



CRUNCHTIME

Learning Objectives

Changing Outcomes in Osteoporosis

An interactive GP learning program to strengthen knowledge & sharpen practical skills in the detection, management & prevention of osteoporosis

The Crunchtime GP learning program consists of a variety of modules addressing different aspects of osteoporosis prevention, detection and management.

The lectures, interactive case studies and practical workshops can be delivered as short stand-alone 2 point per hour [Category 2 points] modules or combined to create a longer meeting [Category 2 points] or Active Learning Module [Category 1 points].

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Learning Objectives – Active Learning Module 11



CASE 1 Peggy

After participating in this activity, GPs should be able to:

Behaviour	Routinely offer practical advice and implement effective strategies to avoid first and subsequent fractures in at-risk patients
Attitude	Appreciate that early detection and treatment is vital to prevent the fracture cascade
Skills	Confidently interpret DXA reports and spinal X-rays, and link the results to appropriate actions
Knowledge	Understand the recommended management plans and optimal treatment options for people with varying scenarios of "risk", T score and fracture
Systems	Develop and implement early detection & intervention processes within the practice [for people at risk of osteoporosis or subsequent fracture] encompassing new and existing patients



CASE 2 Beverley

After participating in this activity, GPs should be able to:

Behaviour	Routinely and systematically follow-up all patients who have suffered a minimal trauma fracture
Attitude:	Take a proactive approach to following up patients with a minimal trauma fracture
Skills	Be able to develop and facilitate a Team Care Arrangement for patients with complex needs
Knowledge	Understand the latest Medicare item numbers for DXA and PBS listings for osteoporosis medications, particularly for those over 70, and the Medicare requirements for Team Care Arrangements
Systems	Develop and implement processes within the practice to ensure appropriate investigations and treatment of all patients with minimal trauma fracture



CASE 3 Allan

After participating in this activity, GPs should be able to:

Behaviour	Routinely implement effective strategies to avoid/minimise bone loss in patients on high-dose corticosteroids
Attitude	Appreciate the rapid bone loss and increased fracture risk in patients taking high-dose corticosteroids
Skills	Be able to develop a GP Management Plan or develop and facilitate a Team Care Arrangement for patients with complex needs
Knowledge	Understand the Medicare item numbers for DXA and PBS listings for medications in corticosteroid-induced osteoporosis, plus the Medicare requirements for GP Management Plans and Team Care Arrangements
Systems	Develop and implement processes within the practice to ensure steps are taken to prevent bone loss/fracture in patients on high-dose corticosteroid therapy



CASE 4 Nora

After participating in this activity, GPs should be able to:

Behaviour	Routinely offer practical advice and implement effective fall prevention strategies to avoid first and subsequent fractures in at-risk patients
Attitude	Appreciate that early detection and treatment is vital to prevent the fracture cascade
Skills	Be able to develop a GP Management Plan or develop and facilitate a Team Care Arrangement for patients with complex needs
Knowledge	Understand the latest evidence-based guidelines on calcium intake and vitamin D deficiency in the community and know how to achieve these recommendations
Systems	Develop and implement processes within the practice to ensure early detection & intervention in patients at high risk of first or subsequent fractures



CASE 5 Deidre

After participating in this activity, GPs should be able to:

Behaviour	Routinely offer practical advice and implement effective strategies to avoid first and subsequent fractures in at risk patients
Attitude	Appreciate that early detection and treatment is vital to prevent the fracture cascade
Skills	Administer and interpret the FRACTURE Index questionnaire as part of screening
Knowledge	Understand the latest Medicare item numbers for DXA and PBS listings for osteoporosis medications, particularly for those over 70
Systems	Develop and implement early detection & intervention processes within the practice [for people at risk of osteoporosis or subsequent fracture] encompassing new and existing patients



CASE 6 Vera

After participating in this activity, GPs should be able to:

Behaviour	Routinely enquire about compliance with prescribed medication/management strategies
Attitude	Appreciate the need for baseline and follow-up testing of BMD and markers of bone turnover to monitor response to treatment/compliance
Skills	Be able to investigate and address compliance issues
Knowledge	Understand the latest Medicare item numbers for DXA and PBS listings for osteoporosis medications, particularly for those over 70
Systems	Develop and implement processes within the practice to ensure patients are followed up to determine response to therapy and any problems with compliance

