



CFP MFC

CANADIAN FAMILY PHYSICIAN • LE MÉDECIN DE FAMILLE CANADIEN

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Top 10 Most Impactful Articles from 2019 Canadian Family Physician

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The College of Family Physicians of Canada

Faculty/Presenter Disclosures

- **Faculty:** Mike Allan
- **Salary:** College of Family Physicians of Canada, University of Alberta, Locum
- **Relationships with financial sponsors:**
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 - **Other:** Bedmed, INR range (publicly funded research studies)

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- **Faculty:** Nick Pimlott
- **Salary:** College of Family Physicians of Canada
- **Relationships with financial sponsors:**
 - **Grants/Research Support:** None
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 - **Other:** None

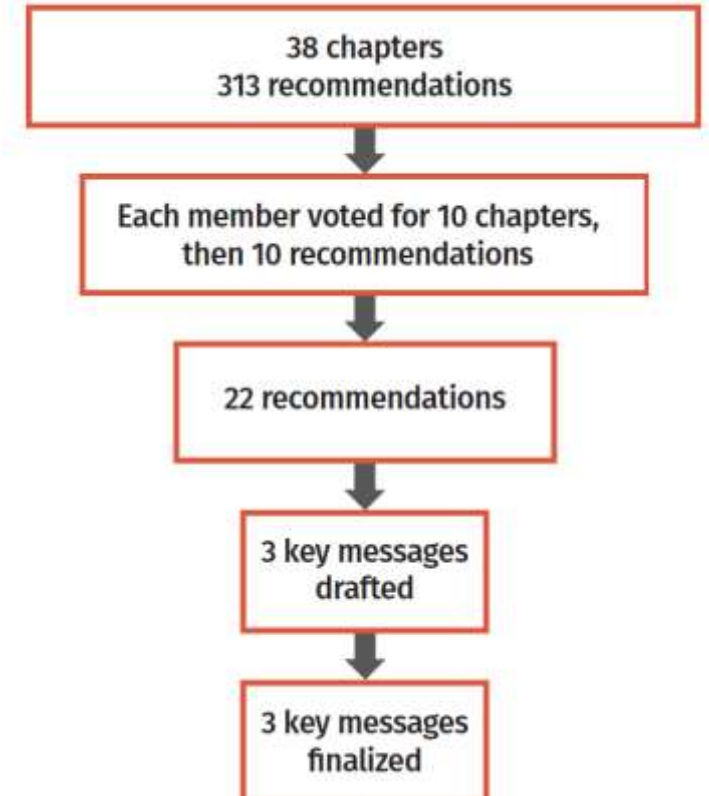
Learning Objectives

By the end of this activity, participants will be able to:

1. Identify the ten most impactful articles from Canadian Family Physician (CFP) in 2019.
2. Describe and interpret key findings in each article
3. Identify practical take-away messages that can be used in family practice.

1. Diabetes 2018 CPG: Key Messages for Family Physicians

- Dissemination & Implementation committee
 - Multi-disciplinary committee: Authors = 4 family doctors, 1 med student, 1 endocrinologist, & CDA team member
 - Take Diabetes Canada 2018 CPG with too many recommendations, & distill to key messages.
- Go through process of prioritization, ranking, then analysis of themes: Final key messages.



1. Diabetes 2018 CPG: Key Messages for Family Physicians

- *Key message 1: discuss opportunities to reduce the risk of diabetes complications.*
 - *A1c Targets, glycemic interventions (including meds – with reference to CVD Hx), Blood Pressure, lipids levels/statins, ACE/ARB, ASA, etc.*
 - *Prescribing Tool: <http://guidelines.diabetes.ca/reduce-complications/risk-assessment>*
- *Key message 2: discuss opportunities to ensure safety and prevent hypoglycemia.*
 - *Patient appropriate A1c range, hypoglycemia risk management, medication choice, driving safety, hypotension, etc.*
 - *A1c Target Tool: <http://guidelines.diabetes.ca/reduce-complications/a1ctarget>*
- *Key message 3: discuss progress on self-management goals and address barriers.*
 - *Psychology assessment and interventions, physical activity recommendations & specifics for differing patient groups, collaborative care, self-managed glycemic control, etc*
 - *Physical Activity Tool: <http://guidelines.diabetes.ca/reduce-complications/pa-tool>*

Donna brings her 2-month-old son, Thomas, in for routine visit. She is hesitant about Thomas receiving vaccines. She has heard that vaccines are associated with autism. What percentage of Canadian parents consider themselves to be "vaccine hesitant"?

