Putting Physicians’ Knowledge of the Evidence to the Test:

CADTH PARTNERSHIPS WITH THE
CANADIAN MEDICAL ASSOCIATION AND THE
CANADIAN MEDICAL ASSOCIATION JOURNAL

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Disclosure

We have the following relevant financial relationship to disclose:

• Employed by CADTH
How do you reach a physician audience?
CADTH and the Canadian Medical Association (CMA)

• A **common interest** = bringing evidence-based medical information to physicians

• An **opportunity** = collaborating on an knowledge mobilization initiative.
Promoting Optimal Prescribing Using Interactive Online Modules

Optimal Prescribing

Developed by the Canadian Medical Association in collaboration with the Canadian Agency for Drugs and Technologies In Health, Optimal Prescribing consists of 12 accredited online CME modules aimed to help physicians prescribe a drug that is safe, effective and most clinically appropriate for a patient’s condition. Each of the modules meets the accreditation criteria of the College of Family Physicians of Canada (CFPC) and has been accredited by CFPC for 0.5 Mainpro credits.

Expiry date: October 7, 2015

The 12 modules include:

- Choosing the best ADHD medication for your patient
- Chlamydia screening: Improving reproductive health outcomes with a simple test
- Antiplatelets: is clopidogrel history?
- Is brand name better?
- Hip protectors: worth the hassle?
- New oral anticoagulants: optimal use in patients with atrial fibrillation
- Opioids for chronic pain
- Probiotics for gastrointestinal health
- Self-monitoring of blood glucose: how much is enough?
- What really works to quit smoking?
- Sulfonylureas: still a good choice?
- Steps to better warfarin management
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Choosing the Best ADHD Medication for Your Patient

There are several pharmaceutical options available for treating the symptoms of attention-deficit/hyperactivity disorder (ADHD): stimulants, such as amphetamines and methylphenidate; and non-stimulants, such as atomoxetine. And some of these drugs come in both long- and short-acting forms. What drugs work best to manage ADHD in children and adolescents, and in adults?
Evidence for Prescribing

For children and adolescents, stimulants are commonly used alongside psychosocial treatments to manage severe ADHD. A 2011 summary by CADTH of guidelines and recommendations on drugs for children and adolescents with ADHD concluded that the stimulants methylphenidate and amphetamines are both effective, with no difference in efficacy between short- and long-acting formulations. However, there can be other factors to consider — short-acting formulations require a dose to be taken during school hours, which might result in social stigma; and long-acting formulations are more expensive and may not be covered by insurance. Atomoxetine, a long-acting non-stimulant, was also found to be effective. But, due to the smaller effect sizes found, it is generally considered third-line treatment after methylphenidate and amphetamines have been tried. It may, however, be considered as first-line treatment for patients with certain comorbidities.

In 2011, CADTH produced a systematic review and meta-analysis of ADHD therapies in adults. The report found that amphetamines and methylphenidate, both short- and long-acting, as well as atomoxetine were effective in reducing ADHD symptoms in this population. In addition, the evidence suggests methylphenidate may have the additional benefit of improving cognitive functioning. Non-pharmaceutical options could also be considered — the report also looked at cognitive behavioural therapy, meta-cognitive therapy, and hypnotherapy, all of which were also found to be effective in reducing adult ADHD symptoms.

Learn More >> For more information about CADTH’s work on treatments for ADHD, visit http://www.cadth.ca/media/pdf/RC0290_ADHD_Children_Adolescents_overview.pdf and http://www.cadth.ca/media/pdf/htis/sept-2011/RE0026_ADHD_in%20adults_e.pdf.
The Key Message

For children and adolescents, stimulant medications are recommended as first-line pharmacological treatment for severe ADHD. Both short- and long-acting formulations are effective, so the choice depends on other factors. In adults, both stimulant and non-stimulant medications have been shown to be effective, and the stimulant methylphenidate may also improve cognitive functioning.
Optimal Prescribing is a series of 12 accredited online CME modules aimed to help physicians prescribe a drug that is safe, effective and most clinically appropriate for a patient’s condition. Each module is eligible for 0.5 Mainpro credits.
The modules brought the evidence to a physician audience.

Thousands of CMA members visited the modules, almost a thousand in the first month.

A total of 620 CMA members — Canadian physicians — had engaged in the CME activity as of the end of July 2015.
93% said the information in the modules was clinically relevant.
45% learned something new.
Achieving Impact

We achieved two levels of impact:

• Awareness-building / dissemination of knowledge; an understanding of how to apply the knowledge to practice

• Potential change to clinical practice decisions.
Why did this KM activity work?