Lecture 1 – Identifying patients at risk of osteoporosis/future fracture

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none"> Routinely and systematically screen patients for osteoporosis risk factors Routinely offer practical advice and implement effective strategies to avoid first and subsequent fractures in at-risk patients
Attitude	<ul style="list-style-type: none"> Take a proactive approach to identifying patients at risk of osteoporotic fractures Appreciate that early detection and treatment is vital to prevent the fracture cascade
Skills	<ul style="list-style-type: none"> Administer and interpret the FRACTURE Index questionnaire as part of screening, plus incorporate simple physical examination tests to help identify osteoporotic fractures Confidently interpret DXA reports and link the results to appropriate actions
Knowledge	<ul style="list-style-type: none"> Understand the recommended management plans and optimal treatment options for people with varying scenarios of "risk", T score and fracture Understand the latest Medicare item numbers for DXA and PBS listings for osteoporosis medications, particularly for those over 70
Systems	<ul style="list-style-type: none"> Develop and implement early detection & intervention processes within the practice [for people at risk of osteoporosis or subsequent fracture] encompassing new and existing patients

Lecture 2 – Compliance

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none"> Routinely enquire about compliance with prescribed medication/management strategies
Attitude	<ul style="list-style-type: none"> Appreciate the reasons for low compliance with osteoporosis therapy and the consequences of poor compliance
Skills	<ul style="list-style-type: none"> Be able to investigate and address compliance issues Provide tailored combinations of interventions to improve compliance
Knowledge	<ul style="list-style-type: none"> Understand the reasons why patients fail to comply with osteoporosis therapy Understand the latest evidence regarding interventions shown to improve compliance
Systems	<ul style="list-style-type: none"> Develop and implement processes within the practice to ensure patients are followed up to determine response to therapy and any problems with compliance

Lecture 3 – Fracture protection

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none"> Routinely and systematically screen patients for osteoporosis risk factors Routinely offer practical advice and implement effective strategies to avoid first and subsequent fractures in at risk patients
Attitude	<ul style="list-style-type: none"> Appreciate the great burden of osteoporotic fractures on the individual and society in general Appreciate that early detection and treatment is vital to prevent the fracture cascade
Skills	<ul style="list-style-type: none"> Confidently interpret DXA reports and link the results to appropriate actions Confidently prescribe osteoporosis therapies which are proven to reduce the risk of fractures
Knowledge	<ul style="list-style-type: none"> Understand the management options in osteoporosis, including lifestyle measures and pharmacotherapy Understand which therapies have been proven to reduce the risk of vertebral and/or nonvertebral fractures Understand the latest Medicare item numbers for DXA and PBS listings for osteoporosis medications, particularly for those over 70
Systems	<ul style="list-style-type: none"> Develop and implement early detection & intervention processes within the practice [for people at risk of osteoporosis or subsequent fracture] encompassing new and existing patients



Lecture 4 – Monitoring treatment response

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none">● Routinely and systematically monitor treatment response in patients taking antiresorptive therapies
Attitude	<ul style="list-style-type: none">● Appreciate the need to use surrogate indicators of treatment efficacy, including BMD and markers of bone turnover, and any limitations associated with their use
Skills	<ul style="list-style-type: none">● Incorporate BMD testing and testing of markers of bone turnover to assess/monitor treatment response
Knowledge	<ul style="list-style-type: none">● Understand how imbalances in the remodelling of bone contribute to osteoporosis● Understand factors that contribute to bone strength
Systems	<ul style="list-style-type: none">● Implement processes within the practice to ensure that patient response to treatment is monitored with appropriate testing procedures

Lecture 5 – Understanding bone strength

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none">● Apply knowledge about bone strength to ensure routine use of fracture prevention strategies in patients
Attitude	<ul style="list-style-type: none">● Appreciate the importance of BMD and other properties of bone (e.g. bone strength, bone quality) which contribute to the risk of fracture
Skills	<ul style="list-style-type: none">● Confidently prescribe therapies with proven effect on bone which reduce the risk of fractures● Use BMD to guide treatment decisions and monitor response to therapy
Knowledge	<ul style="list-style-type: none">● Understand how imbalances in the remodelling of bone and alterations in bone strength/quality contribute to osteoporosis● Understand pharmacological differences between antiresorptive therapies and possible implications of these differences
Systems	<ul style="list-style-type: none">● Implement processes within the practice to ensure that effects of treatment on bone strength are monitored with the appropriate tests

Lecture 6 – The problem of non-vertebral osteoporotic fractures

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none">● Advise patients about their risk of non-vertebral osteoporotic fractures and offer preventative strategies or appropriate treatment● Apply simple evaluation principles when interpreting clinical trial data for osteoporosis treatments
Attitudes	<ul style="list-style-type: none">● Be motivated to consider osteoporosis risk in all middle-aged and older patients with fractures, and aim to prevent non-vertebral and vertebral fractures
Skills	<ul style="list-style-type: none">● Be able to identify patients at high risk for hip fracture and know which therapies are proven to reduce hip fracture rates
Knowledge	<ul style="list-style-type: none">● Be aware of the magnitude of disease burden associated with hip and other non-vertebral fractures plus the roles of existing and newer osteoporosis medications● Know the recommendations for non-vertebral fracture prevention made in recent Australian guidelines
Systems	<ul style="list-style-type: none">● Implement early detection and intervention processes within their practices to ensure timely identification and treatment of new and existing patients with osteoporosis

Lecture 7 – Calcium and vitamin D: who, when, why and how much?

