



INR Testing

Practice Audit of the
Systematic Management
of INR Levels

Introduction

Warfarin is the most frequent cause of adverse drug reactions in New Zealand. To ensure safe and effective anticoagulation, a systematic, practice-wide approach to warfarin therapy and the maintenance of INR levels within appropriate target ranges is required.

This practice audit is designed to:

- Stimulate reflection on your practice system for warfarin therapy and monitoring of INR, and
- Identify opportunities for CQI.

We encourage you to make this audit a practice-wide activity and involve all practice members including reception staff.

All practice members who participate in the activity will be sent a certificate of participation by bpac^{nz} on completion of the form (Appendix one). General practitioners who want to claim CQI points for the audit need to complete the RNZCGP summary in Appendix two.

Audit process

This audit is a practice-wide activity. We suggest that one practice member takes the lead in the audit and does the groundwork before a practice meeting. The practice meeting reflects on the standards, reviews practice procedures and identifies opportunities for CQI. The audit leader then follows through on recommendations of the practice and reports back to the practice on progress and organises a second pass of the audit.

The standards

Reference numbers in the standards for the audit refer to numbered paragraphs in the bpac^{nz} resource "INR testing".

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Initiation

1. Practice has systematic patient-centred patient education before initiation of warfarin therapy, including written material, which includes information about bleeding risk, diet, drugs and testing (Ref: Section 2g)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	
2. All patients on warfarin receive a patient-held booklet on which condition, target INR, duration of treatment, ongoing warfarin doses and INR results are recorded (Ref: section 2g)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	
3. When warfarin is initiated in community, all practice members use the same protocol for the initiation of warfarin on most occasions (Ref: section 2a)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	
4. When warfarin initiated in hospital, local hospital has standardised information available to practice on patient discharge including condition, target INR, duration of therapy, last three INRs, last three warfarin doses, brand and strength of tablets given (Ref: section 2a)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	
5. Practice has a standard method of recording that the patient is on warfarin, condition, target INR range and duration of treatment in the clinical notes. This information should be immediately obvious to anyone accessing the notes (Ref: section 2c)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	
6. Prescriptions for warfarin are always by brand name (Ref: section 2e)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	
7. All prescribers use drug labelling, which says that dosage of warfarin is to be guided by ongoing INR testing (Ref: section 2f)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	

Monitoring

8. When practice members take blood for INR testing they ask about adherence to treatment, bleeding and changes in medication or diet. (Ref: section 3f)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	
9. The practice has a system for detailing on laboratory request forms: target INR, contact phone of duty clinician, diagnosis, recent changes in medications (Ref: section 3f)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	
10. Most people with stable INRs are tested four to six weekly (Ref: section 3a)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	
11. Routine INR testing is done at a time which enables the patient's regular clinician to adjust the warfarin dose if needed (Ref:section 3e)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	
12. Everyone who makes dose adjustments to warfarin, including on-call doctors, has access to patient information on past results, warfarin brand and dose and uses the same protocol. (Ref: section 2c)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	
13. All practice clinicians know where the practice supply of vitamin k is held.	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	
14. Initiation, change in dose or discontinuation of a medication for a person on warfarin prompts a check for drug interactions and need for a period of more frequent monitoring of INR (Ref: section 3b)	Already met standard	
	Brought up to standard	
	Opportunities for CQI identified	

Taking action

The first step in taking action is to identify the criteria where gaps exist between expected and actual performance and decide on priorities for change.

Once priority areas for change have been decided on, an action plan should be developed to implement any changes.

The plan should assign responsibility for various tasks to specific members of the practice team and should include a timeline.

It is important to include the whole practice team in the decision-making and planning process.

It may be useful to consider the following points when developing a plan for action (RNZCGP 2002).

1. Problem solving process

- What is the problem or underlying problem(s).
- Change it to an aim.
- What are the solutions or options?
- What are the barriers?
- How can you overcome them?

2. Overcoming barriers

- Identifying barriers can provide a basis for change.
- What is achievable – find out what the external pressures on the practice are and discuss ways of dealing with them in the practice setting.
- Identify the barriers.
- Develop a priority list.
- Choose one or two achievable goals.

