Culturing Change in Lab Testing

A Summary of Results from Cross-Canada Events

April 2015

CADTH

This report was prepared by the Canadian Agency for Drugs and Technologies in Health (CADTH).

The information in this report should not be used as a substitute for the application of clinical judgment in respect of the care of a particular patient or other professional judgment in any decision making process, nor is it intended to replace professional medical advice. While CADTH has taken care in the preparation of the report to ensure that its contents are accurate, complete, and up-to-date, CADTH does not make any guarantee to that effect. CADTH is not responsible for any errors or omissions or injury, loss or damage arising from or as a result of the use (or misuse) of any information contained in or implied by the information in this report.

CADTH takes sole responsibility for the final form and content of this report. The statements, conclusions, and views expressed herein do not necessarily represent the view of Health Canada or any provincial or territorial government.

Production of this report is made possible through a financial contribution from Health Canada.
Copyright © CADTH 2015.

This report may be reproduced for non-commercial purposes only and provided appropriate credit is given to CADTH.

CADTH is an independent, not-for-profit organization responsible for providing Canada’s health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs and medical devices in our health care system.

CADTH receives funding from Canada’s federal, provincial, and territorial governments, with the exception of Quebec.

April 2015

TABLE OF CONTENTS

INTRODUCTION ii

THEMES iii

THE EVENTS 1
Winnipeg, Manitoba 1
Moncton, New Brunswick 3
Charlottetown, Prince Edward Island 5
Calgary, Alberta 7
Regina, Saskatchewan 10
Burnaby, British Columbia 12
Halifax, Nova Scotia 13

FOCUS ON LAB TEST OPTIMIZATION AT CADTH 15

INTRODUCTION

In the fall of 2014, CADTH began planning for a series of local events on lab test optimization across Canada during the winter months. Through our outreach and topic development processes, we came to an understanding that each jurisdiction has context-specific needs, and might find it difficult to apply solutions or information that are not tailored to specific requirements. As we explored this opportunity further, we discovered that unique issues were present at multiple levels of health care and for multiple types of health care providers.

Very generally, the purpose of each event was to:
- Gather local context and engage jurisdictional leaders in lab optimization work
- Discuss challenges
- Discuss approaches to enhance or initiate optimization efforts
- Develop plans to fill gaps (e.g., CADTH Rapid Response request, tool development, etc.).

Bookending all events was a national webinar that introduced the concept of lab test optimization and a wrap-up webinar (also national) to discuss what we've learned.

Local events were held in Winnipeg, Manitoba; Moncton, New Brunswick; Charlottetown, Prince Edward Island; Regina, Saskatchewan; Calgary, Alberta; and Burnaby, British Columbia. An additional event was held in Halifax, Nova Scotia, in early April (the original February date was postponed due to inclement weather).

Some of the events initiated or continued discussions at an overarching level to work through issues important for setting the stage for lab optimization. The topic areas included physician engagement, barriers to implementing interventions among family physicians, and generating plans for next steps in lab optimization (including who should be involved and when).

Other events were at the grassroots level, wherein those presently ordering lab tests discussed a specific test and worked together to decide upon change and next steps.

During these events, we met with Regional Health Authority decision-makers, long-term care (LTC) facility nurses, oncologists, laboratory managers, family physicians, local associations, chemists, educators, surgeons, hospital leaders, information systems, and more. All of the people we met were very interested and enthusiastic about being involved in lab optimization, and there was a sense of momentum for the future across the country.

CADTH is committed to supporting Canadian jurisdictions in lab optimization initiatives and will explore future opportunities to help maintain the momentum.

THEMES

Regardless of the type or content of the lab optimization event, certain themes came through all of them:

- The involvement of physicians is key, as they are the primary driver of test ordering.
- Collaboration is required to achieve lab optimization.
- All those involved in ordering or performing lab tests must be at the table to make change happen:
  - Labs must be involved — they have a lot to offer, are key stakeholders, and could play a bigger role.
- The patient must be taken into consideration.
- Communication, including a focus on electronic health records, is essential.
- Data are required in selecting tests to optimize and in measuring success; access is not universal across the country.
- Implementation of intervention is not a one-time initiative — follow-up and maintenance are required.

