Canadian Agency for Drugs and Technologies in Health
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Hospital Formularies Decision-Making Process

Environmental Scan

Context

In Canada, hospital-based Pharmacy and Therapeutics Committees may function at an individual hospital level, district or regional health authority level, or provincial level. In this report, the term "Pharmacy and Therapeutics Committee" (P&TC) refers to a committee responsible for managing drug-related issues for the organization represented by the committee. Synonymous terms, such as "Drugs and Therapeutics Committee" (D&TC) may be used in some Canadian jurisdictions. In this report, the terms "D&TC" and "P&TC" are used interchangeably. Generally, a P&TC comprises physicians, pharmacists, nurses, and other health care practitioners, as well as administration and quality assurance representatives and members of the public.[1] Formulary decisions are made on the basis of empirical evidence; however, factors such as safety of similar available agents, direct costs, cost offsets, and the total cost of care with a new drug compared with current care may also significantly impact formulary decisions.[2]

CADTH provides recommendations to the federal, provincial, and territorial public drug plans (hereafter the "public drug plans") to support their formulary decision-making processes (excluding Quebec). Health authorities operating at provincial, regional, or district levels, and hospitals, also utilize CADTH products and services. In this report, the term "health authority" refers to a regional health authority (RHA), a district health authority (DHA), and/or a provincial health authority.

This report explores how CADTH can enhance its support of the formulary decision-making processes of these entities to improve health system efficiencies. In addition, it is important to identify the requirements in reviewing "hospital-only" products to understand how CADTH products and services can add value to this particular formulary decision-making process. In this report, the term "hospital-only" products refers to products (drugs) that are exclusively used in hospital settings — that is, not used in a community setting — and are mostly likely not covered by the public drug plans. Examples of hospital-only products include drugs used in emergency situations or for procedures that require monitoring and/or expert administration, such as intravenous antibiotics in sepsis or intravenous anesthetics in surgery.

Traditionally, health authority or hospital P&TCs make formulary decisions for hospitals, independent of the public drug plans, resulting in variations in these formularies.[3,4] As such, there may be more than one set of drug formularies guiding the treatment of a patient in a province or territory depending on where the patient is receiving care (i.e., hospital versus community setting). Variations in what is listed across formularies may hinder the continuity of care and potentially affect patients' adherence to medications.[3,4]

However, in recent years, some jurisdictions have seen a growing collaboration between the public drug plans and the hospitals and health authorities to ensure consistent drug coverage for patients.[5] It would therefore be helpful to understand the opportunities and challenges in fostering such collaboration to potentially improve the consistency between the public drug plan formularies and the health authority and hospital formularies.

Objective

The purpose of this Environmental Scan is to understand the level of awareness and use of CADTH products and services at Canadian health authorities and hospitals. The Environmental Scan also aims to identify potential opportunities for CADTH to support formulary review processes at Canadian health authorities and hospitals; and it explores the level of collaboration between these health authorities and hospitals and the public drug plans when formulary decisions are being made.

The following questions will be addressed:

1. What is the level of awareness of CADTH products and services at health authorities and hospitals? What is the level of use of CADTH products in the formulary decision-making process at health authorities and hospitals?
2. What is involved (source of information and human resources) in the formulary decision-making process at health authorities and/or hospitals? What is being done to further improve the decision-making process? What role can CADTH play in supporting the formulary decision-making process at health authorities and hospitals?
3. What is the level of collaboration between the public drug plan formulary and the health authority and hospital formularies? What are the challenges associated with these collaborations from the perspective of health authorities and hospitals?

Methods

The findings in this Environmental Scan are based on responses to the CADTH Hospital Formulary Environmental Scan Survey, gathered as at October 22, 2014. (See Appendix 1 for the survey questionnaire.)

Of the 23 stakeholders surveyed, responses were received from 20. Responses were received from at least one stakeholder from each province and territory. Except for Nova Scotia, there was representation from both urban and rural settings in the provinces. All respondents from the territories represented institutions servicing remote locations. Two respondents were located in urban centres but provided support for remote locations (Nunavut and rural Ontario) via telepharmacy. (See Appendix 2 for more information on the institutions represented by the stakeholders surveyed.)

