



Maximisation des DME envers ostéoporose et la prévention des chutes

Dr. Therese Hodgson

Sept 10, 2019

DÉCLARATION DE LA CONFÉRENCIÈRE

Nom: Dr. Therese Hodgson

Relation support financier: aucun

Frais de consultants: aucun

Honoraires de présentations: Collège des médecins de familles de l'Ontario(Ontario College of Family Physicians-Osteoporosis and Fracture Prevention)

Brevets: aucun

Autres: aucun

Conflit d'intérêt : aucun

OBJECTIFS

Objectif 1:

Reconnaitre les éléments du formulaire-DME permettant a l'utilisateur d'appliquer les lignes directrices et les pratiques exemplaire dans la prise en charge de l'ostéoporose

Objectif 2:

Identifier les possibilités de l'application du formulaire afin d'amélioré l'efficacité de la clinique

Objectif 3:

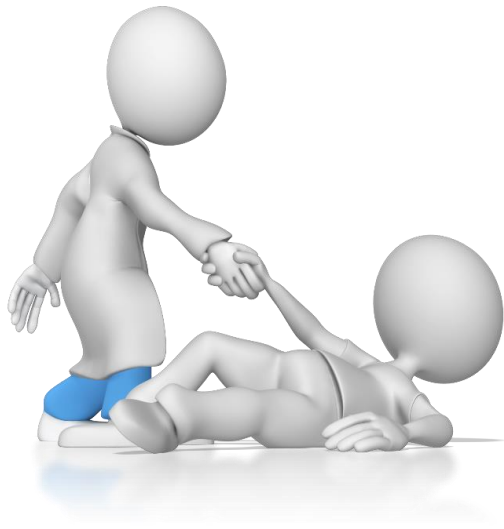
Reconnaitre la valeur ajoutée des écosystèmes, des services et outils du DME dans le domaine de la santé des os (évaluations des risques de chutes, et la prise en charge de l'ostéoporose) envers l'amélioration du déroulement du travail

FAITS IMPORTANTS



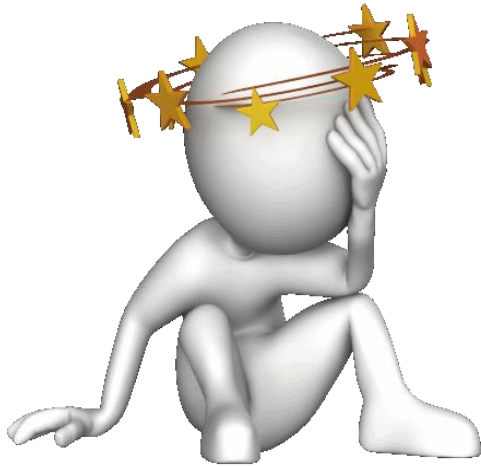
- Les fractures d'ostéoporose sont plus fréquentes que la **totalité** des accidents vasculaire cérébral, des infarctus et des cancers du seins
- **1/3 femme et 1/5 homme** subiront une fracture d'ostéoporose
- En 2010 les couts reliev à l'ostéoporose s'avère à plus de **\$2.3 milliards ou 1.3%** du budget santé canadien

FAITS IMPORTANTS



- Il y a plus de **30,000** fractures de hanche au Canada annuellement
- Les couts relir à une fracture de hanche est estimer à **\$20,000** la première année et à plus de **\$40,000** si le patient reçoit des soins de longues durés
- En suivi d'une fracture de hanche, **moins de 20%** des patients reçoivent une évaluation ou des traitements adéquats

FAITS IMPORTANTS



- Les chutes sont la **cause primaire** des blessures chez nos personnes âgées
- **1/3** qui subit une fracture de hanche aura une seconde fracture à l'intérieur d'un an
- **1/2** subira une seconde fracture à l'intérieur de 5 ans
- **20%** des patients qui subissent une fracture de vertèbre auront une seconde fracture de vertèbre à l'intérieur de la même année.

LES OUTILS DME



FORMULAIRE OSTÉOPOROSE PS-OSCAR

Osteoporosis & Falls Assessment Form

GERAS
Geriatric Education & Research in Aging Science
McMaster University

1 History

Initial Assessment: ☐ Yes ☐ No
 Osteoporosis Dx: ☐ Yes ☐ No
 Previous Osteoporosis Dx: ☐ Yes ☐ No
 New Fragility Fracture: ☐ Yes ☐ No

Identify risk factors for fractures and falls:

Prior fracture after age 50 years:

	Yes	No
Hip	☐	☐
Wrist	☐	☐
Vertebral	☐	☐
Proximal humerus	☐	☐
Pelvis	☐	☐
Other, specify	☐	☐

Prolonged glucocorticoid use: ☐ Yes ☐ No
 Parental hip fracture: ☐ Yes ☐ No
 Rheumatoid arthritis: ☐ Yes ☐ No
 Menopause at age < 45 years: ☐ Yes ☐ No
 Other Conditions or Medications: ☐ Yes ☐ No

2 Lifestyle Review

Current smoker: ☐ Yes ☐ No
 Consumes 3 units (oz.) alcohol/day: ☐ Yes ☐ No
 Has fallen 2 times in past 12 months: ☐ Yes ☐ No
 Low body weight (<60 kg) or major weight loss: ☐ Yes ☐ No
 Diet + supplement calcium intake 1200 mg/day: ☐ Yes ☐ No

3 Physical

A. Assess balance and gait for fracture risk:
 Can patient rise from chair without using arms and walk several steps? (Get / Timed Up and Go Test) ☐ Yes ☐ No

B. Screen for vertebral fracture:
 Current height: _____ cm
 Previous height: _____ cm
 Prior Height: _____ cm

	Yes	No	If yes to any, order PA lateral spine x-ray to rule out vert. fracture
Prospective height loss > 2 cm	☐	☐	☐
Historical height loss > 6 cm	☐	☐	☐
Rib-pelvis distance 2 fingers	☐	☐	☐
Occiput-wall distance > 5 cm	☐	☐	☐

4 Lab to rule out secondary osteoporosis

Calcium Correction Calculator	Value	Target	Date of latest
Calcium			
Albumin			
Creatinine			
eGFR			
Alkaline phosphatase			
TSH			
Protein electrophoresis	☐ Normal ☐ Abnormal		
25-hydroxyvitamin D (25OHD)			
CBC (Hemoglobin)			

5 Bone Mineral Density (BMD)

Prior BMD test complete: ☐ Yes ☐ No
 BMD test ordered: ☐ Yes ☐ No

	Latest T-score	Date	Prior T-score	Date of BMD
Femoral neck				
Lumbar spine				

If BMD test indicated, order DXA. Assess fracture risk at next apt.

6 10-year fracture risk: CAROC or FRAX

For treatment naïve patients 50 years

Low: risk < 10%
 Reassess risk in 3-5 years

Moderate: risk 10-20%
 Lateral x-ray (T4-L4) to rule out vertebral fracture
 BMD in 1-3 years and reassess fracture risk

High: risk > 20%
 Prior fragility fracture of hip/spine
 OR
 More than one fragility fracture

Previous Risk: _____
 Current Risk: _____

7 Recommendations for Patient Care

Encourage balance & strength training, aerobic physical activity, calcium (diet+supplement) 1000-1200 mg daily, vitamin D3 800-2000IU daily.

Falls-prevention handout given: ☐ Yes ☐ No

How many days per week patient engages in moderate-vigorous exercise (brisk walk): _____

Average mins per day patient exercises at this level: _____

Risk	Recommendation
Low	Unlikely to benefit from pharmacotherapy
Moderate	Consider pharmacotherapy if patient has at least one of the following:
High	Pharmacotherapy options:

1st line: Postmenopausal women and men

	Currently On	Initiated	Changed To:
Alendronate (Fosamax)	☐	☐	☐
Alendronate + 5600IU Vit D (Fosavance)	☐	☐	☐
Risedronate (Actonel)	☐	☐	☐
Risedronate DR (Actonel DR)	☐	☐	☐
Denosumab (Prolia)	☐	☐	☐
Zoledronic Acid (Aclasta)	☐	☐	☐
PTH (Forteo)	☐	☐	☐

Information for Patients:
 Atypical Fractures and Bisphosphonates
 Atypical Fractures and Denosumab
 Osteonecrosis of the Jaw

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Ce formulaire a été développé par le centre GERAS (Geriatric Education & Research in Aging Science), l'université de McMaster en partenariat avec le collège des médecins de familles de l'Ontario, Ostéoporose Canada et l'unité d'initiative de qualité de l'équipe de santé familiale de Hamilton.

La version PS fut développée avec l'aide de QBIC, du centre d'excellence eHealth Centre of Excellence, Waterloo, Ontario

La version OSCAR fut développée avec l'aide de Dr. Sanjeev Goel

Les fonds nécessaires au développement furent prodigués par le Ministère de la santé

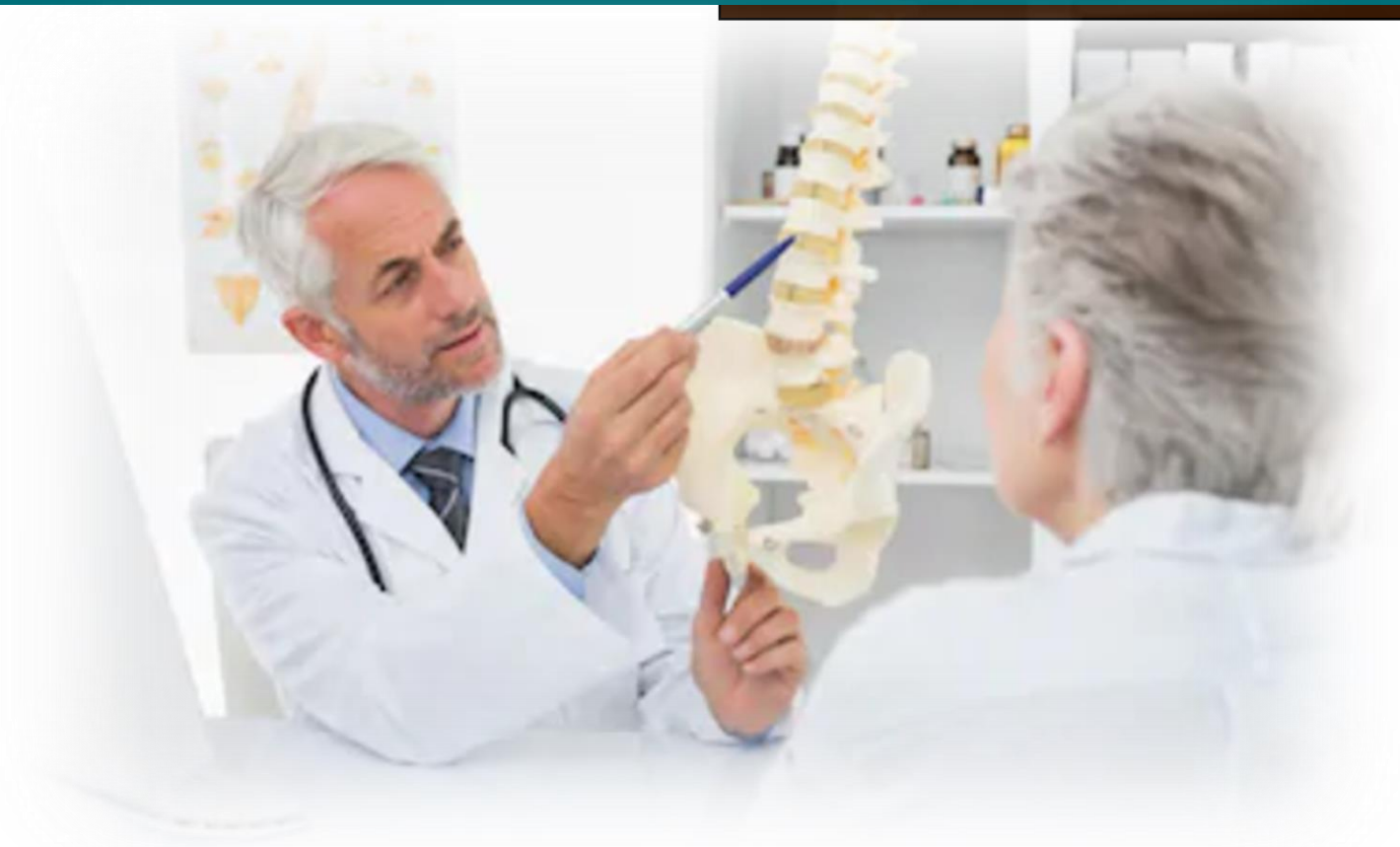
LES OUTILS DME



Utilisation du formulaire:

- Dépistage
- Réévaluation et suivi de l'ostéoporose
- Réévaluation et suivi après une chute ou une fracture

LES OUTILS DME



Ressources pour tous les besoins reliés à la santé des os:

- Formulaire standardisé de demande de densitométrie osseuse
- Formulaire de formule sanguine pour l'évaluation des causes secondaires
- Liens web importants (CAROC)
- Informations aux patients

FORMULAIRE OSTÉOPOROSE PS-OSCAR

Osteoporosis & Falls Assessment Form

1 History

☐ Initial Assessment ☐ Follow-Up
 Osteoporosis Dx: ☐ Yes ☐ No Previous Osteoporosis Dx: ☐ Yes ☐ No
 New Fragility Fracture: ☐ Yes ☐ No

Identify risk factors for fractures and falls:

Prior fracture after age 50 years: ☐ Yes ☐ No

Hip ☐ Wrist ☐ Vertebral ☐ Proximal humerus ☐ Pelvis ☐ Other, specify ☐

Prolonged glucocorticoid use ☐ Parental hip fracture ☐ Rheumatoid arthritis ☐ Menopause at age < 45 years ☐ Other Conditions or Medications ☐

2 Lifestyle Review

Current smoker ☐ Consumes 3 units (oz.) alcohol/day ☐ Has fallen 2 times in past 12 months ☐ Low body weight (<60 kg) or major weight loss ☐ Diet + supplement calcium intake 1200 mg/day ☐

3 Physical

A. Assess balance and gait for fracture risk:
 Can patient rise from chair without using arms and walk several steps? (Get / Timed Up and Go Test) ☐ Yes ☐ No

B. Screen for vertebral fracture:
 Current height: _____ cm
 Previous height: _____ cm
 Prior Height ☐ Yes ☐ No If yes to any, order PA lateral spine x-ray to rule out vert. fracture

Prospective height loss > 2 cm ☐ Historical height loss > 6 cm ☐ Rib-pelvis distance 2 fingers ☐ Occiput-wall distance > 5 cm ☐

4 Lab to rule out secondary osteoporosis

Calcium Correction Calculator

Value	Target	Date of latest
Calcium		
Albumin		
Creatinine		
eGFR		
Alkaline phosphatase		
TSH		
Protein electrophoresis	☐ Normal ☐ Abnormal	
25-hydroxyvitamin D (25OHD)		
CBC (Hemoglobin)		

5 Bone Mineral Density (BMD)

Prior BMD test complete ☐ Yes ☐ No
 BMD test ordered ☐ Yes ☐ No

	Latest T-score	Date	Prior T-score	Date of BMD
Femoral neck				
Lumbar spine				

If BMD test indicated, order DXA. Assess fracture risk at next apt.

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High: risk > 20%
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 More than one fragility fracture

Previous Risk: _____
 Current Risk: _____

7 Recommendations for Patient Care

Encourage balance & strength training, aerobic physical activity, calcium (diet+supplement) 1000-1200 mg daily, vitamin D3 800-2000IU daily.