- **Partnership**
  - similar goal,
  - an “in” to a specific target audience
- **Web-based**
  - easy access to information
  - interactive and engaging
  - built-in impact tracking
- **Incentive**
  - CME credits.
What would we do differently?

- Post content — the modules — one by one over time to maintain interest
- Engage in more promotion of the modules.
What success looks like

- Achieved impact (awareness of knowledge, influencing practice decisions)
- Learned what works
- Gained valuable feedback
- Increased awareness of CADTH.
True or False
Online Quizzes
A TOOL FOR KNOWLEDGE MOBILIZATION
RESEARCH

Deployment-related mental disorders among Canadian Forces personnel deployed in support of the mission in Afghanistan, 2001–2008
David Boulos MSc, Mark A. Zamorski MD MHSA
July 2, 2013

Canadian Forces personnel deployed in support of the mission in Afghanistan were at increased risk of later having a mental disorder such as posttraumatic stress disorder perceived to be related to the deployment. Boulos and Zamorski reviewed the medical records of 2014 personnel and linked them to information from Canadian Forces databases to identify the most common mental disorders and the associated risk factors. Determining long-term outcomes is an important next step, suggest the authors. Full article

PRACTICE

Glioblastoma in a former Chernobyl resident 24 years later
July 2, 2013

A 39-year-old man presented with a 5-month history of self-described personality changes. He was found to have an aggressive glioblastoma that did not respond to treatment. He had been living in the Chernobyl area at the time of the atomic disaster and for several years thereafter. Dmytriv and Pickett review the relation between exposure to ionizing radiation from nuclear accidents and development of malignancies in the short and long term. Full article

TRUE OR FALSE

There are now interferon-free regimens for patients with chronic hepatitis C infection

- True
- False

Vote

View Results

Check your answer

Residents prepare for switch to competency-based medical education
July 5, 2013

Beginning in 2017, residency programs in Canada will shift away from a time-based model to one that is competency based. Full article

EDITORIAL

Big alcohol catches up with adolescent girls
June 10, 2013

Alcohol is not an equal-opportunity substance when it comes to its harmful effects on young women, argues Eileen Physicians and parents

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True or False? Online quizzes are an effective, fun, interactive tool to share knowledge?

True!
TRUE OR FALSE

Oral ketorolac is more effective than other nonsteroidal anti-inflammatory drugs (NSAIDs) for dental pain.

- TRUE
- FALSE

Vote

View Results

CHECK YOUR ANSWER
TRUE OR FALSE

Oral ketorolac is more effective than other nonsteroidal anti-inflammatory drugs (NSAIDs) for dental pain.

- TRUE: 42.86%
- FALSE: 57.14%

Return To Poll
CHECK YOUR ANSWER
True or False poll no. 39

*Canadian Agency for Drugs and Technologies in Health (CADTH)*

Oral ketorolac is more effective than other nonsteroidal anti-inflammatory drugs (NSAIDs) for dental pain.

**FALSE**

A systematic review found that ketorolac's effectiveness was not significantly different from other NSAIDs for dental pain, nor for other types of nondental, noncancer pain.

Like most NSAIDs, ketorolac is often associated with gastrointestinal (GI) bleeding. Owing to a potential safety risk and uncertainty of additional benefits of ketorolac, CADTH conducted a review to compare oral ketorolac with other NSAIDs for the management of dental, nondental and noncancer pain.

The review included studies published from 2004 to 2014. Outcomes of the selected studies included clinical effectiveness (such as pain reduction or quality of life) and safety (such as cardiovascular events or GI bleeding). Based on the inclusion criteria, four randomized controlled trials were included in the review. The evidence base was limited and most of the trials were of poor quality. However, based on the available data, oral ketorolac appears to have similar profile to other NSAIDs.


**True or False archives**
RESEARCH

Effect of a provincial system of stroke care delivery on stroke care and outcomes
Moira K. Kapral MD MSc, Jiming Fang PhD, Frank L. Silver MD and colleagues
May 27, 2013

Implementation of a province-wide strategy led to an improvement in care for people with stroke. Using administrative data, Kapral and colleagues measured processes of care and health outcomes and showed an increase in care at stroke centres from 40% to 46% and a decrease in mortality from hemorrhagic stroke after 30 days, from 38% to 34%. The authors call for further development and implementation of systems for organized care. Full article

PRACTICE

Hyponatremia and polyuria in an older woman
May 27, 2013

A 77-year-old woman with critical stenosis of her left renal artery, as well as adrenal insufficiency and hypothyroidism treated with prednisone and levothyroxine, presented with malaise, vomiting and fevers. Full article

NEWS

Propecia lawsuits: the lasting effects of delayed drug warnings
May 27, 2013

Men involved in class-action lawsuits against Merck claim to have erectile dysfunction that continued after they stopped taking the hair-loss drug Propecia, but the drug company attributes these problems to pre-existing conditions and other risk factors. Full article

TRUE OR FALSE

Even if they are not using insulin, patients with type 2 diabetes mellitus should routinely self-monitor their blood glucose to improve glycemic control.