10% **A**

19% **B**

24% **C**

35% **D**

2. Addressing vaccine hesitancy

- Canadian childhood immunization rate: <95% vaccine coverage, we are 28th out of 29 affluent countries (UNICEF ranking)
- Survey of Canadian parents: 3% 'vaccine refusers' but 19% are 'vaccine hesitant.' Reasons for Hesitancy
 - Lack of confidence: regarding effectiveness, safety, the system, or policy makers
 - Complacency: low risk of catching vaccine illnesses
 - Lack of convenience: availability, accessibility & the appeal of immunization services
- Where do most people get information?
 - 63% search the internet (mostly Google).
 - But they still ask the healthcare providers: >2/3 believe their doctor is the most reliable information source (compared to 27% saying the internet)

2. Addressing vaccine hesitancy

- Helpful Conversations Hints
 - Do we still need vaccines as many of the diseases are no longer here? – your child might never need the protection offered by vaccines but will need it for outbreaks still happening in Canada like measles mumps and whooping cough. Think of them like seatbelts.
 - Why is formaldehyde in vaccines? – Formaldehyde is used as a preservative. It is found naturally in foods. In fact, a pear has more formaldehyde than all childhood vaccines.
 - There are many others.
- Also, the article provides a list of helpful sites and links for clinicians & families (e.g. Canadian Pediatric Society for both)

3. Managing opioid use disorder in primary care

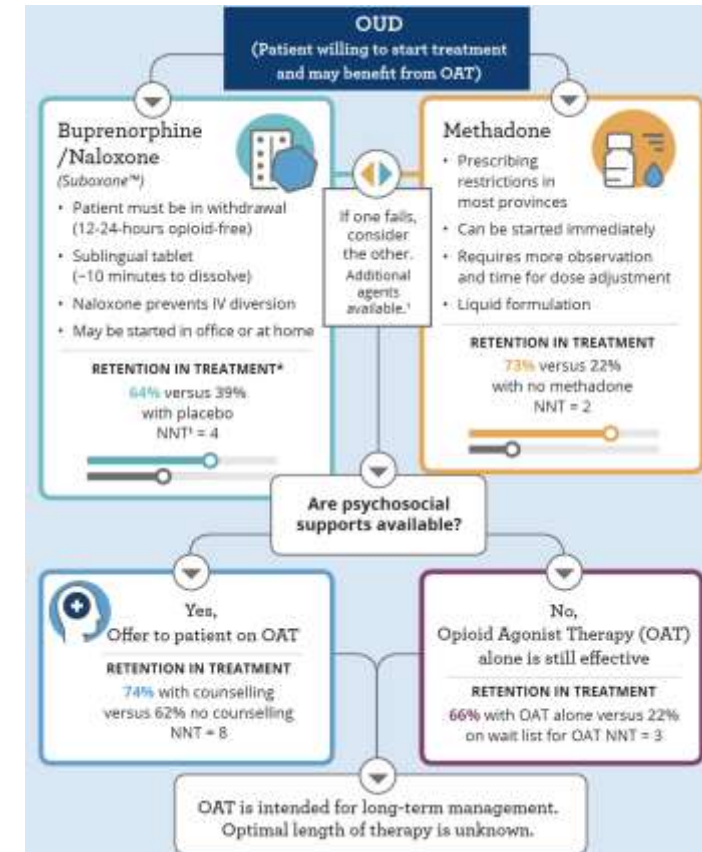
PEER simplified guideline

- 11 CPG members (6 family docs varying backgrounds, NP, psych, pharm, SW, patients).
 - Systematic review of systematic reviews addressing key CPG member questions.
- Management of OUD be performed in primary care* as part of the continuum of care for patients with OUD
- Consider using a simple tool such as the POMI if needed to identify patients with chronic pain who might have OUD
- Clinicians discuss buprenorphine-naloxone or methadone with their patients for OUD
 - Methadone may be superior for retention in treatment but buprenorphine-naloxone may be easier to implement in practice
- Recommend against cannabinoids for management of OUD
- Recommend adding counseling to pharmacotherapy where available