Falls-prevention handout given ☐ Yes ☐ No

How many days per week patient engages in moderate-vigorous exercise (brisk walk): _____

Average mins per day patient exercises at this level: _____

Risk	Recommendation		
Low	Unlikely to benefit from pharmacotherapy		
Moderate	Consider pharmacotherapy if patient has at least one of the following:		
	Vertebral fracture identified by X-ray ☐ Yes ☐ No		
	Prior wrist fracture in patients ≥ 65 years ☐ Yes ☐ No		
	T-score ≤ -2.5 at any site ☐ Yes ☐ No		
	Lumbar spine T-score < Femoral neck T-score ☐ Yes ☐ No		
	Rapid bone loss ☐ Yes ☐ No		
	Men on androgen deprivation therapy ☐ Yes ☐ No		
	Women on aromatase inhibitor therapy ☐ Yes ☐ No		
	Long-term/repeat use of glucocorticoids ☐ Yes ☐ No		
	Has fallen ≥ 2 times in past 12 months ☐ Yes ☐ No		
	Secondary osteoporosis ☐ Yes ☐ No		
High	Pharmacotherapy options:		
1st line: Postmenopausal women and men			
	Currently On	Initiated	Changed To:
Alendronate (Fosamax)	☐	☐	☐
Alendronate + 5600IU Vit D (Fosavance)	☐	☐	☐
Risedronate (Actonel)	☐	☐	☐
Risedronate DR (Actonel DR)	☐	☐	☐
Denosumab (Prolia)	☐	☐	☐
Zoledronic Acid (Aclasta)	☐	☐	☐
PTH (Forteo)	☐	☐	☐

Information for Patients:
 Atypical Fractures and Bisphosphonates
 Atypical Fractures and Denosumab
 Osteonecrosis of the Jaw

1-HISTORIQUE

2-REVUE DU STYLE DE VIE

3-EXAMEN PHYSIQUE

4-ÉTUDES DE LABORATOIRE; EVALUATION DES CAUSES SECONDAIRES

5-DENSITOMÉTRIE OSSEUSE

6-ÉVALUATION DES RISQUES DE FRACTURES: CAROC OR FRAX

7-RECOMMANDATIONS DE SOINS

*INFORMATIONS POUR LES PATIENTS

L'icône  : informations additionnels

Liens en mauve

OSTÉOPOROSE- BARRE D'OUTIL INTÉGRÉ

DM Encounter	DM C.F.	Quarterly Lab	Annual Lab	A1C never done on	LDL never done on	BP 110/78 on Apr 28, 2017
 CEAD Print Add Entry Print List Open Email Insert Refers						
 Enter T-score! T-Score Flowsheet T-score Graphs: Femoral Neck Lumbar Spine Insert the Osteoporosis Assessment Tool ICD-9 SNOMED						
SOAP Time out Lab Rec CML Xray/Ultrasound Pap Req BP Wt ODB Central referral Montfort TOH						
PSA: BMD: Apr 23, 2016 Last FOBT: Last Colonoscopy:						
Perform Fall Prevention Screening. Click here to start Last screening performed on:						

☐ Apparaît pour âge 65 et plus, hommes et femmes

OSTÉOPOROSE- BARRE D'OUTIL INTÉGRÉ

DM Encounter DM C.F. Quarterly Lab Annual Lab **A1C** never done on **LDL** never done on **BP** 110/78 on Apr 28, 2017

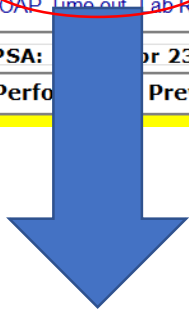
 Portal Add Form Picklist Open Email Import Refer

 **Enter T-score:** T-Score Flowsheet T-score Graphs: Femoral Neck || Lumbar Spine Insert the Osteoporosis Assessment Tool ICD-9 SNOMED

SOAP Time out Lab Rec CML Xray/Ultrasound Pap Req BP Wt ODB Central referral Montfort TOH

PSA: Apr 23, 2016 **Last FOBT:** Last Colonoscopy:

Perfor **Prevention Screening.** Click here to start Last screening performed on:



Apr 12, 2018 Osteo-TScoreEA TMH

Femoral Neck T-Score:

Lumbar Spine T-Score:

☐ Permet la documentation du score-T afin de permettre de suivre l'évolution

OSTÉOPOROSE- BARRE D'OUTIL INTÉGRÉ

DM Encounter DM C.F. Quarterly Lab Annual Lab **A1C** never done on **LDL** never done on **BP** 110/78 on Apr 28, 2017

 [Portal](#) [Add Form](#) [Picklist](#) [Open](#) [Email](#) [Import](#) [Refer](#)

 **Enter T-score:** T-Score Flowsheet T-score Graphs: Femoral Neck Lumbar Spine Insert the Osteoporosis Assessment Tool **ICD-9** **SNOMED**

[SOAP](#) Time out Lab Rec CML Xray/Ultrasound [Pap Req](#) BP Wt ODB Central referral Montfort TOH

PSA: BMD: Apr 23, 2016 Last FOBT: Last Colonoscopy:

Perform Fall Prevention Screening. [Click here to start](#) Last screening performed on:

Apr 18, 2018 Osteoporosis - PROB list SNOMED TMH
|✓|Add Osteoporosis to the PROB list

Birthdate: Jan 1, 1929 Sex: M
 Health #: 123456789
 Last Billed: 12/31/2018
 MD: Dr. J. Doe

next visit: not booked
 age 79 yr 89887

ON

stroke
 Osteoporosis
 COMPRESSION FRACTURE SPINE
 COPD
 diabetes

- permet une codification rapide

OSTÉOPOROSE- BARRE D'OUTIL INTÉGRÉ

DM Encounter DM C.F. Quarterly Lab Annual Lab **A1C never done on** **LDL never done on** **BP 110/78 on Apr 28, 2017**

 Portal Add Form Picklist Open Email Import Refer

 **Enter T-score:** T-Score Flowsheet T-score Graphs: Femoral Neck || Lumbar Spine **Insert the Osteoporosis Assessment Tool** ICD-9 SNOMED

SOAP Time out Lab Rec CML Xray/Ultrasound Pap Req BP Wt ODB Central referral Montfort TOH

PSA: BMD: Apr 23, 2016 Last FOBT: Last Colonoscopy:

Perform Fall Prevention Screening. Click here to start Last screening performed

Osteoporosis & Falls Assessment Form

History

1. Initial Assessment: Osteoporosis Dx? ☐ No ☐ Yes ☐ Follow-up Osteoporosis Dx? ☐ No ☐ Yes ☐ Previous Osteoporosis Dx? ☐ No ☐ Yes ☐

New Fracture? ☐ No ☐ Yes ☐

Identify risk factors for fracture and falls:

Prior fracture after age 50 years: ☐ Yes ☐ No

Hip ☐ Wrist ☐ Vertebral ☐ Proximal humerus ☐ Pelvis ☐

Other, specify: ☐

Prolonged glucocorticoid use ☐

Parental hip fracture ☐

Rheumatoid arthritis ☐

Menopause at age < 45 years ☐

(Other Conditions or Medications) ☐

10-year fracture risk: CAROC or FRAX

For treatment naïve patients 50 years

Low risk < 10%
Reasons risk in < 3-5 years

Moderate risk 10-20%
Lateral x-ray (T4-T4) to rule out vertebral fracture
BMD in 1-2 years and reassess fracture risk

High risk > 20%
OR
Prior fragility fracture of hip/pelvis OR
Next day and fracture fracture

Prior Risk: ☐

Current Risk: ☐

Lifestyle Review

Current smoker ☐ Yes ☐ No

Consumes 3 units (oz.) alcohol/day ☐ Yes ☐ No

Has fallen 3 times (or) at least 12 months ☐ Yes ☐ No

Low body weight (<60 kg) or major weight loss ☐

Diet + supplemental calcium intake 1200 mg/day ☐ Yes ☐ No

Physical

A. Assess balance and gait for fracture risk:

Can patient rise from chair without using arms? ☐ Yes ☐ No

Can walk several steps? (Get / Times Up and Go Test) ☐ Yes ☐ No

B. Screen for vertebral fracture:

Current height: ☐ cm

Prior Height: ☐ cm

Prospective height less > 2 cm ☐ Yes ☐ No ☐ If yes, to, order PA lateral spine x-ray to rule out vert. fracture

Historical height less > 6 cm ☐ Yes ☐ No

rib-pelvic distance > 2 fingers ☐ Yes ☐ No

Out-walk distance > 5 cm ☐ Yes ☐ No

Lab to rule out secondary osteoporosis

Calcium Correction Calculator

Value	Target	Date of latest
Calcium		
Albumin		
Creatinine		
eGFR		
Alkaline phosphatase		

Protein electrophoresis ☐ Normal ☐ Abnormal

Only for patients with renal impairment

25-hydroxyvitamin D (25(OH)D) ☐ Normal ☐ Abnormal

(measured after 4-8 months of adequate supplementation, and should be used to guide therapy)

Recommendations for Patient Care

Recommend patient 8 strength training, aerobic physical activity, calcium (diet+supplement) 1000-1200 mg daily, vitamin D3 800-2000IU daily ☐ Yes ☐ No

Falls-prevention: handout given ☐ Yes ☐ No

How many days per week patient engages in moderate-vigorous exercise (brisk walk) ☐ Yes ☐ No

Average mins per day patient exercises at this level: ☐

Risk	Recommendation
Low	Urinary to benefit from pharmacotherapy
Moderate	Consider pharmacotherapy if patient has at least one of the following: ☐

Vertebral fracture identified by X-ray ☐ Yes ☐ No

Prior wrist fracture in patients > 65 years ☐ Yes ☐ No

T-score > 2.5 at any site ☐ Yes ☐ No

Lumbar spine T-score < -2 Femoral neck T-score < -2 ☐ Yes ☐ No

Rapid bone loss ☐ Yes ☐ No

Men on androgen deprivation therapy ☐ Yes ☐ No

Women on aromatase inhibitor therapy ☐ Yes ☐ No

Long-term/repeat use of glucocorticoids ☐ Yes ☐ No

Has fallen > 2 times in past 12 months ☐ Yes ☐ No

Secondary osteoporosis ☐ Yes ☐ No

Last line: Postmenopausal women and men

Low	High	Pharmacotherapy options:	Currently On	Initiated	Changed To:
☐	☐	Alenadronate (Fosamax)	☐	☐	☐
☐	☐	Alenadronate + 5000IU Vit D (Fosavance)	☐	☐	☐
☐	☐	Risedronate (Actonel)	☐	☐	☐

☐ Insère le formulaire de façon rapide

OSTÉOPOROSE- BARRE D'OUTIL INTÉGRÉ

DM Encounter DM C.F. Quarterly Lab Annual Lab **A1C** never done on **LDL** never done on **BP** 110/78 on Apr 28, 2017

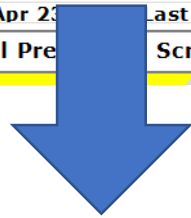
 Portal Add Form Picklist Open Email Import Refer

 **Enter T-score:** **T-Score Flowsheet** T-score Graphs: Femoral Neck || Lumbar Spine Insert the Osteoporosis Assessment Tool ICD-9 SNOMED

SOAP Time out Lab Rec CML Xray/Ultrasound Pap Req BP Wt ODB Central referral ▼ Montfort ▼ TOH ▼

PSA: BMD: Apr 23 Last FOBT: Last Colonoscopy:

Perform Fall Pre Screening. Last screening performed on:



 Flowsheet for Osteoporosis



File View

Bone Mineral Density T-scores ▼		
	"@Femoral_Neck_T-score:"	"@Lumbar_Spine_T-score:"
LatestValue	-1.7	-2.2
LastDone	Jun 13	Jun 13
Feb 1, 2011	-2.4	-2.3
Feb 2, 2013	-2.3	-2.5
Feb 1, 2015	-2.8	-2.2
Mar 20, 2018	-2.8	-2.6
Jun 13, 2019	-1.7	-2.2

 Insère une revue des résultats

OSTÉOPOROSE- BARRE D'OUTIL INTÉGRÉ

DM Encounter DM C.F. Quarterly Lab Annual Lab A1C never done on LDL never done on BP 110/78 on Apr 28, 2017

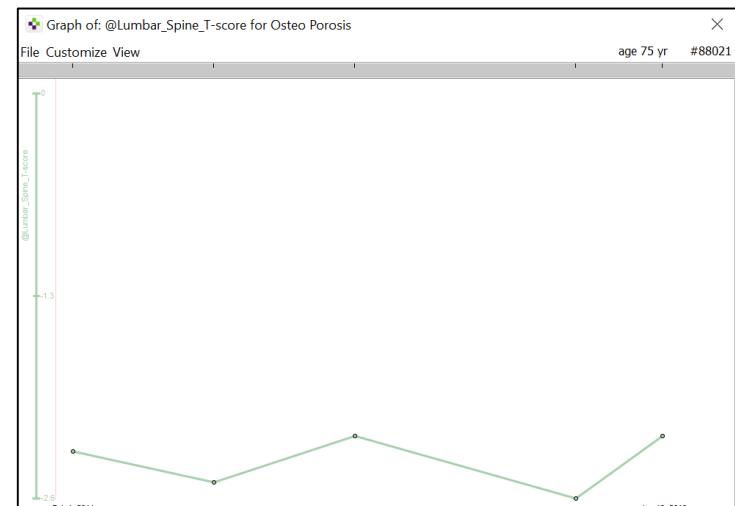
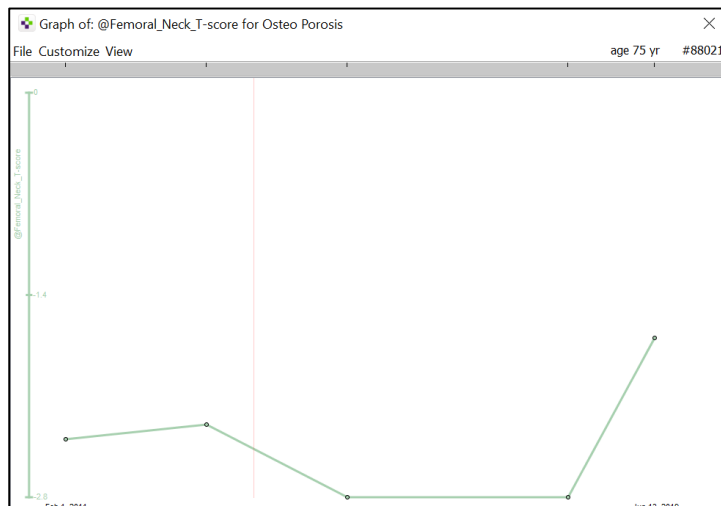
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Enter T-score: T-Score Flowsheet T-score Graphs: Femoral Neck | Lumbar Spine Insert the Osteoporosis Assessment Tool ICD-9 SNOMED

SOAP Time out Lab Rec CML Xray/Ultrasound Pap Req BP Wt ODB Central referral Montfort TOH

PSA: BMD: Apr 23, 2016 Last FOBT: Last Co by:

Perform Fall Prevention Screening. Click h Last screening per



□ Ainsi qu'un graphe

FORMULAIRE OSTÉOPOROSE PS-OSCAR

1 History

☐ Initial Assessment ☐ Follow-Up
Osteoporosis Dx: ☐ Yes ☐ No Previous Osteoporosis Dx: ☐ Yes ☐ No
New Fragility Fracture: ☐ Yes ☐ No

Identify risk factors for fractures and falls:

Prior fracture after age 50 years: ☐ Yes ☐ No

Hip ☐ Wrist ☐
Vertebral ☐ Proximal humerus ☐
Pelvis ☐ Other, specify ☐

Prolonged glucocorticoid use ☐ ☐ ☐
Parental hip fracture ☐
Rheumatoid arthritis ☐
Menopause at age < 45 years ☐
Other Conditions or Medications ☐

2 Lifestyle Review

Consumes 3 units (oz.) alcohol/day ☐ ☐ ☐
Has fallen 2 times in past 12 months ☐ ☐ ☐
Low body weight (<60 kg) or major weight loss ☐ ☐ ☐
Diet + supplement calcium intake 1200 mg/day ☐ ☐ ☐

3 Physical

A. Assess balance and gait for fracture risk:
Can patient rise from chair without using arms and walk several steps? (Get / Timed Up and Go Test) ☐ Yes ☐ No

B. Screen for vertebral fracture:
Current height: _____ cm
Prior Height: _____ cm
Prospective height loss > 2 cm ☐ Yes ☐ No If yes to any, order PA, lateral spine x-ray to rule out vert. fracture
Historical height loss > 6 cm ☐ ☐ ☐
Rib-pelvis distance 2 fingers ☐ ☐ ☐
Occiput-wall distance > 5 cm ☐ ☐ ☐

4 Lab to rule out secondary osteoporosis

Calcium Correction Calculator

Value	Target	Date of latest
Calcium		
Albumin		
Creatinine		
eGFR		
Alkaline phosphatase		
TSH		
Protein electrophoresis	☐ Normal ☐ Abnormal	
25-hydroxyvitamin D (25OHD)		
CBC (Hemoglobin)		

5 Bone Mineral Density (BMD)

Prior BMD test complete ☐ Yes ☐ No
BMD test ordered ☐ ☐ ☐

	Latest T-score	Date	Prior T-score	Date of BMD (MM/DD/YYYY)
Femoral neck				
Lumbar spine				

If BMD test indicated, order DXA. Assess fracture risk at next apt.

6 10-year fracture risk: CAROC or FRAX

For treatment naïve patients 50 years

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BMD in 1-3 years and reassess fracture risk

High risk > 20%
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Prior fragility fracture of hip/spine
OR
More than one fragility fracture

Previous Risk: _____
Current Risk: _____

7 Recommendations for Patient Care

Encourage balance & strength training, aerobic physical activity, calcium (diet+supplement) 1000-1200 mg daily, vitamin D3 800-2000IU daily.

