# Optimizing pediatric clinical care and advocacy in an online era

Report of the Canadian Paediatric Society Infectious Diseases and Immunization Committee

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# **EDITOR'S KEY POINTS**

- As a primary care provider, it is difficult to keep up to date with practice points and guidelines. There are many competing guidelines, statements, and practice points in evolution or recently released. Many updates no longer even come across our desks in a written format. Being aware of reliable information sources is important for keeping up to date. Knowing how our sources are thinking about issues as they evolve and what is in the pipeline is also key to our work as advocates for our patients.
- This report highlights the work of one excellent source of reliable information in pediatric infectious disease and immunization, the Canadian Paediatric Society Infectious Diseases and Immunization Committee (CPS IDIC).
- On its website, the CPS IDIC provides various statements, tools, and resources, and it is committed to keeping this material up to date. This information is needed by all FPs who care for children, and the CPS IDIC website and other links presented here are among the most important resources that keep FPs "evergreen" and up to date on important pediatric infectious disease and immunization topics..

# POINTS DE REPÈRE DU RÉDACTEUR

- En tant que médecin de soins primaires, il est difficile de se tenir à jour concernant les points de pratique et les lignes directrices. Il existe de nombreux guides de pratique, énoncés et points de pratique en concurrence et en constante évolution ou récemment publiés. Nous ne recevons même plus sous forme imprimée de nombreuses mises à jour. Il importe de se tenir au courant des sources d'information fiables pour être à jour. Il importe aussi de savoir ce que nos sources pensent au sujet des enjeux à mesure qu'ils évoluent et ce qui se prépare pour être en mesure de défendre les intérêts de nos patients.
- Ce rapport met en évidence le travail d'une excellente source d'information fiable sur les maladies infectieuses pédiatriques et l'immunisation, soit le Comité des maladies infectieuses et d'immunisation de la Société canadienne de pédiatrie (CMII SCP).
- Sur son site web, le CMII SCP présente divers énoncés, outils et ressources, et s'est engagé à tenir ce matériel à jour. Tous les médecins de famille qui soignent des enfants ont besoin de ces renseignements, et le site web du CMII SCP et d'autres liens fournis ici comptent parmi les plus importantes sources d'information qui maintiennent les connaissances des médecins de famille à la fine pointe du savoir et à jour sur d'importantes questions liées aux maladies infectieuses pédiatriques et à l'immunisation.

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# **Abstract**

Objective To help busy FPs find useful current information and keep up to date on pediatric infectious disease and immunization topics by highlighting the work of one excellent source of reliable information in this area, the Canadian Paediatric Society Infectious Diseases and Immunization Committee.

# Composition of the committee

Committee members were appointed to represent the Canadian Paediatric Society, the College of Family Physicians of Canada, the Public Health Agency of Canada, the American Academy of Pediatrics, and the National Advisory Committee on Immunization

Methods This article highlights important pediatric practice points generated by the Canadian Paediatric Society Infectious Diseases and Immunization Committee at a typical meeting in January 2013 from the perspective of an FP liaison. It also describes the committee's work methods and its background thinking related to the most current and changing issues.

**Report** Learn specific online links to updated pediatric infectious disease topics from the detailed content of this report. Topics include caring for kids new to Canada, vaccine-hesitant parents, influenza, human papillomavirus, pertussis, sexually transmitted infections, multidrug-resistant bacteria, and advocacy, among others.

Conclusion Learn where to find this new and continuously changing information and how to stay evergreen in your knowledge.

# Optimiser et promouvoir les soins cliniques pédiatriques à l'ère de l'électronique

Rapport du Comité des maladies infectieuses et d'immunisation de la Société canadienne de pédiatrie

# Résumé

Objectif Aider les médecins de famille surchargés à trouver d'utiles renseignements récents et à se tenir à jour concernant les maladies infectieuses pédiatriques et l'immunisation, en mettant en évidence les travaux d'une excellente source d'information fiable à ce sujet, soit le Comité des maladies infectieuses et d'immunisation de la Société canadienne de pédiatrie.