THE EVENTS

WINNIPEG, MANITOBA

January 23, 2015
Culturing Change in Lab Testing: Physician Engagement Model to Enable Health System Transformation in Manitoba

Local Hosts
Centre for Healthcare Innovation
Diagnostic Services Manitoba

Goal
To support implementation strategies for optimizing diagnostic testing, the working group in Manitoba chose to focus on the foundational element of physician engagement, specifically to:

- Explore the elements of a meaningful physician engagement model
- Develop recommendations for a meaningful physician engagement model
- Use Choosing Wisely Canada as a scenario-based focus for improving knowledge and understanding of the appropriate and effective use of diagnostic services, and supporting a critical conversation on physician engagement.

Participants
The event brought together 43 participants, including physicians (53%), lab directors, specialists, and a number of provincial and regional administrators.

Approach
The Centre for Healthcare Innovation (CHI) and Diagnostic Services Manitoba (DSM) have been working together on lab optimization projects since June 2014 through the Choosing Wisely Canada lens. They have been focusing on optimization of preoperative diagnostic testing and vitamin D testing. A foundational principle they recognized early on was to engage key stakeholders, particularly physicians, to achieve best results with lab optimization.

A full-day “think tank” was held to maximize the contribution of participants and gain insight, feedback, and consensus on next steps. It was professionally facilitated through a series of breakout groups on topics that included:

- Defining the current and future state of physician engagement
- Drafting a vision for physician engagement in Manitoba
- Identifying measures of success for Choosing Wisely Canada initiatives
- Proposing next steps for physician engagement
- Proposing next steps for Choosing Wisely Canada initiatives (in context of physician engagement).

A full group discussion enabled participants to provide their feedback on group work, and a commitment was made to share proposals and discussion notes with all attendees for review.

Results
Participants agreed unanimously about the importance of physician engagement. When the group discussed the current state of physician engagement in Manitoba, several key themes emerged:

- There is room for improvement in the degree of trust and collaboration between physicians and administrators.
- Recognized facilitators of physician engagement include ongoing relationships (which may be bolstered by formal and informal structures), adequate communication, physician leaders and champions, compensation for involvement, and a shared focus on the patient.
- Systems of local physician participation in decision-making are underdeveloped.
- There is potential for unintended consequences of policy change.
- Opportunities identified including primary care networks; initiating policy levers to promote group practice.
- Physicians are not a homogeneous group; there are divides and silos (urban and rural; family physicians and specialists; leadership and front-line).

Participants drafted a vision for Manitoba:

"*All physicians in Manitoba will be inspired and supported to be meaningfully engaged and identify themselves as integral, valued, and collaborative partners in a health system that achieves population health, improved patient experience, sustainability, and improved provider experience. We will be the best health care system in Canada."*

Participants expressed their optimism and desire to determine next steps. Some concerns were raised about an overall provincial strategy, model, or working group for physician engagement, considering that physician engagement is not a discrete activity but an element that should be integrated into other activities. Decentralized strategies were more popular among participants, including a CHI-hosted online toolkit or resource guide that includes local stories of lessons learned; identification of mentors who can support others in engaging physicians; and ramped-up efforts to "grow" physician leaders.

Collaboration was touted as being critical among relevant bodies (Health, Regional Health Authorities, Manitoba College of Family Physicians, College of Physicians and Surgeons of Manitoba, Doctors Manitoba, University of Manitoba) for centralized strategies and improved communication among those currently involved in physician engagement, to reduce duplication of effort.

It was recognized that this stated requirement for collaboration and communication is what prompted the Choosing Wisely team to initiate a broad discussion of physician engagement, rather than proceed with a project-specific strategy that might prove to be misaligned with other efforts.

Participants rated the event very highly, with 97% rating the program as good or better and 90% indicating that they felt that objectives had been fully met.

Potential Next Steps

- Share summary report of the Think Tank discussions with participants and other key stakeholders to consider appropriate next steps
- Recognize the physician engagement–leadership connection
- Strengthen/build on current efforts
- Consider a wider survey of physicians.