Falls-prevention handout given ☐ Yes ☐ No

How many days per week patient engages in moderate-vigorous exercise (brisk walk): _____
Average mins per day patient exercises at this level: _____

Risk	Recommendation
Low	Unlikely to benefit from pharmacotherapy
Moderate	Consider pharmacotherapy if patient has at least one of the following:
	Vertebral fracture identified by X-ray ☐ Yes ☐ No
	Prior wrist fracture in patients ≥65 years ☐ ☐ ☐
	T-score ≤ -2.5 at any site ☐ ☐ ☐
	Lumbar spine T-score < Femoral neck T-score ☐ ☐ ☐
	Rapid bone loss ☐ ☐ ☐
	Men on androgen deprivation therapy ☐ ☐ ☐
	Women on aromatase inhibitor therapy ☐ ☐ ☐
	Long-term/repeat use of glucocorticoids ☐ ☐ ☐
	Has fallen ≥ 2 times in past 12 months ☐ ☐ ☐
	Secondary osteoporosis ☐ ☐ ☐
High	Pharmacotherapy options:

1st line: Postmenopausal women and men

	Currently On	Initiated	Changed To:
Alendronate (Fosamax)	☐	☐	☐
Alendronate + 5600IU Vit D (Fosavance)	☐	☐	☐
Risedronate (Actonel)	☐	☐	☐
Risedronate DR (Actonel DR)	☐	☐	☐
Denosumab (Prolia)	☐	☐	☐
Zoledronic Acid (Aclasta)	☐	☐	☐
PTH (Forteo)	☐	☐	☐

Information for Patients:
Atypical Fractures and Bisphosphonates
Atypical Fractures and Denosumab
Osteonecrosis of the Jaw

1-HISTORIQUE

HISTORIQUE

1 History	
☐ Initial Assessment	☐ Follow-Up
Osteoporosis Dx: ☐ Yes ☐ No	Previous Osteoporosis Dx: ☐ Yes ☐ No
New Fragility Fracture: 	☐ Yes ☐ No
Identify risk factors for fractures and falls:	
Prior fracture after age 50 years:	Yes No
Hip	☐ ☐
Wrist	☐ ☐
Vertebral	☐ ☐
Proximal humerus	☐ ☐
Pelvis	☐ ☐
Other, specify	☐ ☐
Prolonged glucocorticoid use 	☐ ☐
Parental hip fracture	☐ ☐
Rheumatoid arthritis	☐ ☐
Menopause at age < 45 years	☐ ☐
Other Conditions or Medications	☐ ☐

HISTORIQUE

Osteoporosis & Falls Assessment Form

1 History

Initial Assessment: Osteoporosis Dx: ☐ Yes ☒ No

Follow-Up: Osteoporosis Dx: ☐ Yes ☒ No

New Fragility Fracture: ☐ Yes ☒ No

Identify risk factors for fractures and falls

Prior fracture after age 50 years:

	Yes	No
Hip		
Wrist		
Vertebral		
Proximal humerus		
Pelvis		
Other, specify		

Prolonged glucocorticoid use: ☐ Yes ☒ No

Parental hip fracture: ☐ Yes ☒ No

Rheumatoid arthritis: ☐ Yes ☒ No

Menopause at age < 45 years: ☐ Yes ☒ No

Other Conditions or Medications:

6 10-year fracture risk: CAROC or FRAX

For treatment naïve patients ≥ 50 years

Women

Low risk (< 10%)

Low: risk < 10%
Reassess risk in 3-5 years

Moderate risk

High risk (> 20%)

Lateral x-ray (T4-L4) to rule out vertebral fracture

Reassess fracture risk

Men

Low risk (< 10%)

Moderate risk

High risk (> 20%)

High: risk > 20%
OR
Prior fragility fracture of hip/spine
OR
More than one fragility fracture

Previous Risk:

Current Risk:

Hip, Wrist, Vertebral, Proximal humerus, or Pelvis fracture occurring spontaneously or following minor trauma, such as a fall from standing height or less

HISTORIQUE

1 History

☐ Initial Assessment

☐ Follow-Up

Osteoporosis Dx: ☐ Yes

Previous Osteoporosis Dx: ☐ Yes

☐ No

☐ No

New **Fragility Fracture:** 

☐ Yes

☐ No

Identify risk factors for fractures and falls:

Prior fracture after age 50 years:

Yes

No

Hip

☐☐

Wrist

☐☐

Vertebral

☐☐

Proximal humerus

☐☐

Pelvis

☐☐

Other, specify

☐☐

Prolonged glucocorticoid use 

☐☐

Parental hip fracture

☐☐

Rheumatoid arthritis

☐☐

Menopause at age < 45 years

☐☐

Other Conditions or Medications

☐☐

HISTORIQUE

1 History

Initial Assessment

Osteoporosis Dx:

Yes

No

Follow-Up

Previous Osteoporosis Dx:

Yes

No

New Fragility Fracture:

Yes

No

Identify risk factors for fractures and falls:

Prior fracture after age 50 years:

Yes

No

Hip

Wrist

Vertebral

Proximal humerus

Pelvis

Other, specify

Prolonged glucocorticoid use

Parental hip fracture

Rheumatoid arthritis

Menopause at age < 45 years

Other Conditions or Medications

6 10-year fracture risk: CAROC or FRAX

For treatment naïve patients ≥ 50 years

Women

Men

Low: risk < 10%

Reassess risk in 3-5 years

Moderate: risk 10-20%

Lateral x-ray (T4-L4) to rule out vertebral fracture

BMD in 1-3 years and reassess fracture risk

High: risk > 20%

OR

prior fragility fracture of hip/spine

OR

More than one fragility fracture

at least 3 months cumulative therapy in the previous year at a prednisone-equivalent dose ≥ 7.5 mg daily

Previous Risk:

Current Risk:

HISTORIQUE

1 History

☐ Initial Assessment ☐ Follow-Up

Osteoporosis Dx: ☐ Yes ☐ No Previous Osteoporosis Dx: ☐ Yes ☐ No

New **Fragility Fracture:**  ☐ Yes ☐ No

Identify risk factors for fractures and falls:

Prior fracture after age 50 years:	Yes	No
Hip	☐	☐
Wrist	☐	☐
Vertebral	☐	☐
Proximal humerus	☐	☐
Pelvis	☐	☐
Other, specify	☐	☐
Prolonged glucocorticoid use 	☐	☐
Parental hip fracture	☐	☐
Rheumatoid arthritis	☐	☐
Menopause at age < 45 years	☐	☐
Other Conditions or Medications	☐	☐

HISTORIQUE



Osteoporosis Canada
Ostéoporose Canada

Executive Summary

2010 Clinical Practice Guidelines for the Diagnosis and Management of Osteoporosis in Canada

Introduction

Osteoporosis Canada's 2010 Clinical Practice Guidelines for the Diagnosis and Management of Osteoporosis in Canada focus on:

- The clinical impact of fragility fractures
- Assessment and management of women and men at high risk for fragility fracture
- Integration of ten-year absolute fracture risk prediction into an overall management approach
- The guideline authors emphasize that there is currently a large gap between the optimal practices and treatments that they recommend and those that are currently being provided to Canadians with osteoporosis. These guidelines are part of a concerted effort to close this gap.
- The target readership is meant to be broad, encompassing all healthcare professionals (e.g., physicians, nurses, pharmacists) and healthcare policy makers who have an interest in the management of osteoporosis
- Following is a point-form summary of the guidelines' recommendations. For more information, consult the full guideline document at www.osteoporosis.ca

Fragility Fractures and Care Gaps

- Definition of fragility fracture: fracture occurring spontaneously or following minor trauma such as a fall from standing height or less
- Consequences of fracture: increased risk of subsequent fracture, hospitalization / institutionalization and death; decreased quality of life; increased economic burden on healthcare system
- Fewer than 20% of patients with fragility fracture receive anti-osteoporosis treatment post fracture
- High proportion of individuals with fragility fractures have bone mineral density (BMD) in the low bone mass range; a missed opportunity to prevent future fractures due to over-reliance on BMD

Clinical Approach to Osteoporosis — Recommendations

1. Individuals 50 years and older who have experienced a fragility fracture should be assessed and considered for treatment.
2. Recommended Elements in the History and Physical Examination: Identify risk factors for low BMD, future fractures and falls: prior fragility fractures, parental hip fracture, glucocorticoid use, current smoking, high alcohol intake, rheumatoid arthritis, inquire about falls in the previous 12 months and inquire about gait and balance, accurate height and weight measurement; Get-Up-and-Go Test.
3. Investigations:
 - a. For all patients with osteoporosis: calcium corrected for albumin, complete blood count, creatinine, alkaline phosphatase, and thyroid-stimulating hormone.
 - b. For individuals being treated with pharmacologic therapy for osteoporosis, with recurrent fractures, with bone loss despite osteoporosis treatment, or with co-morbid conditions that affect vitamin D absorption or action: measurement of serum 25-OH-D*.
 - c. For those with vertebral fractures: serum protein electrophoresis.
 - d. In selected patients based on clinical assessment: additional biochemical testing to rule out secondary causes of osteoporosis.
 - e. If clinical evidence is suggestive of a vertebral fracture: lateral thoracic and lumbar spine radiographs.

Key Changes from the 2002 Guidelines¹

- 10-year fracture risk prediction tools incorporate clinical risk factors beyond BMD for improved clinical decision making:
 - CAROC or FRAX
- Increased focus on the clinical impact of fragility fractures
- Increased focus on the care gap that exists in the treatment of at-risk individuals
- Higher daily vitamin D supplementation (D3)
 - 400 – 1000 IU for individuals < 50 years
 - 800 – 2000 IU for individuals ≥ 50 years
- Lower daily calcium intake (from all sources): 1200 mg
- Updated list of pharmacologic therapies for fracture prevention

1. Brown JP, Josse RG, et al. CMAJ. 2002; 167(10 Suppl):S1-S4

*Should be measured after 3-4 months of adequate supplementation and should not be repeated if an optimal level (≥ 75 nmol/L) is achieved

FORMULAIRE OSTÉOPOROSE PS-OSCAR

Osteoporosis & Falls Assessment Form

1 History

Initial Assessment: ☐ Yes ☐ Follow-Up

Osteoporosis Dx: ☐ Yes ☐ Previous Osteoporosis Dx: ☐ Yes ☐ No

New Fragility Fracture: ☐ Yes ☐ No

Identify risk factors for fractures and falls:

Prior fracture after age 50 years: ☐ Yes ☐ No

Hip: ☐ Wrist: ☐ Vertebral: ☐ Proximal humerus: ☐ Pelvis: ☐ Other, specify: ☐

Prolonged glucocorticoid use: ☐ Parental hip fracture: ☐ Rheumatoid arthritis: ☐ Menopause at age < 45 years: ☐

Other Conditions or Medications: ☐

2 Lifestyle Review

Current smoker: ☐ Yes ☐ No

Consumes 3 units (oz.) alcohol/day: ☐ Yes ☐ No

Has fallen 2 times in past 12 months: ☐ Yes ☐ No

Low body weight (<60 kg) or major weight loss: ☐ Yes ☐ No

Diet + supplement calcium intake 1200 mg/day: ☐ Yes ☐ No

3 Physical

A. Assess balance and gait for fracture risk:

and walk several steps? (Get / Timed Up and Go Test) ☐ Yes ☐ No

B. Screen for vertebral fracture:

Current height: _____ cm

Previous height: _____ cm

Prior Height: ☐ Yes ☐ No

Prospective height loss > 2 cm: ☐ Yes ☐ No

Historical height loss > 6 cm: ☐ Yes ☐ No

Rib-pelvis distance 2 fingers: ☐ Yes ☐ No

Occiput-wall distance > 5 cm: ☐ Yes ☐ No

4 Lab to rule out secondary osteoporosis

Calcium Correction Calculator

Value	Target	Date of latest
Calcium		
Albumin		
Creatinine		
eGFR		
Alkaline phosphatase		
TSH		
Protein electrophoresis	☐ Normal ☐ Abnormal	
25-hydroxyvitamin D (25OHD)		
CBC (Hemoglobin)		

5 Bone Mineral Density (BMD)

Prior BMD test complete: ☐ Yes ☐ No

BMD test ordered: ☐ Yes ☐ No

	Latest T-score	Date	Prior T-score	Date of BMD
Femoral neck				
Lumbar spine				

If BMD test indicated, order DXA. Assess fracture risk at next apt.

6 10-year fracture risk: CAROC or FRAX

For treatment naïve patients 50 years

Low risk < 10%
Reassess risk in 3-5 years

Moderate risk 10-20%
Lateral x-ray (T4-L4) to rule out vertebral fracture
BMD in 1-3 years and reassess fracture risk

High risk > 20%
OR
Prior fragility fracture of hip/spine
OR
More than one fragility fracture

Previous Risk: ☐ Current Risk: ☐

Recommendations for Patient Care

Encourage balance & strength training, aerobic physical activity, calcium (diet+supplement) 1000-1200 mg daily, vitamin D3 800-1000 IU daily.

Falls-prevention handout given: ☐ Yes ☐ No

How many days per week patient engages in moderate-vigorous exercise (brisk walk):

Average mins per day patient exercises at this level:

Risk	Recommendation
Low	Unlikely to benefit from pharmacotherapy
Moderate	Consider pharmacotherapy if patient has at least one of the following:
	Vertebral fracture identified by X-ray: ☐ Yes ☐ No
	Prior wrist fracture in patients ≥65 years: ☐ Yes ☐ No
	T-score ≥ -2.5 at any site: ☐ Yes ☐ No
	Lumbar spine T-score < -2.5 Femoral neck T-score < -2.5: ☐ Yes ☐ No
	Rapid bone loss: ☐ Yes ☐ No
	Men on androgen deprivation therapy: ☐ Yes ☐ No
	Women on aromatase inhibitor therapy: ☐ Yes ☐ No
	Long-term/repeat use of glucocorticoids: ☐ Yes ☐ No
	Has fallen ≥ 2 times in past 12 months: ☐ Yes ☐ No
	Secondary osteoporosis: ☐ Yes ☐ No
High	Pharmacotherapy options:

1st line: Postmenopausal women and men

	Currently On	Initiated	Changed To:
Alendronate (Fosamax)	☐	☐	☐
Alendronate + 5600IU Vit D (Fosavance)	☐	☐	☐
Risedronate (Actonel)	☐	☐	☐
Risedronate DR (Actonel DR)	☐	☐	☐
Denosumab (Prolia)	☐	☐	☐
Zoledronic Acid (Aclasta)	☐	☐	☐
PTH (Forteo)	☐	☐	☐

Information for Patients:

Atypical Fractures and Bisphosphonates

Atypical Fractures and Denosumab

Osteonecrosis of the Jaw

2-REVUE DU STYLE DE VIE

REVUE DU STYLE DE VIE

2

Lifestyle Review

	Yes	No
Current smoker		
Consumes ≥ 3 units (oz.) alcohol/day		
Has fallen ≥ 2 times in past 12 months		
Low body weight (<60 kg) or major weight loss		
Diet + supplement calcium intake ≤ 1200 mg/day		



2

Lifestyle Review

	Yes	No
Current smoker		
Consumes ≥ 3 units (oz.) alcohol/day		
Has fallen ≥ 2 times in past 12 months		
Low body weight (<60 kg) or major weight loss		
Diet + supplement calcium intake ≤ 1200 mg/day		

3

Physical

50

55

60

65

70

75

80

85

Current R

Age, yr

7

Recommendations for P

Encourage balance & strength training, aerobic
calcium (diet+supplement) 1000-1200 mg
2000IU daily.

Falls prevention - handout given

How many days per week patient engaged

Weight loss of > 10% of the body by the age of 25

Average mins per day patient exercises

FORMULAIRE OSTÉOPOROSE PS-OSCAR

Osteoporosis & Falls Assessment Form

1 History

Initial Assessment: ☐ Yes ☐ Follow-Up

Osteoporosis Dx: ☐ Yes ☐ Previous Osteoporosis Dx: ☐ Yes ☐ No

New Fragility Fracture: ☐ Yes ☐ No

Identify risk factors for fractures and falls:

Prior fracture after age 50 years: ☐ Yes ☐ No

Hip ☐ Wrist ☐ Vertebral ☐ Proximal humerus ☐ Pelvis ☐ Other, specify ☐

Prolonged glucocorticoid use ☐ Parental hip fracture ☐ Rheumatoid arthritis ☐ Menopause at age < 45 years ☐ Other Conditions or Medications ☐

2 Lifestyle Review

Current smoker ☐ Yes ☐ No

Consumes 3 units (oz.) alcohol/day ☐ Yes ☐ No

Has fallen 2 times in past 12 months ☐ Yes ☐ No

Diet + supplement calcium intake 1200 mg/day ☐ Yes ☐ No

3 Physical

A. Assess balance and gait for fracture risk:

Can patient rise from chair without using arms and walk several steps? (Get / Timed Up and Go Test) ☐ Yes ☐ No

B. Screen for vertebral fracture:

Current height: _____ cm

Prior Height: _____ cm

Prior Height ☐ Yes ☐ No

Prospective height loss > 2 cm ☐ Yes ☐ No

Historical height loss > 6 cm ☐ Yes ☐ No

Rib-pelvis distance 2 fingers ☐ Yes ☐ No

Occiput-wall distance > 5 cm ☐ Yes ☐ No

4 Lab to rule out secondary osteoporosis

Calcium ☐ Albumin ☐ Creatinine ☐ eGFR ☐ Alkaline phosphatase ☐ TSH ☐

Protein electrophoresis ☐ Normal ☐ Abnormal

25-hydroxyvitamin D (25OHD) ☐ Normal ☐ Abnormal

CBC (Hemoglobin) ☐

5 Bone Mineral Density (BMD)

Prior BMD test complete ☐ Yes ☐ No

BMD test ordered ☐ Yes ☐ No

Latest T-score ☐ Date ☐ Prior T-score ☐ Date of BMD ☐

Femoral neck ☐ Lumbar spine ☐

If BMD test indicated, order DXA. Assess fracture risk at next apt.