Composition du comité Les membres du Comité ont été désignés pour représenter la Société canadienne de pédiatrie, le Collège des médecins de famille du Canada, l'Agence de la santé publique du Canada, l'American Academy of Pediatrics et le Comité consultatif national de l'immunisation

**Méthode** Cet article met l'emphase sur d'importants points de pratique pédiatrique produits par le Comité des maladies infectieuses et d'immunisation lors d'une rencontre typique, en janvier 2013, selon la perspective d'un médecin de famille servant d'agent de liaison. Il décrit aussi les méthodes de travail du Comité ainsi que ses réflexions sous-jacentes concernant les problèmes les plus courants en évolution.

**Rapport** Connaître des hyperliens précis vers des sujets mis à jour sur les maladies infectieuses pédiatriques grâce au contenu détaillé du rapport. Parmi ces sujets figurent les soins aux enfants nouvellement arrivés au Canada, les parents qui hésitent à faire vacciner leurs enfants, la grippe, le virus du papillome humain, la coqueluche, les infections transmises sexuellement, les bactéries résistantes à de multiples médicaments et la promotion de la santé, pour n'en nommer que quelques-uns.

Conclusion Il est possible d'apprendre où trouver cette nouvelle information en constante évolution et comment maintenir ses connaissances à la fine pointe du savoir.

s a primary care FP, I find it difficult to keep up to date with practice points and guidelines that inform my work and teaching. There are so many competing guidelines, statements, and practice points evolving or recently released that what is true today might not be true tomorrow. Many updates will no longer be received in a written format. We might not even know what we do not know! Online sources need to keep us up to date, otherwise we can easily be lost in the flood of information. Being aware of reliable information sources is important for keeping up to date. Knowing how our sources are thinking about issues as they evolve and what is in the pipeline is also key to our work as advocates for our patients. This article describes recent updates on pediatric infectious disease and immunization topics (position statements, practice points, tools for parents) highlighted by the Canadian Paediatric Society Infectious Diseases and Immunization Committee (CPS IDIC). This article aims to help the busy FP find useful updated information in this area. Completed CPS IDIC statements are freely available on the CPS website: www.cps.ca/en/ documents/authors-auteurs/infectious-diseasesand-immunization-committee.

# Composition of the committee

My role on this committee was to act as liaison for the College of Family Physicians of Canada (CFPC) to the CPS IDIC. I am in a unique position of non-expert, having my feet on the clinical practice ground and ears at the CFPC Joint Action Committee on Child and Adolescent Health (JACCAH). My task was to communicate in 2 directions. The other members of this committee are listed in the Acknowledgment section. Committee members are appointed to represent the CPS, the CFPC, the Public Health Agency of Canada (PHAC), the Committee to Advise on Tropical Medicine and Travel, the American Academy of Pediatrics (AAP), and the National Advisory Committee on Immunization (NACI). Committee members volunteer their time to develop position papers, provide expert advice, and make recommendations to the board of directors on issues related to their areas of expertise. Members are appointed for a fixed term from nominations made to the Board of Directors of the CPS, and attempts to include specific expertise, as well as regional representation, are made. Committee members do not receive any financial compensation for writing or reviewing position statements. Authors and reviewers are asked to disclose conflicts of interest. To learn more, go to www.cps.ca/ documents/about-position-statements.

# Methods

Although the CPS IDIC is continuously updating its practice points and position statements, the sheer number of documents involved makes it a challenge to keep all

online papers updated. The group discusses which documents can stand as they are despite older references, and which need to be removed from the website to be retired or revised. A concerted effort is made to keep the site evergreen, a new term I learned to describe perpetual online updating. New updates in progress are under revision for many months before being ready to post. The group struggles with the best ways to cooperatively revise documents. Although the CPS provides an online site where each committee member can make changes on the same document, the inability to track changes limits its usefulness. Therefore, e-mail exchanges prevail and multiple documents are circulating that have to be collated by the principal author—a time- and labourintensive task. New evidence on the topic is systematically sought and discussed. Expert partners, other CPS committees, and ultimately the CPS Board of Directors are consulted, and new practice points and statements that appear online are in depth and have been well vetted. These are reliable resources to use for teaching and practice. While statements from NACI and from the AAP, including the AAP *Red Book*, 1 are also valuable sources of information, this CPS committee attempts to write concise guidelines that cover practical child health points relevant for implementation within Canada. Web links from these other agencies are included in this report where relevant.