3. Effective interventions.

- No single strategy or intervention is more effective than another, and sometimes a variety of methods are needed to bring about lasting change.
- Interventions should be directed at existing barriers or problems, knowledge, skills and attitudes, as well as performance and behavior.

Review

Monitoring change and progress

It is important to review the action plan against the timeline at regular intervals with the practice team. It may help to discuss the following questions:

- Is the process working?
- Are the goals for improvement being achieved?
- Are the goals still appropriate?
- Do you need to develop new tools to achieve the goals you have set?

Following the completion of the first cycle, it is recommended that practices complete the first part of the clinical audit summary sheet

(a copy of which is attached as Appendix two).

Undertaking a second cycle

In addition to regular reviews of progress with the practice team, a second audit cycle should be completed in order to quantify progress on closing the gaps in performance.

It is recommended that the second cycle be completed within 12 months of completing the first cycle.

The second cycle should begin at the data collection stage.

Following the completion of the second cycle it is recommended practices complete the remainder of the clinical audit summary sheet.

General Practitioners claiming credits

Once a year a credit claim sheet is sent out by RNZCGP to GPs. On this you can indicate what you have completed, or alternatively you can go to the college website, and enter your points/claim through "MOPS online" at <http://www.rnzcgp.org.nz/>.

General Practitioners claiming credits towards MOPS will be required to complete the summary sheet (Appendix two) in this audit but it is not required to send the summary sheets to RNZCGP, or bpac^{nz}. You should retain the summary as it will allow you to provide adequate evidence of participation should the RNZCGP audit claims.

Those undertaking this audit but not claiming credits towards MOPS are strongly recommended to complete the summary sheet as it will provide them with a succinct review of the audit process.

Appendix one: Record of Practice Audit

INR practice audit

Date completed:.....

Participants:

Name	NZMC no. or NZNC no.

Number of standards already met	
Number of items brought up to standard because of audit	
Number of standards which still have opportunities for CQI	

Date set for second pass of audit:.....

Audit leader

I certify that the above named participated in the INR audit

Signature:..... Date:.....

Name:.....

Address for delivery of participation certificates:

.....
.....
.....

Send this form to bpac^{nz}, Box 6032, Dunedin or fax to: 0800 bpac nz (0800 27 22 69)

Appendix two: RNZCGP Summary Sheet

Claiming MOPS credits

This audit has been endorsed by the RNZCGP as a CQI Activity for allocation of MOPS credits.

General practitioners taking part in this audit can claim credits in accordance with the current MOPS programme. This status will remain in place until October 2009.

To claim MOPS points, you can indicate completion of the audit on the annual claim sheet, or alternatively you can go to the RNZCGP website, and claim your points at "MOPS online".

As the RNZCGP frequently audit claims you should retain the following documentation, in order to provide adequate evidence of participation in this audit:

1. A summary of the data collected
2. A certificate of participation (included as Appendix one)
3. A Continuous Quality Improvement Activity summary sheet (included as Appendix two)

RNZCGP Summary Sheet CQI activity – INR monitoring

Doctor's name:

The activity was designed by, please tick appropriate box:

- RNZCGP
- Organisation e.g. IPA (name of organisation) bpac^{nz}
- Individual (self)

Topic: Warfarin therapy and monitoring of INR

Describe why you chose this topic: (relevance, needs assessment)

.....

.....

.....

Participant comments:

First cycle (15 credits)

Data: Information collected.

Date of data collection: _____

Please attach:

- A summary of data collected or
- If this is an organisation activity attach a certificate of participation.

Check: Describe any areas targeted for improvement as a result of the data collected.

Action: Describe how these improvements will be implemented

Monitor: Describe how well the process is working. Will you undertake a second cycle?

Second cycle (15 credits)

Data: Information collected.

Date of data collection: _____

Please attach:

- A summary of data collected or
- If this is an organisation activity attach a certificate of participation.

Check: Describe any areas targeted for improvement as a result of the data collected.

Action: Describe how these improvements will be implemented

Monitor: Describe how well the process is working. Will you undertake a second cycle?

Additional comments:



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