

Integrating Osteoporosis in Primary Care: The Osteoporosis Risk and Management (ORMA) Project

The Australian Institute of Musculoskeletal Science (AIMSS) in partnership with the Melbourne Academic Centre for Health and University of Melbourne are inviting 16 general practices to be part of the **O**steoporosis **R**isk and **M**anagement (ORMA) Project. ORMA is a quality improvement activity designed to enhance the detection and improve the management of osteoporosis in older adults.

This document provides an overview of the project as well as the quality improvement activities for interested applicants.

Study Aims

- To increase the proportion of patients identified with osteoporosis risk factors (primary prevention).
- To increase the proportion of patients tested for osteoporosis.
- To increase the proportion of patients with a documented diagnosis of osteoporosis.
- To increase the proportion of patients meeting the recommended guidelines for disease treatment (secondary prevention).

Your Practice Will Receive

- Access to a novel tool (CAT – Osteoporosis) designed by PenCS, to facilitate detection of patients at risk of osteoporosis and to improve disease management for those with established osteoporosis during the study.
- Continuous education and training, including access to a hotline, website, webinars and written material (by Osteoporosis Australia).
- Access to CPD workshops.
- Access to clinical and QI mentors to support the implementation of your quality improvement activities.
- Opportunities to share your practice improvement strategies, successes and barriers associated with completion of the project with other practices.
- A report following completion of the project, demonstrating changes between the pre and post project implementation periods.



Overview of Osteoporosis in Australia

The publication of new data on the prevalence of osteoporosis in Australia (23% of women and 6% of men older than 60), and the health and economic impacts of this disease has highlighted the need to clarify and re-enforce clinical guidance for health professionals at the front line of osteoporosis management¹. The total direct and indirect costs of osteoporosis and osteopenia in Australia were \$2.75 billion in 2012. Total annual costs are predicted to reach \$3.84 billion by 2022. Hip fractures constitute the major burden, costing nearly \$800 million in 2012².

Evidence shows that timely diagnosis and appropriate pharmacological management reduces fracture rates³. Indeed, pharmacotherapy is very effective (reducing fracture risk by more than 50%), has a low incidence of adverse effects, and can easily be administered by general practitioners⁴. However, despite the availability of very effective pharmacotherapy, osteoporosis remains significantly underdiagnosed and even if a diagnosis is made, it remains inadequately treated. Thus, alarming detection and treatment gaps exists, which, we hypothesise, could be addressed in a simple, pragmatic, and yet very effective way.

Research conducted by Western Health (CI Nelson) using a CAT module to identify chronic kidney disease (CKD) has shown low rates of diagnosed CKD in Melbourne⁵. Therefore, underdiagnosis constitutes a significant challenge in early detection and CKD disease management. Using the reporting function from CAT, CI Nelson and colleagues demonstrated within 15 months an increase in the documentation of CKD risk factors such as obesity, type 2 diabetes mellitus and cardiovascular disease risk factors. Additionally, they showed a greater than 300 % increase in diagnostic testing for CKD in patients with documented risk factors, more than a 300 % increase in Electronic Health Record documentation of CKD diagnosis, and an increased number of patients meeting Kidney Health Australia's recommended CKD management targets, including disease improvement for patients receiving appropriate preventive pharmacotherapy within General Practice settings.

What is Quality Improvement?

Quality improvement (QI) involves undertaking activities intended to monitor, evaluate or improve the quality of service delivered. Therefore, in general practice it constitutes any activities that are undertaken which lead to an improvement in the quality of healthcare delivered to patients. As defined by the department of health, quality improvement activities include team-based approaches, peer review, reflective practice, best practice and data analysis and provides an opportunity to change practice(s) because of learning.

Practice Eligibility Criteria

To be eligible for the ORMA Project general practices must:

- 1. Have PenCS pre-installed in computers & be willing to allow the activation of the CAT-Osteoporosis module for 10 months**

Participating practices must have the latest version of PenCS pre-installed in their computers (CAT-Osteoporosis is a module of PenCS). Once your practice is randomised, the CAT – Osteoporosis module will be activated by PenCS, who will also provide technical support at no extra cost. [NB: software needs to remain updated to avoid compatibility issues].