Discussion regarding next steps for the Manitoba Choosing Wisely Canada initiative included a communications strategy for education and awareness-raising for physicians, other staff,

patients, and the public; continued engagement of physicians and other stakeholders; and the potential role of tools to support provider–patient conversations about lab test ordering.

MONCTON, NEW BRUNSWICK

February 10, 2015
Culturing Change in Lab Testing: Right Test. Right Patient. Right Time.

Local Host

Horizon Health Network

Goal

To collaboratively develop draft action and priority recommendations for Horizon Health Network to optimize lab test utilization management.

Participants

Participants included 60 health care providers and administrators (most from Horizon Health Network but also from Vitalité Health Network and the New Brunswick Department of Health): Regional Health Authority executive and senior leaders; family physicians; nurses; nurse practitioners; pharmacists; pathologists; laboratory directors, managers, and technologists; Laboratory Information System (LIS) coordinators for lab services; patient safety coordinators; medical students; government decision-makers; and biochemists.

Approach

The full-day event included three presentations to set the stage for later interactive discussion and development of recommendations. Presentations included:

Learning from Others — Dr. David Kinniburgh, Director, Alberta Centre for Toxicology, University of Calgary; President, Canadian Society of Clinical Chemists

- Importance of appropriate utilization
- Collaborative approach
- Discussion of UK, US, and Canada experience
- Factors that influence lab utilization
- Future direction.

Ottawa Hospital Experience — Dr. Sherry L. Perkins, Head, Division of Biochemistry, and Medical/Scientific Co-director for Point of Care Testing and for Pre- and Post-Analytical Processes, The Ottawa Hospital; Acting Head, Division of Biochemistry, Children's Hospital of Eastern Ontario

- Discussion of key enablers
- Lessons learned from Ottawa
- Lab utilization is not solely a "lab problem"
- Pre-printed order review
- Data sources and application.

Horizon Health Lab Optimization Initiatives — Dr. Jeff Moore, Internal Medicine, Horizon Health Network

- What's been happening within Horizon — local efforts, challenges, successes
- Opportunities and ideas for moving forward
- Contribution of ordering clinicians in lab optimization efforts
- Costs.

Group discussion involving all participants followed the presentations and covered the following questions:

- Who should drive change and how can they be engaged?
- How do we maintain changes?
- How do we monitor and measure change?
- What can we do differently now?
- What should be our next steps?

Results

Group discussion resulted in considerations for the present and the future, with the following themes coming through:

- Accurate data collection and measurement must be established; information system infrastructure for labs is an important factor to support lab optimization efforts.
- A clear communications strategy is required to ensure change.
- Collaboration among all those involved in lab testing is required, with support from the top down.
- Education (tailored) for all those involved in lab testing is required (including public).

Detailed discussion:

- An identified structure for lab utilization efforts is crucial; governance structure should be clear and well communicated.
- A collaborative approach is required, with identified responsibilities.
- This approach must include family physicians; need to consider how to best reach them and communicate information (e.g., succinct emails, one-page flyers, etc.).
- The communication plan required to reach those affected by change may include:
    - Memo with supporting data and local context
    - Targeted information for division department heads to ensure reach of information
    - Information for front-line staff to share with public
    - Articles in newsletter format to explain initiatives and combat the "Dr. Oz" news; flyers or memos in blood collection areas to educate public
    - Contact person for more information included on all memos so that medical doctors (MDs), staff, etc., all know who they can contact for more info or to have questions answered and ensure consistency
    - Lab utilization data as a standing item for review and discussion on local MAC agendas
    - Champion for each lab or zone who can support local awareness and communication of efforts, changes being made, explain rationale, etc. (This would provide a more friendly, positive approach than a basic computer change or restriction with no explanation provided.)
- There should be lab orientation for all staff, including new MDs.
- When changes are made, they should be mandatory and structured within the LIS computer order entry system to ensure consistency.

- Data collection and measurement of results are required:
  - Track exemptions.
- Prioritize tests on which to focus efforts.
- Order sets are a concern and an issue — appropriate lab input and considerations into the development must be ensured, as well as any review of these.