This report highlights key topics relevant to family practice from a typical meeting of the CPS IDIC in January 2013. Meetings are held twice a year.

Caring for kids new to Canada. This important online Web tool gives practitioners the latest and continuously updated guidance on treating new Canadians. This includes chapters on cultural competence, mental health, hereditary illnesses, infectious diseases, and more. Go to www.cps.ca/en/curriculum/childrenand-youth-new-to-canada.

Immunization updates and help with vaccinehesitant parents. These CPS documents are invaluable for keeping us aware of the latest vaccination recommendations on all childhood vaccines, as well as useful documents and tools to help us cope with vaccinehesitant parents. The Canadian Immunization Guide from the PHAC summarizes all NACI recommendations.2 It is a good example of an evergreen project: the 2006 hard copy has been replaced with an online version and a commitment to perpetual online updating. We need to learn to rely on this online resource to guide us on immunization. While the CFPC website's immunization page,3 last updated in 2013, has intact links to these same key organizations, the source documents

are from NACI and the CPS. The CPS documents located mostly at the well populated Focus Issues immunization page (www.cps.ca/issues-questions/immunization) help you with tools for teaching and for dispelling vaccine myths in various formats. There is a link to Your Child's Best Shot,<sup>4</sup> a reference book for parents, and First *Shots, Best Shot*,<sup>5</sup> a slide kit for community presentations. Among the available tools are links to a question-andanswer document<sup>6</sup> and a specific article explaining the background to the Lancet article that linked the measlesmumps-rubella vaccine with autism, and the subsequent retraction that was the nidus for the controversy.7 Key position statements and practice points also discuss new and emerging individual vaccines and schedule changes as epidemiologic and supply issues evolve. A group B meningococcal vaccine update was recently posted, for example.8 Focus Issues on other topics are useful collations of resources. Every clinician needs these. Links to some useful resources are provided in **Box 1**.

Flu 2014. This annual update gives key information for strain-specific flu epidemiology and related vaccine recommendations for children. Many American jurisdictions now require mandatory flu vaccination of health care workers, a very controversial topic here in Canada. Guidelines for the use of antiviral drugs for children are available online through the Association of Medical Microbiology and Infectious Diseases, as well as from the CPS through the links in Box 2. Watch for the 2015 update in the fall.

Human papillomavirus vaccine recommendations for boys and girls. Although NACI recommends that all

# Box 1. Useful immunization resources for FPs

**CPS** 

- Working with vaccine-hesitant parents: www.cps.ca/ documents/position/working-with-vaccine-hesitant-
- Immunization: www.cps.ca/en/issues-questions/ immunization

NACI

- About NACI:
- www.phac-aspc.gc.ca/naci-ccni/index-eng.php
- Parent tools:
  - www.phac-aspc.qc.ca/im/iyc-vve/index-eng.php
- Immunization schedules by province and territory: www.phac-aspc.gc.ca/im/ptimprog-progimpt/ table-1-eng.php
- IMPACT newsletter: www.cps.ca/en/impact

CPS-Canadian Paediatric Society, IMPACT-Immunization Monitoring Program ACTive, NACI-National Advisory Committee on Immunization.

girls and boys between 9 and 26 years of age should receive the human papillomavirus vaccine, programs for boys are yet to be funded in any province or territory. A CPS statement on this topic is anticipated, with the intention of helping advocacy. The NACI update is also a useful resource.9

Pertussis. Watch for upcoming changes related to pertussis vaccination in the face of the changing epidemiology of pertussis. It is disappointing that acellular vaccines do not appear to confer immunity for life. Pending more safety and efficacy data, the CPS does not yet concur with the AAP recommendation for a dose of tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine with each pregnancy. While NACI does not recommend a universal program for vaccination of pregnant women given the current epidemiology in Canada, they do recommend vaccination in certain risk situations and also recommend vaccination at 26 weeks or later if a woman has not been vaccinated as an adult 10

