Creation of Choosing Wisely Recommendations for Medical Laboratory Professionals

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Background

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In Canada, ~$6 billion is spent annually on lab testing by government and about 10% of that is unnecessary (Naugler & Wyonch, 2019) A 2017 study found that as many as 30% of all medical tests, treatments and procedures in Canada may be unnecessary (Canadian Institute for Health Information, 2017).

Wasting of resources is not unique to Canada. Across the Organization for Economic Co-operation and Development countries, estimate of one-fifth in health spending is inefficient (OECD, 2017).

Interventions have been shown to positively impact the laboratory system and patients on a large scale. For instance, an intervention in Alberta, Canada, to decrease population screening for vitamin D deficiency resulted in a 91.4% reduction of testing over one year and a ~$1.5 million in savings (Naugler et al, 2017).

Reasons for inappropriate testing and medical treatments are complex and are influenced by patients, physicians and administrative practices. Choosing Wisely Canada (CWC) provided examples:

- Practice habits
- Patient demands
- Lack of time for shared decision-making
- Outdated decision-support systems
- Defensive medicine and fear of malpractice lawsuits
- Payment systems reward doing more

What is Choosing Wisely Canada?
CWC is a national voice for reducing unnecessary tests and treatments. It is a global movement that began in the United States in 2012 and now spans 20 countries. CSMLS and UofA have partnered to facilitate the participation of medical laboratory professionals (MLPs) in the CWC cause.

CWC partners with professional societies to develop recommendations that identify commonly used tests and treatments which are not supported by evidence and could expose patients to harm. There are more than 300 CWC recommendations, of which approximately one-third are laboratory related.

Purpose

1. Conduct a survey to understand MLPs' attitudes, awareness, and engagement related to CWC.
2. Create CWC recommendations relevant to the medical laboratory profession's scope of practice.
3. Identify and create educational tool(s) to help MLPs to use and influence others to use CWC recommendations.

**This poster focuses on the process to create CWC recommendations within Canada.*

Methodology

Stakeholder Groups
Three major stakeholder groups were identified as integral across the project lifecycle:

1. **MLPs**: CSMLS and non-CSMLS members working in Canada's medical laboratory system (+19k MLPs) were surveyed
2. **Expert Panel:** A volunteer group of 17 core panelists (CSMLS MLP members), two early career professionals and five consultants with targeted expertise.
   a) Recruited through CSMLS communication channels. CVs and letter of intent required from interested individuals.
   b) Volunteers chosen based on a matrix (e.g., laboratory experience, expertise, CWC experience, job level, laboratory type, geographical location and patient population).
3. **CWC and Health Associations:** CWC provides a validation service for all draft recommendations. This review includes providing the recommendations to all partnered-CWC associations for comment and suggestions.

Process Flow

Creation and Validation Process

1. **Create Foundation:** Information search to review CWC recommendations, identify value and impact of recommendations, determine recommendation relevance for MLPs and create process plan:
   a. Peer-reviewed and grey literature searches
   b. Review CWC recommendations
      I. Identify MLP-relevant recommendations
      II. Map recommendations to laboratory themed categories
   c. Review of the creation process for CWC recommendations by associations
   d. Consultation with CWC on appropriate process pathways
   e. Detailed process consultation with a health association
   f. Process plan created based on findings
2. **Data Collection for Recommendations**
   a. Laboratory Resources & Behaviour (LRB) Survey to general MLP population:
      I. Measured awareness, knowledge, engagement, attitudes, barriers, and intentions towards initiatives to improve laboratory utilization.
      II. Solicited potential MLP-specific recommendations.
   b. Expert Panel – A volunteer group dedicated to developing and prioritizing a list of practices that contribute to wasted lab efforts and resources. 4-6 meetings over 1.5 years, with subgroup meetings as required. Formal Terms of Reference created. Consultation with experts within and outside of the Expert panel permitted.
      I. As a group, create, review and prioritize list of recommendations.
      II. In subgroups, refine draft recommendations targeted to their expertise. Gather supporting evidence.
3. **Information Validation**
   a. Recommendations collected in survey analyzed and provided to the expert panel.
   b. Expert panel to participate in a Delphi process to finalize draft recommendations.
   c. Draft recommendations provided to CWC for review and distribution to health associations; modification to recommendations as needed.
4. **Knowledge Transfer**
   a. Communication plan is under construction.
   b. Creation of a webpage to house project information.