3. Managing opioid use disorder in primary care

PEER simplified guideline

- Consider take-home doses (ie, 2-7 d) if stable
- Consider urine drug testing as part of the management
- Consider treatment agreements for some patients
- Recommend against punitive measures in OAT (ie, dose reduction), unless for safety
- Recommend against starting OAT as short-term. OAT is long-term management





4. Truth and direct-to-consumer advertising in Canada of DUKORAL for traveler's diarrhea prevention

- Detailed accounting of the authorization and marketing story of Dukoral
 - Oral, inactivated traveler's diarrhea (enterotoxigenic Escherichia coli - ETEC) and cholera vaccine
- Why:
 - We give a lot of it: Canada has >50% of global product sales in 2016
 - It really does not work for what it is used most for: 7% risk reduction of travelers diarrhea in vaccine prototype (1991), then two RCTs with no effect.
- Background:
 - Health Canada expedited approval in 2003 for two indications – cholera and traveler's diarrhea (perhaps based on structural similarity of ETEC and cholera toxin B subunit)
 - National Drug Scheduling Advisory Committee in 2003 gave dual status- when used for cholera, a prescription is required but when used of Travelers diarrhea, no script is required.

4. Truth and direct-to-consumer advertising in Canada of DUKORAL for traveler's diarrhea prevention

- 2005 Committee to Advise on Tropical Medicine and Travel (CATMAT) CPG:
 - For Traveler's diarrhea: of "limited value and cannot be routinely recommended for the majority of travellers."
 - In Europe (manufacturing site), it is for cholera prevention only
 - Product monograph not updated to reflect guideline or other evidence.
- Direct to Consumer Advertising of drugs not permitted in Canada (but via US)
 - However, DTCA is permitted in Canada for vaccines!
- DTCA is happening, patients are using this vaccine, it does not work, has potential harms, costs and potentially takes away from effective interventions.



Several iron formulations are available to treat iron deficiency anemia. Older iron salts include ferrous gluconate/fumarate. Newer iron formulations include iron polysaccharides or heme iron. When comparing iron formulations, newer products are likely:

- A. More effective than older formulations.
- B. Less effective than older formulations.
- C. Better tolerated than older formulations.
- D. Both A and C.

5. Newer iron supplements for anemia

- Clinical question: Are newer oral iron formulations (iron polysaccharide complex or heme iron polypeptide) better than ferrous salts for iron deficiency anemia?
- Iron polysaccharide vs ferrous fumarate (both ~150 mg/d elemental iron) in 80 patients (92% female, mean 39 yrs): At 12 weeks,
 - Ferrous fumarate improved Hb levels (28.4 g/L) vs iron polysaccharide (6 g/L)
 - Ferrous fumarate also better serum ferritin levels, MCV, and transferrin saturation
 - Ferrous Fumarate had more nausea (31% vs 3%).
- Iron polysaccharide vs ferrous sulfate (both 3 mg/kg/d elemental iron) in 80 children (mean 23 months): At 12 weeks,
 - Ferrous sulfate improved Hb levels more (10 g/L).
 - Ferrous sulfate resolved anemia more often (29% vs 6%, NNT=5)
 - Ferrous sulphate had less diarrhea (35% vs 58%).