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none">• Routinely assess calcium and vitamin D status in all patients with, or at risk of, osteoporosis
Attitudes	<ul style="list-style-type: none">• Consider all housebound and institutionalised elderly patients as candidates for routine supplementation with calcium and vitamin D
Skills	<ul style="list-style-type: none">• Be better equipped to identify patients at risk for osteoporotic fractures where calcium and/or vitamin D deficiency is a contributing factor.
Knowledge	<ul style="list-style-type: none">• Be aware of the recommended daily intakes for calcium and vitamin D• Understand the place of combination products, combining a bisphosphonate with calcium and/or vitamin D.
Systems	<ul style="list-style-type: none">• Develop and implement systems to ensure that patients are routinely assessed for their calcium and vitamin D status when determining their risk of osteoporosis.

Lecture 8 – Stop the drop: Fall prevention

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none">• Advise patients about the importance of preventing falls as part of the management of osteoporosis• Advise patients who are at risk of falling about effective fall prevention strategies
Attitudes	<ul style="list-style-type: none">• Be motivated to assess fall risk in all elderly patients and offer appropriate intervention
Skills	<ul style="list-style-type: none">• Be able to carry out simple, practice-based screening to assess patients' risk of falling, and offer targeted fall prevention strategies
Knowledge	<ul style="list-style-type: none">• Be aware of the burden of falls and risk factors for falling• Understand how screening tools (e.g. QuickScreen) can be used to identify patients at risk of falls• Be aware of effective fall prevention strategies and referral options for patients identified as being at risk of falls
Systems	<ul style="list-style-type: none">• Implement systems and processes in their practices to ensure that all elderly patients are assessed for their risk of falling, and offered appropriate fall prevention strategies



Workshop 1 –

Identifying patients at risk of osteoporosis/future fracture

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none">• Routinely offer practical advice and implement effective preventative strategies to avoid first and subsequent fractures in at risk patients
Attitude	<ul style="list-style-type: none">• Take a more proactive approach to identifying patients at risk of osteoporotic fractures• Appreciate that early detection and treatment is vital to prevent the fracture cascade
Skills	<ul style="list-style-type: none">• Administer and interpret the FRACTURE Index questionnaire as part of screening
Knowledge	<ul style="list-style-type: none">• Understand the great burden of osteoporosis on the individual and society in general• Understand how to use tools to predict fracture risk
Systems	<ul style="list-style-type: none">• Develop and implement processes within the practice to identify patients at risk of osteoporosis and future fracture

Workshop 2 – Compliance

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none">• Routinely enquire about compliance with prescribed medication/management strategies
Attitude	<ul style="list-style-type: none">• Appreciate the reasons for low compliance with osteoporosis therapy and the consequences of poor compliance
Skills	<ul style="list-style-type: none">• Be able to investigate and address issues with poor compliance
Knowledge	<ul style="list-style-type: none">• Understand the reasons why patients fail to comply with osteoporosis therapy and use this knowledge when tailoring interventions
Systems	<ul style="list-style-type: none">• Develop and implement processes within the practice to ensure patients are followed up regarding any problems with compliance

Workshop 3 – Fracture protection

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none">• Routinely and systematically screen patients for osteoporosis risk factors
Attitude	<ul style="list-style-type: none">• Appreciate the great burden of osteoporotic fractures on the individual and society in general, and the need for early detection and treatment to prevent the fracture cascade
Skills	<ul style="list-style-type: none">• Feel confident in prescribing osteoporosis therapies which are proven to reduce the risk of fractures
Knowledge	<ul style="list-style-type: none">• Understand the management options in osteoporosis, including lifestyle measures and pharmacotherapy
Systems	<ul style="list-style-type: none">• Develop and implement early detection & intervention processes within the practice [for people at risk of osteoporosis or subsequent fracture] encompassing new and existing patients

Workshop 4 – Monitoring treatment response

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none"> Routinely and systematically monitor treatment response in patients taking antiresorptive therapies
Attitude	<ul style="list-style-type: none"> Appreciate the aims of treatment of osteoporosis, particularly fracture protection
Skills	<ul style="list-style-type: none"> Incorporate BMD testing and testing of markers of bone turnover to assess/monitor treatment response
Knowledge	<ul style="list-style-type: none"> Understand the concept of bone strength and how it relates to fracture protection
Systems	<ul style="list-style-type: none"> Implement processes within the practice to ensure that patient response to treatment is monitored with appropriate testing procedures