Survey Highlights

All results should be considered preliminary as data analysis is currently in progress.

- What do you believe the three most over-ordered tests are? Top three from predefined list:
  - CBC (complete blood count), ESR (erythrocyte sedimentation rate) and Vitamin D
- Have you heard of Choosing Wisely Canada?
  - Approximately 40% said "yes", while 60% said "no" or were "unsure"
  - Research has shown that physicians and other health professions has been slow to learn about CWC recommendations, although the value of such recommendations is acknowledged. The MLP results mimic this.
- Do you believe that initiatives to limit inappropriate laboratory utilization are important?
  - 93% said "yes"
- Do you believe that inappropriate laboratory utilization may contribute to patient harm?
  - 95% said "yes"
- Who do you believe should be responsible for ensuring that laboratory tests are appropriately utilized?
  - Respondents believed that the main responsibility is held mostly by those in senior roles, such as PhD trained laboratory clinicians.
- 61% said they felt accountable for helping to improve the appropriateness of laboratory test ordering.
- 48% said they believe becoming involved in initiatives aimed at curbing inappropriate laboratory test ordering is part of my professional responsibilities.

Recommendations

Survey Comments

- Many of the non-test specific recommendations support MLPs to:
  - Be knowledge agents
  - Be advocates for appropriate testing procedures
  - Identify and flag potentially inappropriate testing to health professionals
  - Acknowledge their right to ask questions about orders to determine appropriateness within guideline and system use
- This showcases the MLP voice wanting to be involved in clinical conversations more often and more significantly but may find system and workplace culture challenges that inhibit this.
- Test-specific recommendations will be released after validation process has been completed.

Expert Panel Highlights

To date, valuable lessons have been learned that can provide associations in other countries to consider and for MLPs to reflect upon:

- **Group Construction**
  - The panel requires a wide breadth of individuals ranging in more than experience. Limiting this group to 6-8 people will not provide the required knowledge.
  - Creating sub-group responsibilities supports the best use of their time (e.g., consultants are not required to attend all meetings).
  - There is value in incorporating spots for new-to-profession individuals to highlight their perspective as well as provide professional experiences.
  - Given the large volunteer group, creating mini-biographies for groups to review will help identify expertise as the validation process for recommendations progresses.
  - Emphasize that the volunteers should go beyond the group to seek information and for idea generation at all stages of the process.
- **Expert Panel Discussions**
  - The group contemplated how to define recommendations within the scope of practice when MLPs don't order and what level of accountability MLPs have:
    - 'Don't order…' vs. 'Don't support the ordering of…'
    - Is the responsibility only in the physicians hands?
    - Different recommendations for medical laboratory assistants and medical laboratory technologists? Some the same?
  - Team reinforced to volunteers not to focus on the recommendation wording or general vs. specific nature of recommendations; brainstorm all and collect all.
  - Recognize that MLP practice may vary locally or more broadly based on health system borders within a country (e.g., provincial differences in Canada due to funding and governance system).
  - Survey results on perception of involvement and CWC awareness were considered integral to knowledge transfer.
  - Volunteers recognized that CWC recommendations could support bringing MLPs into the forefront of trending health system concepts and greater involvement in clinical conversations, albeit this would be a long-term professional culture change.

Conclusion

Ordering laboratory tests on a patient is not generally a permissible activity for MLPs in Canada. However, by virtue of their work performing testing and interacting with test orders, MLPs are uniquely placed to communicate CWC recommendations, research the impact of changes and support modernized test ordering habits of other health professionals.

Preliminary analysis of the survey results discussions with the expert panel has been valuable in the validation process to date. Final recommendations will be released in 2020. This project will create the first medical laboratory profession-specific group of CWC recommendations that can be adapted nationally as well as reviewed by other countries. The described construction and validation process is a map others can follow to create recommendations.