6 10-year fracture risk: CAROC or FRAX

For treatment naïve patients 50 years

Low: risk < 10% Reassess risk in 3-5 years

Moderate: risk 10-20% Lateral x-ray (T4-L4) to rule out vertebral fracture BMD in 1-3 years and reassess fracture risk

High: risk > 20% Prior fragility fracture of hip/spine OR More than one fragility fracture

Previous Risk: ☐ Current Risk: ☐

7 Recommendations for Patient Care

Encourage balance & strength training, aerobic physical activity, calcium (diet+supplement) 1000-1200 mg daily, vitamin D3 800-2000IU daily.

Falls-prevention handout given ☐ Yes ☐ No

How many days per week patient engages in moderate-vigorous exercise (brisk walk): ☐

Average mins per day patient exercises at this level: ☐

Risk ☐ Recommendation ☐

Low ☐ Unlikely to benefit from pharmacotherapy

Moderate ☐ Consider pharmacotherapy if patient has at least one of the following:

Vertebral fracture identified by X-ray ☐ Yes ☐ No

Prior wrist fracture in patients ≥65 years ☐ Yes ☐ No

T-score ≤ -2.5 at any site ☐ Yes ☐ No

Lumbar spine T-score < -2.5 Femoral neck T-score ☐ Yes ☐ No

Rapid bone loss ☐ Yes ☐ No

Men on androgen deprivation therapy ☐ Yes ☐ No

Women on aromatase inhibitor therapy ☐ Yes ☐ No

Long-term/repeat use of glucocorticoids ☐ Yes ☐ No

Has fallen ≥ 2 times in past 12 months ☐ Yes ☐ No

Secondary osteoporosis ☐ Yes ☐ No

High Pharmacotherapy options:

1st line: Postmenopausal women and men

	Currently On	Initiated	Changed To:
Alendronate (Fosamax)	☐	☐	☐
Alendronate + 5600IU Vit D (Fosavance)	☐	☐	☐
Risedronate (Actonel)	☐	☐	☐
Risedronate DR (Actonel DR)	☐	☐	☐
Denosumab (Prolia)	☐	☐	☐
Zoledronic Acid (Aclasta)	☐	☐	☐
PTH (Forteo)	☐	☐	☐

Information for Patients:

Atypical Fractures and Bisphosphonates

Atypical Fractures and Denosumab

Osteonecrosis of the Jaw

3-EXAMEN PHYSIQUE

EXAMEN PHYSIQUE

3

Physical

A. Assess balance and gait for fracture risk:

Can patient rise from chair without using arms
and walk several steps? (Get / Timed Up and Go Test) **Yes** **No**
☐ ☐

B. Screen for vertebral fracture

Current height: _____ cm
Previous height: _____ cm

Prior Height

	Yes	No	
Prospective height loss > 2 cm	☐	☐	If yes to any, order PA lateral spine x-ray to rule out vert. fracture
Historical height loss > 6 cm	☐	☐	
Rib-pelvis distance 2 fingers	☐	☐	
Occiput-wall distance > 5 cm	☐	☐	

EXAMEN PHYSIQUE

3 Physical

A. Assess balance and gait for fracture risk

Can patient rise from chair without using arms and walk several steps? (Get / Timed Up and Go Test)

B. Screen for vertebral fracture:

Current height: _____ cm

Previous height: _____ cm

Prior Height

	Yes	No	If yes
Prospective height loss > 2 cm	☐	☐	order
Historical height loss > 6 cm	☐	☐	latera
Rib-pelvis distance 2 fingers	☐	☐	spine
Occiput-wall distance > 5 cm	☐	☐	to rule

Functional Assessments

Get Up and Go Test¹

Time to complete: 1-2 minutes

Equipment required: Chair with armrests

Stop watch

Brightly coloured tape

Test Instructions:

Patient begins sitting in the chair

Patient stands up from the chair

Patient walks at a comfortable pace to the tape placed 3 meters away

Patient turns around at the tape and walks back to the chair to sit down

Note: The patient is allowed a trial run for familiarization

Patient can use aid

Beginning timing the patient when they stand from the chair and stop timing the patient when they are seated in the chair

Scoring:

1	2	3	4	5
Normal	Basically safe	Clearly abnormal	Supervision required	Severely abnormal
Normal movements, no sign of any fall risk	Basically safe performance but cautious with adjusted movements such as being slow and/or having a wider base of support than normal, mildly abnormal	Might be hesitant, walk excessively rapid/at an unsafe speed and or show un-coordinated movements such as staggering or weaving, moderately abnormal	Clear abnormalities such as having trouble getting up from sitting or with sitting down	Clear risk of falling; stand by assistance or physical support required

Record:

Date	Type of Gait Aid Used	Score	Difficulties Identified

¹ Mathias et al. (1985). Balance in Elderly Patients: The "Get-up and Go" Test. Arch Phys Med Rehabil;387-389

EXAMEN PHYSIQUE

3

Physical

A. Assess balance and gait for fracture risk:

Can patient rise from chair without using arms
and walk several steps? (Get / Timed Up and Go Test) **Yes** **No**
☐ ☐

B. Screen for vertebral fracture:

Current height: _____ cm

Previous height: _____ cm

Prior Height

	Yes	No	
Prospective height loss > 2 cm	☐	☐	If yes to any, order PA lateral spine x-ray to rule out vert. fracture
Historical height loss > 6 cm	☐	☐	
Rib-pelvis distance 2 fingers	☐	☐	
Occiput-wall distance > 5 cm	☐	☐	

EXAMEN PHYSIQUE

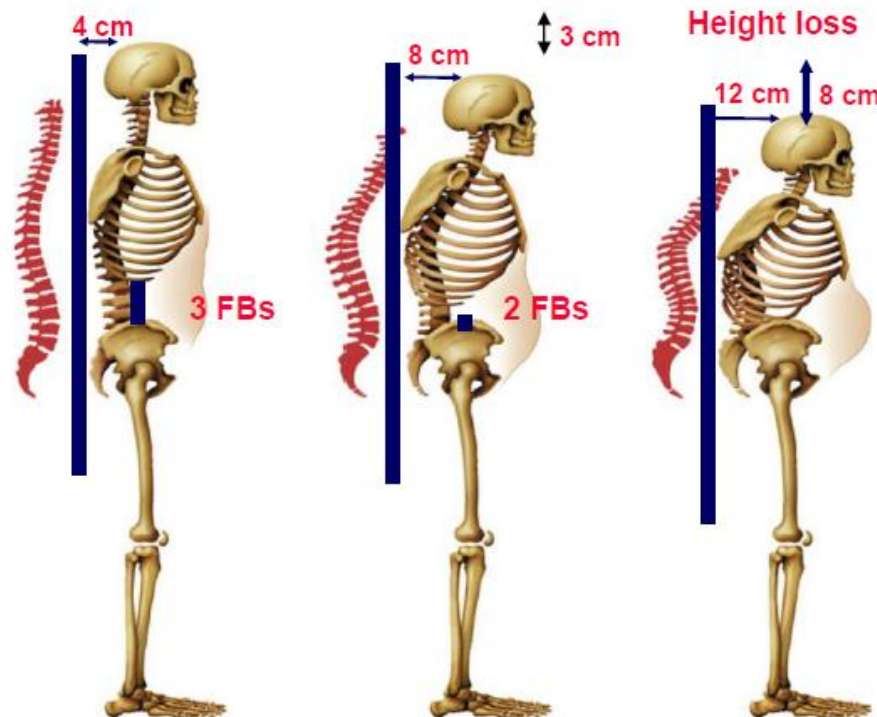


Osteoporosis Canada

Ostéoporose Canada

2010 Guidelines

Rib-Pelvis and Occiput-to-Wall Distances



EXAMEN PHYSIQUE

3

Physical

A. Assess balance and gait for fracture risk:

Can patient rise from chair without using arms
and walk several steps? (Get / Timed Up and Go Test) **Yes** **No**
☐ ☐

B. Screen for vertebral fracture:

Current height: _____ cm

Previous height: _____ cm

Prior Height

Prospective height loss > 2 cm

Historical height loss > 6 cm

Rib-pelvis distance 2 fingers

Occiput-wall distance > 5 cm

Yes



No



If yes to any,
order PA
lateral
spine x-ray
to rule out
vert. fracture



EXAMEN PHYSIQUE

PATIENT LAST NAME Test		FIRST NAME Ten		CLINICAL / LABORATORY REFERENCE	
ADDRESS					
HEALTH CARD NUMBER		VERSION 1.0	DATE OF BIRTH 01/01/1939	SEX M	
PROVINCE		DATE OF EXAM		WALKER	
PRINT PHYSICIAN'S NAME Therese M Hodgson		PHYSICIAN'S SIGNATURE <i>Therese M Hodgson</i>		APPOINTMENT DATE May 28, 2018	TIME

X-RAY

CHEST ☐ CHEST PA ☐ CHEST PA & LAT ☐ STERNUM ☐ STER.-CLAV./ITS ☒ RIBS & CHEST PA ABDOMEN ☐ KUB (1 View) ☐ ACUTE (2 Views) SPINE & PELVIS ☐ CERVICAL SPINE ☒ THORACIC SPINE ☐ LUMBO-SACRAL (1/2) ☐ THOR.-LUMB (1/4-1/5) ☐ SCOLIOSIS ☐ SACRUM & COCCYX ☐ S.I. JOINTS ☐ PELVIS SKELETAL SURVEY ☐ ARTHRITIC ☐ METASTATIC ☐ BONE AGE	LOWER EXTREMITIES ☐ HIP ☐ FEMUR ☐ KNEE ☐ TIBIA & FIBULA ☐ ANKLE ☐ FOOT ☐ CALCANEUS ☐ TOES UPPER EXTREMITIES ☐ SHOULDER ☐ CLAVICLE ☐ A.C. JOINTS ☐ HUMERUS ☐ ELBOW ☐ FOREARM ☐ HAND & WRIST ☐ WRIST ☐ HAND ☐ DIGITS (Specify)	HEAD & NECK ☐ SKULL ☐ SINUSES ☐ MASTOIDS ☐ ORBITS ☐ FACIAL BONES ☐ NASAL BONES ☐ MANDIBLE ☐ T.M. JOINTS ☐ ADENOIDS ☐ SOFT TISSUE NECK G.I. TRACT ☐ BARIUM SWALLOW (Esophagus/Pharynx for Dysphagia) ☐ UPPER G.I. SERIES (ESD) ☐ UPPER G.I. & SMALL BOWEL (Allow 2-4 hours for test) ☐ BARIUM ENEMA (Double Contrast)
---	---	--

NUCLEAR MEDICINE - AURORA, VAUGHAN

CARDIOLOGY - AURORA, VAUGHAN

☐ EXERCISE MYOCARDIAL PERFUSION IMAGING* (Test takes 5 - 8 hrs.)

☐ PERSANTINE MYOCARDIAL PERFUSION IMAGING* (Test takes 5 - 8 hrs.)

☐ RESTING RADIONUCLIDE VENTRICULOGRAM (MUGA)*

☐ THALLIUM, REST AND REDISTRIBUTION (RE: VIABILITY)

* Includes Ejection Fraction And Determination

GENERAL - AURORA

☐ BONE SCAN - WHOLE BODY

☐ BONE SCAN - SINGLE SITE

☐ BILIARY SCAN (HIDA)

☐ LIVER - RBC SPECT (RE: HEMANGIOMA)

☐ OTHER

ULTRASOUND

OBSTETRICAL

☐ NUCHAL TRANSLUCENCY (12-13 Weeks)

☐ < 16 WEEKS

☐ > 18 WEEKS

☐ BIOPHYSICAL PROFILE

☐ COMPLICATIONS

☐ TWINS

☐ ABDOMEN (COMPLETE)

☐ SOFT TISSUE HERNIA

PELVIC

☐ FEMALE PELVIC

☐ FEMALE PELVIC AND TRANSVAGINAL

☐ MALE PELVIC (Pre and Post Void)

OTHER

☐ TESTICULAR

☐ THYROID

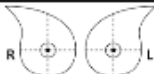
☐ SUPERFICIAL SOFT TISSUE

☐ MSK SHOULDERS

☐ CAROTIDS

☒ VENOUS LOWER EXTREMITIES

WOMEN'S HEALTH



MAMMOGRAPHY BREAST ULTRASOUND

☐ ROUTINE (Indicate Quadrant)

☐ IMPLANTS

☐ OTHER

BONE MINERAL DENSITY (BMD)

AURORA, VAUGHAN

☐ BASELINE

☐ LOW RISK

☒ HIGH RISK

Indication: CARC/FRAX HI RISK

See Website for Link to High Risk Factors and Ministry of Health Billing Information

IMPORTANT NOTES

- Missed appointments, not cancelled with at least 24 hour prior notice, may result in a \$50.00 patient charge.
- You must bring your Requisition and Health Card to have this exam completed.
- You must be on time for your appointment or your exam may be rebooked.
- Nuclear medicine cardiology patients should bring all their prescription medications for their appointment.
- Please bring results of other recent tests, or actual pictures (x-rays or ultrasounds), if available.
- Women who may be pregnant should not be x-rayed or have a nuclear medicine procedure during the last 2 weeks of their menstrual cycle.

FORMULAIRE OSTÉOPOROSE PS-OSCAR

Osteoporosis & Falls Assessment Form

1 History

Initial Assessment: ☐ Yes ☐ Follow-Up

Osteoporosis Dx: ☐ Yes ☐ Previous Osteoporosis Dx: ☐ Yes ☐ No

New Fragility Fracture: ☐ Yes ☐ No

Identify risk factors for fractures and falls:

Prior fracture after age 50 years: ☐ Yes ☐ No

Hip ☐ Wrist ☐ Vertebral ☐ Proximal humerus ☐ Pelvis ☐ Other, specify ☐

Prolonged glucocorticoid use ☐ Parental hip fracture ☐ Rheumatoid arthritis ☐ Menopause at age < 45 years ☐ Other Conditions or Medications ☐

2 Lifestyle Review

Current smoker ☐ Yes ☐ No

Consumes 3 units (oz.) alcohol/day ☐ Yes ☐ No

Has fallen 2 times in past 12 months ☐ Yes ☐ No

Low body weight (<60 kg) or major weight loss ☐ Yes ☐ No

Diet + supplement calcium intake 1200 mg/day ☐ Yes ☐ No

3 Physical

A. Assess balance and gait for fracture risk:

Can patient rise from chair without using arms and walk several steps? (Get / Timed Up and Go Test) ☐ Yes ☐ No

B. Screen for vertebral fracture:

Current height: _____ cm

Previous height: _____ cm

Prior Height ☐ Yes ☐ No

Prospective height loss > 2 cm ☐ Yes ☐ No

Historical height loss > 6 cm ☐ Yes ☐ No

Occiput-wall distance > 5 cm ☐ Yes ☐ No

4 Lab to rule out secondary osteoporosis

Calcium Correction Calculator

Value	Target	Date of latest
Calcium		
Albumin		
Creatinine		
eGFR		
Alkaline phosphatase		
TSH		
Protein electrophoresis	☐ Normal ☐ Abnormal	
25-hydroxyvitamin D (25OHD)		
CBC (Hemoglobin)		

5 Bone Mineral Density (BMD)

Prior BMD test complete ☐ Yes ☐ No

BMD test ordered ☐ Yes ☐ No

	Latest T-score	Date	Prior T-score	Date of BMD
Femoral neck				
Lumbar spine				

If BMD test indicated, order DXA. Assess fracture risk at next apt.

6 10-year fracture risk: CAROC or FRAX

For treatment naïve patients 50 years

Low risk < 10%
Reassess risk in 3-5 years

Moderate risk 10-20%
Lateral x-ray (T4-L4) to rule out vertebral fracture
BMD in 1-3 years and reassess fracture risk

High risk > 20%
OR
Prior fragility fracture of hip/spine
OR
More than one fragility fracture

Previous Risk: _____
Current Risk: _____

7 Recommendations for Patient Care

Encourage balance & strength training, aerobic physical activity, calcium (diet+supplement) 1000-1200 mg daily, vitamin D3 800-2000IU daily.