Workshop 5 – Understanding bone strength

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none"> Apply knowledge about bone strength to ensure routine use of fracture prevention strategies in patients with, or at risk of, osteoporosis
Attitude	<ul style="list-style-type: none"> Appreciate the importance of BMD and other properties of bone (e.g. bone strength, bone quality) which contribute to the risk of fracture
Skills	<ul style="list-style-type: none"> Confidently prescribe therapies with proven effect on bone which reduce the risk of fractures
Knowledge	<ul style="list-style-type: none"> Understand the concept of bone strength and how it relates to fracture protection
Systems	<ul style="list-style-type: none"> Implement processes within the practice to ensure that effects of treatment on bone strength are monitored with the appropriate tests

Workshop 6 – The problem of non-vertebral osteoporotic fractures

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none"> Advise patients about their risk of non-vertebral osteoporotic fractures and offer preventative strategies or appropriate treatment
Attitudes	<ul style="list-style-type: none"> Appreciate the enormous impact of hip fracture, and be better motivated identify patients with, or at risk of, osteoporotic fractures
Skills	<ul style="list-style-type: none"> Be able to identify patients at high risk for hip fracture and know which therapies are proven to reduce hip fracture rates
Knowledge	<ul style="list-style-type: none"> Be aware of the magnitude of disease burden associated with hip and other non-vertebral fractures plus the roles of existing and newer osteoporosis medications
Systems	<ul style="list-style-type: none"> Implement early detection and intervention processes within their practices to ensure timely identification and treatment of new and existing patients with osteoporosis

Workshop 7 – Calcium and vitamin D: who, when, why and how much?

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none"> Routinely assess calcium and vitamin D status in all patients with, or at risk of, osteoporosis
Attitudes	<ul style="list-style-type: none"> Consider all housebound and institutionalised elderly patients as candidates for routine supplementation with calcium and vitamin D
Skills	<ul style="list-style-type: none"> Be better equipped to identify patients at risk for osteoporotic fractures where calcium and/or vitamin D deficiency is a contributing factor.
Knowledge	<ul style="list-style-type: none"> Be aware of the recommended daily intakes for calcium and vitamin D Understand the place of combination products, combining a bisphosphonate with calcium and/or vitamin D.
Systems	<ul style="list-style-type: none"> Develop and implement systems to ensure that patients are routinely assessed for their calcium and vitamin D status when determining their risk of osteoporosis.

Workshop 8 – Stop the drop: Falls prevention

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none"> Advise patients who are at risk of falling about effective fall prevention strategies
Attitudes	<ul style="list-style-type: none"> Be more motivated to assess fall risk in all elderly patients and offer appropriate intervention
Skills	<ul style="list-style-type: none"> Be able to carry out simple, practice-based screening to assess patients' risk of falling, and offer targeted fall prevention strategies
Knowledge	<ul style="list-style-type: none"> Understand how screening tools (e.g. QuickScreen) can be used to identify patients at risk of falls Be aware of effective fall prevention strategies and referral options for patients identified as being at risk of falls
Systems	<ul style="list-style-type: none"> Implement systems and processes in their practices to ensure that all elderly patients are assessed for their risk of falling, and offered appropriate fall prevention strategies

Active Learning Module

After participating in this activity, GPs should be able to:

Behaviour	<ul style="list-style-type: none"> Routinely and systematically identify and assess patients at risk of osteoporotic fractures in new and existing patients Display increased confidence in implementing preventative strategies in patients at risk of osteoporosis Routinely advise menopausal and post menopausal women and men on bone health Routinely offer practical advice and implement effective strategies to avoid first and subsequent fractures in at risk patients
Attitudes	<ul style="list-style-type: none"> Appreciate that each practice needs a proactive plan and needs to utilise the many strategies and tools available to them in order to reduce the burden of osteoporosis Appreciate the key role a GP plays in preventing hip fractures in women over the age of 70 which significantly increase mortality and morbidity as well as greatly impacting family and carers Appreciate that early detection is vital
Skills	<ul style="list-style-type: none"> Confidently use the Fracture Index as a risk-detection tool Confidently interpret DXA reports and link the results to appropriate action Improve their Health Assessment template to ensure osteoporosis-related risks are adequately included Confidently interpret spinal X-rays to double-check the possibility of fracture
Knowledge	<ul style="list-style-type: none"> Understand the recommended management plans and optimal treatment options for people with varying scenarios of "risk", T score and fracture Understand the optimal treatment options for people with osteoporosis Understand the latest evidence-based guidelines on calcium intake and vitamin D deficiency in the community and practically how to achieve these recommendations Understand the latest Medicare item numbers for DXA and PBS listings for osteoporosis medications, particularly for those over 70
Systems	<ul style="list-style-type: none"> Develop and implement early detection & intervention processes within the practice [for people at risk of osteoporosis or subsequent fracture] encompassing new and existing patients

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