

Choosing Wisely at The University of Toronto

UofT STARS 2025–26: Summary and Key Takeaways 

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Presenter's Disclosure

- **Presenter(s):** Adam Mohamed & Jashnoor Chhina
- **Relationships with financial sponsors:**
 - **Any direct financial relationships including receipt of honoraria:** SuperSTARS Award supported by the Canadian Medical Association
 - **Memberships on advisory board or speakers' bureau:** N/A
 - **Patents for drugs or devices:** N/A
 - **Other – financial relationships/investments:** N/A

Overview

Four initiatives:

1



Curriculum
Review

2



Pocket
Cards

3



Scoping
Review

4



End-of-year
Event

Overview

Our approach for today:

What exists?



What was needed?



What did we do?

1. Curriculum Review

1. Curriculum Review

What exists?

CWC integration is inconsistent → left to **individual** lecturers

A curriculum review was started, but not completed for **all pre-clerkship courses**

What was needed?

Systematic, explicit integration of CWC recommendations

Simple + standardized way to integrate recommendations for faculty

Why does this matter?

Reinforces **underlying clinical principles** & makes the reasoning more explicit

Introduces importance of referencing CWC & best practice guidelines **early in training**

1. Curriculum Review

What did we do differently?

Focused on:

Ease of integration

Focus on lectures

Not pre-recorded materials

Simplicity

Table format

Presented as report for course directors

1. Curriculum Review

1. Source

2. Screenshot of current slide (for reference)

3. Recommendation to integrate + source

4. Rationale

Unit: Endocrinology

Note: the words in the quotation marks are the explicit guideline itself. The words after are from the CWC website's rationale for the recommendation, and do not necessarily need to be integrated! We included what we thought might be relevant in case the lecturer wanted to draw on those as well.

