'sample patient questionnaire' and 'sample referral checklist' (attached).
- It may be useful to keep a brief tally count of: the total number of GTN Rx/OTC sales which could have been included in the audit; the number of occasions where the patient was available in person for questioning; the proportion of available patients who agreed/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 available for recruitment, or by the time period over which it is run.

You may be able to calculate the average number of GTN prescriptions or OTC sales 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 GP practices participating in the audit.
- Total no. of patients per pharmacy included 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 defined time period, remembering to inform all staff, especially locums, if data is to be comprehensive.
- Collecting data for a proportion of patients, 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/local GPs/practice nurses/other pharmacies/hospital cardiology department.
- Change will be achieved in part by continued provision of verbal and/or written information to patients on appropriate use of sublingual GTN and when to seek emergency medical advice. Are all sources (pharmacies, practices, hospitals) providing the same advice?

-
- Are all the referral suggestions being implemented? If not, is there scope to discuss how changes could be made in practice e.g. obtain locum funding for pharmacists to visit local GP practices and support them in making changes at individual patient level.

5 Re-audit

6-12 months after completion of the first audit.

Resources

- 'Sample patient questionnaire' (attached).
- 'Sample patient information leaflet' (attached) and photocopying costs.
- 'Sample referral checklist' (attached).
- 'Sample GP referral letter' (attached).
- Locum expenses to attend initial/follow-up discussions with local practices/secondary care colleagues.
- 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 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 decisions reached under 'how much data to collect'), project write-up within 1 month.

References

- 1 Coronary Revascularisation in the management of stable angina pectoris. SIGN Guideline No 32. November 1998.
- 2 British National Formulary Number 38, September 1999.
- 3 Glyceryl trinitrate monograph. Martindale: The complete drug reference. 32nd edition. Pharmaceutical Press, London, 1999.
- 4 Counselling and advice on medicines and appliances in community pharmacy practice with respect to sublingual glyceryl trinitrate (GTN) preparations. Lothian Primary Care Clinical Audit Team, Edinburgh, 1999.

Useful additional reading: Pharmaceutical care of the Cardiovascular Patient, Distance Learning Pack, Scottish Centre for Post Qualification Pharmaceutical Education, University of Strathclyde, Glasgow (available from Autumn 2000).

Date of production

April 2000

Suggested review date

April 2001

Sample patient questionnaire: When/how to administer GTN; when to seek medical help

Sublingual glyceryl trinitrate and aspirin usage in angina patients

Form no.

Pharmacy stamp

Section A (to be completed for all patients available for inclusion in the study)

Patient name	PMR No.	GP name and address	Date	GTN Rx YES NO	GTN OTC YES NO	Explanation of study given to patient YES NO	Patient willing to participate YES NO
				<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO

Section B (to be completed for all patients agreeing to participate in the study)

Ask the patient the following questions	Desired responses* (tick if mentioned)	Overall, does the patient meet the criteria? **	Info provided VERBAL WRITTEN
What symptoms would prompt you to use your GTN preparation?	<input type="checkbox"/> arm pain <input type="checkbox"/> chest pain/tightness <input type="checkbox"/> facial pain <input type="checkbox"/> others (as per local agreement) _____ <input type="checkbox"/> prophylactically e.g. before exercise, cold weather	Patient correctly describes when to administer sublingual GTN <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> <input type="checkbox"/>
When else would you use your GTN?	<input type="checkbox"/> prophylactically e.g. before exercise, cold weather		
How do you use your GTN preparation?	<input type="checkbox"/> sit down or rest prior to using (except for prophylactic doses) <input type="checkbox"/> prime spray prior to use <input type="checkbox"/> one tablet or one spray (keep button depressed) under tongue	Patient correctly describes how to administer sublingual GTN <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> <input type="checkbox"/>
If first tablet/spray doesn't work?	<input type="checkbox"/> wait 5 mins after first spray/tabs <input type="checkbox"/> if no relief, second tablet/spray, sit or rest for 5 minutes <input type="checkbox"/> if no relief, third tablet/spray, sit or rest for 5 minutes <input type="checkbox"/> if no relief after a total of 15 minutes contact doctor or hospital	Patient correctly describes when to seek medical advice <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> <input type="checkbox"/>
Apart from getting a prescription, when do you need to see your Doctor about your angina?	<input type="checkbox"/> when GTN use has increased <input type="checkbox"/> when frequency/severity of angina has increased		

* Desired responses to be debated and agreed locally with GP practices and hospital cardiology department.