All respondents were currently involved in a health authority or hospital formulary decision-making process, except for the respondent from Quebec. The survey response from Quebec is therefore presented separately. The respondent from Quebec is a representative from the Institut national d'excellence en santé et en services sociaux (INESSS). INESSS, like CADTH, is a health technology assessment agency. Provincial legislation in Quebec specifies that only INESSS can make hospital formulary recommendations to the Minister of Health.

In addition to the information provided by the survey respondents, a limited literature search was performed to supplement information on ongoing policy and process changes at health authorities and hospitals to enhance the collaboration between the health authorities or hospitals within a jurisdiction (see Ongoing Policy and Process Changes at Health Authorities and Hospitals under Findings).

Limitations

The findings of the survey are not intended to provide a comprehensive review of the topic but rather present an indication of current trends. As only a small fraction of organizations operating in any province or territory were surveyed, it is not the intent of this report to represent the requirements and opinions of all the health authorities and/or hospitals across

Canada. The sole purpose of this report is to identify potential trends and encourage further discussion on these issues.

A potential limitation to the "Awareness of CADTH Products and Services at Health Authorities and Hospitals" (in the Findings section of this Environmental Scan) is that the respondents were already in contact and familiar with CADTH. Therefore, the awareness of CADTH products and services may not be generalizable to the wider population. However, the information is still valuable for understanding the level of awareness of CADTH's products and services among those already familiar with the organization.

Findings

This report summarizes the results from the survey. Information provided by respondents has been summarized in the seven subsections that follow, to capture main themes, and may have been reorganized to improve clarity. The findings from Quebec are presented separately at the end of this section; therefore, only 19 respondents are included in the main findings.

Awareness of CADTH Products and Services at Health Authorities and Hospitals

All respondents were familiar with at least one of CADTH's products, services, or processes. Table 1 provides information on the number of respondents familiar with each CADTH product, service, and/or process.

Table 1: Number of Respondents Familiar With CADTH Products, Services, and Processes

CADTH Products, Services, and Processes	Number (Total = 19)
Different types of products/services offered by CADTH	15
The process to request products/services from CADTH	12
How CADTH evaluates drugs through the CDR process (i.e., types of evidence used, rigour in research)	15
How CADTH conducts Therapeutic Reviews / Optimal Use projects (i.e., types of evidence used, rigour in research)	12
How CADTH products/services are used in making public drug plans' formulary decisions	13
How CADTH products/services can be used in making RHA/DHA/hospital formulary decisions	12

CDR = Common Drug Review; DHA = district health authority; RHA = regional health authority.

Of all CADTH products, all respondents except one were familiar with the Common Drug Review (CDR). Almost 85% of the respondents were familiar with the Rapid Response Service and 70% were familiar with Therapeutic Review products. Only 50% of the respondents were familiar with the pan-Canadian Oncology Drug Review (pCODR). Respondents were least familiar with Environmental Scan (31%), Optimal Use (15%), and Horizon Scan (5%) products.

Of the 19 respondents, six were not familiar with how public drug plans use CADTH products in making formulary decisions.

Use of CADTH Products in Formulary Decision-Making Processes at Health Authorities and Hospitals

Almost 80% (i.e., 15 out of 19) of respondents use CADTH products in their drug formulary decision-making processes. Among these current users of CADTH products, 93% of them had used CDR in the preceding six months. Rapid Response was used by almost 47%. Both Therapeutic Review and pCODR products were used by 33% of the current users of CADTH products. Only one respondent used Optimal Use products in the past six months. None of the respondents used Environmental Scan or Horizon Scan products for formulary decisions in the past six months.

Among the 15 respondents who had used CADTH products in the past six months for formulary decision-making, two had used CADTH products more than ten times, three had used CADTH products five to ten times, five used CADTH products two to five times, and five used CADTH products one to two times.

Among the respondents who currently used CADTH products, 87% used them in combination with other available resources (e.g., hospital drug review, submission binder from manufacturer, clinical practice guidelines, internal and external databases) to inform drug formulary decisions. Only one respondent used a CADTH product as the *only* or *primary* resource in making formulary decisions. Only one respondent used a CADTH product *infrequently* or as a *minor* resource.