Participants rated the event very highly, with 100% indicating objectives were met and 100% indicating that they would participate in future events.

Potential Next Steps

- Consider the development of a strategic plan to initiate lab optimization work.
- Review data collection process; ensure validity.
- Develop education plans for various clinical groups; include data explanation:
  - Education for the public
- Identify a champion for each lab or zone.
- Educate doctors about the costs of lab tests — doctors may want to know what the especially expensive tests are; a ballpark number may help in their test ordering and help them inform their patients about the costs of the tests the patients are requesting.
- Develop a priority list of tests that need to be reconsidered.
- Consider some of the existing tests that are referred out of province at substantial cost.
- Consider restrictions on certain, very expensive tests.

CHARLOTTETOWN, PRINCE EDWARD ISLAND

February 10, 2015
Culturing Change in Lab Testing: Urine Matters

Local Host
Health PEI

Goal
To engage in meaningful dialogue with those most involved in the management of urinary tract infections (UTIs) and ordering urine cultures and sensitivities, and in the rollout of an updated UTI care pathway for seniors in LTC. Ultimately to realize improvement in UTI management and efficient and appropriate urine cultures and sensitivity testing in the LTC setting.

Participants
The participants included more than 120 delegates from Health PEI, LTC clinicians (nurses, pharmacists, physicians), acute care physicians, retail pharmacists, pharmacy and nursing students, and community-based health care providers.

Approach
A full-day event was held, including a combination of didactic presentations and interactive breakout groups.

Presentations included:

- The role of CADTH in supporting health care decision-making (Lisa Pyke, CADTH)
- An overview of the research questions and key findings of a series of CADTH Rapid Response Reports specifically produced to support decision-making on UTI care pathways: https://www.cadth.ca/urine-testing-long-term-care-clinical-and-cost-effectiveness; https://www.cadth.ca/urine-testing-long-term-care-guidelines (Dr. Janice Mann, CADTH)
- Clinical advice on the prevention of UTI in seniors in LTC and advice on how to protect the integrity of urine specimens, as well as presentation of a range of issues related to infection control in LTC, including multidrug-resistant organisms, overutilization of antibiotics in female seniors, and dangers of overtreatment of asymptomatic bacteriuria (leading to antibiotic resistance) (Mary LeBlanc, Health PEI Infection Control Specialist)
- Overview of the issue of “superbugs” and suggestions to participants on how to achieve “better and faster” UTI data (from the perspective of laboratory services on PEI) (Dr. Greg German, Health PEI Medical Microbiologist)
- Introduction of a draft UTI integrated care pathway for review and feedback (Dr. Greg German, Health PEI Medical Microbiologist)

Throughout the day, participants shared their individual perspectives on the implications of urine testing on various aspects of patient care and on those clinicians involved in providing LTC to seniors.

Following the presentations, an interactive session took place on what success would look like in this area, and potential planning for the next five years.

The afternoon session included a facilitated session on person and family-centred communications with respect to urine testing.

Results

- New and appreciated collaboration
- Momentum toward continuing with the process of confirming the UTI pathway
- Appreciation for the need of an evidence-based pathway to encourage change
- Shared understanding of the impact of urine culture and sensitivity (C&S) testing on patients, health care practitioners, and the lab.

Under the leadership of Health PEI, this event was very successful in bringing together the broad range of stakeholders affected by UTI care pathways. There was clear support for a follow-up event for the purposes of outlining the next steps in the process of confirming the UTI pathway and developing an associated implementation plan.

Participants rated the event very highly in the evaluation, with 97% strongly agreeing that the event had achieved its purpose.

Potential Next Steps

- Participants expressed interest in a follow-up event for the purposes of confirming the integrated care pathway for UTI and mapping out an implementation plan for the pathway.
- Other LTC providers across Canada may have an interest in contextualizing the draft care pathway.

CALGARY, ALBERTA

February 20, 2015
Culturing Change in Lab Testing: Strategies to Engage Primary Care Physicians in Lab Utilization Management

Local Hosts
Alberta Medical Association
Alberta Provincial Laboratory Utilization Office

Goal
Discuss barriers to implementing optimization strategies from Alberta primary care physicians' perspective, the evidence regarding implementation strategies, and local utilization information. Ultimately, begin the development of a lab utilization management strategy.