Circumcision of male neonates. An update to the CPS position on circumcision is under way. This timely CPS update will bring out interesting debate and controversy. The AAP has relaxed their previous anticircumcision recommendation because of evidence of the protective effects of circumcision on the transmission of HIV and other sexually transmitted infections (STIs), in addition to the previously recognized benefits for prevention of urinary tract infections (UTIs) and penile cancer.11 The new CPS statement will update your understanding of high-risk groups, and the context of cultural, religious,

# Box 2. Influenza vaccine and antiviral drug recommendations

- Influenza vaccine recommendations for children and youth for the 2013 and 2014 season: www.cps.ca/ documents/position/influenza-vaccinerecommendations-2013-2014
- Use of antiviral drugs for influenza: www.cps.ca/ documents/position/use-of-antiviral-drugs-forinfluenza-paediatric-summary-2012-2013

• Statement on seasonal influenza vaccine for 2013 to 2014: www.phac-aspc.gc.ca/publicat/ccdr-rmtc/ 13vol39/acs-dcc-4/index-eng.php

# **AMMI**

• Use of antiviral drugs for influenza, 2012 to 2013: www.ammi.ca/guidelines

AMMI-Association of Medical Microbiology and Infectious Diseases, CPS-Canadian Paediatric Society, NACI-National Advisory Committee on Immunization.

training, and infectious disease issues. Who should pay for this procedure? How well are we training our new practitioners to do it? How well will we do at distributing this skill across the country? These remain unanswered questions.

Prevention of ophthalmia neonatorum. Interesting debate occurs when we learn that routine erythromycin prophylaxis is likely not useful for the prevention of ophthalmia neonatorum, given mounting gonococcal resistance. Routine prophylactic drops might soon not make sense. We will need agile enough systems for quick and appropriate response when babies with or without prophylaxis subsequently present with symptoms.

Diagnosis and management of acute febrile UTI in infants and children. Infants 2 to 24 months with high fever and no obvious source of infection commonly have UTI. Specimen collection in this context should ideally be by suprapubic or catheter sample to avoid inaccurate results and misdiagnosis. This highlights the challenge of office-based practice. This anticipated update will discuss diagnosis, treatment, and imaging.

Head lice. Believe it or not, the CPS document on head lice is its most frequently downloaded one. Look to this update for new information on current products and treatments. Go to www.cps.ca/en/documents/ position/head-lice.

Sexually transmitted infections in adolescents. Clinicians should be aware of the need to avoid missed opportunities to identify STIs and to provide screening and education. The new Papanicolaou guidelines steer us away from pelvic examinations in this age group. We must therefore rethink our cues to screen and find alternative opportunities to provide education around these infections. This upcoming document makes us aware of the limitations of the various STI screening tests, and the growing problem of multiresistant gonorrhea that might soon preclude treatment with an oral agent. A CPS update on STIs in adolescents is anticipated. Adolescent health practice points and position statements are available at www.cps.ca/documents/ authors-auteurs/adolescent-health-committee.

Multidrug-resistant bacteria. Discussions about if or how to best treat UTIs, group A streptococcal infections, acute otitis media (AOM), eye infections, STIs, or even head lice automatically lead to important discussions that remind us of how primary care providers play a role in the ongoing development of resistant pathogens. As the stewards of antibiotic prescribing and a potential cause of antibiotic resistance, primary care providers have an obligation to learn about what

we can do to curb multidrug resistance. Information on the use of antimicrobial products in the home is available at www.cps.ca/en/documents/position/ antimicrobial-products-in-the-home.

Infection control in the office. All primary care providers need to remember to review this document, which remains as relevant today as it was when written in 2008—if not more so in the face of multidrug resistance and recent Clostridium difficile outbreaks. Go to www. cps.ca/en/documents/position/Infection-controlin-paediatric-office. This document was reaffirmed in January 2013.

