Finite Resources and Health Care: CRA Choosing Wisely Campaign

Slides made available by the Canadian Rheumatology Association Choosing Wisely Committee, property of CRA.
• No Disclosures
Objectives

1. To present the case for managing finite resources

2. To recognize the role of CRA members in leading the management of finite resources

3. To summarize the CRA Choosing Wisely Campaign

Slides made available by the Canadian Rheumatology Association Choosing Wisely Committee, property of CRA.
Issue of medical overuse

• IOM - 30% of health care spending wasteful, no added value to patient care
• 2 teaching hospitals in Alberta and Ontario:
  – 28% of lumbar spine MRIs inappropriate (27% uncertain value)
• CWC study - 28% of bone mineral density (DEXA) scans in Ontario inappropriate
Serology testing across Canada

- In BC, >94,000 ANA tests were performed in 2011/12 ($2.24 million annually)
  - In one teaching hospital, ANA positive 15% of the time, 1500 repeat tests or simultaneous ordering, the majority within 3 months of a previously negative result, <1% becoming significantly positive

- In Alberta, 60,000 ANA and 83,000 RF tests done each year ($4 million annually)
  - Central triage service found that 26% of referrals for + ANA no evidence of any disease

- In Ontario, 260,000 RF done in one year ($4 million dollars)
  - Equivalent to ~ 1 in 50 tested for RF every year

BC guidelines, Antinuclear Antibody (ANA) Testing Protocol, June/01/2013
Fitch-Rogalsky, PLOS online 2014

Slides made available by the Canadian Rheumatology Association Choosing Wisely Committee, property of CRA.
Cultural factors

Systems factors

Physician and patient factors

Overuse
I’ve always done this

Patients want it

How we are taught

Pre-emptive ordering

Fear of litigation

$$

Referring doctor wants it

Better to get a test than “do nothing”

Demonstrate thoroughness

New tests are good
A campaign to help physicians and patients engage in conversations about the overuse of tests and procedures and support physician efforts to help patients make smart and effective care choices.

Feb 2012
Create lists of Top 5 things physicians and patients should question

- Societies free to determine the process
- Test or procedure within specialty’s purview
- Procedures frequent
- Evidence to support
- Process publicly available

- NOT a list of rules
  - clinical judgement is paramount
- Based on the best available current evidence
  - changes can be made as research evolves

Slides made available by the Canadian Rheumatology Association Choosing Wisely Committee, property of CRA.
CRA Methodology For Developing Recommendations
July 2013
Committee Formed
16 members

Aug/ Sept 2013
Item identification: Delphi Survey
Round 1 n=64 items
Round 2 n=24 items
Round 3 n=13 items

Sept/ Oct 2013
CRA Membership Survey
n=13

Oct 2013
Methodology Subcommittee Review and Item Selection
n=5

Oct/Nov 2013
Literature and Guideline Review

Nov/Dec 2013
Review and revision

Dec 2013
CRA Board and Patient Consumers Review

Spring 2014
Wave 1 launch
Multidisciplinary Working Group

- Rheumatologist (16)
- Rheumatology trainee (5)
- Allied health provider (1)
- Patient Consumer (3)
- Coordinator (1)

- Pooneh Akhavan, MD FRCPC
- Mary Bell, MD FRCPC
- Shirley Chow, MD FRCPC
- Gregory Choy, MD FRCPC
- Natasha Gakhal, MD FRCPC
- Bindee Kuriya, MD FRCPC
- Dharini Mahendira, MD FRCPC
- Zarnaz Bagheri, MD FRCPC
- Damian Frackowick, MD FRCPC
- Dawn Richards

- Peter Tugwell, MD FRCPC
- Edith Villeneuve, MD FRCPC
- Carter Thorne, MD FRCPC
- Christine Charnock
- Michelle Jung, MD FRCPC
- Tristan Boyd, MD FRCPC

- Sylvie Ouellette, MD FRCPC
- Chris Debow

- Proton Rahman, MD FRCPC
- Jennifer Burt

- Robert Ferrari, MD FRCPC
- Nadia Luca, MD FRCPC

- Glen Hazlewood, MD FRCPC
- Ann Marie Colwill, MD FRCPC

- Slides made available by the Canadian Rheumatology Association Choosing Wisely Committee, property of CRA.
Choosing Wisely Committee Formed