Source	Where to Integrate Change?	Recommendation to integrate	Rationale															
Endocrine 1																		
Lecture 2: Diabetes Pharmacology	After Slide 31 (as shown): <table border="1"> <thead> <tr> <th>Drug Class</th> <th>Action</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>Biguanides (Metformin)</td> <td>Increase insulin sensitivity</td> <td>First line agent Weight neutral Cannot be used in renal failure/heart failure Low risk of hypoglycemia</td> </tr> <tr> <td>Sulfonylureas</td> <td>Stimulate insulin release from pancreas</td> <td>Causes weight gain Causes hypoglycemia</td> </tr> <tr> <td>SGLT2/SGLT2 analogues</td> <td>Increase insulin sensitivity Glucose dependent insulin release</td> <td>Weight loss Low risk of hypoglycemia</td> </tr> <tr> <td>GLP1 agonists</td> <td>Raise endogenous GLP2</td> <td>Weight neutral Low risk of hypoglycemia</td> </tr> </tbody> </table>	Drug Class	Action	Comment	Biguanides (Metformin)	Increase insulin sensitivity	First line agent Weight neutral Cannot be used in renal failure/heart failure Low risk of hypoglycemia	Sulfonylureas	Stimulate insulin release from pancreas	Causes weight gain Causes hypoglycemia	SGLT2/SGLT2 analogues	Increase insulin sensitivity Glucose dependent insulin release	Weight loss Low risk of hypoglycemia	GLP1 agonists	Raise endogenous GLP2	Weight neutral Low risk of hypoglycemia	<p>Geriatrics: "Avoid using medications known to cause hypoglycemia to achieve hemoglobin A1c <7.5% in many adults age 65 and older; moderate control is generally better." There is no evidence that using medications to achieve intense glycemic control in older adults with type 2 diabetes is beneficial (A1c under 7.0%). Among non-older adults, except for long-term reductions in myocardial infarction and mortality with metformin, using medications to achieve glycated haemoglobin levels less than 6% is associated with harms, including higher mortality rates. Reasonable glycemic targets would be 7.0 – 7.5% in healthy older adults with long life expectancy, 7.5 – 8.0% in those with moderate comorbidity and a life expectancy < 10 years, and 8.0 – 8.5% in those with multiple morbidities and shorter life expectancy.</p> <p>Source: https://choosingwiselycanada.org/recommendation/geriatrics/</p>	<p>The drug class table lists hypoglycemia as a side effect of sulfonylureas but does not contextualize this risk for older adults. Adding this recommendation here prompts students to consider which patients are most vulnerable to that harm and recognize overtreatment of older adults as an active clinical concern.</p> <p>Although it could also be integrated after Slide 43 on A1C targets, we felt this might be confusing for students given the range of targets already presented.</p>
Drug Class	Action	Comment																
Biguanides (Metformin)	Increase insulin sensitivity	First line agent Weight neutral Cannot be used in renal failure/heart failure Low risk of hypoglycemia																
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Lecture 2: Diabetes Pharmacology	Anywhere Potentially after: A1C Targets (slide 43)	<p>Endocrinology and Metabolism: "Don't recommend routine or multiple daily self-glucose monitoring in adults with stable type 2 diabetes on agents that do not cause hypoglycemia." Once target control is achieved and the results of self-monitoring become quite predictable, there is little gained in most individuals from repeatedly confirming this state. There are many exceptions, such as acute illness, when new medications are added, when weight fluctuates significantly, when A1c targets drift off course and in individuals who need monitoring to maintain targets.</p> <p>Source: https://choosingwiselycanada.org/recommendation/endocrinology-and-metabolism/</p>	<p>This recommendation fits well in the pharmacology lecture, as the need for capillary blood glucose monitoring is referenced (e.g. slide 41). Explicitly naming the guideline would clarify that routine monitoring is not required in every case, and would help learners think more clearly about when monitoring is actually useful in guiding management.</p>															
Lecture 3: Diabetes Complications	Slide 27: Many Treatment Options Exist for Neuropathic Pain <table border="1"> <thead> <tr> <th colspan="2">Treatment for Neuropathic Pain</th> </tr> </thead> <tbody> <tr> <td>First Line</td> <td>Anticonvulsants Antidepressants</td> </tr> <tr> <td>Second Line</td> <td>Opioids*</td> </tr> <tr> <td>Other</td> <td>Topical nitrate Capsaicin Transcutaneous electrical nerve stimulation</td> </tr> </tbody> </table> * Most avoid opioids due to dependency, tolerance, dose escalation and diversion	Treatment for Neuropathic Pain		First Line	Anticonvulsants Antidepressants	Second Line	Opioids*	Other	Topical nitrate Capsaicin Transcutaneous electrical nerve stimulation	<p>Neurology: "Do not choose opioids or cannabinoids as the first choice of treatment for neuropathic pain." Opioids and cannabinoids have weak or inconclusive evidence in effective treatment of neuropathic pain. Neuropathic pain can be treated effectively using agents with demonstrated efficacy and significantly less risks compared to opioids and cannabinoids.</p> <p>Source: https://choosingwiselycanada.org/recommendation/neurology</p>	<p>Aligns with the current slide, which already places opioids second-line and notes their risks. Explicit reference would encourage students to think about this principle beyond the context of just diabetes.</p>							
Treatment for Neuropathic Pain																		
First Line	Anticonvulsants Antidepressants																	
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Other	Topical nitrate Capsaicin Transcutaneous electrical nerve stimulation																	
Endocrine 2																		

2. Pocket Cards

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What exists?

- Pocket cards were started in by past by **UofT STARS**
- **Only 8** cards existed → with no system to maintain or expand them

What was needed?

Gaps that needed to be filled:

- No cards for **fourth year electives**
- No **consolidated location** for cards
- No **distribution** of cards to other Canadian medical schools
- **Limited awareness** of cards

2. Pocket Cards

What did we do?

Updated & divided pocket cards into **Electives & Core Rotations**

Name ↓

Electives

Core Rotations

Name ↓

- Urology Pocket Card
- Rheumatology Pocket Card
- Radiology Pocket Card
- Neurology/Geriatrics Pocket Card
- Endocrinology Pocket Card
- Dermatology Pocket Card
- Critical Care Pocket Card
- Cardiology & Nephrology Pocket Card

← Elective Pocket Card Examples

Doubled the amount of cards → **8 new cards added**

Created consolidated drive → added to STARS central

Started collaborations with other schools to add additional cards → to prevent card redundancy & foster shared learning!



