Committee to Advise on Tropical Medicine and Travel - CATMAT

2018 Update
Manitoba Travel Health Conference
Yen-Giang Bui, MD, DTMH
Conflict of interest

• None
CATMAT Statements/Recommendations

- Provide evidence-based recommendations for the prevention and treatment of infectious diseases and other health hazards that may be encountered by Canadian travellers outside Canada

- Targeted to health care professionals who provide advice and treat Canadian travellers
Recommendations are developed on:

- Travel-related vaccine preventable diseases (e.g. yellow fever, typhoid)
- Other travel-related diseases and conditions (e.g. dengue, traveller’s diarrhea, risk of injury)
- Special groups of travellers (e.g. pregnant, pediatric)
<table>
<thead>
<tr>
<th>Subject</th>
<th>Title</th>
<th>Date</th>
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<tbody>
<tr>
<td>Yellow Fever</td>
<td>Statement on the Use of Booster Doses of Yellow Fever Vaccine</td>
<td>2018</td>
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<td>Zika Virus</td>
<td>Canadian Recommendations on the Prevention and Treatment of Zika Virus</td>
<td>2018</td>
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<tr>
<td>Evidence Based Process for developing Guidelines and Recommendations</td>
<td>Evidence Based Process for Developing Travel and Tropical Medicine Related Guidelines and Recommendations</td>
<td>2017</td>
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<td>Yellow Fever</td>
<td>Interim Canadian recommendations for the use of fractional dose of yellow fever vaccine during a vaccine shortage</td>
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<td>Strongyloidiasis</td>
<td>Statement on Disseminated Strongyloidiasis: Prevention, Assessment and Management Guidelines</td>
<td>2016</td>
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<td>Meningococcal Disease</td>
<td>Statement on Meningococcal Disease and the International Traveller</td>
<td>2015</td>
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<td>Travel Medicine</td>
<td>Travel Medicine Resources for Canadian Practitioners</td>
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<td>Travellers' Diarrhea</td>
<td>Statement on Travellers' Diarrhea</td>
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<td>• Full statement</td>
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<td>• Summary</td>
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<td>Visiting Friends and Relatives (VFR)</td>
<td>Statement on International Travellers who Intend to Visit Friends and Relatives</td>
<td>2015</td>
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<td>• Full statement</td>
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Triggers for developing or updating a statement

- Developments and changes in:
  - the epidemiology of diseases that impacts the evidence-based recommendations
  - the evidence regarding the prevention and treatment of infectious diseases or conditions related to travel
  - the vaccination information for vaccine-preventable travel-related diseases
    [Recommendations reflected in the Canadian Immunization Guide (CIG)]

- Identified gaps in recommendations for prevention and treatment of infectious diseases related to travel for specific populations
  - e.g. Visiting Friends and Relatives (VFRs) – a large population of Canadian travellers who have been identified as having an increased risk of travel-related morbidity
Evidence Based Process to Guideline Development

- The methodology for the development of recommendations has evolved dramatically with evidence-based medicine methodologies.

- In 2013, CATMAT updated its approach to developing guidelines to keep pace with these developments.

- The Grading of Recommendations, Assessment, Development and Evaluation (GRADE) framework is the current method used to develop CATMAT guideline statements:
  - Only selected outcomes in each statement are subject to the GRADE methodology and the remainder of the statement uses a narrative review approach.
CATMAT statement published in 2017 on the use of an evidence based process for guideline development

Evidence Based Process to Guideline Development (cont’d)

Evidence Based Process for developing travel and tropical medicine related guidelines and recommendations

An Advisory Committee Statement (ACS)
Committee to Advise on Tropical Medicine and Travel (CATMAT)