Regarding the specific aspects of CADTH products, "listing recommendation on a single technology appraisal" (i.e., CDR recommendation) was most frequently used in formulary decision-making processes; that is, it was used by 80% of respondents. "Reviews of research evidence" (e.g., systematic reviews, meta-analysis, network meta-analysis, health technology assessment) were the second most frequently used aspect of CADTH products in formulary decision-making processes; that is, they were used by 66% of respondents. "Reference lists of available evidence" and "CADTH recommendations on drug classes or categories" (i.e., a Therapeutic Review or Optimal Use product) were the third most commonly used aspects of CADTH products — used by 40% of the respondents. "Economic assessments" (i.e., a component of some CADTH products) were least frequently used — used by 20% of the respondents.

Of the 19 respondents, four did not use any CADTH products in the past six months. The following reasons were given by these respondents:

- lack of awareness of CADTH products and services
- lack of awareness of how CADTH products and services could be used in the formulary decision-making process, in particular when supporting hospitals in rural locations.

However, three out of these four respondents stated that recent communication with a CADTH staff member has highlighted how CADTH products may be used in their institution, and they expect to use CADTH products and services in the future.

Resources Used in Formulary Decision-Making at Health Authorities and Hospitals

The most common sources of evidence used in the formulary decision-making process (other than CADTH products) were PubMed, MEDLINE, internal databases, and expert opinion. Clinical practice guidelines, literature searches, and how products are covered in other hospitals or jurisdictions were the next most frequent resources and considerations in making formulary decisions. Some institutions conduct their own systematic reviews and meta-analyses to supplement a CADTH review in order to inform their formulary decisions. Generally, such reviews were conducted to capture information that had been published after the publication of a CADTH review. However, one respondent mentioned that his or her institution supplements the information provided from the CADTH review by incorporating different studies and different end points. Table 2 provides a list of sources used in hospital formulary decision-making processes, as identified by the respondents. Table 3 lists additional factors considered by survey respondents in making formulary decisions at health authorities and hospitals.

Table 2: Sources of Information Used (Other Than CADTH Products) by Survey Respondents in Making Formulary Decisions at Health Authorities or Hospitals

External databases and online resources	• PubMed, MEDLINE, Ovid, Embase, Cochrane Reviews • Micromedex, Lexicomp • UpToDate, Rx Files, medSask • www.clinicaltrials.gov, www.drug coverage.ca, www.cancerdrugaccess.ca • National Guideline Clearinghouse
Products and services offered by organizations	• AHFS • Atlantic Common Drug Review (ACDR) • Canadian Society of Hospital Pharmacists' (CSHP) Pharmacy Specialty Networks (PSN) • Drug Effectiveness Review Project (DERP) • Human Drug Advisory Panel (HDAP) drug categories • Institut national d'excellence en santé et en services sociaux (INESSS) • Institute for Clinical Systems Improvement • International Pharmaceutical Abstracts (IPA) • National Institute for Health and Care Excellence (NICE, UK) • Patented Medicine Prices Review Board (PMPRB)
Others	• Clinical practice guidelines • Expert opinion (local and across Canada) and best practices • Internal databases • Internet searches • Listserve discussions • Manufacturer's data • Other RHA, DHA, and hospital formularies • Public drug plan formularies • Listings and reimbursement restrictions for a drug in other countries • Reviews conducted at other hospitals • Special interest groups (e.g., Canadian Cancer Society) • Stakeholder feedback from key practitioners for local opinion and practice (including their agreement/disagreement with CADTH reviews)

DHA = district health authority; RHA = regional health authority.

Table 3: Additional Factors Considered by Survey Respondents in Making Formulary Decisions
• Approval in other provinces • Other reviews conducted to supplement the CADTH review; that is, to include studies that are published after a CADTH review or to consider different studies with different end points • Cost considerations of the related education and implementation of the new drug (if a product is replacing another product) • Cost of managing a disorder on resources and workload • Evaluation of community-based usage and the public drug plan formulary to determine the impact on continuity of care • Local practice issues such as demographics, availability of rural support, availability of testing, and current practice patterns • Price information relative to other therapies available

Regarding human resources, one respondent's organization has less than one full-time employee who is directly or indirectly supporting the drug review process of their P&TC. Approximately 85% of respondents' organizations have between one and five full-time equivalents that are directly or indirectly supporting the drug review process. However, three out of 19 respondents (organizations) have between five and 10 full-time employees directly or indirectly supporting the drug review process. Two out of these three respondents were from provincial-level health authorities.