Pocket Cards! ↑ 

2. Pocket Cards

STARS Pocket Cards
Family Medicine: Screening & Testing

Choosing Wisely Canada
STARS

Do NOT perform/initiate...	...in...
Annual physical exams	Asymptomatic adults w/o significant risk factors
Annual screening blood tests	Unless indicated by risk profile of patient
Screening chest X-rays or ECGs	Asymptomatic or low-risk outpatients
DEXA screening	Low-risk patients w/o using risk-assessment tool first (e.g. FRAX)
Thyroid screening	Asymptomatic, non-pregnant adults
HPV screening	Pts <25 or >69 years
Vitamin D testing	Low-risk adults
Imaging for low back pain	Patients without red flags
Urine Test	Older pts w/ a change in mental status unless clear evidence of infection

Family Medicine Pocket Card Example (front)

Scan to view full Family Medicine recommendations



Recommendations for Medical Students

Do NOT Order invasive test/tx before considering less invasive options. Suggest a test/tx/procedure that won't impact patients' clinical course. Suggest a test/procedure for the sole purpose of gaining personal clinical experience, or for the sole purpose of anticipating what your supervisor would want.

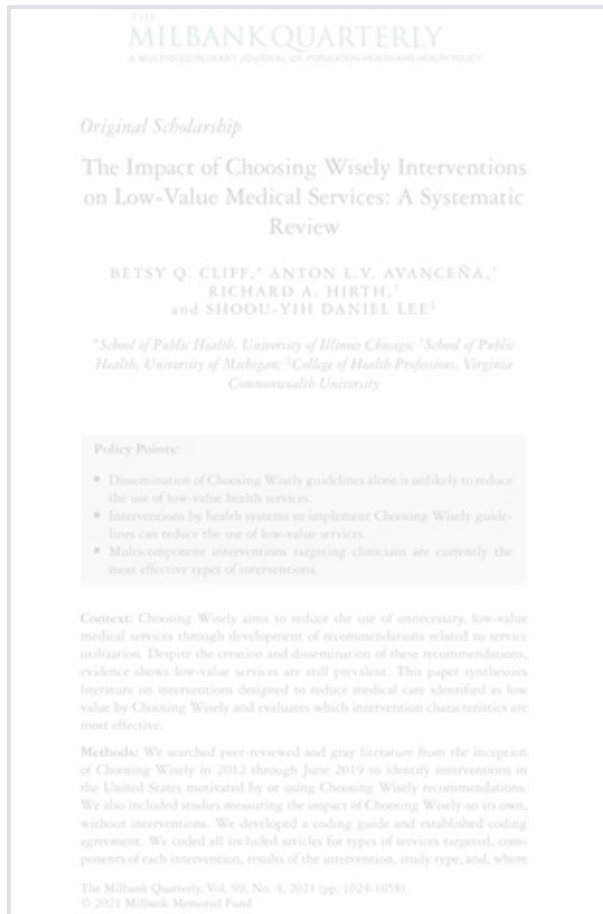
Do Initiate conversations with patients about whether a test/tx/procedure is necessary. Clarify tests/tx/procedure that you believe are unnecessary.

Family Medicine Pocket Card Example (back)

3. Scoping Review

3. Scoping Review

What exists?



What was needed?

Canada Equivalent?

Does not exist!

Literature Gap:

For CWC recommendations in Canada:

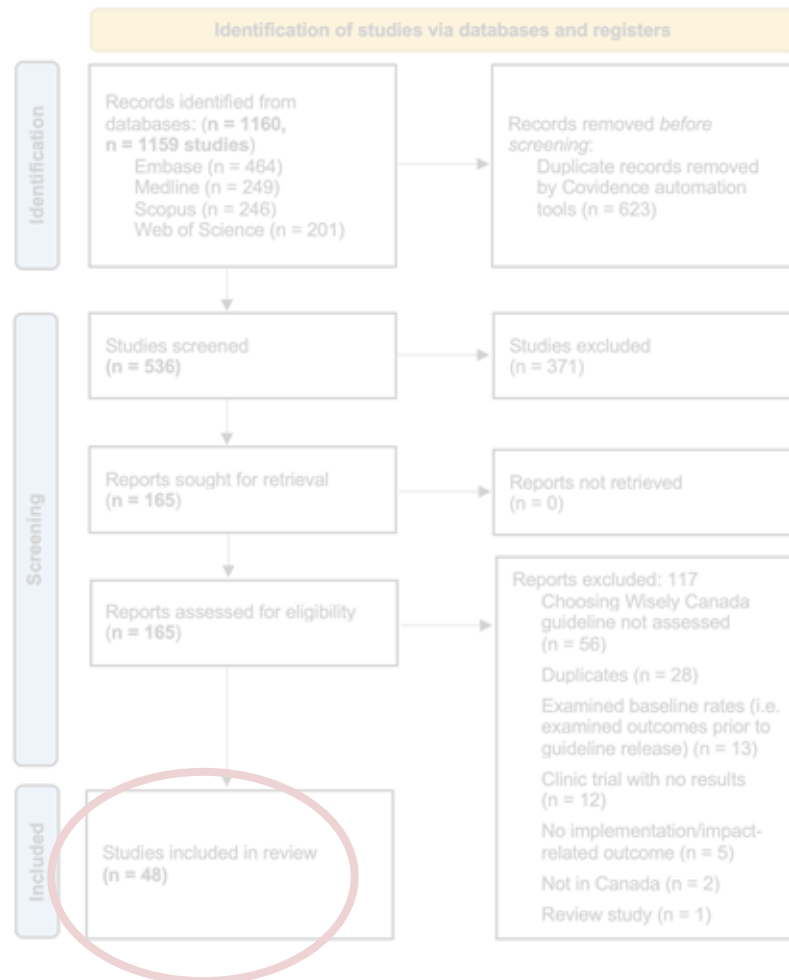
How & where are they being implemented?

What has been their impact?

What evidence gaps remain?

3. Scoping Review

What did we do?