Falls-prevention handout given ☐ Yes ☐ No

How many days per week patient engages in moderate-vigorous exercise (brisk walk): _____

Average mins per day patient exercises at this level: _____

Risk	Recommendation		
Low	Unlikely to benefit from pharmacotherapy		
Moderate	Consider pharmacotherapy if patient has at least one of the following:		
	Vertebral fracture identified by X-ray ☐ Yes ☐ No		
	Prior wrist fracture in patients ≥65 years ☐ Yes ☐ No		
	T-score ≤ -2.5 at any site ☐ Yes ☐ No		
	Lumbar spine T-score < Femoral neck T-score ☐ Yes ☐ No		
	Rapid bone loss ☐ Yes ☐ No		
	Men on androgen deprivation therapy ☐ Yes ☐ No		
	Women on aromatase inhibitor therapy ☐ Yes ☐ No		
	Long-term/repeat use of glucocorticoids ☐ Yes ☐ No		
	Has fallen ≥ 2 times in past 12 months ☐ Yes ☐ No		
	Secondary osteoporosis ☐ Yes ☐ No		
High	Pharmacotherapy options:		
	First line: Postmenopausal women and men		
	Currently On	Initiated	Changed To:
	Teriparatide (Fosamax)	☐	☐
	Teriparatide + 5600IU	☐	☐
	Teriparatide (Actonel)	☐	☐
	Teriparatide DR	☐	☐
	Actonel DR	☐	☐
	Denosumab (Prolia)	☐	☐
	Zoledronic Acid (Aclasta)	☐	☐
	PTH (Forteo)	☐	☐

Information for Patients:

Atypical Fractures and Bisphosphonates

Atypical Fractures and Denosumab

Osteonecrosis of the Jaw

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4-ÉTUDES DE LABORATOIRE;
EVALUATION DES CAUSES
SECONDAIRES

ÉTUDE DE LABORATOIRE EVALUATION DES CAUSES SECONDAIRE

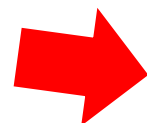


4 Lab to rule out secondary osteoporosis			
Calcium Correction Calculator	Value	Target	Date of latest
Calcium	2.40		Sep 19, 2016
Albumin	41.0		Jun 8, 2015
Creatinine	72		May 18, 2017
eGFR	73		May 18, 2017
Alkaline phosphatase	35		May 18, 2017
TSH	1.28		May 18, 2017
Protein electrophoresis Only for patients with vertebral fracture	☐ Normal ☐ Abnormal		
25-hydroxyvitamin D (25OHD) measured after 3-4 months of adequate supplementation and should not be repeated if an optimal level (75 nmol/L) is achieved.	131		Oct 3, 2016
CBC (Hemoglobin)	126		May 18, 2017

ÉTUDE DE LABORATOIRE EVALUATION DES CAUSES SECONDAIRE

Ministry of Health and Long-Term Care Laboratory Requisition <i>(accompanying Clinician's Prescription)</i>		Laboratory Use Only		
Name Therese M Hodgson		Clinician/Practitioner's Contact Number for Urgent Results 613-830-5888		
Address 1 - 2530 St. Joseph Blvd. Orleans, ON K1C 1G1		Service Date YYYY mm dd 1999 01 01		
Clinician/Practitioner Number 011510	CPSO / Registration No. 57070	Health Number	Version	Sex ☒ M ☐ F
Check (✓) one: ☐ OHP/Inmate ☐ Third Party / Uninsured ☐ WSI		Province ON		Other Provincial Registration Number _____
Additional Clinical Information (e.g. diagnosis) stroke, 23089007: Stroke (SNOMED CT®) COMPRESSION FRACTURE SPINE, 64859006: Osteoporosis (SNOMED CT®)		Patient's Telephone Contact Number _____		
Copy to: Clinician/Practitioner Last Name _____ First Name _____ Address _____		Patient's Address (including Postal Code) _____ ON _____		
Note: Separate requisitions are required for cytology, histology / pathology and tests performed by Public Health Laboratory				
X Biochemistry ☐ Glucose ☐ BUN/Cr ☐ Creatinine (eGFR) ☐ Uric Acid ☐ Sodium ☐ Potassium ☐ Chloride ☐ CK ☐ ALT ☒ Alk. Phosphatase ☐ Bilirubin ☒ Albumin Lipid Assessment (includes Cholesterol, HDL-C, Triglyceride calculated LDL-C & Cholesterol-C ratio; individual lipid tests may be ordered in the "Other Tests" section of this form) ☐ Albumin/Creatinine Ratio, Urine ☐ Urinalysis (Chemical) ☐ Neonatal Bilirubin Child's Age _____ days _____ hours Clinician/Practitioner's Tel no _____ Ext. _____ Patient's 24 hr telephone no _____ Ext. _____ Therapeutic Drug Monitoring: Name of Drug #1 _____ Name of Drug #2 _____ Time Collected #1 _____ hr #2 _____ hr Time of Last Dose #1 _____ hr #2 _____ hr Time of Next Dose #1 _____ hr #2 _____ hr		X Hematology ☒ CBC ☐ Prothrombin Time (INR) Immunology ☐ Pregnancy Test (Urine) ☐ Mononucleosis Screen ☐ Rubella ☐ Prenatal: ABO, RhD, Antibody Screen (time and ident. if positive) ☐ Repeat Prenatal Antibodies Microbiology ID & Sensitivities (if warranted) ☐ Cervical ☐ Vaginal ☐ Vaginal / Rectal - Group B Strep ☐ Chlamydia (specify source): _____ ☐ GC (specify source): _____ ☐ Sputum ☐ Throat ☐ Wound (specify source): _____ ☐ Urine ☐ Stool Culture ☐ Stool Ova & Parasites ☐ Other Swab(s) / Pox (specify source): _____ Specimen Collection Time _____ Date _____		
X Viral Hepatitis (check one only) ☐ Acute Hepatitis ☐ Chronic Hepatitis ☐ Immune Status / Previous Exposure Specify: ☐ Hepatitis A ☐ Hepatitis B ☐ Hepatitis C or order individual hepatitis tests in the "Other Tests" section below		Prostate Specific Antigen (PSA) ☐ Total PSA ☐ Free PSA specify one below ☐ Insured - Meets OHP eligibility criteria ☐ Uninsured - Screening: Patient responsible for payment ☐ Uninsured - Patient responsible for payment		
Vitamin D (25-Hydroxy) ☐ Insured - Meets OHP eligibility criteria ☐ Osteoporosis, osteopenia, rickets; ☐ renal disease; malabsorption syndromes; ☐ medications affecting vitamin D metabolism ☐ Uninsured - Patient responsible for payment		Other Tests - one test per line TSH Calcium		
I hereby certify the tests ordered are not for registered in or out patients of a hospital: Clinician/Practitioner Signature 26/03/2018 Date				
Laboratory Use Only				
Facet Occult Blood Test (FOBT) (check one) ☐ FOBT (n...) ☐ Colon Cancer Check FOBT (CCC) (no other test can be ordered on this form)				

ÉTUDE DE LABORATOIRE EVALUATION DES CAUSES SECONDAIRE



4 Lab to rule out secondary osteoporosis			
Calcium Correction Calculator	Value	Target	Date of latest
Calcium	2.40		Sep 19, 2016
Albumin	41.0		Jun 8, 2015
Creatinine	72		May 18, 2017
eGFR	73		May 18, 2017
Alkaline phosphatase	35		May 18, 2017
TSH	1.28		May 18, 2017
Protein electrophoresis Only for patients with vertebral fracture	☐ Normal ☐ Abnormal		
25-hydroxyvitamin D (25OHD) measured after 3-4 months of adequate supplementation and should not be repeated if an optimal level (75 nmol/L) is achieved.	131		Oct 3, 2016
CBC (Hemoglobin)	126		May 18, 2017

Calcium Correction for Hypoalbuminemia



Calculates a corrected calcium level for patients with hypoalbuminemia.

Pearls/Pitfalls ▼

Calcium

Norm: 2.25 - 2.625

mmol/L ↩

Albumin

Norm: 35 - 55

g/L ↩

Normal albumin: 4 g/dL or 40 g/L

Norm: 35 - 55

g/L ↩

Result:

Please fill out required fields.

FORMULAIRE OSTÉOPOROSE PS-OSCAR

Osteoporosis & Falls Assessment Form

1 History

☐ Initial Assessment ☐ Follow-Up
 Osteoporosis Dx: Yes Previous Osteoporosis Dx: Yes No

New Fragility Fracture: ? Yes No

Identify risk factors for fractures and falls:

Prior fracture after age 50 years: Yes No

Hip ☐
 Wrist ☐
 Vertebral ☐
 Proximal humerus ☐
 Pelvis ☐
 Other, specify ☐

Prolonged glucocorticoid use ?

Parental hip fracture ☐

Rheumatoid arthritis ☐

Menopause at age < 45 years ☐

Other Conditions or Medications ☐

2 Lifestyle Review

Current smoker Yes No

Consumes 3 units (oz.) alcohol/day ☐ ☐

Has fallen 2 times in past 12 months ☐

Low body weight (<60 kg) or major weight loss ?

Diet + supplement calcium intake 1200 mg/day ☐ ☐

3 Physical

A. Assess balance and gait for fracture risk:

Can patient rise from chair without using arms and walk several steps? (Get / Timed Up and Go Test) Yes No

B. Screen for vertebral fracture:

Current height: cm

Previous height: cm

Prior Height Yes No If yes to any, order PA lateral spine x-ray to rule out vert. fracture

Prospective height loss > 2 cm ☐
 Historical height loss > 6 cm ☐
 Rib-pelvis distance 2 fingers ☐
 Occiput-wall distance > 5 cm ☐

4 Lab to rule out secondary osteoporosis

Calcium Correction Calculator

Calcium	Value	Target	Date of latest
Calcium			
Albumin			
Creatinine			
eGFR			
Alkaline phosphatase			
TSH			

Protein electrophoresis ☐ Normal ☐ Abnormal

Only for patients with vertebral fracture

25-hydroxyvitamin D (25OHD) ☐

measured after 3-4 months of adequate supplementation and should not be repeated if an optimal level (75 nmol/L) is achieved.

5 10-year fracture risk: CAROC or FRAX

For treatment naïve patients 50 years

Women

Men

Low risk < 10%
Reassess risk in 3-5 years

Moderate: risk 10-20%
Lateral x-ray (T4-L4) to rule out vertebral fracture
BMD in 1-3 years and reassess fracture risk

High: risk > 20%
OR
Prior fragility fracture of hip/spine
OR
More than one fragility fracture

Previous Risk:

Current Risk:

7 Recommendations for Patient Care

Encourage balance & strength training, aerobic physical activity, calcium (diet+supplement) 1000-1200 mg daily, vitamin D3 800-2000IU daily.

Falls-prevention ☐ Yes ☐ No

How many days per week patient engages in moderate-vigorous exercise (brisk walk):

Average mins per day patient exercises at this level:

Risk	Recommendation
Low	Unlikely to benefit from pharmacotherapy
Moderate	Consider pharmacotherapy if patient has at least one of the following:

Vertebral fracture identified by X-ray Yes No
 Prior wrist fracture in patients ≥65 years ☐
 T-score ≥ -2.5 at any site ☐
 Lumbar spine T-score << Femoral neck T-score ☐
 Rapid bone loss ☐
 Men on androgen deprivation therapy ☐
 Women on aromatase inhibitor therapy ☐
 Long-term/repeat use of glucocorticoids ☐
 Has fallen ≥ 2 times in past 12 months ☐
 Secondary osteoporosis ☐

High Pharmacotherapy options:

1st line: Postmenopausal women and men

	Currently On	Initiated	Changed To:
Alendronate (Fosamax)	☐	☐	☐
Alendronate + 5600IU Vit D (Fosavance)	☐	☐	☐
Risedronate (Actonel)	☐	☐	☐
Risedronate DR (Actonel DR)	☐	☐	☐
Denosumab (Prolia)	☐	☐	☐
Zoledronic Acid (Aclasta)	☐	☐	☐
Pamidronate (Forteo)	☐	☐	☐

Information for Patients:

Typical Fractures and Bisphosphonates

Atypical Fractures and Denosumab

Osteonecrosis of the Jaw

5 Bone Mineral Density (BMD)

Prior BMD test complete Yes No

BMD test ordered ☐ ☐

	Latest T-score	Date	Prior T-score	Date of BMD HHHH DD, YYYY
Femoral neck				
Lumbar spine				

If BMD test indicated, order DXA. Assess fracture risk at next apt.

5-DENSITOMÉTRIE OSSEUSE

DENSITOMÉTRIE OSSEUSE

5 Bone Mineral Density (BMD)					
				Yes	No
Prior BMD test complete					
BMD test ordered					
	Latest T-score	Date	Prior T-score	Date of BMD MMM DD, YYYY	
Femoral neck	-2.8	Feb 12, 2015	-2.8	Feb 12, 2015	
Lumbar spine	-2.2	Feb 12, 2015	-2.2	Feb 12, 2015	
if BMD test indicated order DXA . Assess fracture risk at next apt					



HÔPITAL MONTFORT MONTFORT HOSPITAL 713 chemin Montréal Road, Ottawa, ON K1K 0T2		M.D. OR TMH	Sheet # M						
Nom/Name Test		Prénom/Surname Ten							
Adresse/Address ..									
No Dossier - File Number									
ASSURANCE-INSURANCE ..		D.M.P./P.R.A.M.G. ..							
CODE SUPPL. ..		CODE SUPPL. ..							
WORK ACCIDENT DE TRAVAIL JTS DAY M M ANNOY YEAR		NO. DE L'EMPLOI/CAE & ADRESSE EMPLOYER'S NAME & ADDRESS ..							
DATE OF OPERATION ..		DATE OF BIRTH/NAISSANCE 01 Jan, 1939							
☐ Salle d'opération ☐ Operating Room		☐ Portable-Portable							
☐ Chaise-Wheelchair		☐ C.A.T.-W.C.B.							
☐ Civière-Stretcher		☐ Ambulant-Ambulatory							
☐ RAPPORT VERBAL/VERBAL REPORT: TEL		☐ Pre-op-Pre-op							
REGION A EXAMINER REGION TO BE EXAMINED									
Bone Mineral Densitometry									
RENSEIGNEMENTS CLINIQUES-CLINICAL INFORMATION									
assess bone density									
* PLEASE PROVIDE FULL REPORT									
PATIENTE ENCORE/ET - IS PATIENT PREGNANT?									
ALLERGIES?		TEL # 613-830-5888							
EXPLINE EN LETTRE MOULEE OU APPROXIMER UNE STAMPE P. CASE PRINT OR STAMP MO-PHYSICIAN (NONNAME)		FAX # 613-830-1791							
ADRESSE/ADDRESS		011510							
Therese M Hodgson University of Ottawa Health Services 1 - 2530 St. Joseph Blvd. Orleans, ON K1C 1G1		NO. DE FACTURATION MD / PHYSICIAN'S BILLING NO.							
PLEASE RELEASE THE X-RAY FILMS/CD-ROM TO PATIENT FOR REVIEW BY THE PHYSICIAN Essentiel à compléter pour fins d'acheminement des rapports et de facturation. It's essential to fill out this section for reports and billing purposes. Date de l'examen / Exam Date May 26, 2018									
Modems - Physician (signature):									
☐ ENGLISH REPORT PLEASE									
☐ RAPPORT EN FRANÇAIS									
N'ECRIVEZ PAS PLUS BAS QUE CETTE LIGNE - DO NOT WRITE BELOW THIS LINE									
INCIDENCES POSITION/ONS	MA	S	MA/S	KV	DIFF FFD	GRILLE G.S.D.	DOSE	CM	ALTRES - OTHERS

DENSITOMÉTRIE OSSEUSE

5
Bone Mineral Density (BMD)

Prior BMD test complete		Yes	No
BMD test ordered			

	Latest T-score	Date	Prior T-score	Date of BMD MMM DD, YYYY
Femoral neck	-2.8	Mar 20, 2018	-2.8	Feb 1, 2015
Lumbar spine	-2.6	Mar 20, 2018	-2.2	Feb 1, 2015

if BMD test indicated order DXA. Assess fracture risk at next apt.