16 members

Aug/ Sept 2013

Item identification: Delphi Survey

Round 1 n=64 items
Round 2 n=24 items
Round 3 n=13 items

Sept/ Oct 2013

CRA Membership Survey (172)
n=13 items

Oct 2013

Methodology Subcommittee Review and Item Selection

n=5 items

Oct/Nov 2013

Literature and Guideline Review

Nov/Dec 2013

Review and revision

Dec 2013

CRA Board and Patient Consumers Review

Spring 2014

Wave 1 launch
Choosing Wisely Delphi

CRA Choosing Wisely committee members:

• Brainstorm lab tests, imaging, and treatment that should not be done

• List any evidence that would support reducing its use

• List things that should be excluded to make your practise more efficient
Choosing Wisely Delphi

CRA Choosing Wisely committee members:
• Agreement with this statement
  – Strongly agree to strongly disagree
• Commonly seen in practise
  – Seen very commonly to not seen at all
• Additional items
• Top 5 candidate
Choosing Wisely Committee Formed

Item identification: Delphi Survey

CRA Membership Survey (172 participants)

Methodology Subcommittee Review and Item Selection

Literature and Guideline Review

Review and revision

CRA Board and Patient Consumers Review

Wave 1 launch

July 2013

Aug/Sept 2013

Sept/Oct 2013

Oct 2013

Oct/Nov 2013

Nov/Dec 2013

Dec 2014

Spring 2014

16 members

Round 1 n=64 items
Round 2 n=24 items
Round 3 n=13 items

n=13 items

n=5 items

Slides made available by the Canadian Rheumatology Association Choosing Wisely Committee, property of CRA.
CRA member engagement

• Agreement with the statement
  • Strongly agree to strongly disagree
• High impact
  – commonly seen in practise, high cost
• Additional items
• Top 5 candidate
Choosing Wisely Committee Formed

Item identification: Delphi Survey

CRA Membership Survey

Methodology Subcommittee Review and Item Selection

Literature and Guideline Review

Review and revision

CRA Board and Patient Consumers Review

Wave 1 launch

July 2013

Aug/ Sept 2013

Sept/ Oct 2013

Oct 2013

Oct/Nov 2013

Nov/Dec 2013

Dec 2013

Spring 2014

16 members

Round 1 n=64 items

Round 2 n=24 items

Round 3 n=13 items

n=13 items

n=5 items

Slides made available by the Canadian Rheumatology Association Choosing Wisely Committee, property of CRA.
Choosing Wisely Committee Formed

July 2013

16 members

Aug/ Sept 2013

Item identification: Delphi Survey

Round 1 n=64 items
Round 2 n=24 items
Round 3 n=13 items

Sept/ Oct 2013

CRA Membership Survey

n=13 items

Oct 2013

Methodology Subcommittee Review and Item Selection

n=5 items

Oct/Nov 2013

Literature and Guideline Review

Nov/Dec 2013

Review and revision

Dec 2013

CRA Board and Patient Consumers Review

Spring 2014

Wave 1 launch
Choosing Wisely Committee Formed

Aug/ Sept 2013
Item identification: Delphi Survey
Round 1 n=64 items
Round 2 n=24 items
Round 3 n=13 items

Sept/ Oct 2013
CRA Membership Survey
n=13 items

Oct 2013
Methodology Subcommittee Review and Item Selection
n=5 items

Oct/Nov 2013
Literature and Guideline Review

Nov/Dec 2013
Review and revision

Dec 2013
CRA Board and Patient Consumers Review

Spring 2014
Wave 1 launch

16 members

Slides made available by the Canadian Rheumatology Association Choosing Wisely Committee, property of CRA.
Five Things Physicians and Patients Should Question

1. Don't order ANA as a screening test in patients without specific signs or symptoms of systemic lupus erythematosus (SLE) or another connective tissue disease (CTD).

ANA testing should not be used to screen subjects without specific symptoms (e.g., photosensitivity, malar rash, symmetrical polyarthritis, etc.) or without a clinical evaluation that may lead to a presumptive diagnosis of SLE or other CTD, since ANA reactivity is present in many non-rheumatic conditions and even in “healthy” control subjects (up to 20%). In a patient with low pre-test probability for ANA-associated rheumatic disease, positive ANA results can be misleading and may precipitate further unnecessary testing, erroneous diagnosis or even inappropriate therapy.