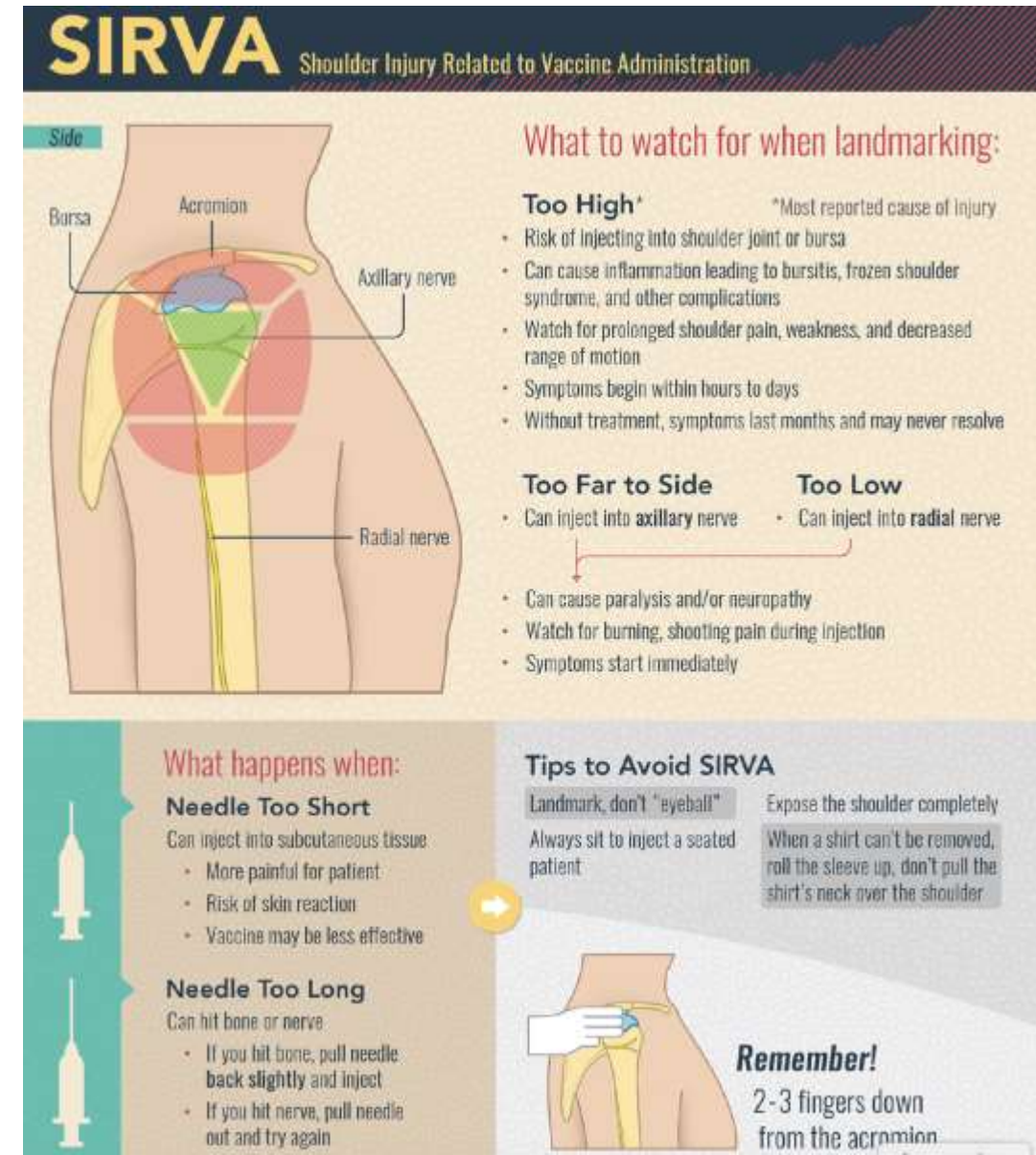
5. Newer iron supplements for anemia



- Other studies: 43 adults, 32 premature infants, 46 & 62 dialysis patients, 14 gastric bypass, 97 blood donors, 90 (-29 for placebo) pregnant patients.
 - Generally no difference: One found ferritin better with old iron & another found more constipation (35% vs 14%) with old iron.
- Lots of limits: most underpowered or short, some uncertain randomization (43 adults), per protocol analysis, etc.
- Costs (100mg elemental iron/day x 1 month):
 - ferrous fumarate or sulfate: \$5 - \$10
 - Ferrous fumarate (Palafer) \$35
 - Iron polysaccharide complexes (e.g. Feramax), \$35
- Bottom-line: Older ferrous irons are likely the same or more effective and cheaper. Adverse events are not consistently in favor of one.