Participants
Participants (28) included pathologists, family physicians, laboratory managers, research associates, biochemists, and administrators. A broader audience (approximately 200) of clinicians, technologists, administrators, and industry representatives attended the open webinar. Another 42 people have viewed the webinar through the CADTH YouTube channel post-event.

Approach
A national webinar preceded the in-person discussion. Dr. Christopher Naugler discussed the landscape of test ordering in Calgary, Alberta, and presented preliminary results from a survey of knowledge and attitudes of primary care physicians toward laboratory utilization. Dr. Roger Thomas presented information from systematic reviews and randomized controlled trials dealing with interventions to change lab test ordering by family physicians (https://www.youtube.com/watch?v=6C6EORSWVYA).

The in-person discussion explored the following questions:
1. How do we engage primary care physicians in laboratory optimization?
2. How do we get there?
    a. Who needs to be at the table?
    b. Who needs to provide investment?

The full group debated the questions and each participant contributed their own perspectives. The interests of the group were stated at the outset:
- Choosing Wisely Canada
- Ideas about perspectives
- How to get started with this task
- Vehicle in Primary Care Network — capitalize upon this
- Proposal on gain-sharing
- Looking for demonstration projects in primary care
- How do we make this real for primary care physicians in the field?
- Interested in impact of interventions
- Consider the role of the lab
- Need more information about correct balance between patient care and lab optimization.

Results
This event was successful in bringing together different perspectives and generating ideas and commitment toward a collaborative approach. The group agreed upon the following general concepts:

- Family physicians to be involved in the process
- Understanding that interventions may work, but effect size is quite small in some cases
- Need to consider return versus effort.

Specific possibilities for planning included the following:

- Incentives
    - Involve Primary Care Alliance
    - Ordering a lab test is often a time-saver; to turn things around, there has to be incentive:
        - More resources (i.e., nutritionist, physiotherapist, etc.)
        - Taking savings and reinvesting into good patient care
    - Proposal for gain-sharing has had positive response from senior Alberta Health Services (AHS) staff
    - In a fee-for-service scenario, this may be a huge challenge (i.e., doctors getting
    - Physicians deserve fair payment — need to align incentives with good patient care
    - Proposal regarding gain-sharing to AHS
- Target the highest users (and explore highest patient users)
- Engage leadership representatives
- Must have appropriate data
    - Confirm information that physicians need
    - Physicians need to use NetCare — how do you ensure this happens?
- Professional accountability
    - Rigorous secondary sheet that comes with the lab requests
    - Consider role of the College
    - Role of lab
- Education
    - Medical student curriculum
    - Physicians are to get feedback on their utilization records: need the follow-up (which is approached as Continuing Professional Development) — Physician Learning Programs
    - Physician Learning Programs should be considered a partner in lab optimization
- Establish evidence-informed practices
    - Protocol-based set of investigations — review; prepare; share
    - Guideline development needs lab at the table
    - Can Canadian Association of Pathologists develop a document with guidelines for appropriate testing?
- Culture
    - E.g., PSA tests (media support); mammograms; vitamin D; antibiotics (Do Bugs Need Drugs?)
    - People want something when they leave your office — patients feel like they need to be heard
    - Need multi-pronged approach to address what is needed for patients, physicians, pathologists, etc.
    - Vitamin D example
    - Process change piece will result in the greatest results

- Patient engagement
    - Materials available from Choosing Wisely Canada
    - Patients do not understand the potential risks inherent in unnecessary testing — this needs to be communicated
    - Need the clinical evidence to go back to patients and unequivocally say “you don’t need it”
- Risks — involvement of pathologist
- Choosing Wisely Canada
    - Alberta Medical Association and AHS partners for Alberta Choosing Wisely
- Acute care is more successful in managing utilization because of the structure.

Participants rated the event very highly, with 100% indicating that objectives were met and 100% indicating that they would participate in future events.