Flowsheet for Osteoporosis

File

Bone Mineral Density T-scores

	Latest Value	Last Done	Feb 1 2011	Feb 2 2013	Feb 1 2015	Mar 20 2018
"@Femoral_Neck_T-score:"	-2.8	Mar 20	-2.4	-2.3	-2.8	-2.8
"@Lumbar_Spine_T-score:"	-2.6	Mar 20	-2.3	-2.5	-2.2	-2.6

Flowsheet for Osteoporosis

File

Bone Mineral Density T-scores

	"@Femoral_Neck_T-score:"	"@Lumbar_Spine_T-score:"
Latest Value	-2.8	-2.6
Last Done	Mar 20	Mar 20
Feb 1, 2011	-2.4	-2.3
Feb 2, 2013	-2.3	-2.5
Feb 1, 2015	-2.8	-2.2
Mar 20, 2018	-2.8	-2.6

DENSITOMÉTRIE OSSEUSE

DM Encounter DM C.F. Quarterly Lab Annual Lab **A1C** never done on **LDL** never done on **BP** 110/78 on Apr 28, 2017

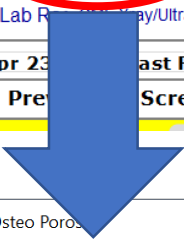
 Portal Add Form Picklist Open Email Import Refer

 **Enter T-score** **T-Score Flowsheet** T-Score Graphs: Femoral Neck || Lumbar Spine Insert the Osteoporosis Assessment Tool ICD-9 SNOMED

SOAP Time out Lab R  Ultrasound Pap Req BP Wt ODB Central referral Montfort TOH

PSA: BMD: Apr 23 Last FOBT: Last Colonoscopy:

Perform Fall Pre Screening. Click here to start Last screening performed on:



Flowsheet for Osteoporosis

File

Bone Mineral Density T-scores

	Latest Value	Last Done	Feb 1 2011	Feb 2 2013	Feb 1 2015	Mar 20 2018
"@Femoral_Neck_T-score"	-2.8	Mar 20	-2.4	-2.3	-2.8	-2.8
"@Lumbar_Spine_T-score"	-2.6	Mar 20	-2.3	-2.3	-2.4	-2.6

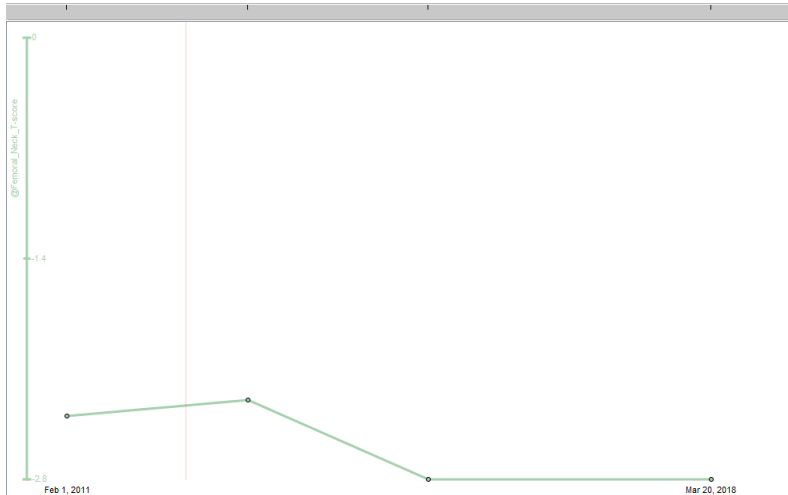
DENSITOMÉTRIE OSSEUSE

DM Encounter	DM C.F.	Quarterly Lab	Annual Lab	A1C never done on	LDL never done on	BP 110/78 on Apr 28, 2017
 Portal Add Form Picklist Open Email Import Refer						
Enter T-score: T-Score Flowshet T-score Graphs: Femoral Neck Lumbar Spine Ins of the Osteoporosis Assessment Tool ICD-9 SNOMED						
SOAP Time out Lab Rec CML Xray/Ultrasound Pap BP Wt ODB Centra Montfort TOH						
PSA: BMD: Apr 23, 2016 Last FOBT: Last Proctoscopy:						
Perform Fall Prevention Screening. to start Last screening p						

Graph of: @Femoral_Neck_T-score for Osteo Porosis

File Customize View

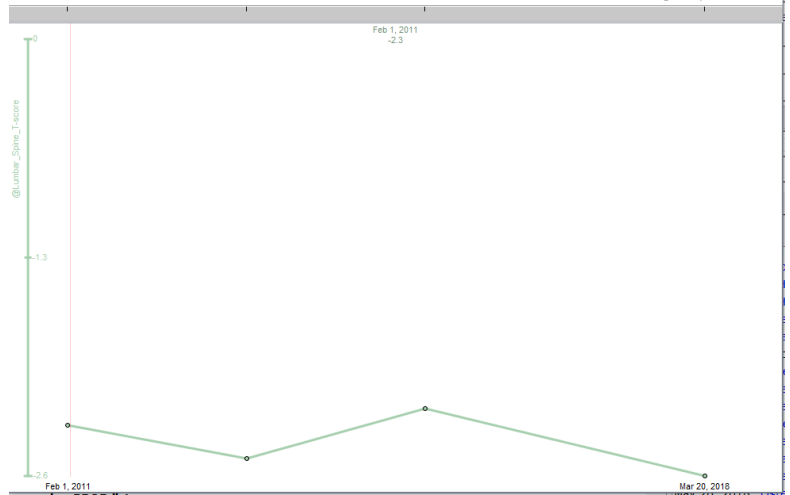
age 74 yr #88021



Graph of: @Lumbar_Spine_T-score for Osteo Porosis

File Customize View

age 74 yr #88021



FORMULAIRE OSTÉOPOROSE PS-OSCAR

Osteoporosis & Falls Assessment Form

1 History

☐ Initial Assessment ☐ Follow-Up
 Osteoporosis Dx: ☐ Yes ☐ No Previous Osteoporosis Dx: ☐ Yes ☐ No
 New Fragility Fracture: ☐ Yes ☐ No

Identify risk factors for fractures and falls:
 Prior fracture after age 50 years: ☐ Yes ☐ No
 Hip ☐ Wrist ☐ Vertebral ☐ Proximal humerus ☐ Pelvis ☐ Other, specify ☐
 Prolonged glucocorticoid use ☐ Parental hip fracture ☐ Rheumatoid arthritis ☐ Menopause at age < 45 years ☐ Other Conditions or Medications ☐

2 Lifestyle Review

Current smoker ☐ Yes ☐ No
 Consumes 3 units (oz.) alcohol/day ☐ Yes ☐ No
 Has fallen 2 times in past 12 months ☐ Yes ☐ No
 Low body weight (<60 kg) or major weight loss ☐ Yes ☐ No
 Diet + supplement calcium intake 1200 mg/day ☐ Yes ☐ No

3 Physical

A. Assess balance and gait for fracture risk:
 Can patient rise from chair without using arms and walk several steps? (Get / Timed Up and Go Test) ☐ Yes ☐ No

B. Screen for vertebral fracture:
 Current height: _____ cm
 Previous height: _____ cm
 Prior Height ☐ Yes ☐ No If yes to any, order PA, lateral spine x-ray to rule out vert. fracture
 Prospective height loss > 2 cm ☐ Yes ☐ No
 Historical height loss > 6 cm ☐ Yes ☐ No
 Rib-pelvis distance 2 fingers ☐ Yes ☐ No
 Occiput-wall distance > 5 cm ☐ Yes ☐ No

4 Lab to rule out secondary osteoporosis

Calcium Correction Calculator

Value	Target	Date of latest
Calcium		
Albumin		
Creatinine		
eGFR		
Alkaline phosphatase		
TSH		
Protein electrophoresis	☐ Normal ☐ Abnormal	
25-hydroxyvitamin D (25OHD)		
CBC (Hemoglobin)		

5 Bone Mineral Density (BMD)

Prior BMD test complete ☐ Yes ☐ No
 BMD test ordered ☐ Yes ☐ No

	Latest T-score	Date	Prior T-score	Date of BMD MM/DD/YYYY
Femoral neck				
Lumbar spine				

If BMD test indicated, order DXA. Assess fracture risk at next apt.

6 10-year fracture risk: CAROC or FRAX

For treatment naïve patients 50 years

Low: risk < 10%
 Reassess risk in 3-5 years

Moderate: risk 10-20%
 Lateral x-ray (T4-L4) to rule out vertebral fracture
 BMD in 1-3 years and reassess fracture risk

High: risk > 20%
 OR
 Prior fragility fracture of hip/spine
 OR
 More than one fragility fracture

Previous Risk: _____
 Current Risk: _____

Recommendations for Patient Care

Encourage balance & strength training, aerobic physical activity, calcium (diet+supplement) 1000-1200 mg daily, vitamin D3 800-2000IU daily.
 Falls-prevention handout given ☐ Yes ☐ No
 How many days per week patient engages in moderate-vigorous exercise (brisk walk): _____
 Average mins per day patient exercises at this level: _____

Risk	Recommendation
Low	Unlikely to benefit from pharmacotherapy
Moderate	Consider pharmacotherapy if patient has at least one of the following:
	Vertebral fracture identified by X-ray ☐ Yes ☐ No
	Prior wrist fracture in patients ≥65 years ☐ Yes ☐ No
	T-score ≥ -2.5 at any site ☐ Yes ☐ No
	Lumbar spine T-score < -2.5 Femoral neck T-score ☐ Yes ☐ No
	Rapid bone loss ☐ Yes ☐ No
	Men on androgen deprivation therapy ☐ Yes ☐ No
	Women on aromatase inhibitor therapy ☐ Yes ☐ No
	Long-term/repeat use of glucocorticoids ☐ Yes ☐ No
	Has fallen ≥ 2 times in past 12 months ☐ Yes ☐ No
	Secondary osteoporosis ☐ Yes ☐ No
High	Pharmacotherapy options:

1st line: Postmenopausal women and men

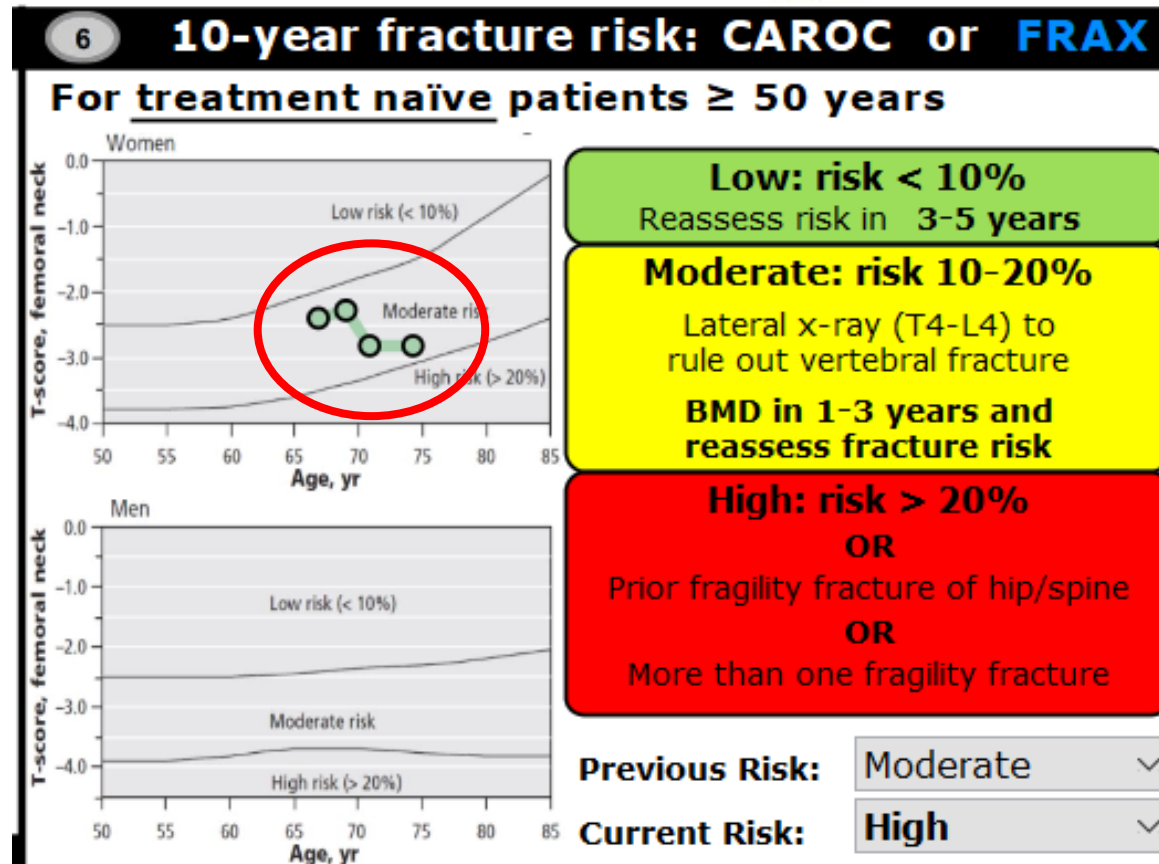
	Currently On	Initiated	Changed To:
Alendronate (Fosamax)	☐	☐	☐
Alendronate + 5600IU Vit D (Fosavance)	☐	☐	☐
Risedronate (Actonel)	☐	☐	☐
Risedronate DR (Actonel DR)	☐	☐	☐
Denosumab (Prolia)	☐	☐	☐
Zoledronic Acid (Aclasta)	☐	☐	☐
PTH (Forteo)	☐	☐	☐

Information for Patients:
 Atypical Fractures and Bisphosphonates
 Atypical Fractures and Denosumab
 Osteonecrosis of the Jaw

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6- ÉVALUATION DES RISQUES DE FRACTURES: CAROC OR FRAX

EVALUATION DES RISQUES DE FRACTURES: CAROC /FRAX



FRAX

https://www.sheffield.ac.uk/ x

University of Sheffield [GB] | https://www.sheffield.ac.uk/FRAX/

FRAX® Fracture Risk Assessment Tool

Home Calculation Tool Paper Charts FAQ References English

Welcome to FRAX

The FRAX® tool has been developed to assess the individual patient models that take into account bone mineral density (BMD) at the hip.



Dr. John A Kanis
Professor Emeritus,
University of
Sheffield

Asia
Europe
Middle East & Africa
North America
Latin America
Oceania

Canada
US

The FRAX® models have been developed from studying population-based cohorts from Europe, North America, Asia and Australia. In their most sophisticated form, the FRAX® tool is computer-driven and is available on this site. Several simplified paper versions, based on the number of risk factors are also available, and can be downloaded for office use.

The FRAX® algorithms give the 10-year probability of fracture. The output is a 10-year probability of hip fracture and the 10-year probability of a major osteoporotic fracture (clinical spine, forearm, hip or shoulder fracture).

FRAX Desktop Application

Click here to view the applications available



Web Version 4.0

View Release Notes



Links

www.iofbonehealth.org



www.nof.org



www.jpof.or.jp



www.esceo.org



5:48 PM
2018-05-26

FRAX[®] Fracture Risk Assessment Tool

[Home](#)
[Calculation Tool](#)
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Calculation Tool

Please answer the questions below to calculate the ten year probability of fracture with BMD.

Country: **Canada**

Name/ID:
[About the risk factors](#)

Questionnaire:

1. Age (between 40 and 90 years) or Date of Birth

Age:

Date of Birth:

Y:

M:

D:

2. Sex

☐ Male ☒ Female

3. Weight (kg)

4. Height (cm)

5. Previous Fracture

☐ No ☒ Yes

6. Parent Fractured Hip

☒ No ☐ Yes

7. Current Smoking

☒ No ☐ Yes

8. Glucocorticoids

☒ No ☐ Yes

9. Rheumatoid arthritis

☒ No ☐ Yes

10. Secondary osteoporosis

☒ No ☐ Yes

11. Alcohol 3 or more units/day

☒ No ☐ Yes

12. Femoral neck BMD (g/cm²)

T-Score

BMI: 34.9
The ten year probability of fracture (%)
with BMD

Major osteoporotic


24

Hip Fracture

7.4

If you have a TBS value, click here:



Weight Conversion

Pounds kg

Height Conversion

Inches cm

00664398

Individuals with fracture risk
assessed since 1st June 2011


[Print tool and information](#)

FORMULAIRE OSTÉOPOROSE PS-OSCAR

Osteoporosis & Falls Assessment Form

1 History

Initial Assessment: ☐ Yes ☐ Follow-Up

Osteoporosis Dx: ☐ Yes ☐ Previous Osteoporosis Dx: ☐ Yes ☐ No

New Fragility Fracture: ☐ Yes ☐ No

Identify risk factors for fractures and falls:

Prior fracture after age 50 years: ☐ Yes ☐ No

Hip: ☐ Wrist: ☐ Vertebral: ☐ Proximal humerus: ☐ Pelvis: ☐ Other, specify: ☐

Prolonged glucocorticoid use: ☐ Parental hip fracture: ☐ Rheumatoid arthritis: ☐ Menopause at age < 45 years: ☐ Other Conditions or Medications: ☐

2 Lifestyle Review

Current smoker: ☐ Consumes 3 units (oz.) alcohol/day: ☐ Has fallen 2 times in past 12 months: ☐ Low body weight (<60 kg) or major weight loss: ☐ Diet + supplement calcium intake 1200 mg/day: ☐

3 Physical

A. Assess balance and gait for fracture risk:

Can patient rise from chair without using arms and walk several steps? (Get / Timed Up and Go Test): ☐ Yes ☐ No

B. Screen for vertebral fracture:

Current height: _____ cm

Previous height: _____ cm

Prior Height: ☐ Yes ☐ No

Prospective height loss > 2 cm: ☐ Historical height loss > 6 cm: ☐ Rib-pelvis distance 2 fingers: ☐ Occiput-wall distance > 5 cm: ☐

4 Lab to rule out secondary osteoporosis

Calcium Correction Calculator

Value	Target	Date of last test
Calcium		
Albumin		
Creatinine		
eGFR		
Alkaline phosphatase		
TSH		
Protein electrophoresis	☐ Normal ☐ Abnormal	
25-hydroxyvitamin D (25OHD)		
CBC (Hemoglobin)		

5 Bone Mineral Density (BMD)

Prior BMD test complete: ☐ Yes ☐ No

BMD test ordered: ☐ Yes ☐ No

	Latest T-score	Date	Prior T-score	Date of BMD
Femoral neck				
Lumbar spine				

If BMD test indicated, order DXA. Assess fracture risk at next apt.