Ongoing Policy and Process Changes at Health Authorities and Hospitals to Better Support the Formulary Decision-Making Process

In general, across the country, there was a trend toward an ongoing effort to collaborate and share resources between health authorities and/or hospitals within a province, as well as to re-evaluate the P&TC and/or its processes. Table 4 summarizes the information provided by survey respondents on these initiatives.

A limited literature search was performed to supplement information provided by the respondents (see Table 4) on initiatives to increase the collaboration between the health authorities or hospitals within a jurisdiction. In 2010, Alberta established a single provincial drug list, the Alberta Health Services (AHS) Hospital Formulary, which is a list of medications approved for use in acute care facilities in Alberta.[6] In New Brunswick, the eight health regions were merged to form two regional health authorities in 2008.[5] A provincial health plan was announced in 2009, which included the formation of a single provincial hospital formulary.[5] The provincial D&TC in New Brunswick was launched in the fall of 2010.[5] In British Columbia, the British Columbia Health Authorities Formulary Alignment Initiative implemented a single provincial formulary list for all health authorities in 2012.[7] The overarching goals of these efforts were to enhance continuity of care, ensure equality of services, and improve the ability to align the hospital formulary with the publicly funded provincial outpatient drug program.[5-7]

Table 4: Comments on Ongoing Policy and Process Changes in the Health Authorities and Hospital Formularies to Better Support the Formulary Decision-Making Process	
British Columbia	The BC P&TC is a provincial committee comprising representatives from all the health authorities. The resources and work of the drug reviews is shared among all health authority staff. The drug review team is constantly looking at processes to improve the drug reviews and uses CDR and CADTH to support its work, as applicable. The BC health authorities are trying to harmonize more with the BC Ministry of Health (Pharmaceutical Division) in reviews and formulary listings but currently have different mandates, contracts, and timelines, making such harmonization more challenging.
Saskatchewan	One health region in Saskatchewan is working to re-establish the P&TC in the region as a multidisciplinary group. Another health region currently has residents completing a brief review of best formulary practices in an attempt to streamline formulary policies.
Manitoba	One RHA in Manitoba was currently re-evaluating the role of the provincial D&TC, as well as the costs associated with automatic substitution practices.
Ontario	There is collaborative consultation between hospitals within a LHIN regarding formulary decision-making and access. One health centre is increasing collaboration with clinicians with review experience and using clinical librarian support for search strategy creation and execution. One of the three respondents from Ontario is associated with a telepharmacy company supporting rural and remote hospitals where there are no pharmacists on-site. The remote pharmacists conduct their own drug reviews; however, they are looking at ways to share the drug review process work to be more efficient.
New Brunswick	The provincial D&TC in New Brunswick is accessing outsourced drug review resources through North West Telepharmacy Solutions, while using its standard evaluation templates and utilization data. The provincial D&TC uses pharmacy students when available to help populate background information for class synopses and reviews. They also use a provincially shared file site (SharePoint) to facilitate file sharing, and document storage and retrieval. They also share the reviews that are done in-house with other health authority and provinces, when possible.
Nova Scotia	One DHA in Nova Scotia is attempting to prioritize drugs awaiting review based on factors such as efficacy, side effects, impact on hospital stay, and adherence.
Prince Edward Island	Health PEI is initiating a common approval process for drugs funded in acute care, as well as those delivered through the private sector (i.e., community pharmacies) being vetted by the provincial D&TC. Pharmacist positions that support the various subcommittees of the provincial D&TC work closely and provide a measure of support to each other. As the capacity for on-site review in the form of a health technology assessment is extremely limited, information provided by CADTH is considered to be invaluable.

CDR = Common Drug Review; DHA = district health authority; D&TC = Drugs and Therapeutics Committee; LHIN = local health integration network; P&TC = Pharmacy and Therapeutics Committee; RHA = regional health authority.

Enhancing the Role of CADTH in Supporting Formulary Decision-Making at Health Authorities and Hospitals, and in Reviewing Hospital-Only Products

Respondents suggested various enhancements to CADTH products to become more useful in the context of hospital and health authority drug formulary decision-making processes. These suggestions include conducting reviews of hospital-only products; conducting therapeutic reviews of oncology products; and incorporating continuity of care issues, ethical parameters, and best practices in the reviews.