2. Don't order an HLA-B27 unless spondyloarthritis is suspected based on specific signs or symptoms.

HLA-B27 testing is not useful as a single diagnostic test in a patient with low back pain without further spondyloarthropathy (SpA) signs or symptoms (e.g., inflammatory back pain ≥3 months duration with age of onset <45 years, peripheral synovitis, enthesitis, dactylitis, psoriasis or uveitis) because the diagnosis of spondyloarthropathy in these patients is of low probability. If HLA-B27 is used, at least two SpA signs or symptoms, or the presence of positive imaging findings, need to be present to classify a patient as having axial SpA. There is no clinical utility to ordering an HLA-B27 in the absence of positive imaging or the minimally required SpA signs or symptoms.

3. Don't repeat dual energy X-ray absorptiometry (DEXA) scans more often than every 2 years.

The use of repeat DEXA scans at intervals of every 2 years is appropriate in most clinical settings, and is supported by several current osteoporosis guidelines. Because of limitations in the precision of testing, a minimum of 2 years may be needed to reliably measure a change in BMD. If bone mineral densities are stable and/or individuals are at low risk of fracture, then less frequent monitoring up to an interval of 5-10 years can be considered. Shorter or longer intervals between repeat DEXA scans may be appropriate based on expected rate of change in bone mineral density and fracture risk.

4. Don't prescribe bisphosphonates for patients at low risk of fracture.

There is no convincing evidence that anti-osteoporotic therapy in patients with osteopenia alone reduces fracture risk. The 2006 Cochrane Reviews for three bisphosphonates (Alendronate, Etidronate, Risedronate) found no statistically significant reductions for primary prevention of fracture in postmenopausal women. Fracture risk is determined using either the Canadian Association of Radiologists and Osteoporosis Canada risk assessment tool (CAROC) or FRAX®, a World Health Organization fracture risk assessment tool. Both are available as online calculators of fracture risk. Given the lack of proven efficacy, widespread use of bisphosphonates in patients at low risk of fracture is not currently recommended.

5. Don't perform whole body bone scans (e.g., scintigraphy) for diagnostic screening for peripheral and axial arthritis in the adults.

The diagnosis of peripheral and axial inflammatory arthritis can usually be made on the basis of an appropriate history, physical exam and basic investigations. Whole body bone scans, such as the Tc-99m MDP scintigraphy, lack specificity to diagnose inflammatory polyarthritis or spondyloarthritis and have limited clinical utility. The equivalent of radiation exposure of a total whole body bone scan is reported as over 40 routine chest X-rays, thus posing risk.
Recommendation 1

1. Don’t order ANA as a screening test in patients without specific signs or symptoms of systemic lupus erythematosus (SLE) or another connective tissue disease (CTD)

Guidelines:
- American College of Pathologists
- British Columbia Ministry of Health
- American College of Rheumatology
- Italian Society of Laboratory Medicine Guidelines
ANA present in many non-rheumatic conditions

- High sensitivity: 95-100%
  - low positive predictive value: 11-15%
- not specific
  - other rheumatic diseases
  - chronic infections eg: TB, endocarditis, mononucleosis
  - other chronic inflammatory diseases eg: autoimmune thyroid disease, hepatitis, MS
  - drugs eg: procainamide, TNF inhibitor, statins, β-blockers, ACE inhibitors, NSAIDs
  - Cancer
  - “healthy” people (up to 20%)
## Pre-test and Post-test Probability

<table>
<thead>
<tr>
<th>Pre-test probability</th>
<th>Post-test probability</th>
<th>Post-test probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1%: a young woman with hair loss and polyarthralgias</td>
<td>IIF(+) 6%</td>
<td>IIF(-) 0.08%</td>
</tr>
<tr>
<td>10%: a young woman with photosensitivity and mild leucopenia (3000 - 3500 WBC/mm³)</td>
<td>IIF(+) 42%</td>
<td>IIF(-) 0.80%</td>
</tr>
<tr>
<td>50%: a young woman with photosensitivity, malar rash, symmetrical polyarthritis</td>
<td>IIF(+) 87%</td>
<td>IIF(-) 7%</td>
</tr>
</tbody>
</table>
• At VGH in BC, 2007-2009 over $800,000 spent on ANA, only 17% positive
• 1,551 repeat testing and simultaneous ordering
Recommendation 2

2. Don’t order an HLA-B27 unless spondyloarthritis is suspected based on specific signs or symptoms.

Guidelines:

• Assessment of SpondyloArthritis International Society (ASAS) Guidelines
• 3e Initiative in Rheumatology
HLAB27

• Present in 7% of Canadian population
• Present >85% of ankylosing spondylitis patients
• Only 2-5% of all HLA-B27 positive individuals develop inflammatory back arthritis
• Not useful as a single diagnostic test in a patient with low back pain without further spondyloarthropathy (SpA) signs or symptoms
ASAS Classification Criteria for Axial Spondyloarthritis (SpA)

In patients with $\geq 3$ months back pain and age at onset <45 years

**Sacroiliitis on imaging**
- plus
- $\geq 1$ SpA feature

**OR**

**HLA-B27**
- plus
- $\geq 2$ other SpA features

*Sacroiliitis on imaging*
- active (acute) inflammation on MRI highly suggestive of sacroiliitis associated with SpA
- definite radiographic sacroiliitis according to mod NY criteria

*SpA features*
- inflammatory back pain
- arthritis
- enthesitis (heel)
- uveitis
- dactylitis
- psoriasis
- Crohn's/colitis
- good response to NSAIDs
- family history for SpA
- HLA-B27
- elevated CRP

$n=649$ patients with back pain;
Sensitivity: 82.9%, Specificity: 84.4%
Imaging alone: Sensitivity: 66.2%, Specificity: 97.3%

Recommendation 3

3. Don’t repeat dual energy X-ray absorptiometry (DEXA) scans more often than every 2 years.

Guidelines:
- 2010 Clinical Practice Guidelines for the diagnosis and management of osteoporosis in Canada
- 2013 international society for clinical densitometry position development conference on bone densitometry
- U.S. Preventive Services Task Force recommendation statement
BMD testing every 2 years

- Expected annual change in DEXA close to precision error of the BMD measurement
- <10% Female >67 yrs develop osteoporosis in
  - 15 yrs for normal bone density
  - 5 yrs for mild osteopenia
  - 1 yr for moderate osteopenia
- 30% BMD tests in Ontario done within 2 years
Recommendation 4

4. Don’t prescribe bisphosphonates for patients at low risk of fracture.

Guidelines:
- 2010 Clinical Practice Guidelines for the diagnosis and management of osteoporosis in Canada
- Cochrane Database Systematic Reviews
No bisphosphonates in low risk

- No evidence anti-osteoporotic therapy reduces risk of fracture in patients with low risk of fracture (<10%)
- In moderate and low risk patients (-2.5 < T-score < -1) the NNT>100

Despite this,
- 30-40% of sample of US primary care physicians report that they recommend treatment of women with mild osteopenia
- 15% of patients would accept osteoporosis treatment with a fracture risk of only 12%

Neuner JM. J Rheumatol 2013
Recommendation 5

5. Don’t perform whole body bone scans (e.g., scintigraphy) for diagnostic screening for peripheral and axial arthritis in the adults.

- Lack specificity to diagnose inflammatory polyarthritis and spondyloarthritis and have limited clinical utility.

- Useful for diagnosis of increased bone turnover, e.g. Infection, tumour, fracture, metabolic bone disease.

- The equivalent of radiation exposure of a total whole body bone scan is reported as over 40 routine chest X-rays, thus posing risk.
# CRA Survey Results of Top 5 items

<table>
<thead>
<tr>
<th></th>
<th>Content agreement, raw mean ± SD (1-5 scale)</th>
<th>Content disagreement, % who disagree</th>
<th>Impact % rating as high impact</th>
<th>Top picks % ranking as Top 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANA test</td>
<td>4.51 ± 0.89</td>
<td>6.8</td>
<td>77.1</td>
<td>84.0</td>
</tr>
<tr>
<td>HLA B27 test</td>
<td>4.55 ± 0.70</td>
<td>2.5</td>
<td>70.4</td>
<td>73.8</td>
</tr>
<tr>
<td>BMD every 2 years</td>
<td>4.46 ± 0.84</td>
<td>3.8</td>
<td>76.0</td>
<td>69.5</td>
</tr>
<tr>
<td>Bisphosphonates for low risk patients</td>
<td>4.09 ± 0.89</td>
<td>5.1</td>
<td>68.0</td>
<td>48.0</td>
</tr>
<tr>
<td>Bone scan to assess for arthritis</td>
<td>3.99 ± 1.04</td>
<td>11</td>
<td>50.0</td>
<td>43.2</td>
</tr>
</tbody>
</table>
Bone-density tests
When you need them—and when you don’t

A bone-density test is a way to measure the strength of your bones. The test, called a DEXA scan, is a kind of X-ray.

