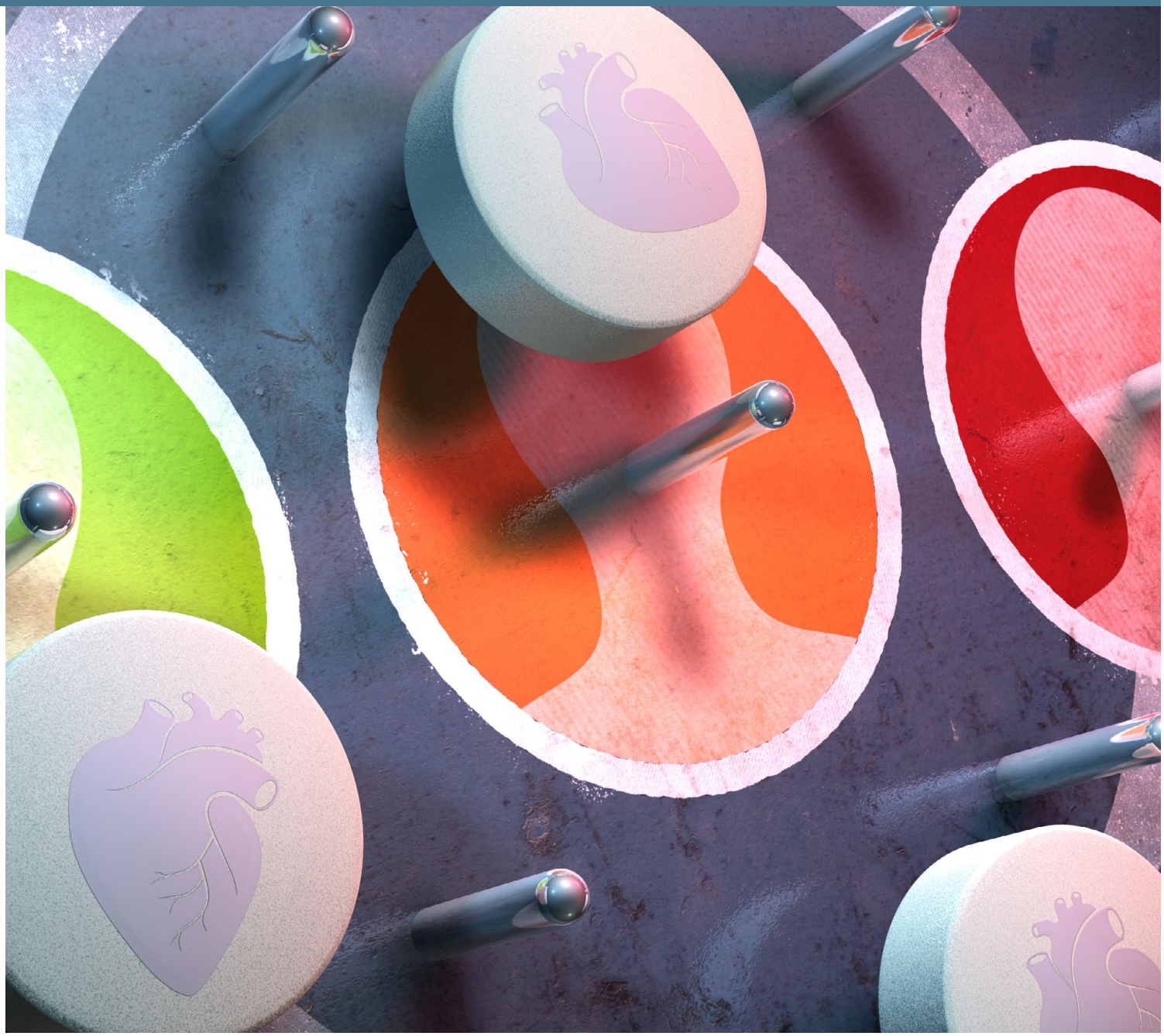
CLINICAL AUDIT

Reviewing patients using **aspirin for the management of cardiovascular disease risk**



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This audit identifies patients who are taking aspirin for the primary or secondary prevention of cardiovascular disease (CVD) to determine if ongoing treatment is indicated based upon the guidance in the 2018 Cardiovascular Disease Risk Assessment and Management for Primary Care consensus statement.