In addition, respondents were also asked to provide suggestions specific to hospital-only products (i.e., how CADTH could support reviews of hospital-only products). Some of the suggestions were conducting drug class reviews of hospital-only products, including economic analyses; providing information on therapeutic substitutions; and providing information on how other hospitals are using these products.

Table 5 provides a complete list of the suggested enhancements to CADTH products to become more useful in the context of hospitals and health authorities. Respondents provided suggestions that are applicable to both hospital-only products, and products that are used in both community and hospital settings.

Note that the suggestions on enhancing CADTH's products and services (refer to Table 5) do not necessarily imply that these considerations are not already incorporated in CADTH products. Rather, it could be an indication that CADTH needs to raise awareness among its stakeholders about these specific details regarding its processes and products. Please see the corresponding footnotes for clarifications.

Table 5: Suggestions on Enhancing CADTH's Products and Services to Become More Useful in the Context of Health Authorities and Hospitals and in Reviewing Hospital-Only Products

Specific Products and Services
Suggestions specific to hospital-only products: • Reviews of more hospital-only drugs[a] • Evidence summaries[b] • Information to support evidence-based product selection; indication/population limitations for drugs[c] • Information to support or discourage restrictions based on clinical and pharmacoeconomic evidence[c] • Safety and efficacy reviews of medications administered in pre-hospital, outpatient, and in-patient facilities/environments[c] • Therapeutic substitution including benefits and risks of therapeutic substitutions (e.g., are all *botulinum* products equal and, if so, can they can be safely substituted?) • Essential antidote list for small hospitals (with limited drug budgets). There are some antidotes that can be obtained from larger hospitals within a safe time frame; therefore, some guidance in this area would help reduce the number of antidotes that need to be available at the small rural sites. • Reconstituted stability of injectable products • Information on the use of drugs in pediatric populations • Safety concerns (e.g., sound-alike or look-alike issues, identification of complicated preparation, administration, or use that would benefit from policy, procedure, or order set development) • Niche reviews to help with establishing prescribing criteria, if warranted[c] • Recommendations on alternative therapies for the various medications on back order • Epidemiological information for the condition being considered (e.g., for dexmedetomidine:

Table 5: Suggestions on Enhancing CADTH's Products and Services to Become More Useful in the Context of Health Authorities and Hospitals and in Reviewing Hospital-Only Products

what is the frequency of use for awake fibre optic intubation procedures in hospitals?)

- Class comparisons:[c] Regular review of AHFS therapeutic classes including information on which drugs have stronger evidence (e.g., lactulose versus docusate for constipation) would help meet Accreditation Canada standards for P&TC requirements in hospitals with limited formulary FTEs and/or limited inventory room (i.e., in small hospitals). This would be helpful for rural hospitals to select which drugs to place on formularies (e.g., amlodipine versus felodipine, atorvastatin versus simvastatin, ramipril versus perindopril).

Types of evidence and other considerations in the review process

- Include a surrogate end point (along with its limitations) in reviews rather than relying heavily on morbidity and mortality data.[d]
- Include (additional) clinical practice-based information in addition to the evidence-based information (i.e., expert recommendations and current practices at different institutions).[d]
- Include the ethical parameters of covering a medication that would help direct limited resources (e.g., improving the quality of life of 100 patients versus extending the life of one patient by three months).[d]
- Other issues — such as diversion, the need to monitor drug intake, and convenience dosing — should be part of the review.[d]
- CADTH could investigate undertaking Therapeutic Reviews for oncology products.
- Include comparisons to realistic alternatives (i.e., those commercially available in Canada).
- Incorporate continuity of care issues. For example, is it safe or practical to "hold" drugs during hospital stay?[d]
- Consider the real-world application of drugs; for example, an antibiotic that is studied as first-line therapy but would be used only as second- or third-line therapy.[d]

Suggestions specific to hospital-only products:

- Review the grey literature that CADTH can access, which may not be available to individuals/RHAs. This would allow for the same high level of review of hospital-only products as the general products reviewed by CADTH.