- True
- False

Vote
View Results
<table>
<thead>
<tr>
<th>Poll question</th>
<th>True responses, no. (%)</th>
<th>False responses, no. (%)</th>
<th>Total votes</th>
<th>Correct answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poll 1: The best way to manage warfarin therapy is in a specialized anticoagulation clinic</td>
<td>102 (52.85)</td>
<td>91 (47.15)</td>
<td>193</td>
<td>False</td>
</tr>
<tr>
<td>Poll 2: When metformin is not enough to control type 2 diabetes, the best drug to add is still a sulfonylurea</td>
<td>93 (47.21)</td>
<td>104 (52.79)</td>
<td>197</td>
<td>True</td>
</tr>
<tr>
<td>Poll 3: If a patient with schizophrenia responds poorly to atypical antipsychotic drugs, a higher-than-recommended dose or adding a 2nd antipsychotic drug often improves outcomes</td>
<td>45 (37.5)</td>
<td>75 (62.5)</td>
<td>120</td>
<td>False</td>
</tr>
<tr>
<td>Poll 4: Patients are more likely to adhere to treatment when less-expensive generic drugs are prescribed</td>
<td>77 (60.16)</td>
<td>51 (39.84)</td>
<td>128</td>
<td>True</td>
</tr>
<tr>
<td>Poll 5: Even if they are not using insulin, patients with type 2 diabetes mellitus should routinely self-monitor their blood glucose to improve glycemic control</td>
<td>144 (66.98)</td>
<td>71 (33.02)</td>
<td>215</td>
<td>False</td>
</tr>
<tr>
<td>Poll 6: Hip protectors can significantly reduce the rate of hip fractures in older women living in long-term care facilities</td>
<td>112 (59.57)</td>
<td>76 (40.43)</td>
<td>188</td>
<td>True</td>
</tr>
<tr>
<td>Poll 7: On average, short-acting formulations of ADHD medications are half the price of long-acting formulations</td>
<td>22 (42.31)</td>
<td>30 (57.69)</td>
<td>52</td>
<td>True</td>
</tr>
<tr>
<td>Poll 8: There are now interferon-free regimens for patients with chronic hepatitis C infection</td>
<td>103 (74.1)</td>
<td>36 (25.9)</td>
<td>139</td>
<td>False</td>
</tr>
</tbody>
</table>
On average, 117 users vote in each quiz
Myth-busting or provocative topics drew interest.

**TRUE OR FALSE**

All sexually active women less than 25 years of age should be offered chlamydia screening

- True: 77.42%
- False: 22.58%

Return To Poll

Check your answer
More technical or boring highly specific topics drew less interest.

TRUE OR FALSE

Digital sphygmomanometers are more accurate than mercury sphygmomanometers

True 22.52%
False 77.48%

Return To Poll

Check your answer
Why does this KM activity work?

• **Partnership**
  • similar goal
  • an “in” to a specific target audience

• **Web-based**
  • easy access to information
  • interactive and engaging
  • built-in impact tracking

• **Incentive**
  • Instant answer
  • Ability to compare your knowledge to that of other physicians (healthy competition!)
What have we learned?

• Physicians are interested in our research — the evidence need is there!
• Web-based tools are fun, inexpensive, and effective
• Partnering with another credible, well-respected, Canadian organization leverages resources and broadens reach
TRUE OR FALSE

Stool softeners are effective for the prevention and treatment of constipation in patients taking opiates and in residents of long-term care facilities.

○ TRUE
○ FALSE

Vote

View Results

CHECK YOUR ANSWER
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**CADTH Symposium and Events**
Updates about our flagship annual Symposium, workshops, webinars and other events.
Disclosure

• Funded by federal, provincial, and territorial ministries of health.

• Application fees for three programs:
  • CADTH Common Drug Review (CDR)
  • CADTH pan-Canadian Oncology Drug Review (pCODR)
  • CADTH Scientific Advice