6 10-year fracture risk: CAROC or FRAX

For treatment naïve patients 50 years

Low risk < 10%
Reassess risk in 3-5 years

Moderate risk 10-20%
Lateral x-ray (T4-L4) to rule out vertebral fracture
BMD in 1-3 years and reassess fracture risk

High risk > 20%
OR
Prior fragility fracture of hip/spine
OR
More than one fragility fracture

7 Recommendations for Patient Care

Encourage balance & strength training, aerobic physical activity, calcium (diet+supplement) 1000-1200 mg daily, vitamin D3 800-2000IU daily.

Falls-prevention handout given: ☐ Yes ☐ No

How many days per week patient engages in moderate-vigorous exercise (brisk walk):

Average mins per day patient exercises at this level:

Risk	Recommendation
Low	Unlikely to benefit from pharmacotherapy
Moderate	Consider pharmacotherapy if patient has at least one of the following:
	Vertebral fracture identified by X-ray: ☐ Yes ☐ No
	Prior wrist fracture in patients ≥65 years: ☐ Yes ☐ No
	T-score ≤ -2.5 at any site: ☐ Yes ☐ No
	Lumbar spine T-score < Femoral neck T-score: ☐ Yes ☐ No
	Rapid bone loss: ☐ Yes ☐ No
	Men on androgen deprivation therapy: ☐ Yes ☐ No
	Women on aromatase inhibitor therapy: ☐ Yes ☐ No
	Long-term/repeat use of glucocorticoids: ☐ Yes ☐ No
	Has fallen ≥ 2 times in past 12 months: ☐ Yes ☐ No
	Secondary osteoporosis: ☐ Yes ☐ No
High	Pharmacotherapy options:
	1st line: Postmenopausal women and men
	Alendronate (Fosamax): ☐ Currently On ☐ Initiated ☐ Changed To:
	Alendronate + 5600IU Vit D (Fosavance): ☐ Currently On ☐ Initiated ☐ Changed To:
	Risedronate (Actonel): ☐ Currently On ☐ Initiated ☐ Changed To:
	Risedronate DR (Actonel DR): ☐ Currently On ☐ Initiated ☐ Changed To:
	Denosumab (Prolia): ☐ Currently On ☐ Initiated ☐ Changed To:
	Zoledronic Acid (Aclasta): ☐ Currently On ☐ Initiated ☐ Changed To:
	PTH (Forteo): ☐ Currently On ☐ Initiated ☐ Changed To:

Information for Patients:

Atypical Fractures and Bisphosphonates

Atypical Fractures and Denosumab

Osteonecrosis of the Jaw

7-RECOMMENDATIONS DE SOINS

RECOMMENDATIONS DES SOINS

7

Recommendations for Patient Care

Encourage balance & strength training, aerobic physical activity, *calcium* (diet+supplement) 1000-1200 mg daily, vitamin D3 800-2000IU daily.

Falls-prevention handout given

☐ Yes ☐ No

How many days per week patient engages in moderate-vigorous *exercise* (brisk walk):

Average mins per day patient exercises at this level:

--	--

RECOMMENDATIONS DES SOINS



Osteoporosis Canada
Ostéoporose Canada

NUTRITION

Healthy Eating for Healthy Bones

As we get older, we often pay less attention to our diet. We may live alone and not always bother cooking a meal. We may become less active as we age, which can also reduce our appetite. Grocery shopping may become more difficult so we do less of it. The result is that we soon run out of items like milk, yogurt and fresh fruit and vegetables. The next thing you know, some tea and toast is all we really have left, or care to prepare.

The purpose of this fact sheet is to help you plan your diet and your grocery shopping so that your bones will stay as healthy and strong as possible. You have no doubt heard that calcium and vitamin D are good for your bones. They are, but they are not the only important nutrients. A well balanced diet, made up of all the four food groups in Canada's Food Guide, is the secret to healthy bones. (For Canada's Food Guide, go to www.hc-sc.gc.ca.)

MEAT AND ALTERNATIVES

In addition to calcium and other minerals, bone is made up of protein, a nutrient that is necessary for building and repairing body tissues including bones. Protein gives bone its strength and flexibility. Protein is also the big component of muscles, which are, of course, crucial for mobility and in preventing falls. The "Meat and Alternatives" food group provides your body with protein. Meat and alternatives also contain other vitamins and minerals that are essential for overall good health.

How do you know how much protein you need? Canada's Food Guide recommends 2 - 3 servings of meat or alternatives each day for those over 50. A serving size is about the size and thickness of



your palm (excluding the thumb and fingers). This means that you should eat a palm size portion of protein with at least two of your three meals. The "Meats" include beef, pork, poultry and fish. The "Alternatives" include beans, lentils, tofu, egg whites, peanut (or other nut) butters, shelled nuts and seeds. Dairy products are also a good source of protein and have the added advantage of being good sources of calcium.

Too Fit to Fall or Fracture

Strength Training

- At least 2 days/week
- ▶ Exercises for legs, arms, chest, shoulders, back
 - ▶ Use body weight against gravity, bands, or weights*
 - ▶ 8 - 12 repetitions per exercise

Try these to get started:

- Classes at YMCA/community centre
- Consult a physical therapist/kinesiologist
- Contact Osteoporosis Canada



Balance Exercises

- Every day
- ▶ Tai Chi, dancing, walking on your toes or heels
 - ▶ Have a sturdy chair, counter, or wall nearby, and try (from easier to harder): shift weight from heels to toes while standing; stand heel to toe; stand on one foot; walk on a pretend line



Posture Awareness

- Every day
- ▶ Gently tuck your chin in and draw your chest up slightly
 - ▶ Imagine your collarbones are wings - spread your wings slightly without pulling your shoulders back



Aerobic Physical Activity

- At least 150 mins/week
- ▶ Bouts of 10 mins or more, moderate to vigorous intensity*
 - ▶ You should feel like your heart is beating faster and you are breathing harder
 - ▶ You might be able to talk while doing it, but not sing

Examples:

- Brisk walking
- Dancing
- Jogging
- Aerobics class

*If you have a spine fracture, consult a physical therapist/kinesiologist before using weights, and choose moderate, not vigorous aerobic physical activity

Questions? Want a free physical activity booklet? Contact Osteoporosis Canada: English 1 800 463 6842 / French 1 800 977 1778 or www.osteoporosis.ca
Locate a Bone Fit™ trained instructor: English 1 800 463 6842 / French 1 800 977 1778 or www.bonefit.ca



RECOMMENDATION PHARMACOTHÉRAPEUTIQUE

<i>Risk</i>	<i>Recommendation</i>																																	
Low	Unlikely to benefit from pharmacotherapy																																	
Moderate	Consider pharmacotherapy if patient has at least one of the following: <table><tr><th></th><th>Yes</th><th>No</th></tr><tr><td>Vertebral fracture identified by X-ray</td><td></td><td></td></tr><tr><td>Prior wrist fracture in patients ≥ 65 years</td><td></td><td></td></tr><tr><td>T-score ≥ -2.5 at any site</td><td></td><td></td></tr><tr><td>Lumbar spine T-score $\ll$ Femoral neck T-score</td><td></td><td></td></tr><tr><td>Rapid bone loss</td><td></td><td></td></tr><tr><td>Men on androgen deprivation therapy</td><td></td><td></td></tr><tr><td>Women on aromatase inhibitor therapy</td><td></td><td></td></tr><tr><td>Long-term/repeat use of glucocorticoids</td><td></td><td></td></tr><tr><td>Has fallen ≥ 2 times in past 12 months</td><td></td><td></td></tr><tr><td>Secondary osteoporosis</td><td></td><td></td></tr></table>		Yes	No	Vertebral fracture identified by X-ray			Prior wrist fracture in patients ≥ 65 years			T-score ≥ -2.5 at any site			Lumbar spine T-score $\ll$ Femoral neck T-score			Rapid bone loss			Men on androgen deprivation therapy			Women on aromatase inhibitor therapy			Long-term/repeat use of glucocorticoids			Has fallen ≥ 2 times in past 12 months			Secondary osteoporosis		
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RECOMMENDATION PHARMACOTHÉRAPEUTIQUE

High

Pharmacotherapy options:

1st line: Postmenopausal women and men

	Currently On	Initiated	Changed To:
Alendronate (Fosamax)		JAN 1,2015	DENOSUMAB
Alendronate + 5600IU Vit D (Fosavance)			
Risedronate (Actonel)			
Risedronate DR (Actonel DR)			
Denosumab (Prolia)	X	MARCH 5,2018	
Zoledronic Acid (Aclasta)			
PTH (Forteo)			

FORMULAIRE OSTÉOPOROSE PS-OSCAR

Osteoporosis & Falls Assessment Form

1 History

Initial Assessment: ☐ Yes ☐ Follow-Up

Osteoporosis Dx: ☐ Yes ☐ Previous Osteoporosis Dx: ☐ Yes ☐ No

New Fragility Fracture: ☐ Yes ☐ No

Identify risk factors for fractures and falls:

Prior fracture after age 50 years: ☐ Yes ☐ No

Hip: ☐ Wrist: ☐ Vertebral: ☐ Proximal humerus: ☐ Pelvis: ☐ Other, specify: ☐

Prolonged glucocorticoid use: ☐ Parental hip fracture: ☐ Rheumatoid arthritis: ☐ Menopause at age < 45 years: ☐ Other Conditions or Medications: ☐

2 Lifestyle Review

Current smoker: ☐ Consumes 3 units (oz.) alcohol/day: ☐ Has fallen 2 times in past 12 months: ☐ Low body weight (<60 kg) or major weight loss: ☐ Diet + supplement calcium intake 1200 mg/day: ☐

3 Physical

A. Assess balance and gait for fracture risk:

Can patient rise from chair without using arms and walk several steps? (Get / Timed Up and Go Test) ☐ Yes ☐ No

B. Screen for vertebral fracture:

Current height: _____ cm

Prior height: _____ cm

Prior Height: ☐ Yes ☐ No

Prospective height loss > 2 cm: ☐ Historical height loss > 6 cm: ☐ Rib-pelvis distance 2 fingers: ☐ Occiput-wall distance > 5 cm: ☐

4 Lab to rule out secondary osteoporosis

Calcium Correction Calculator

Value	Target	Date of latest
Calcium		
Albumin		
Creatinine		
eGFR		
Alkaline phosphatase		
TSH		
Protein electrophoresis	☐ Normal ☐ Abnormal	
25-hydroxyvitamin D (25OHD)		
CBC (Hemoglobin)		

5 Bone Mineral Density (BMD)

Prior BMD test complete: ☐ BMD test ordered: ☐

	Latest T-score	Date	Prior T-score	Date of BMD test
Femoral neck				
Lumbar spine				

If BMD test indicated, order DXA. Assess fracture risk at next appt.

6 10-year fracture risk: CAROC or FRAX

For treatment naïve patients 50 years

Low: risk < 10%
Reassess risk in 3-5 years

Moderate: risk 10-20%
Lateral x-ray (T4-L4) to rule out vertebral fracture
BMD in 1-3 years and reassess fracture risk

High: risk > 20%
OR
Prior fragility fracture of hip/spine
OR
More than one fragility fracture

Previous Risk: _____ Current Risk: _____

7 Recommendations for Patient Care

Encourage balance & strength training, aerobic physical activity, calcium (diet+supplement) 1000-1200 mg daily, vitamin D3 800-2000IU daily.

Falls-prevention handout given: ☐ Yes ☐ No

How many days per week patient engages in moderate-vigorous exercise (brisk walk): _____

Average mins per day patient exercises at this level: _____

Risk	Recommendation
Low	Unlikely to benefit from pharmacotherapy
Moderate	Consider pharmacotherapy if patient has at least one of the following:
	Vertebral fracture identified by X-ray: ☐ Yes ☐ No
	Prior wrist fracture in patients ≥65 years: ☐ Yes ☐ No
	T-score ≥ -2.5 at any site: ☐ Yes ☐ No
	Lumbar spine T-score < Femoral neck T-score: ☐ Yes ☐ No
	Rapid bone loss: ☐ Yes ☐ No
	Men on androgen deprivation therapy: ☐ Yes ☐ No
	Women on aromatase inhibitor therapy: ☐ Yes ☐ No
	Long-term/repeat use of glucocorticoids: ☐ Yes ☐ No
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High	Pharmacotherapy options:

1st line: Postmenopausal women and men

	Currently On	Initiated	Changed To:
Alendronate (Fosamax)	☐	☐	☐
Alendronate + 5600IU Vit D (Fosavance)	☐	☐	☐
Risedronate (Actonel)	☐	☐	☐
Risedronate DR (Actonel DR)	☐	☐	☐
Denosumab (Prolia)	☐	☐	☐
PTH (Forteo)	☐	☐	☐

Information for Patients:

Atypical Fractures and Bisphosphonates

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Osteonecrosis of the Jaw

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*INFORMATIONS POUR LES PATIENTS

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Osteonecrosis of the Jaw

Information for Patients:

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Atypical Fractures and Denosumab

Osteonecrosis of the Jaw

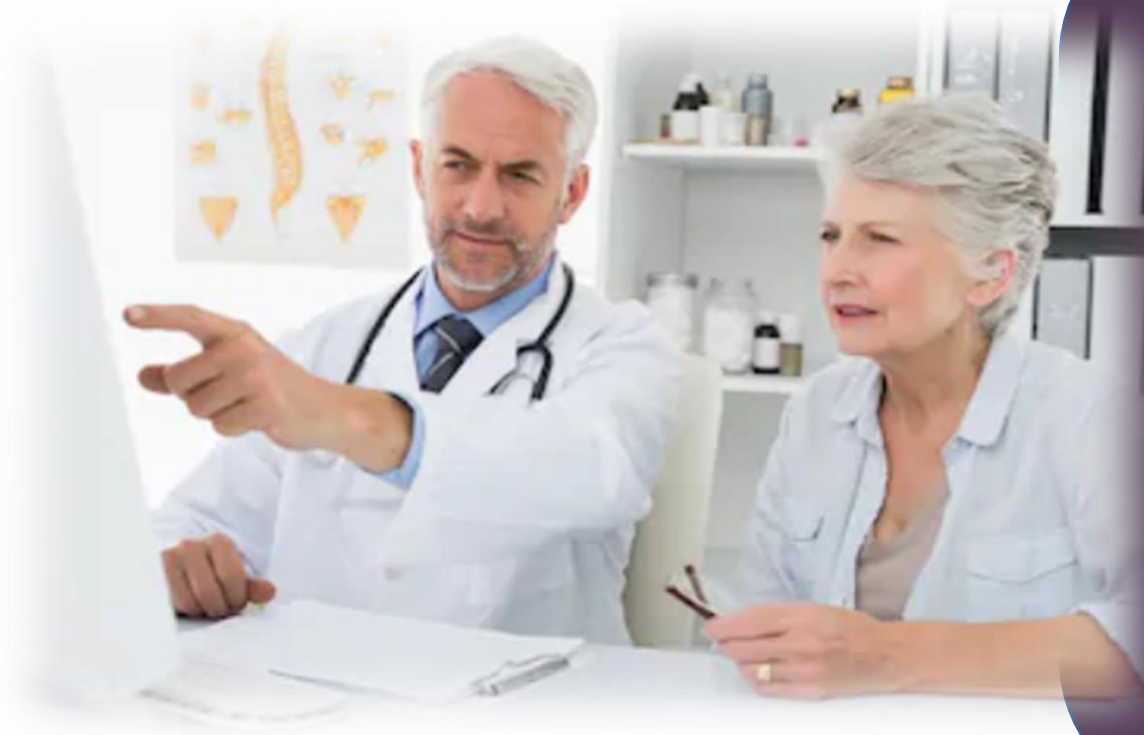


Osteoporosis Canada

Ostéoporose Canada



ÉTUDE DE CAS



Mme OP

- 58 ans
- Inquiète de OP
- sa mère vient d'être hospitalisée pour une fracture de la hanche
- Ménopause à 44 ans
- N'as jamais eu de fracture
- Ne fume pas
- Aucun médicament
- Très peu d'exercice