Potential Next Steps

1. Develop proposal to operationalize gain-sharing:
    - Proposal would be to do so in a matched way; e.g., select test, work with Primary Care Networks (PCNs) on knowledge translation strategy, look at global utilization, take 50% of profits and there would be the possibility of reinvesting (in some related area)
    - Include educational intervention
    - Commitment to analyze and evaluate
    - Need to work out details for second and third year
    - Lab, PCN, and medical directors need to be part of the development.

2. Education — CME
    - Choosing Wisely central to education
    - Push to reinstate laboratory medicine session at University of Calgary (medical school)
    - “Stop and Go” program for lab tests (could be Choosing Wisely)
    - Consider partners for funding
    - Inventory of patient-friendly materials that could be shown in doctor’s offices

3. Identification of outliers — identify appropriate intervention(s)

There was a commitment from participants to use discussion from this session to create a roadmap for approaching lab optimization in Alberta.

A manuscript for publication, *Strategies for Primary Care Engagement in Laboratory Utilization Management*, was developed by Dr. Naugler with contribution from participants at this event.

REGINA, SASKATCHEWAN

February 24, 2015
Culturing Change in Lab Testing: A Burning Question in Long-Term Care Facilities

Local Hosts
Regina Qu'Appelle Health Region – Laboratory Services & Infection Prevention and Control Chairperson and selected members of the Saskatchewan Professionals in Infection Control (SaskPIC) chapter.

Goal
To set direction in the Regina Qu'Appelle Health Region (RQHR) on ordering of urine culture and sensitivity tests in asymptomatic residents in LTC facilities. In addition, to increase awareness of current statistics (four months of data) on urine C&S testing practices in LTC facilities and support alignment of practice with 2013 Provincial UTI management guidelines (http://www.rxfiles.ca/rxfiles/uploads/documents/ltc/HCPs/UTI/Sask%20Health%20UTI%20Guidelines.pdf).

Participants
In-person participants (30) included registered nurses, licensed practical nurses, infection control specialists, pharmacists, laboratory technicians, and administrators. A similar audience (39), largely from rural locations in Saskatchewan and other provinces, participated through a simultaneous webinar. A further 110 have viewed the presentations through the CADTH YouTube channel post-event.

Approach
Two introductory presentations preceded the interactive discussion regarding UTI guidelines. The first, delivered by Dr. Kathy Malejczyk (Medical Microbiologist, Department of Laboratory Medicine, RQHR), presented an analysis of surveillance data from 23 LTC facilities in the RQHR from April to September 2014, examining reasons for ordering urine C&S testing and outcomes. The second, delivered by Dr. Lindsay Nicolle (Professor, Department of Internal Medicine and Medical Microbiology, University of Manitoba) presented the evidence regarding appropriate urine culture and sensitivity testing, and an approach to optimal testing.

An interactive session detailing the Saskatchewan Urinary Tract Infection Management Clinical Practice Guidelines was delivered by Marilyn Weinmaster (Infection Control Practitioner, RQHR). This was followed by an educational session from local nurse educators on how to correctly collect a urine specimen.

All participants contributed to discussion on next steps and potential for supporting tools and interventions.

The entire event was provided via webinar and recorded for future use https://www.youtube.com/watch?v=cuANEsFFtho.

Results
The target audience for this event was registered and practical nurses working in LTC. It was identified early in the process that although physicians may order the tests, it is often nurses who are first aware of potential signs and symptoms of a UTI and are the first informant and decision-maker for determining whether a culture and sensitivity test should be utilized. The

event was successful in attracting this target audience and providing an opportunity to share this key perspective.

