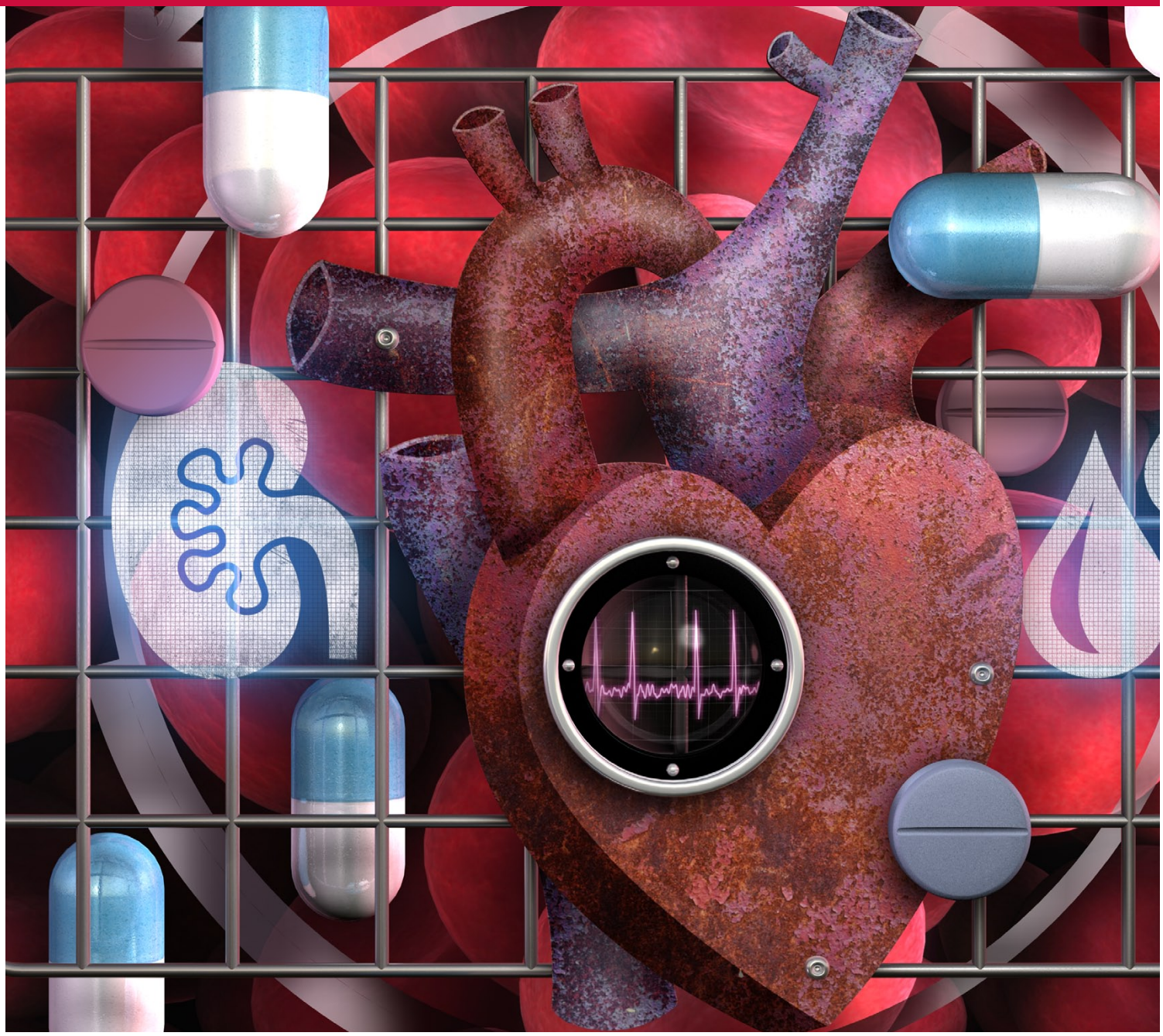
CLINICAL AUDIT

Reviewing the use of **anticoagulants in patients** with **atrial fibrillation**



Valid to September 2022

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Audit focus

This audit helps primary care health professionals optimise the management of stroke risk in patients with atrial fibrillation (AF) in their practice. The aim is to ensure that patients with AF have their stroke risk managed appropriately according to their current risk of stroke.

Background

Atrial fibrillation affects 5% or more of people in New Zealand aged over 65 years, and prevalence increases with age. Patients with atrial fibrillation have a four to five-fold increased risk of stroke.