- Poids: 55 kg (121 lbs.)
- Grandeur: 157 cm (5'2")
- Index Corporel (BMI): 22.3 kg/m²

ÉTUDE DE CAS



ÉTUDE DE CAS



Densitometrie:

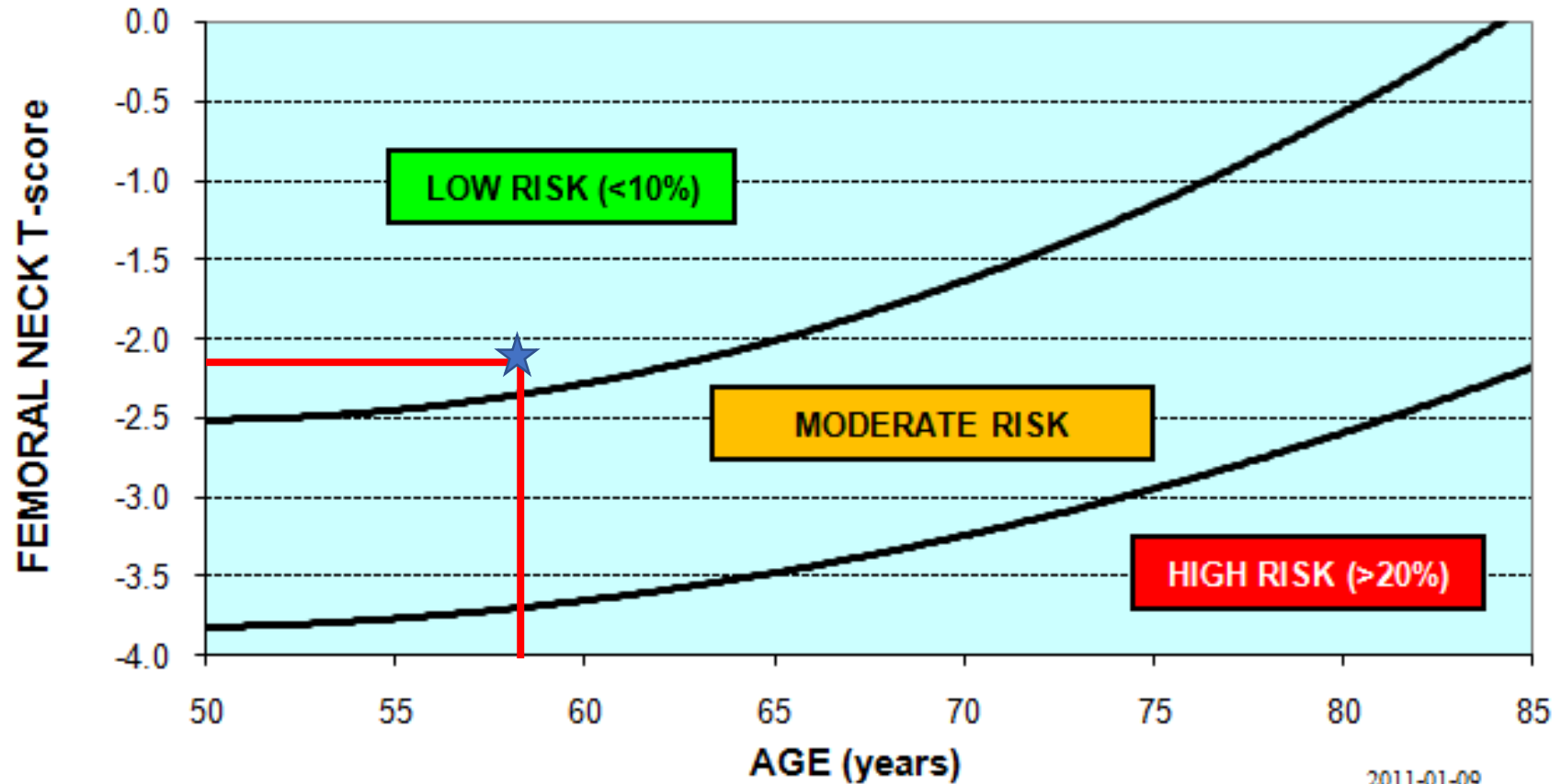
- Colonne vertébral:
 - T-score -2.0
- Hanche
 - T-score -2.2

Son médecin lui conseil:

- Exercice
- Vitamine D
- Calcium diététique
- Arrêter de fumer



ÉTUDE DE CAS

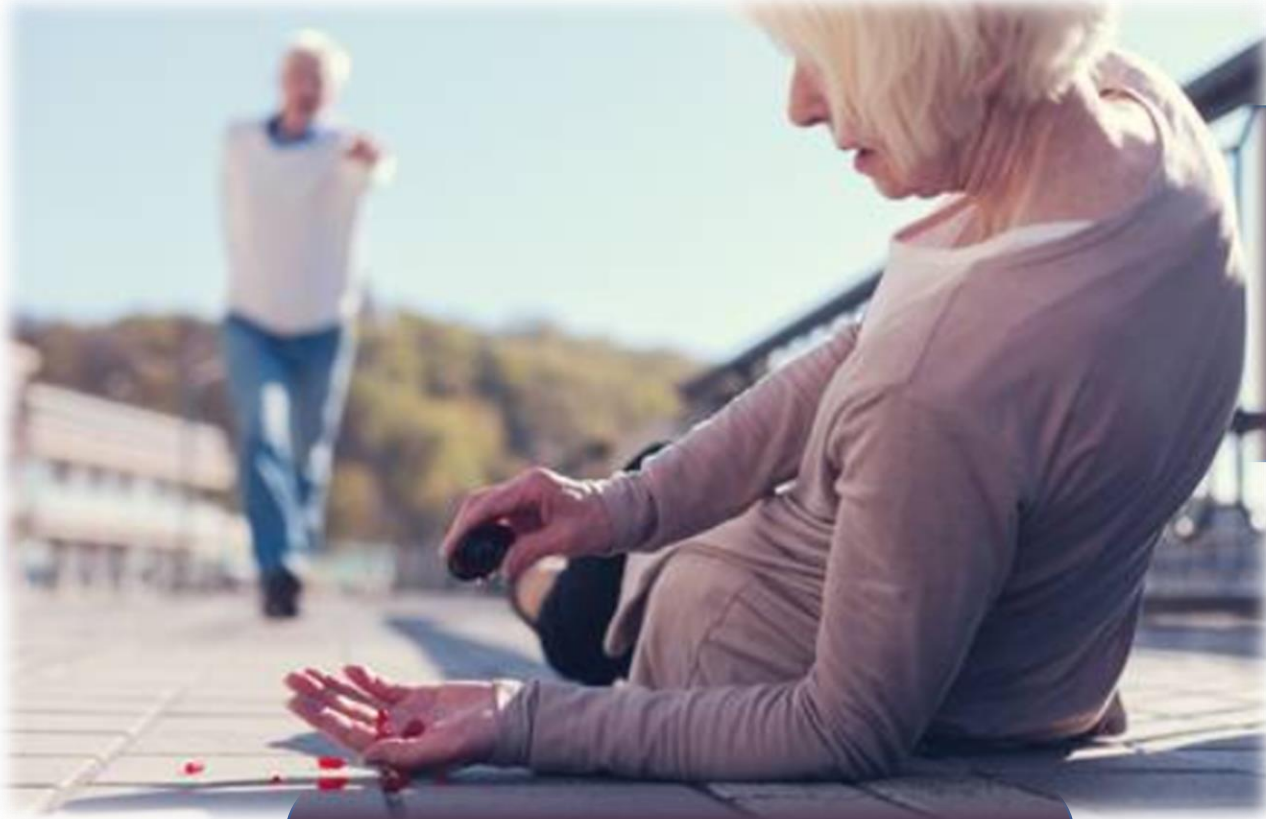


2011-01-09

ÉTUDE DE CAS



ÉTUDE DE CAS



3 ans plus tard:

- Subit une fracture du poignet lorsqu'elle glisse en marchant

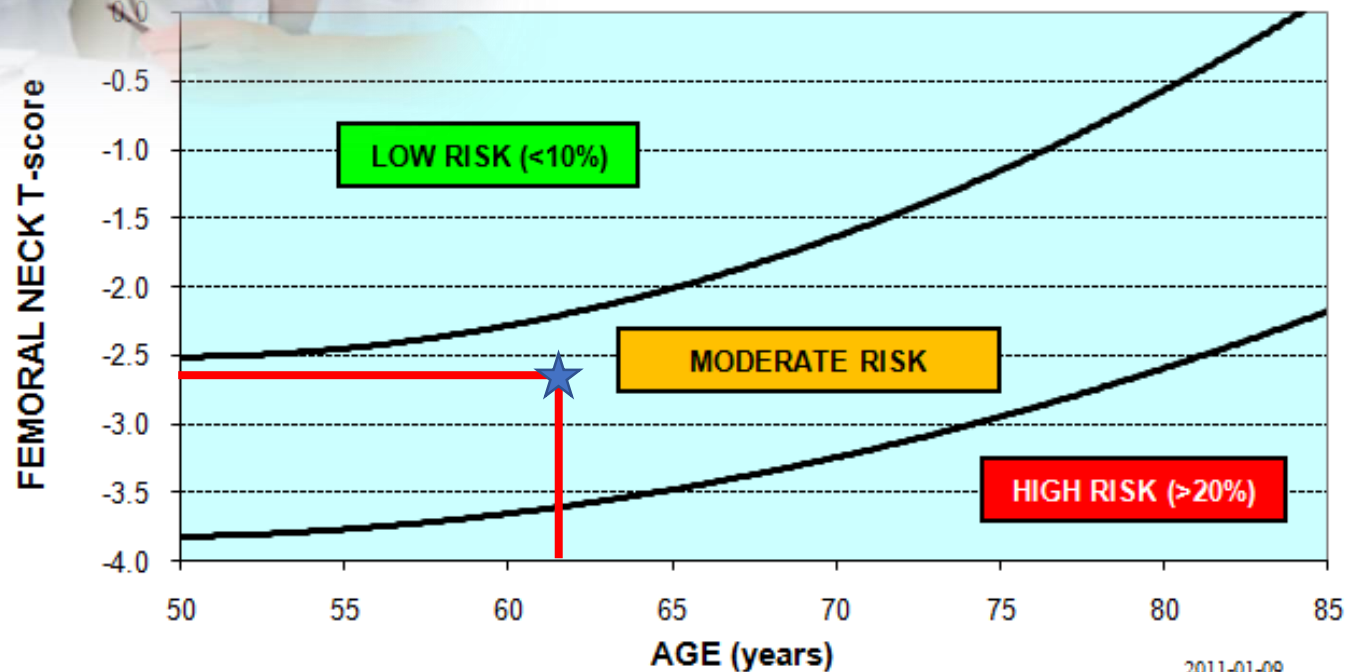
Densitométrie:

- Colonne vertébral:
 - T-score -2.6
- Hanche
 - T-score -2.8

ÉTUDE DE CAS



ÉTUDE DE CAS



ÉTUDE DE CAS

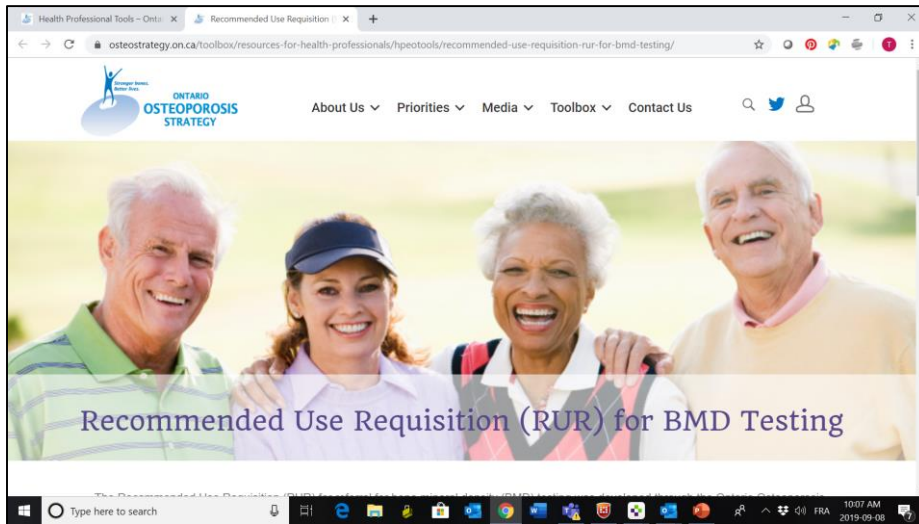


<i>Risk</i>	<i>Recommendation</i>	
Low	Unlikely to benefit from pharmacotherapy	
Moderate	Consider pharmacotherapy if patient has at least one of the following:	
	Yes	No
Vertebral fracture identified by X-ray	✗	
Prior wrist fracture in patients ≥ 65 years	✗	
T-score ≥ -2.5 at any site	✗	
Lumbar spine T-score $<<$ Femoral neck T-score		
Rapid bone loss		
Men on androgen deprivation therapy		
Women on aromatase inhibitor therapy		
Long-term/repeat use of glucocorticoids		
Has fallen ≥ 2 times in past 12 months		
Secondary osteoporosis		

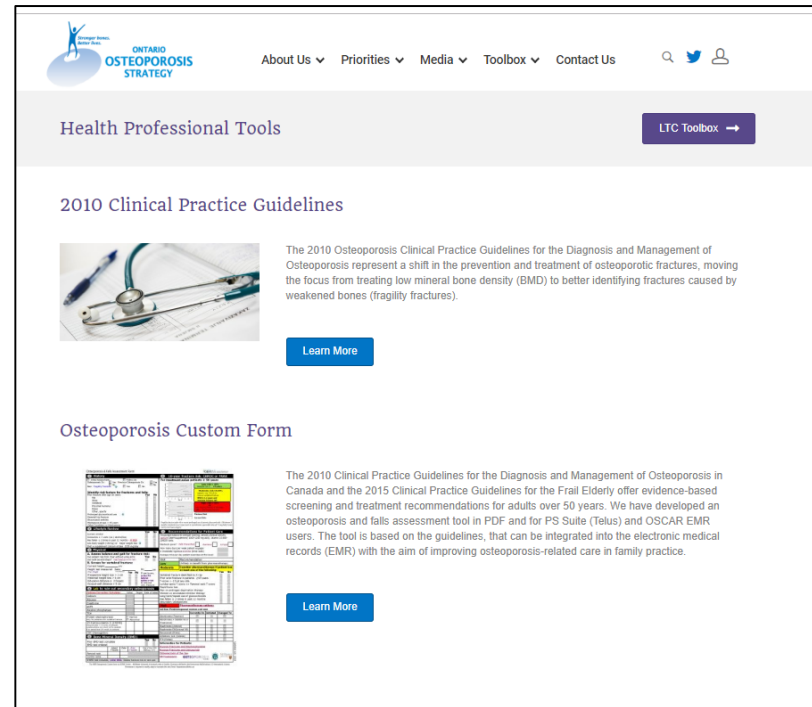
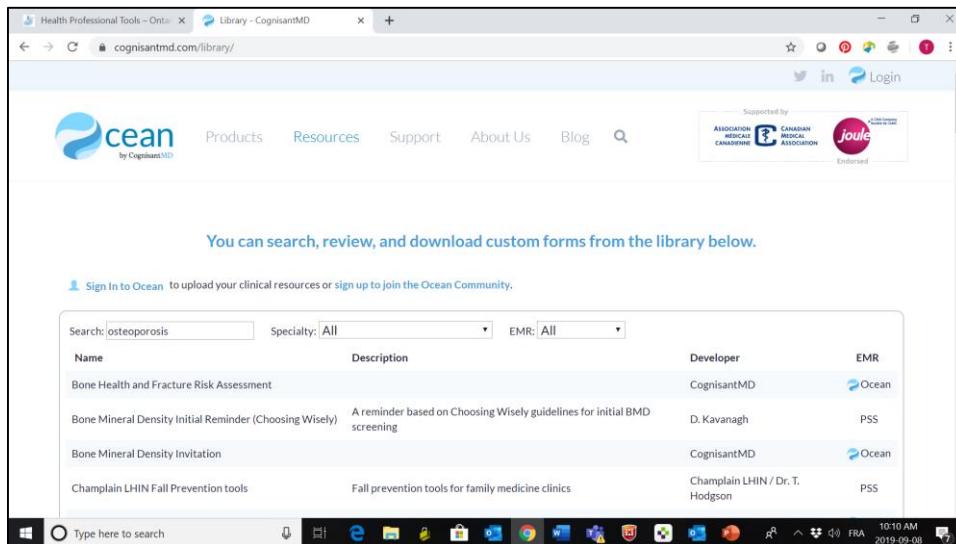
ÉTUDE DE CAS



AUTRES RESSOURCES



REQUISITION DENSITOMETRIE



QUESTIONS