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- Introduction
- Objective
- Guideline Development Methods
  - Overview
  - Methods of Guideline Development Process
  - Decision on methodological approach for Recommendation Development
  - General approach for Development of non GRADE Recommendations
    - Recommendation based on a literature review
    - Good practice Recommendations
    - Descriptive Statements
  - General approach for Development of a Guideline containing GRADE Recommendations
    - Developing an Analytic Framework and identifying key questions (steps 1-5)
    - Assessing the quality confidence in the estimate of effect of the evidence (steps 6-12)
    - Rating down the quality of the body of evidence
    - Estimating the baseline risk of disease and quality of the body of evidence (steps 8 & 10)
    - Establishing a risk threshold to guide GRADE Recommendations (step 14)
    - Strength of the Recommendation (step 16)
- Discussion
  - Benefits of GRADE in the Travel Medicine Context
  - GRADE Challenges and Limitations
  - Conclusion and future directions
- Acknowledgements
- Conflict of Interest
- References
- Appendices
  - Appendix 1: Summary of the GRADE Framework for developing recommendations
  - Appendix 2: Typical example of logic model and Analytic Framework
  - Appendix 3: PICO and Key Questions for Typical Analytic Framework
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  - Appendix 6: Summary of findings for the efficacy of typhoid vaccine
  - Appendix 7: Evidence profile for assessment of confidence in estimates of baseline risk of typhoid by region

Evidence Based Process to Guideline Development (cont’d)

- The choice of recommendations to which GRADE will be applied depends on a number of factors:
  - anticipated burden of the disease
  - seriousness of the outcomes to be prevented
  - potential benefits and harms of the intervention
  - quality of the evidence
  - resources available to the committee

- These updated methods will provide a transparent process of developing travel and tropical medicine related recommendations
Evidence Based Process to Guideline Development (cont’d)

- Criteria that enhance the likelihood that a recommendation(s) will be developed with GRADE:
  - A common travel-related condition for which an effective intervention is available
  - A less common or rare travel-related condition associated with significant morbidity or mortality for which an effective intervention is available
  - A travel-related condition for which the potential magnitude of benefits or harms of an intervention is high
  - An intervention for which there is a narrow gradient between the balance of harms and benefits
Criteria that reduce the likelihood that a recommendation(s) will be developed with GRADE:

- A travel-related condition for which urgent guidance is required (e.g., Zika virus in 2016)
- A travel-related condition for which the effectiveness of the intervention is unknown or poorly defined
- Interventions that are not central to the key question(s) addressed in the guideline but may provide important contextual or background information (e.g., hand washing)
- Resource constraints
General Approach for Development of Non-GRADE Recommendations

- Recommendations Based on a Literature Review
- Good Practice Recommendations
- Descriptive Statements
Value of CATMAT Statements

General Public:

• Provide evidence-based information on disease risk to support information contained in travel health notices (THNs)

• Informs the development of other travel health products developed by the Agency such as providing evidence-based information on disease risk to support information contained in disease and country pages

Health Professionals:

• Presentations at international conferences and meetings, expanding promotion of work done by PHAC on different platforms

• Publication in peer-reviewed, scientific journals

• Presentations to health care professionals through webinars

_Demonstrates Canadian leadership in the field of travel health that engenders an important public health benefit that is not otherwise addressed_
### Statement published or pending publication

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<tr>
<td><strong>Published</strong></td>
<td>Statement on the Use of Booster Doses of Yellow Fever Vaccine</td>
<td>Malaria Statement: Appendix 1 - Malaria Risk by Geographic Area</td>
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<td>Canadian Recommendations on the Prevention and Treatment of Zika Virus – version 4</td>
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<td>Malaria Statement: [Chapter 3 – Malaria Education for Travellers, Chapter 6 – Malaria Diagnosis]</td>
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<td>Canadian Recommendations on the Prevention and Treatment of Zika Virus – version 5</td>
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<td><strong>In approval process</strong></td>
<td>Malaria Statement: [Chapter 8 – Drugs for the Prevention and Treatment of Malaria]</td>
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Statements under development

- Statement on Tuberculosis
- Japanese Encephalitis
- Best Practices for Travel Medicine
- Personal Protective Measures for Animal Bites
- Travel Stresses statements
  - Jet Lag
  - Motion Sickness
  - High Altitude Sickness
  - Cruise Ship Travel
Statements under development

- Malaria Statement – Chapter Updates:
  - Chapter 2: Prevention – Risk Assessment
  - Chapter 4: Prevention – Chemoprophylaxis regimens
  - Chapter 5: Special Hosts (Children, Migrants and those Visiting Friends and Relatives, Pregnancy and Breastfeeding, Long Term Travellers or Expatriates, Travellers with Comorbidities)
  - Chapter 7: Treatment of Malaria
  - Chapter 8: Drugs for the Prevention and Treatment of Malaria
Thank you!

Questions?

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