The majority of strokes in patients with AF are preventable (Figure 1) and the use of anticoagulants reduces the risk of stroke as well as mortality, with greater benefits expected in patients at higher risk. The risk of stroke increases according to age, sex and co-morbidities. The CHA_2DS_2-VASc score can be used to quantify the risk of stroke in patients with atrial fibrillation (Table 1). In New Zealand 40% of patients with AF who are likely to benefit from an anticoagulant are not prescribed one.[1] Many of these patients are prescribed antithrombotic medicines, such as aspirin or clopidogrel, however, these are no longer recommended for reducing stroke risk in patients with AF.[2, 3]

For an online CHA_2DS_2-VASc calculator, see: **www.chadsvasc.org**

Recommendations

Treatment options depending on stroke risk

Patients with the lowest CHA_2DS_2-VASc risk scores for their sex (zero for males, one for females) should not use an anticoagulant as their risk of stroke is low, with rates of ischaemic stroke less than 1 per 100 people year; these people are unlikely to benefit from anticoagulant (or antiplatelet) use and be exposed to unnecessary risks.[4]

Anticoagulation with warfarin or dabigatran should be considered for all patients with risk scores ≥ 2. Males with a risk score of one may also benefit from anticoagulation.[2, 3]

Plan

Summary

This audit identifies patients with AF in order to assess whether their use of anticoagulants is appropriate for their current stroke risk.

Recommended audit standards

Ideally, all patients who can benefit from using an anticoagulant, i.e. with a CHA_2DS_2-VASc score ≥ 2 for females or ≥ 1 for males, should either be prescribed an anticoagulant or have documented reasons for not taking an anticoagulant. Patients at low risk, i.e. CHA_2DS_2-VASc scores below these thresholds, should not be prescribed an anticoagulant.

Figure 1: Rates of ischaemic stroke in patients with atrial fibrillation with and without the use of warfarin across CHA_2DS_2-VASc scores. Data from Allan *et al*.[4]

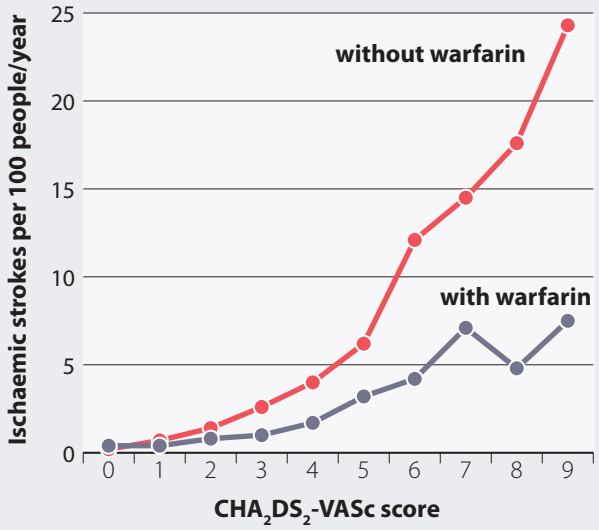

Table 1: Using the CHA_2DS_2-VASc score to guide anticoagulant prescribing for patients with atrial fibrillation[2, 3]

Risk factor for stroke	Points
Congestive heart failure	1
Hypertension or current antihypertensive medicine use	1
Aged 75 years or over	2
Diabetes mellitus	1
Stroke, transient ischaemic attack or thromboembolism	2
Vascular disease	1
Aged 65–74 years	1
Sex category – female	1
Total	**0 – 9**
Offer anticoagulation to patients with scores	≥ 1 for males ≥ 2 for females

Data

Identifying eligible patients

You will need to have a system in place that allows you to identify patients with AF. Many practices will be able to do this by running a "query" through their PMS.

Sample size

The sample size is ideally all patients in the practice with a diagnosis of AF, but if this number is too large, a sample size of 30 patients is sufficient for the purpose of the audit. However, it is recommended that all eligible patients are reviewed subsequently.

Review of stroke risk

Criteria for a positive result

A positive result is if a patient with AF fits into one of the following categories:

A. They are prescribed an anticoagulant, and this remains appropriate

B. They are not taking an anticoagulant and this is appropriate:
   i. Due to contraindications
   ii. As they do not require one, based on a timely review of their stroke risk (see below)
   iii. Due to patient preference, i.e. anticoagulation was recommended based on their current stroke risk but after an informed discussion, treatment was declined

It is recommended that a patient's stroke risk should be reviewed:[2]

- When they reach the age of 65 years
- When they develop additional risk factors for stroke, such as diabetes, heart failure or coronary heart disease
- Annually if they are not prescribed an anticoagulant due to contraindications, bleeding risks or patient preference

Patients should be flagged for treatment review if they are not taking an anticoagulant and have not had a timely review of their stroke risk, or discussion of the risks and benefits of using an anticoagulant.

Identifying opportunities for Audit of Medical Practice

The first step to improving medical practice is to identify the criteria where gaps exist between expected and actual performance and then to decide how to change practice.

Once a set of priorities for change have been decided on, an action plan should be developed to implement any changes.

Taking action

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

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?