CADTH completed significant data analysis for this event at the request of RQHR, to assist in awareness-building of current UTI management practices and C&S testing in LTC facilities. Key findings from data analysis included:

- Approximately 13% of all LTC residents who had urine C&S collected and sent for suspected UTI (during the months of April to August, 2014) had no symptoms that would suggest possible UTI, as identified by evidence or the Saskatchewan 2013 UTI Provincial Guidelines. This suggested that well-engrained and common practices were still in place in many facilities. Awareness-building was needed to support staff change in practice and appropriateness of C&S testing.
- Antibiotics were started well before any urine C&S results were returned with a confirmed diagnosis of UTI in approximately 56% of patients. Reasons cited for the early commencement of antibiotics included family requests and also an "automatic" response if the resident had behaviour changes and a Foley catheter.
- Lab-reported contamination rates of received C&S samples were 15% and were mostly reported from residents with no Foley catheters. This finding suggested that improved specimen collection technique and training for appropriate handling of specimens was needed.
- Over a four-month timeframe, 136 repeat C&S tests were sent. Change in behavioural status was the most commonly reported reason (71/136; 52%). This represents (potential waste) of $ 3,038.80 associated with repeat testing occurring, and due to inappropriate indication.

Participants identified information that was previously an education gap and took away several key points to influence their practice, including:

- Judicious urine culture and sensitivity test ordering is key for preventing overtreatment of asymptomatic bacteriuria.
- "Test of cure" for UTIs is not recommended.
- Behavioural change should be thoroughly assessed and managed before ordering C&S.
- Urine sample collection should be done aseptically.
- It's hard to ignore a positive result, but all results should be interpreted in the clinical context.
- Excess urine cultures promote inappropriate antimicrobial use.

Participants rated the event very highly, with 97% indicating objectives were met and 100% indicating that they would participate in future events.

Potential Next Steps

- An educational tool with key facts learned at the event will be developed.
- A YouTube webinar will be used for future educational events (110 have viewed to date).
- Participants agreed to use the material to provide in service for staff not able to attend.
- Share conclusions and learnings with other LTC facilities in Saskatchewan and across Canada.
- Consider nursing curriculum with regard to UTI.
- Consider additional topics for future events geared to LTC facilities.

BURNABY, BRITISH COLUMBIA

March 4, 2015
Culturing Change in Lab Testing: Protein Electrophoresis Testing in Patients with Multiple Myeloma

Local Hosts
Fraser Health Authority
Providence Health Care
Provincial Health Services Authority
Vancouver Coastal Health

Goal
Develop a consensus of practice regarding the ordering frequency of these lab tests. Agreement upon the next steps required to implement the new practice and the follow-up is required.

Participants
Participants at this event included nine laboratory directors. Consensus among this group would be followed by other appropriate contributors (physicians, specialists, etc.).

Approach
A brief introduction to the CADTH review of clinical effectiveness and guidelines for protein testing in patients with multiple myeloma began the session (https://www.cadth.ca/protein-testing-patients-multiple-myeloma-review-clinical-effectiveness-and-guidelines).

This was followed by an overview of the clinical and evidence realities of current practice and utilization potential for protein electrophoresis, presented by Dr. Arun Garg (Program Medical Director of Laboratory Medicine and Pathology, Fraser Health).

The full group participated in a consensus of practice discussion and developed recommendations for next steps.

Results
Discussion centred on the following areas:

- Immunofixations on band and what band should be; i.e., 10 g/L
- When band disappears, should we be doing immunofixation — emerging consensus for serum free light chain
- Once diagnosis of myeloma is made, how often to repeat electrophoresis?
- Initial diagnosis, full investigation
- Frequency of monitoring, but what tests should be included?
- British Columbia Cancer Agency guidelines indicate monthly after diagnosis of myeloma
- Optimize lab service by working with clinicians; not about saving dollars
- Should labs be typing all bands? Inconsistencies across health authorities
- Patient histories are not checked outside own system
- Consideration of serum free light chain
- If diagnosis is there for amyloidosis, then should type it and quantify with serum free light chain
- Community practice versus oncology practice very different
- How long to keep sample?

Consensus was reached among participants in the following areas:
1. Every lab to make every effort to harmonize data (avoid repeating tests unnecessarily).
2. Risk: Irrespective regarding amount of band, do typing to receive a comprehensive result. It is better for lab to do the typing once to gain historical pattern and perspective.
3. Amyloidosis: Do monoclonal banding in patients with amyloidosis.
4. During active treatment (for myeloma), once-monthly testing (protein electrophoresis); but after disease is stabilized, then every three months.
5. As much as possible, previous information should be previewed before signing off (this might be as part of #1, harmonizing data).
6. Keep the specimen for one month.