Many people get a bone-density test every few years. The main reason to have the test is to find and treat serious bone loss, called osteoporosis, and prevent fractures and disability. Most doctors recommend yearly tests for women over age 65 and for men over age 70.

Most people do not have serious bone loss.
Most people have no bone loss or have mild bone loss (called osteopenia). Their risk of breaking a bone is low so they do not need the test. They should exercise regularly and get plenty of calcium and vitamin D. This is the best way to prevent bone loss.

The bone-density scan has risks.
A bone-density test gives you a small amount of radiation, but radiation exposure can add up. The effects can add up in your body over your life, so it is best to avoid it if you can.

Who should get a bone density scan?
Women should get a DEXA scan at age 65, and men age 70 and up. They may want to talk with their doctors about the risks and benefits before deciding. Younger women and men ages 50 to 69 should consider the test if they have risk factors for serious bone loss. Risk factors include:
- Breaking a bone in a minor accident.
- Having rheumatoid arthritis.
- Having a parent who broke a hip.
- Smoking.
- Drinking heavily.
- Having a low body weight.
- Using corticosteroid drugs for three months or more.
- Having a disorder associated with osteoporosis.

You may need a follow-up bone-density test after several years, depending on the results of your first test.

If you do have bone loss, you may be offered drug treatments.
The most common drugs to treat bone loss are Fosamax (generic alendronate) and Actonel (generic risedronate). These drugs have benefits and risks to think about and discuss with your doctor. Common side effects include upset stomach, difficulty swallowing, and heartburn. Rare side effects include bone, joint and muscle pain, cracks in the thighbones, bone loss in the jaw, and heart rhythm problems. Other drugs used to treat bone loss also have risks, including blood clots, heart attacks, strokes, and serious infections.

The treatments have limited benefits in some patients. Many people are given drugs because they have mild bone loss, but there is little evidence that these drugs help them. Even if the drugs do help, they may only help for a few years, so you may want to consider them only if you have serious bone loss. Mild bone loss is better treated with exercise, vitamin D and calcium.

How can you keep your bones strong?
The following steps can help you build bone:

Exercise. The best exercise for your bones is exercise that makes your bones carry weight. When you walk, your bones carry the weight of your whole body. You can also lift weights. Aim for at least 30 minutes of weight-bearing exercise a day.

Get enough calcium and vitamin D. They help keep your bones strong.
- Aim for at least 1,200 mg of calcium a day. Eat foods high in calcium, such as dairy products, leafy green vegetables, and canned sardines and salmon. You may need a calcium pill each day.
- Consider taking vitamin D if you are a woman in menopause or you get little sun. Take 800 IU a day.

Avoid smoking and limit alcohol. Among other things, smoking and drinking alcohol can speed up bone loss.
- Try a stop-smoking program. Ask your doctor about a nicotine patch or other treatments.
- Limit yourself to one drink a day for women, and two drinks a day for men, unless you have medical reasons for lighter limits.

Try to avoid certain drugs: Some drugs can damage bones. These include proton pump inhibitors (common ones are omeprazole, lansepazole, and pantoprazole), used to treat heartburn; corticosteroids; and some of the newer antidepressants. If you take any of these drugs, ask your doctor about whether these medications are right for you.
CRA Choosing Wisely Next Steps

1. Dissemination
   - Presentation at national, provincial and regional meetings
   - CRA website, Choosing Wisely Canada website, Rheuminfo, Arthritis newsletters, Twitter
   - Publication
   - New patient material

2. Feedback and Engagement
   - Survey of CRA Membership
   - Collaborating with other societies including Arthritis Patient Alliance, Arthritis Society and Osteoporosis Canada, Family Medicine
   - Presentation at meetings

3. Evaluation and Implementation
   - Local QI projects
   - Population health research
   - Second Survey of CRA Membership

March 8, 2016

Slides made available by the Canadian Rheumatology Association Choosing Wisely Committee, property of CRA.
CRA Choosing Wisely

The Journal of Rheumatology

Choosing Wisely: The Canadian Rheumatology Association’s List of 5 Items Physicians and Patients Should Question