Pharmacoeconomics[e]

- Evaluation of the impact of managing the illness and not only the price of the medication (e.g., conducting a cost/benefit analysis of convenience dosing on resources and workload)[e]
- Transparency in pharmacoeconomic information so that it can be adapted to a hospital environment[e]
- Definition of the circumstances in which a drug is useful, or at what price point it should be added (either absolute or relative to other agents): It is difficult to interpret the CDR recommendation "do not list at submitted price" because it does not provide enough context within a class of drugs or represent niche uses[e]
- pCODR recommendations generally state that a drug is recommended (over another drug) given that cost-effectiveness is approved at an acceptable level. Such a recommendation is not useful for maintaining continuity in funding expensive therapies at the provincial level.
- A cost/benefit analysis that includes a hospital and ambulatory perspective
- Cost-effectiveness within institutional settings (i.e., in acute and long-term care)
- A formula for calculating pharmacoeconomic impacts. As hospital prices differ because of contracts with group purchasing organizations, such a formula would allow for an internal pharmacoeconomic review without breaking any confidentiality clauses.[e]

Table 5: Suggestions on Enhancing CADTH's Products and Services to Become More Useful in the Context of Health Authorities and Hospitals and in Reviewing Hospital-Only Products

Suggestions specific to hospital-only products:

- Conduct economic analysis and cost-effectiveness analysis of hospital-only products.
- Conduct a review of hospital-only indications and novel formulations that are rarely used and may have significant costs associated with off-label use.

Other

- Queues for CADTH reviews should be communicated to other review bodies.
- Increase the awareness of how CADTH's products and services can be used in formulary decision-making at RHAs, DHAs, or hospitals.
- A spreadsheet of all Health Canada-approved drugs (hospital-only) that have undergone HTA by pCODR, CDR, or other agencies in Canada would inform horizon scanning at an institution prior to final decisions on drug formulary additions. This would help in balancing the spending on new drug therapies across the continuum of disease states.
- Have contract status with group purchasing organizations such as Health*PRO*.
- Publication of the full review, including the protocol and the results, of a drug review versus just a summary. In the absence of such (complete) information, some institutions re-initiate the review to have access to all the information.[f]
- Status (inclusion) in other hospitals' formularies.

CDR = Common Drug Review; DHA = district health authority; FTE = full-time employee; HTA = health technology assessment; pCODR = pan-Canadian Oncology Drug Review; P&TC = Pharmacy and Therapeutics Committee; RHA = regional health authority.

[a]CADTH continues to respond to queries on hospital-only products through its Rapid Response Service (upon request from health care decision-makers. It should be noted that drug products undergo a CDR review only upon submission by the manufacturer (except for pCODR-related products).

[b]An executive summary is prepared for all CDR reports and Therapeutic Review science reports. Rapid Response products also provide a summary of evidence.

[c]Although CADTH does not develop clinical guidelines, it does conduct Optimal Use projects and Therapeutic Review projects. CADTH conducts Optimal Use projects to encourage ideal prescribing, purchasing, and use of drugs and health technologies by health care providers, policy-makers, and consumers. A CADTH Therapeutic Review is a review of the most recent evidence available in the public domain regarding a single drug, a drug class, or a drug category. For information on various CADTH product lines, please see Appendix 3. More information is available at www.cadth.ca/en/products.

[d]CADTH's reviews and recommendations are evidence-based. In addition, CADTH's drug review process (which includes CDR; Therapeutic Review, Optimal Use, and some higher level Rapid Response projects) also incorporate clinical expert opinion and/or patient input. As such, the input of these stakeholders remains one of the important considerations when making recommendations on drugs, along with the evidence on the safety, efficacy, and cost-effectiveness of the drugs.

CADTH incorporates surrogate outcomes and quality of life (including patient-relevant outcomes) in its reviews. For drugs that have abuse potential (e.g., narcotics), misuse, abuse, and diversion of the drug are also important considerations. However, the inclusion of these outcomes in a CADTH review is also based on the inclusion of these outcomes in the clinical trials upon which the reviews are based.