Management of AOM. This 2009 document still stands and reminds us to hesitate before prescribing antibiotics for AOM in certain well-defined groups of children. When the decision is made to go ahead with treatment, remember to use high-dose amoxicillin at 75 to 90 mg/kg per day divided into twice-daily doses. For second-line choices and options for nonresponders or frequent recurrent infection, consult the CPS position statement at www.cps.ca/ en/documents/position/acute-otitis-media.

West Nile, Lyme disease, and dengue fever. Review these individual upcoming documents for a reminder on how to prevent arthropod-borne infection in general, or how to diagnose with appropriate tests and effectively treat these climate change-related illnesses. Look forward to updates and patient tools to come. In particular, when it comes to Lyme disease, the CPS promises to help us decide which patients to test and which test is best. Some current resources are available in **Box 3**.

Advocacy. The CPS 2012 status report on the performance of the federal, provincial, and territorial governments on policies vital to child health Are We Doing Enough? is available at www.cps.ca/advocacy/ StatusReport2012.pdf. As one example of how this type of report helps advocacy, the 2012 status report compared publicly funded vaccines available in each province and territory. This awareness can be used for local or provincial advocacy by raising awareness of regional differences and stimulating lobbying to improve this and various other aspects of child health policy provincially. Coverage of CPS- and NACI-recommended vaccines is not yet universal across the country. Not all provinces or territories offer all vaccines, and not all are administering these vaccines according to the schedule recommended. Harmonization of immunization schedules across the country has not been achieved.

A representative to the CPS IDIC from the PHAC discussed the serious issue of both drug and vaccine supply chain problems in Canada and how to correct them for the future. The choice of products and our procurement

methods need revision. The PHAC is currently looking at effective ways to create "common guidance" for all provinces and territories for vaccinating children across the country. A harmonized schedule would go a long way to helping children in Canada, but the representative thought that such harmonization was unlikely to come about in the near future.

Registries that allow clinicians to find immunization records online might soon become a reality in some provinces, which would be helpful to FPs caring for children who move provinces, but unfortunately a national registry is not yet on the horizon. As individual FPs we can keep this issue of national common guidance alive with our own provincial policy contacts and within the CFPC. The CPS has been a strong advocate for this with its call to action: www.cps.ca/en/documents/ position/harmonized-immunization-schedule-Canada.

# Conclusion

As FPs we need to keep abreast of an incredible amount of new information in the area of pediatrics. Our connection to the CFPC should work to make that easier. To understand what the CFPC has endorsed jointly with the CPS and other important advisory bodies with regards to infectious disease and immunization, among other things, or to request a topic needing endorsement, go to www.cfpc.ca/CFPCPolicyPapersandEndorsements. The CFPC JACCAH was established in 1997. As of 2011, the CFPC has established the Child and Adolescent Health Program Committee, which encompasses the JACCAH and the group of FPs with special interests or focused practices in pediatrics. Through this new committee, the CFPC is hoping to improve communication with members and is currently creating a portal that contains links to important pediatric-related projects, statements, and affiliated groups. The online

# Box 3. West Nile virus, Lyme disease, and denque fever resources

# CPS

- West Nile virus in the context of climate change: www.cps.ca/documents/position/west-nile-virus
  - Statements and recommendations from CATMAT: www.phac-aspc.gc.ca/tmp-pmv/catmat-ccmtmv/ index-eng.php

# CDC

- Fact sheet on West Nile virus: www.cdc.gov/ncidod/ dvbid/westnile/index.htm
- Fact sheet on Lyme disease: www.cdc.gov/lyme

CATMAT—Committee to Advise on Tropical Medicine and Travel, CDC-Centers for Disease Control and Prevention, CPS-Canadian Paediatric Society, PHAC—Public Health Agency of Canada.

# Clinical Review | Optimizing pediatric clinical care and advocacy in an online era

resources are organized as What's New, Who We Are, and Resources, and are available at www.cfpc.ca/ **CommChildAdolHealth**. This information is needed by all FPs who care for children, and the CPS IDIC website and links presented here are among the most important resources that keep us evergreen.

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### Competing interests

None declared

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