Shirley L. Chow, J. Carter Thorne, Mary J. Bell, Robert Ferrari, Zarnaz Bagheri, Tristan Boyd, Ann Marie Colwill, Michelle Jung, Damian Frackowiak, Glen S. Hazlewood, Bindee Kuria and Peter Tugwell, on behalf of the Canadian Rheumatology Association Wisely Committee

Decisions
A 24-year-old man with suspected sacroiliitis

Update on the CRA Choosing Wisely Campaign

By Michelle Jung, MD, FRCPC; and Shirley Chow, MD, FRCPC; on behalf of the CRA Choosing Wisely Dissemination Committee

March 8, 2016
Comments from CRA membership

April ‘14, 77% heard of Choosing Wisely, 56% heard of the CRA List

“It is easier not to order tests if one's medical organization is behind the decision”

“Just thinking about it changes culture”

“More aware of evidence and impact incl cost, on decisions re DEXA, ANA, selective use of bisphosphonates,”

“I have already incorporated this into my medical student teaching cases and lectures”

“`I don't think rheumatologists are doing these things... referring GP's (family doctors) be questioned/taught about this”
Implementing and Sustaining Change

Five tests and medications doctors should consider limiting; Choosing Wisely campaign wants doctors to consider that when it comes to certain tests, medications and procedures, less may be better

Why more medical tests and treatments aren't always better

Many tests unneeded, doctors say; Overuse offers little benefit, campaign warns

MDs target unneeded medical tests; Doctors compile questionable procedures for awareness campaign

Campaign targets unneeded tests
Goals Achieved

• Engage physicians in a meaningful discussion about high value care
  – Not prescriptive list as clinical judgment is paramount
• Relevant to current practise
• Constructed using current scientific evidence
Limitations

- No definitive data to show that these tests are currently “overused”.

- No data to show cost-effectiveness from altered practice.

- Level of evidence for some of recommendations is variable.
Conclusion

1. Rheumatologists can provide leadership in Choosing Wisely in Canada

2. We can lead in local and citywide initiatives to implement Choosing Wisely in Canada

MILLION CHALLENGE

1. Get the starter kit
2. Pick a focus
3. Register
4. Implement
5. Tell us how you did
## Acknowledgements

**Working Group**
- Dr. Mary Bell
- Jennifer Burt
- Christine Charnock
- Dr. Shirley Chow
- Dr. Gregory Choy
- Dr. Martin Cohen
- Dr. Robert Ferrari
- Dr. Natasha Gakhal
- Dr. Nadia Luca
- Dr. Dharini Mahendira
- Dr. Sylvie Ouellette
- Dr. Proton Rahman
- Dawn Richards
- Dr. Carter Thorne
- Dr. Edith Villeneuve
- Dr. Diane Wilson

**Methodology**
- Dr. Pooneh Akhavan
- Dr. Robert Ferrari
- Dr. Glen Hazelwood
- Dr. Bindee Kuriya
- Dr. Peter Tugwell

**Special Thanks**
- Dr. Jinoos Yazdany
- Dr. Wendy Levinson
- Karen McDonald
- Tai Huynh
- Virginia Hopkins
- Sharon Brinkos
- Tamara Rader
- Ekaterina Petkova
- Laura Corbett
- Corinne Holobowich
- Kellee Kaulback

**Dissemination Group**
- Dr. Arundip Asaduzzaman
- Dr. Claire Barber
- Dr. Mary Bell
- Dr. Martin Cohen
- Dr. Robert Ferrari
- Dr. Natasha Gakhal
- Dr. Michelle Jung
- Dr. Chris Penney
- Dr. Amanda Steiman
- Dr. Pascale Verret
- Dr. Edith Veilleneuve

**Fellows**
- Dr. Zarnaz Bagheri
- Dr. Ann-Marie Colwill
- Dr. Damian Frackowick
- Dr. Michelle Jung
- Dr. Tristan Boyd

---

Slides made available by the Canadian Rheumatology Association Choosing Wisely Committee, property of CRA.
(website) www.choosingwiselycanada.org

(Twitter) https://twitter.com/ChooseWiselyCA
@ChooseWiselyCA

(email) info@choosingwiselycanada.org

(you tube) http://youtu.be/FqQ-JuRDkl8
https://www.youtube.com/user/DocMikeEvans

Slides made available by the Canadian Rheumatology Association Choosing Wisely Committee, property of CRA.