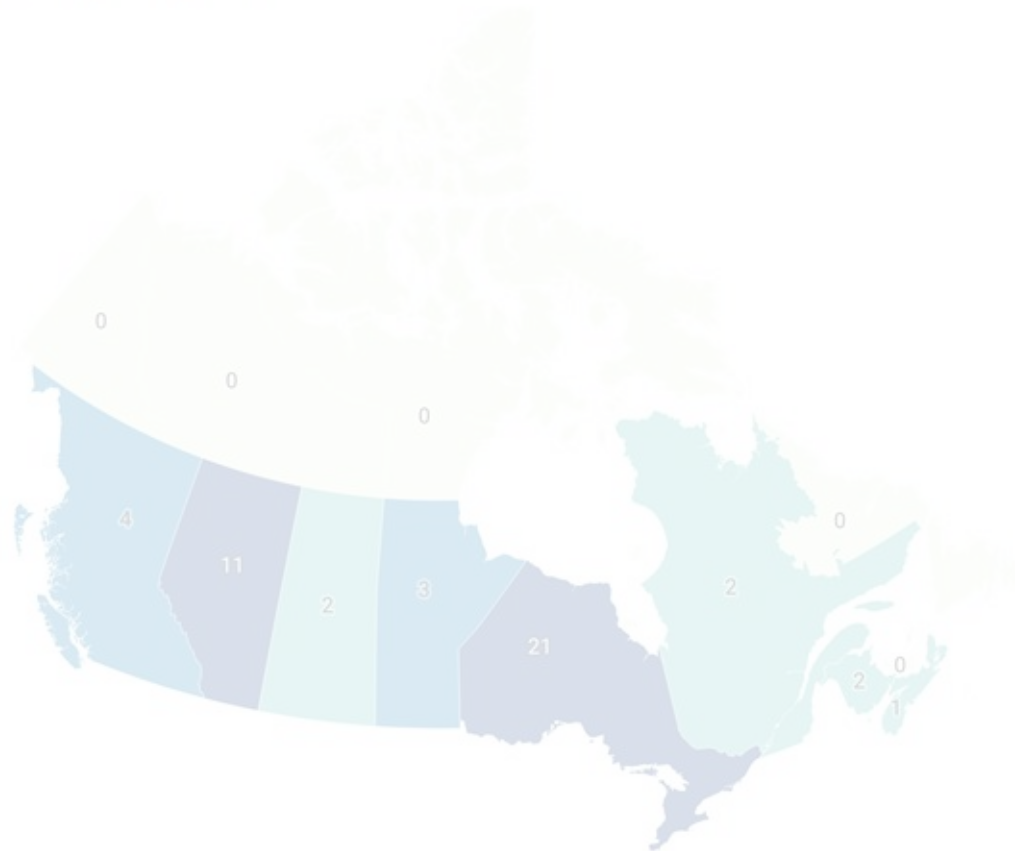


3. Scoping Review

1. Studies were concentrated in Alberta & Ontario

Number of Studies by Canadian Province and Territory

< 1 1-3 3-5 ≥ 5



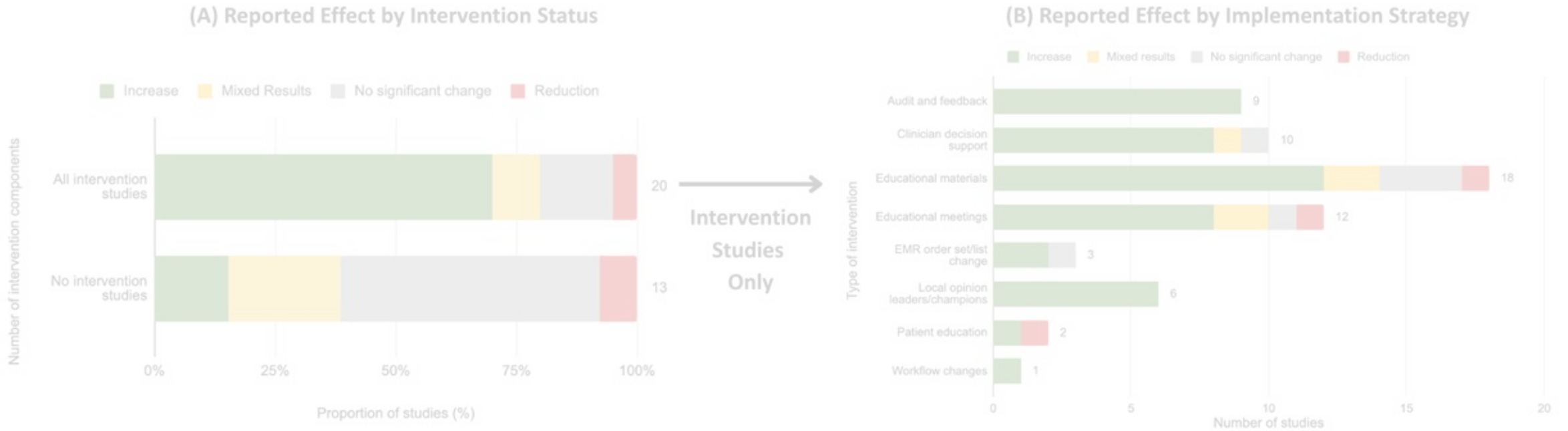
Note: 1 study had no reported location, and 1 was conducted at the national level.