** Local agreement to be reached on no. of 'desired responses' patient must list to merit a 'yes'.

Information on Sublingual Glyceryl Trinitrate*

What are the symptoms of angina?

- arm pain
- chest pain/tightness
- facial pain
- others – to be agreed locally

When do I use my GTN spray/tablets?

- In response to anginal symptoms.
- Before certain activities known to bring on angina e.g. exercise, cold weather.

How do I use my spray/tablets?

Remember to sit down or rest before using either your spray or tablets (except if using prophylactically before certain activities known to bring on angina).

- **Tablets**
 - Place under tongue.
 - Allow to dissolve – do not swallow.
 - Once pain is gone then may swallow or spit out the tablet.
 - Replace the tablets every 8 weeks – put the date on the bottle.
- **Spray**
 - Do not shake the canister, hold it upright.
 - Prime spray with a few puffs into the air if not used regularly.
 - Spray under tongue.
 - Keep button depressed until all dose released.
 - Do not inhale.
 - Close mouth after spray.
 - Check the expiry date regularly.
 - Store away from naked flames.

Remember to carry your GTN spray/tablets at all times – keep spare tablets or spray.

What if my anginal pain continues after my first GTN spray/tablet?

- Wait 5 minutes after first spray/tablets, if no relief repeat spray/tablet.
- Wait further 5 minutes, if no relief repeat spray/tablet.
- Wait further 5 minutes (i.e. 15 minutes in total), if no relief, contact doctor or hospital.

Apart from getting another prescription, when do I need to see my doctor about my angina?

- When your daily use of tablets or spray is more than normal.
- When the severity/frequency of your angina is increasing.

What are the side effects?

- Most commonly – ‘pounding’ headaches, most likely if you are using spraytablets for the first time.
- Less often – dizziness/faintness – sit down.
- Facial flushing.

Acknowledgements

GTN patient information leaflet, Royal Infirmary of Edinburgh/Glasgow Royal Infirmary

* Content to be debated and agreed locally with GP practices and hospital cardiology department

Sample referral checklist***Sublingual glyceryl trinitrate and aspirin usage in angina patients****Form no.**

(see sample

patient questionnaire)

Date**Pharmacy stamp****Complete the checklist below, placing a tick in the appropriate boxes.****Check the PMR and then confirm with the patient if he/she is receiving any medication for angina, other than sublingual GTN.****Additional angina medication**

- none
- aspirin
- beta blocker
- calcium channel blocker
- nitrates (orally or patches)
- potassium channel activators
- other, please specify _____

Confirmation of patient medication

- medication confirmed with PMR
- medication confirmed with patient

Ask the patient the following further questionsHas the frequency of your GTN use increased over recent days/weeks? Yes No Has the severity of your angina pain increased over recent days/weeks? Yes No How often do you use your GTN tablets/spray per week? _____
(excluding prophylactic doses)**Does the patient fulfil at least one of the following criteria for referral to GP? (more than one may apply)**

- Patient on GTN and PMR/patient confirms not on regular aspirin
- Patient using GTN more than twice weekly (excluding prophylactic doses) and PMR/patient confirms not on regular angina therapy
- Patient reports frequency of GTN use is increasing
- Patient reports severity of angina pain is increasing

Patient referral to GP for reviewPatient referred Yes No Date _____Letter sent Yes No Date _____

* Referral criteria should be debated and agreed locally with GP practices.

Date _____

Pharmacy stamp

Dear Dr _____

Patient name _____**Patient D.O.B.** _____**Patient address** _____

Following local GP agreement on suitable referral criteria for patients receiving sublingual GTN preparations, the above named patient presented in my pharmacy. According to local criteria, I feel the patient would benefit from your review for the following reason(s):

- Patient on GTN and PMR/patient confirms not on regular aspirin
- Patient using GTN more than twice weekly (excluding prophylactic doses) and PMR/patient confirms not on regular angina therapy
- Patient reports frequency of GTN use is increasing
- Patient reports severity of angina is increasing

Please indicate if you agree or disagree with this referral by ticking the appropriate box and signing in the space below. Please file this letter in the patients case notes for possible follow up at a later date. Thank you.

Yours sincerely

Community pharmacist

 Agree with above, will review patient Disagree with above

Reason _____

GP Signature _____