6. Shoulder injury related to vaccine administration and other injection site events

- Shoulder injury related to vaccine administration (SIRVA). Inject into
 - Inject into the shoulder joint (not place of inflammation)
 - Presents similar to Rotator cuff tear, bursitis etc but within 2 days of vaccination
 - Try NAIDs or steroid shot.
 - Nerves like radial or axillary.
 - 2 or 3 finger widths down from acromion.
 - Good infographic for teaching.

Can Fam Physician. 2019 Jan; 65(1): 40–42.





Mira, a 58-year-old patient, was recently diagnosed with hypertension. You are reviewing her CV risk. She states she is taking omega-3 supplements to reduce her risk of heart disease. Which statement is most accurate with regards to omega-3s?

- A. Omega-3 supplements reduce risk of CV disease.
- B. Omega-3 supplements have no effect on risk of CV disease.
- C. Icosapent, a pharmaceutical derived from Omega-3's, reduces CVD.
- D. Both A and C.
- E. Both B and C.

7. Top studies relevant to primary care from 2018

From PEER

- ASA (100mg) in primary prevention: No or slight (1% x7 yrs) CVD prevention, offset by bleeding risk. No cancer reduction & 1 trial increased mortality.
- Diet types, regardless of genetic predisposition, have similar weight loss for obese adults at 1 year. The diet that a patient can sustain is likely more important.
- For treating bothersome vulvovaginal symptoms in menopausal women, placebo gel was similar to estradiol (10 µg) or commercial vaginal moisturizers.
- In chronic back or OA pain, nonopioid management had similar or slightly better pain control (0.5 on a 10-point scale) vs opioid management at 1 yr. Function and quality of life were not different. Opioids had more adverse effects.
- Encouraging premenopausal women with recurrent cystitis to increase daily water consumption by 1.5 L per day can help reduce cystitis episodes

7. Top studies relevant to primary care from 2018

From PEER

- Omega-3 fatty acids do not reduce CVD, cancer, or death and do not improve dry eye disease better than placebo.
- In patients with diabetes or CVD, icosapent reduced CVD NNT 21 vs placebo x5 years. Icosapent NNH 72 (vs placebo) to develop atrial fibrillation at 5 years.
- Treating pediatric fever with acetaminophen reduces recurrent seizures in that fever episodes. Unclear if prevents initial seizure or future seizures with new fever.
- Bath additives did not statistically or clinically significantly improve eczema scores. Other outcomes important to patients remained unchanged
- Recommendations for HbA1c targets vary considerably among guidelines. Recommendations for lower targets are often based on weaker evidence.

8. Approach to Ménière disease management

- Symptoms:
 - Recurrent vertigo attacks ~2-3 hrs.
 - +/-nausea, vomiting, sweating & diarrhea
 - Hearing loss generally becomes permanent over time.
- Differential Diagnosis
 - “Dizziness” – not vertigo (cardiac, etc)
 - BPPV - MD attacks last longer & are not reproduced by specific head moves
 - Vestibular Migraines – usually migraine history or other features (auras)
 - Viral Labrinthitis (& other viral) – lasts days to weeks but can also have hearing loss
 - Others include Ramsay Hunt, Acoustic Neuroma, MS, or cerebrovascular accident.