Background

Aspirin, along with lipid-lowering and blood pressure-lowering medicines, is indicated for the management of cardiovascular disease risk. Updated guidance in the Cardiovascular Disease Risk Assessment and Management for Primary Care consensus statement (2018), released by the Ministry of Health, uses the estimated five-year CVD risk, along with the patient's age, to recommend when aspirin should be considered for the primary or secondary prevention of CVD.

The identification of people with a low (< 5%), intermediate (5-15%) or high (≥ 15%) five-year CVD risk in the 2018 CVD consensus statement is based on the New Zealand Primary Prevention equations, which were developed from the New Zealand PREDICT study. Risk calculators based on New Zealand PREDICT equations are now incorporated into decision support software or the 2018 CVD consensus statement recommendations based on the categorisations of risk can be used. In addition, a Canadian interactive online CVD risk calculator also includes the ability to estimate risks and benefits based on the PREDICT equations. It is available at: **www.chd.bestsciencemedicine.com/calc2.html**

The CVD consensus statement recommends considering aspirin for primary prevention in people who have a high risk of CVD (≥ 15%) and are aged under 70 years. In addition, documented coronary disease, carotid disease (plaque on ultrasound) or a high coronary calcium score on CT scan (> 400) is considered to equate to high risk (>15%) and the CVD consensus statement recommends considering aspirin in people with these conditions.

For people aged 70 years and older, aspirin for primary prevention is not recommended due to the unclear balance between the benefits and harms of treatment. This recommendation is supported by recent evidence from the ASPREE clinical trial which showed that aspirin treatment increased the risk of bleeding, without reducing the number of cardiovascular events, in people in this age group.[1]

Aspirin is recommended for all people with established CVD (see: "Definition of established CVD") for the secondary prevention of cardiovascular events, regardless of age, as the benefits of treatment are considered to outweigh the increased risk of bleeding.

If aspirin is indicated, the benefits and risks associated with this treatment should be discussed with the patient. The decision whether to initiate treatment should include consideration of factors such as the risk of bleeding, co-morbidities, history of CVD, and life-expectancy. For people with a high CVD risk, lipid-lowering or blood pressure-lowering medicines are strongly recommended in the 2018 CVD consensus statement. Lifestyle advice, e.g. diet, weight management, physical activity, smoking cessation, is recommended for all people, regardless of CVD risk.

Definition of established CVD

People with established CVD includes those who have a history of:

- Angina
- Coronary artery bypass grafting
- Myocardial infarction
- Percutaneous coronary intervention
- Peripheral vascular disease
- Stroke
- Transient ischaemic attack
- Congestive heart failure

People with risk factors equivalent to established CVD, i.e. a five-year risk ≥ 15%, include those with:

- Asymptomatic carotid or coronary disease, i.e. coronary artery calcium score > 400 of plaque identified on carotid ultrasound or CT angiography
- Familial hypercholesterolaemia
- Chronic kidney disease with an eGFR < 30 mL/min/m^2
- Diabetes with an eGFR < 45 mL/min/m^2

For further information on the updated CVD risk assessment and management statement, see: **www.bpac.org.nz/2018/cvd.aspx**

For further information on aspirin in the management of CVD, see: **www.bpac.org.nz/2018/aspirin.aspx**

A full copy of the CVD consensus statement can be found here: **www.health.govt.nz/publication/cardiovascular-disease-risk-assessment-and-management-primary-care**

References

1. McNeil JJ, Wolfe R, Woods RL, et al. Effect of aspirin on cardiovascular events and bleeding in the healthy elderly. New England Journal of Medicine 2018;379:1509–18. doi:10.1056/NEJMoa1805819

Audit Plan

Summary

This audit identifies patients who are taking aspirin for the primary or secondary prevention of CVD to determine if ongoing treatment is indicated based upon the following recommendations in the 2018 CVD consensus statement:

- Aspirin is recommended for all patients with established CVD for secondary prevention
- Aspirin may be considered for primary prevention in patients aged < 70 years with an estimated five-year CVD risk of ≥ 15%*
- Aspirin is not recommended for primary prevention in patients aged ≥ 70 years, regardless of CVD risk
- Aspirin is not recommended for primary prevention in patients with an estimated five-year CVD risk < 15%

* Estimate based upon the PREDICT equations or presence of an equivalent high-risk co-morbidity

Recommended audit standards

Ideally, all patients who are taking aspirin long-term for the management of CVD risk should have a documented indication for primary or secondary prevention in their clinical record, based upon the recommendations in the 2018 CVD consensus statement.

This target may be lower in the first cycle of the audit as the consensus recommendations have only been recently published and previous guidance recommended aspirin for primary prevention in all patients with a high CVD risk, rather than stratifying the recommendation based upon the patient's age. The estimated five-year CVD risk calculated with the new equations may differ from previous CVD risk assessment and consequently alter the risk management strategy for some patients, i.e. whether aspirin is recommended. An increase in the number of patients who meet the required indications for aspirin treatment should be expected after the second cycle as more time will have elapsed for the recommendations in the consensus statement to be implemented.

Data

Identifying eligible patients

All patients who are currently being treated with aspirin for the primary or secondary prevention of CVD can be audited to assess whether they have an appropriate indication for ongoing use.

You will need to have a system in place that allows you to identify patients who are currently prescribed aspirin. Many practices will be able to do this by running a "query" through their PMS. The notes of identified patients will need to be reviewed and those who are prescribed low-dose aspirin, i.e. 75 to 150 mg, selected for the audit.

Sample size

A sample size of 30 patients is sufficient for this audit. However, it is recommended that all patients using aspirin for the prevention of CVD are subsequently reviewed.

Criteria for a positive result

A positive result is if a patient who has been taking aspirin for the primary or secondary prevention of CVD has documented evidence in their patient record of:

- A CVD risk score ≥ 15%* **AND** they are aged < 70 years, i.e. for primary prevention

OR

- A history of established CVD, i.e. for secondary prevention

* Or high-risk equivalent co-morbidity

Data analysis

For each patient who is currently taking aspirin, record on the data sheet whether there is an indication for primary or secondary prevention of CVD. Calculate the percentage of your patients who have a current indication for aspirin treatment by taking the number who meet the requirements for primary or secondary prevention and dividing it by the number of patients audited.

If there is no documented evidence for primary prevention, i.e. aged ≥ 70 years or have a CVD risk < 15%,* or no documented evidence for secondary prevention, i.e. no history of CVD, the patient should be flagged for review. If there is no indication for continuing aspirin after the review, discuss with the patient the option of stopping treatment.

For further information on starting the conversation about stopping medicines, see: **www.bpac.org.nz/2018/stopping.aspx**

* Or no high-risk equivalent co-morbidity

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

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.

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).

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Data sheet – cycle 1 Reviewing patients using aspirin for the management of cardiovascular disease risk

Patient taking aspirin	Primary prevention	Secondary prevention	Flagged for review, i.e. no tick in Box A or Box B
	A. Evidence in patient's notes of a CVD risk score ≥ 15%* and the patient is aged < 70 years	B. Evidence in patient's notes of history of CVD	
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AUDIT RESULT: Tick in column A or B divided by number of patients audited

* Or high-risk equivalent co-morbidity

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

Data sheet – cycle 2 Reviewing patients using aspirin for the management of cardiovascular disease risk

Patient taking aspirin	Primary prevention	Secondary prevention	Flagged for review, i.e. no tick in Box A or Box B
	A. Evidence in patient's notes of a CVD risk score ≥ 15%* and the patient is aged < 70 years	B. Evidence in patient's notes of history of CVD	
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AUDIT RESULT: Tick in column A or B divided by number of patients audited

* Or high-risk equivalent co-morbidity

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

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

APPENDIX 1

SUMMARY SHEET
Audit of medical practice (CQI activity)

Topic:
Reviewing patients using aspirin for the management of cardiovascular disease risk

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