2. Guideline-evidence gap

20/63
Specialties evaluated Only

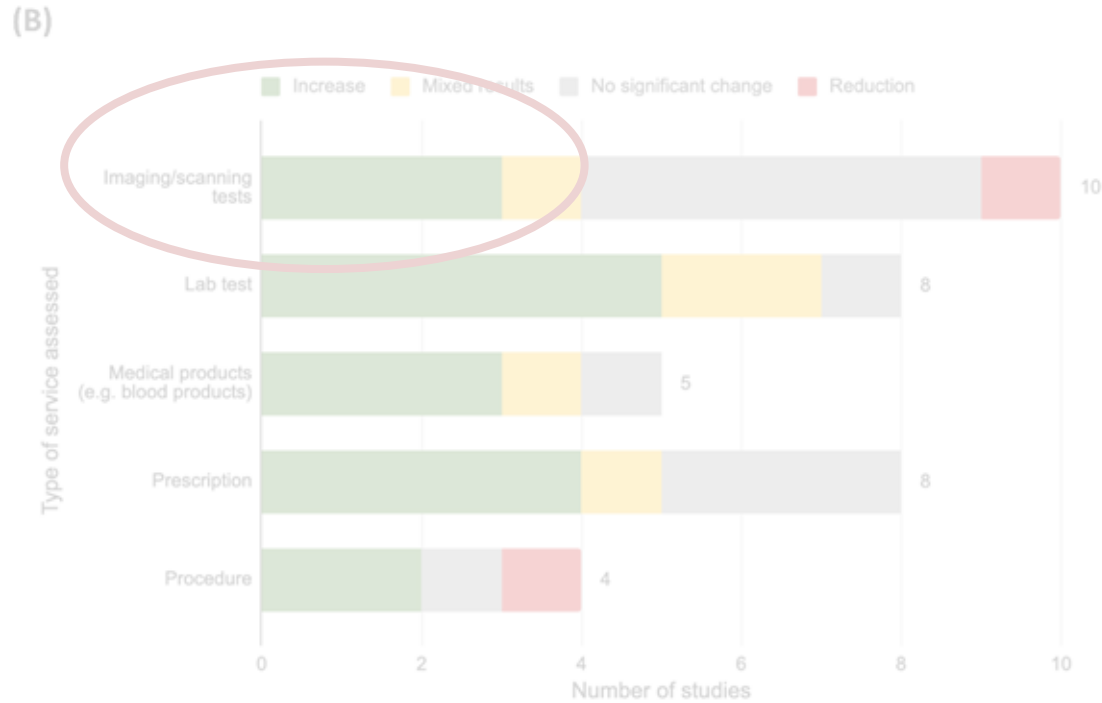
3. Scoping Review

3. Active interventions were reported as more successful at increasing guideline adherence



3. Scoping Review

4. Emergency department & imaging-focused studies had lowest adherence to CWC guidelines



4. End-of-Year Event

4. End-of-Year Event

What exists?

Nothing!

No interaction with CWC
outside of school curriculum

What was needed?

Pocket cards exist → but there is limited-to-no awareness among students

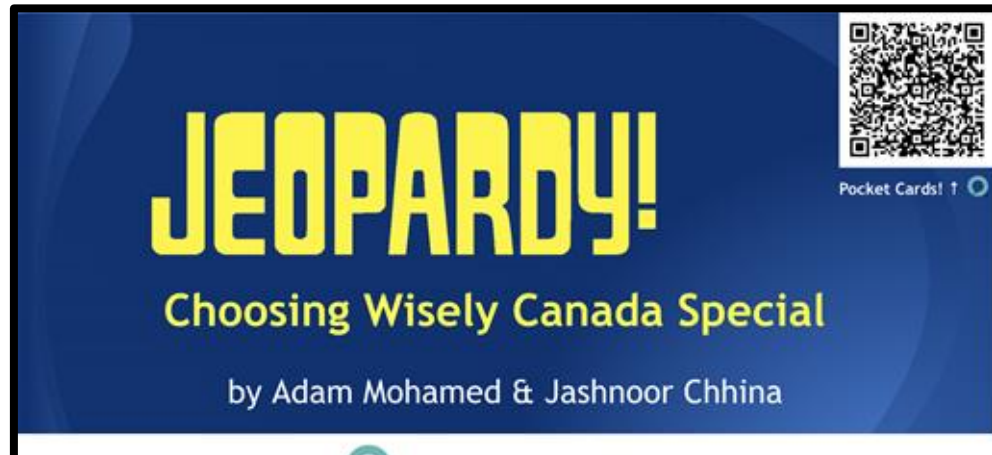
Zero exposure to CWC in context of clerkship

Case-based application of CWC principles

AWARENESS!! AWARENESS!! AWARENESS!!

4. End-of-Year Event

What did we do?



JEOPARDY BOARD					FINAL JEOPARDY
Dead People Teach the Best	Paging Psych	One More CT	Examine Thy Patient	You're on Call	So... What now?
\$100	\$100	\$100	\$100	\$100	\$100
\$200	\$200	\$200	\$200	\$200	\$200
\$300	\$300	\$300	\$300	\$300	\$300
\$400	\$400	\$400	\$400	\$400	\$400
\$500	\$500	\$500	\$500	\$500	\$500



- 60+ attendees (first cohort not pictured)
- All students downloaded pocket cards
- 2 winners of competition (gift-cards awarded)
- 2 hours of fun !!

Thank you!

Questions?

Please feel free to reach out to us at:

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adamm.mohamed@mail.utoronto.ca