Box 1. Diagnostic criteria for Ménière disease

Definitive criteria

- Two or more spontaneous episodes of vertigo each lasting 20 minutes to 12 hours
- Documented sensorineural hearing loss greater than 30 dB below and above 2 kHz
- Fluctuating aural symptoms (hearing, tinnitus, and fullness) in the affected ear
- Not better accounted for by another vestibular disease

Probable criteria

- Two or more episodes of vertigo or dizziness each lasting 20 minutes to 12 hours
- Fluctuating aural symptoms in the affected ear
- Not better accounted for by another vestibular disease

8. Approach to Ménière disease management

- Physical: orthostatic vitals, HINTS exam (central vs peripheral), focused neuro (cerebellar/cranial), TM & pinna, Dix-Hallpike, Rinne/Webber
- Investigations: Few labs (?TSH, etc), Audiogram, consider MRI (neuroma, MS, etc).
 - Videonystagmography by ENT
- Treatment: Refer to ENT
 - Conservative Tx: Counselling for reduce stress, reduce caffeine and Etoh, Reduce sodium to $\leq 2300\text{mg}$
 - Medications: Betahistine regularly to prevent, Diuretics (HCTZ & triamterene) may reduce hearing loss, then others less so (prednisone for flares, Benzo for vestibular symptoms).
 - ENT might offer intratympanic steroid injection, ablative therapies, endolymphatic shunt (iffy, only severe).
 - Driving – Most can continue to drive except those with sudden drop attacks (can go back 6 months after resolved)

Travellers' Diarrhea

Sudden onset of loose or liquid stools (💩) while travelling. Symptoms can include cramps, urgent loose stools, stomach pain, fever, vomiting, and bloody diarrhea. Usually lasts 2 to 4 days.

1 Before the trip: Identify risk of destination

- High Risk**
- Asia
 - The Middle East
 - Africa
 - Central and South America

- Intermediate Risk**
- Eastern Europe
 - South Africa
 - Mexico
 - Caribbean Islands

- Low Risk**
- United States
 - Australia
 - New Zealand
 - Japan
 - Northern and Western Europe

Travellers should bring:

Oral Rehydration Solution
(e.g., *Gastrolyte*®)

- Replaces water and salts that are lost through diarrhea
- Especially important for kids
- Helps you to feel better, faster

Loperamide
(e.g., *Imodium*®)

- Slows the movement of diarrhea through the gut
- Takes 1 - 2 hours to take effect

Antibiotic

- Kills the bacteria that cause travellers' diarrhea
- Azithromycin is preferred
- Ciprofloxacin/levofloxacin are options, but have high rates of resistance in SE Asia
- Can be given as a single day or 3 day prescription
- Takes 12 - 36 hours to take effect



9. Traveler's diarrhea

Two-page infographic with all you need to know

9. Traveler's diarrhea



Wash hands often with either soap or hand sanitizer



Only eat fully cooked foods that are still hot



Use bottled water for drinking and brushing teeth



Avoid ice cubes, salads, and uncooked veggies



Eat fruits that can be peeled and peel your own fruit



Optional: Bismuth subsalicylate 4 times a day while travelling

MA

Patients should begin self-treatment according to severity:

	<i>How bad?</i>	<i>What to do?</i>
<i>Mild</i>	Diarrhea does not interfere with daily plans	May use loperamide or bismuth subsalicylate
<i>Moderate</i>	Diarrhea is tolerable but interferes with daily plans	May use loperamide and/or antibiotic
<i>Severe</i>	Diarrhea prevents all planned activities	May use loperamide, <u>should</u> use antibiotic
<i>Dysentery</i>	Diarrhea is mixed with blood (<i>not just blood on the toilet paper</i>)	DO NOT use loperamide, <u>should</u> use antibiotic



Bloody diarrhea is called dysentery



Use oral rehydration solution for all types of diarrhea



Seek medical attention if diarrhea not improving in 24 - 36 hours

10. Managing a patient with a sport-related concussion

- Initial assessment with SCAT5 (Sports Concussion Assessment Tool 5)
 - Dx of Concussion by excluding traumatic brain injury, cervical injury, migraine.
 - LoC, Amnesia or Altered Glasgow Coma Scale not required for Dx.
 - Document nature and severity of Symptoms,
 - After Dx: Advise stop at risk activities, initial rest, gradual return to cognitive & physical
- Return to play:

Slower is safer with

- If <18 (esp with comorbidity like migraine, ADD, and past concussion.
- If past concussion: short interval between, increased recovery time, lower injury threshold

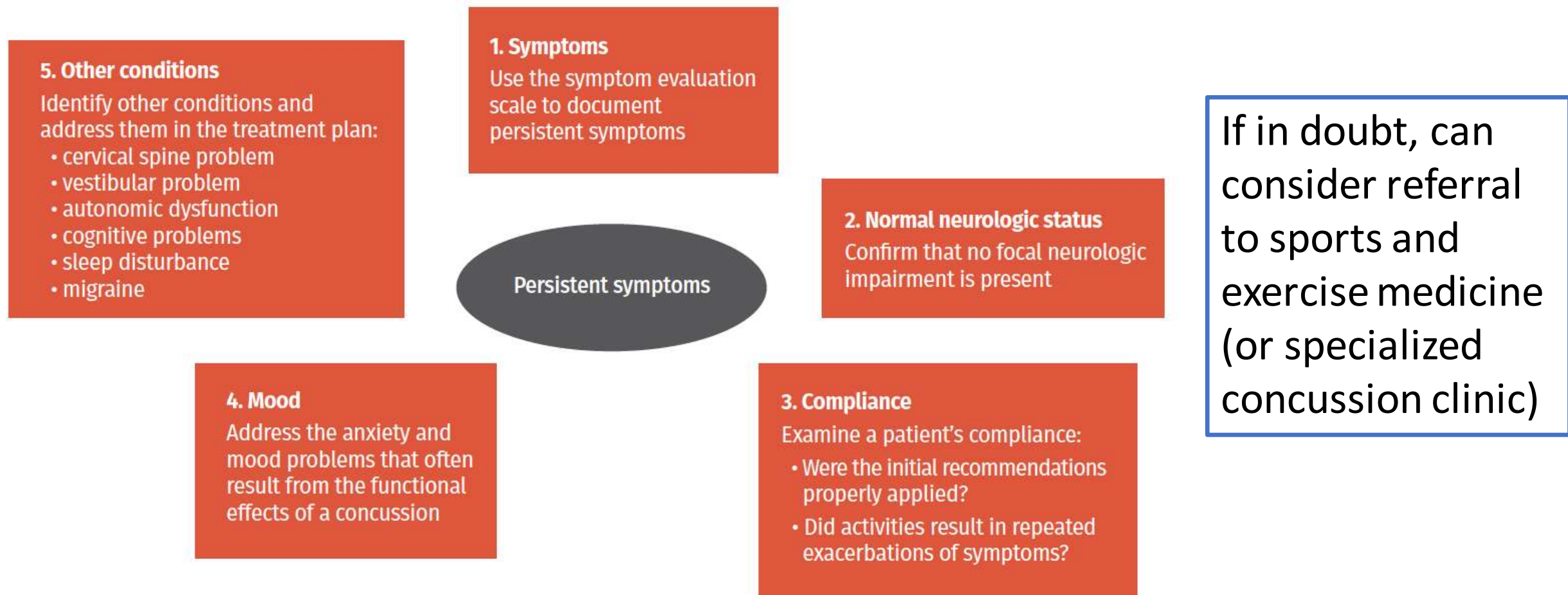
Box 1. Considerations for an RTP recommendation

To make an RTP recommendation, determine the following:

- Have all the symptoms that suggested the presence of a concussion resolved?
- Was a complete and unrestricted return to normal cognitive activity achieved without symptoms?
- Were vigorous endurance and resistance physical activities performed without symptoms?
- Did the clinical examination findings confirm a normal cervical spine and neurologic status?
- Is there a health condition, a previous concussion, or a context that could justify an additional delay?

10. Managing a patient with a sport-related concussion

Persistent Symptoms: Lasting >2 wks in Adults & >4 wks children or adolescents



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 - September 29th: Demystifying Breast Cancer with Dr. Anna Wilkinson
 - October 6th: Emerging issues during the COVID-19 Pandemic
 - October 27th: Demystifying Breast Cancer (French) with Dr. Gen Chaput



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