Overcoming barriers to promote change

- 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

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 behaviour

References

1. Tomlin AM, Lloyd HS, Tilyard MW. Atrial fibrillation in New Zealand primary care: Prevalence, risk factors for stroke and the management of thromboembolic risk. Eur J Prev Cardiol 2017;24:311–9. doi:10.1177/2047487316674830
2. National Institutes for Health and Care Excellence (NICE). Atrial fibrillation: management. 2014. Available from: www.nice.org.uk/guidance/cg180 (Accessed Jul, 2017).
3. Kirchhof P, Benussi S, Kotecha D, et al. 2016 ESC Guidelines for the management of atrial fibrillation developed in collaboration with EACTS. Eur Heart J 2016;37:2893–962. doi:10.1093/eurheartj/ehw210
4. Allan V, Banerjee A, Shah AD, et al. Net clinical benefit of warfarin in individuals with atrial fibrillation across stroke risk and across primary and secondary care. Heart 2017;103:210–8. doi:10.1136/heartjnl-2016-309910

Review

Monitoring change and progress

It is important to review the action plan developed previously at regular intervals. It may be helpful to review 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 the doctor completes the first part of the Audit of Medical Practice summary sheet (Appendix 1).

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 that practices complete the remainder of the Audit of Medical Practice summary sheet.

The Royal New Zealand College of General Practitioners

Claiming MOPS credits

This audit has been endorsed by the RNZCGP as an Audit of Medical Practice activity (previously known as Continuous Quality Improvement – CQI) for allocation of MOPS credits; 10 credits for a first cycle and 10 credits for a second cycle. General practitioners taking part in this audit can claim credits in accordance with the current MOPS programme.

To claim points go to the RNZCGP website: **www.rnzcgp.org.nz**

Record your completion of the audit on the MOPS Online credit summary, under the Audit of Medical Practice section. From the drop down menu, select the audit from the list or select "Approved practice/ PHO audit" and record the audit name in "Notes", the audit date and 10 credits.

General practitioners are encouraged to discuss the outcomes of the audit with their peer group or practice.

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. An Audit of Medical Practice (CQI) Activity summary sheet (included as Appendix 1).

The Royal New Zealand College of General Practitioners
Te Whare Tohu Rata o Aotearoa
Endorsed CPD Activity

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www.bpac.org.nz/audits

Data sheet – cycle 1

Identifying patients with atrial fibrillation who may benefit from review of their stroke risk

Patient with atrial fibrillation	A review of patient records reveals:				Flagged for review i.e. No tick in Box A or Box B
	A. Patient is taking an anticoagulant (dabigatran or warfarin)	**B. Patient is not taking an anticoagulant**			
		i. Due to a documented contraindication	**ii. As they do not require one**, based on a review of their stroke risk, e.g. a documented CHA_2DS_2-VASc score within the last 12 months	**iii. Due to patient preference**, i.e. anticoagulation was recommended based on their current stroke risk but after an informed discussion within the last 12 months, treatment was declined	
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Data Summary				**Number of patients flagged for review** target = 0%	

Please retain this sheet for your records to provide evidence of participation in this audit.

Data sheet – cycle 2 Identifying patients with atrial fibrillation who may benefit from review of their stroke risk

Patient with atrial fibrillation	A review of patient records reveals:				Flagged for review i.e. No tick in Box A or Box B
	A. Patient is taking an anticoagulant (dabigatran or warfarin)	**B. Patient is not taking an anticoagulant**			
		i. Due to a documented contraindication	**ii. As they do not require one**, based on a review of their stroke risk, e.g. a documented CHA_2DS_2-VASc score within the last 12 months	**iii. Due to patient preference**, i.e. anticoagulation was recommended based on their current stroke risk but after an informed discussion within the last 12 months, treatment was declined	
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Data Summary				**Number of patients flagged for review** target = 0%	

Please retain this sheet for your records to provide evidence of participation in this audit.

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APPENDIX 1

SUMMARY SHEET
Audit of medical practice (CQI activity)

Topic:
Reviewing the use of anticoagulants in patients with atrial fibrillation

Date:

Activity designed by (name of organisation, if relevant):
Bpac^{nz}

Doctor's name:

Results discussed with peer group or colleagues?
☐ Yes ☐ No

Date:

FIRST CYCLE

DATA: Date of data collection:

CHECK: Describe any areas targeted for improvement as a result of analysing the data collected. (If the findings have any implications for health equity, please include this.)

ACTION: Describe how these improvements will be implemented.

MONITOR: Describe how well the process is working. When will you undertake a second cycle?

AUGUST 2016

SECOND CYCLE

DATA: Date of data collection:

CHECK: Describe any areas targeted for improvement as a result of analysing the data collected. (If the findings have any implications for health equity, please include this.)

ACTION: Describe how these improvements will be implemented.

MONITOR: Describe how well the process is working.

COMMENTS:

AUGUST 2016