2. Not be currently engaged in other projects to improve osteoporosis management or using other software tools to assist with osteoporosis management.

CAT also supports the REFRAME osteoporosis program. Your practice will not be eligible to participate in ORMA if you are currently using REFRAME for osteoporosis management.

3. Have not undertaken an osteoporosis quality improvement activity(s) in the last 12 months.

It is important that your practice has not worked on any other osteoporosis quality improvement activities, as this may impact on the ORMA project's outcomes.

4. Are not currently participating with the CD-IMPACT activities.

General practices that took part in a previous research project by Western Health (CD-IMPACT) evaluating similar e-technology for the identification and treatment of Chronic Kidney Disease (CKD), Cardiovascular Disease (CVD) and Type 2 Diabetes Mellitus (T2DM) will be considered for the study, only if they are not currently taking part in the study.

5. Have a clinical system that is compatible with PEN CAT.

Practices will need to operate medical software compatible with [PEN CAT Clinical Systems](#)

6. Provide protected time for staff to participate in Project activities:

Practices taking part in ORMA will be expected to actively participate in project activities. Activities will be tailored with the practice, with one activity scheduled per month.

a) 1 hour Project Start Up Meeting

The study team in partnership with your PHN will deliver a Study Start Up Meeting where the project goals and responsibilities will be explained.

b) Participate in Quality Improvement Cycles

Practices will plan and undertake improvement activities using the Quality Improvement model. Over the course of the project, three to six quality improvement cycles will be undertaken.

c) Allow the extraction of non-identifiable data by the ORMA Project Officer every 4 weeks during the 6 month participation timeframe

Data extracts will be collected by the study team monthly. Two baseline data sets will be extracted by PenCS, 4 weeks apart. After the activation of CAT-Osteoporosis tool, four data sets will be collected during the 4-month post-implementation phase. Data extraction does not require any GP or administrative time, as they are manually collected by the study team.

d) Completion of the post – implementation survey by general practitioners

A short post-implementation survey will be collected, after the last data set is collected (4 months post-implementation) to assess the educational component delivered to GPs. Whilst



data collected is de-identified, due to the nature of the responses, a Consent Form (PICF) needs to be signed by participating GPs. The survey will most likely take less than 10 min and responses will be collected by the study team.

e) Completion of reporting and evaluation requirements to NWMPHN

Participating practices will be required to complete selected qualitative and quantitative evaluation tools to inform project outcomes. These will include qualitative surveys reflecting on adopted changes, logistics and strategies that were effective for implementation of the study.

7. Share learnings, achievements, successes and barriers with other practices.

General practices will be asked to share their experiences if they wish to do so, about the ORMA project to facilitate the process for other general practices in future studies. This may occur at education events, general practice visits, online and/or through PHN media publications.

Timelines

Timelines to be fully confirmed once the situation with COVID-19 allows the study to be conducted.

Activity	Date
Introductory & Study Start Up Meetings	2 months
CAT – Osteoporosis activation by PenCS/Implementation	2 months
Training workshops	TBC
Monthly data extractions	TBC
Quality Improvement Activity	TBC
Project evaluation period	TBC

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References

- 1- Osteoporosis National Action Plan Working Group, *Osteoporosis National Action Plan 2016*, Sydney, 2016
- 2- <https://www.osteoporosis.org.au/burdenofdisease>
- 3- Shepstone L, Lenaghan E, Cooper C, Clarke S, Fong-Soe-Khioe R, Fordham R, Gittoes N, Harvey I, Harvey N, Heawood A, Holland R, Howe A, Kanis J, Marshall T, O'Neill T, Peters T, Redmond N, Torgerson D, Turner D, McCloskey E; SCOOP Study Team. Screening in the community to reduce fractures in older women (SCOOP): a randomised controlled trial. *2018 Feb 24;391(10122):741-747*
- 4- Ewald D. Osteoporosis - prevention and detection in general practice. *Aust Fam Physician*. 2012 Mar;41(3):104-8.
- 5- Pefanis A, Botlero R, Langham RG, Nelson CL. eMAP:CKD: electronic diagnosis and management assistance to primary care in chronic kidney disease. *Nephrol Dial Transplant*. 2018;33(1):121-128.

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