The participants were unable to reach consensus for the following:
1. Approach for scenario where the band has disappeared.

Among this small group of participants, all rated the event very highly, with 100% indicating objectives were met and 100% indicating that they would participate in future events.

Potential Next Steps
- Participants agreed to begin with changes in their own practices.
- Summary of event and draft consensus statements to be shared with clinicians and lab for feedback and then take to protocol or guidelines.
- Draft consensus statements will be shared at upcoming meeting of hematologists.
- Identify a champion to move this forward into practice.
- Consider drafting a paper on this subject.
- Consult with BC Cancer Agency.

HALIFAX, NOVA SCOTIA

April 2, 2015
Culturing Change in Lab Testing: Building Process on Vitamin D Experience

Local Hosts
Nova Scotia Diagnostic Imaging and Pathology & Laboratory Medicine Initiative Planning Committee

Goal
Using testing for vitamin D as a template, apply learnings to future strategies regarding lab utilization.

Participants
Among the 20 participants at the event were family physicians, laboratory directors, administrators, medical and laboratory specialists, and information systems professionals.

Approach
Generally, the approach was to discuss:
- The current state of vitamin D testing, along with current guidelines, issues, and next steps
- Utilization issues and their importance in the new Nova Scotia Health Authority
- Strategies for future work on laboratory utilization in Nova Scotia.

Dr. Manal Elnenaei and Dr. Deborah Zwicker presented the cost, volume, and methods for testing for vitamin D, and discussed the issues and consensus on the Nova Scotia guideline. Phillip Morehouse followed this with an overview of utilization issues and improvement strategies. Evidence from a CADTH review on vitamin D testing in the general population was shared (https://www.cadth.ca/vitamin-d-testing-general-population-review-clinical-and-cost-effectiveness-and-guidelines).

Interventions that work, from the Nova Scotia experience, were presented by Dr. Irene Sadek, Dr. Manal Elnenaei, and Phillip Morehouse.

The group discussed their perspectives and recommendations for next steps in the approach to vitamin D testing.

Further group discussion applied the agreed-upon approach to vitamin D testing to future work on lab utilization as a whole in Nova Scotia. The group aimed to find consensus on their recommended approach, and present findings to the newly formed Nova Scotia Health Authority.

Results

- A vitamin D testing utilization plan was developed and agreed upon by participants.
- Methods to communicate vitamin D and future messages were discussed, including:
  - An accredited webinar for physicians; centralized sharing of lab utilization messages to physicians via the new Provincial Health Authority.
- Components of a comprehensive lab utilization program were discussed. Details of structure, communication, information technology, and evidence were gathered from participants.
- The group will bring all discussions, suggestions, and recommendations to the newly formed Provincial Lab and Diagnostic Imaging management executive of the new Provincial Health Authority (PHA) of Nova Scotia in a report format.
- An accredited education webinar on vitamin D will be developed and shared with physicians across Nova Scotia if the new PHA is supportive.

Participants all rated the event very highly, with 94% indicating objectives were met and 88% indicating that they would participate in future events.

Potential Next Steps

- Share recommendations on approach to optimizing vitamin D testing with the Nova Scotia Health Authority
- Share recommendations on components for comprehensive lab utilization program with the Nova Scotia Health Authority.
- Consider an educational webinar for physicians in Nova Scotia to communicate best practices regarding vitamin D ordering and get feedback on future tests to evaluate.

FOCUS ON LAB TEST OPTIMIZATION AT CADTH

CADTH is committed to providing evidence for decision-makers across Canada as it relates to lab test optimization. This series of local and context-specific events was a unique approach that deserves evaluation. While the foundation of the events was an evidence review specific to the topic area, the appropriate audience, mechanism for collaboration, and local context allowed for a call to action.

Through the recording of results and achievement of local goals and objectives found in this summary, we conclude that events such as these provide an effective way to make a difference in a challenging environment.

CADTH is further committed to assisting in maintaining the momentum achieved by this series of lab events and looks forward to working with local decision-makers to support their needs.