[e]CADTH considers the impact of an illness to the health care system (as a whole) in its economic analyses in the case of Therapeutic Reviews. In the case of CDR reviews, the economic analysis is generated by the manufacturer, who determines the extent of the health care resource considerations (perspective). Anything beyond a cost-minimization analysis (such as a cost-utility analysis) will incorporate the cost of managing the illness in the various health care settings and therefore considers the cost to the various health care payers (e.g., public drug plans, hospitals, government payer). For drugs that are used in both in-patient and outpatient or community settings (typically oral agents), the cost of care is considered for the course of the illness (i.e., in various health care settings). However, CADTH does not assess the cost of illness in hospital-only settings. Further, it may not be feasible to adapt the economic analysis conducted for an outpatient setting to a hospital setting, as the course of disease and care requirements may differ given the patient population. For example, a patient initiating a drug in hospital may have a more severe condition, additional complications, etc., compared with a patient taking the same drug in an outpatient setting. The clinical and economic consideration may therefore differ for these patients.

CDR Pharmacoeconomic Reports include re-analyses conducted by CDR economists. As part of these analyses, where a more likely scenario (based on more realistic or conservative assumptions) is identified, price reductions both for the drug under review, as well as comparator drugs (where it has been identified that drug plans have engaged in price negotiations), are included.

[f]CADTH publishes full review reports along with the protocol for its CDR, Therapeutic Review, and Optimal Use products. These reports are available on the CADTH website at www.cadth.ca.

Additionally, two respondents stated that CADTH reviews would be specifically helpful in settings where resources are limited, such as in small hospitals, hospitals in rural locations, and hospital and health authorities with limited capacity to conduct on-site health technology assessments. One respondent representing a provincial health authority expressed that CADTH products have been helpful and are increasingly being used in their organization to inform formulary decisions. The respondent also commented on the increased transparency at CADTH in the services CADTH offers, how to access them, and the timelines. In addition, the respondent stated that requestors should allow reasonable time for CADTH to be able to respond to their requests on time.

However, one respondent noted that each health authority or hospital has unique purchasing arrangements through group purchasing organizations and, therefore, it may be more challenging for CADTH to make recommendations related to price. Another respondent identified that it may be difficult for remote reviewers like CADTH to identify the specific requirements of various health care settings, such as primary versus tertiary care or a specialized care institution versus those that are not specialized.

Level of Collaboration and Consistency Between the Public Drug Plan Formulary and Health Authority and Hospital Formularies

Regarding the level of collaboration between public drug plans and the health authority or hospital in a given jurisdiction, only one province — Prince Edward Island — has recently established a committee (mandated by legislation) to make formulary decisions for public drug plans, and health authority and hospital formularies. Out of the 19 respondents, 13 use the public drug plan formulary as a resource in the formulary decision-making process at their institution. Among these 13 respondents, three of them also had a public drug plan representative involved in their respective institution's P&TC. However, four respondents stated that their formulary decision-making process is an independent process, with no collaboration with the drug plans.

In addition, 10 out of the 19 respondents stated that their organizations have formal or informal policies and/or processes to try and align their formularies with provincial public drug plan recommendations.

Table 6 provides a summary of the respondents' comments on policies, processes, and/or initiatives (formal and informal) underway to align their formularies with provincial drug plan formulary recommendations in their jurisdictions.

Table 6: Comments on Policies, Processes, and/or Initiatives (Formal and Informal) Underway to Align Health Authority or Hospital Formulary With Public Drug Plan Formulary Recommendations	
Respondent's Province	**Comments**
British Columbia	There is increased collaboration with the public drug plan compared to the past few years. The BC provincial D&TC has membership from the BC public drug plan. The BC public drug plan and the BC P&TC share information such as drugs to be reviewed, including timelines, evidence reviews, drug decisions, and implementation timelines. There are ongoing discussions on how to align and collaborate the BC Health Authority formulary with the provincial drug plan recommendations, and vice versa.
Alberta	There is no formal policy to align with the public drug plan recommendations; however, effort is made to be consistent with the public drug plan (when possible) to prevent continuity of care issues.
Saskatchewan	Although an informal process, the provincial RHA pharmacy working group is committed to listing (when possible) medications that also have a public drug plan formulary listing, especially medications used for chronic conditions. This helps promote continuity of care between the RHAs and may help with the transition to outpatient use, especially if the person's only coverage is the provincial formulary. One respondent, who is on a hospital formulary committee, as well as on the provincial expert advisory committee, attempts to ensure consistency in decision-making by serving as a conduit.
Manitoba	The process is not formal; however, the hospital considers the public drug plan formulary. Post-discharge implications are considered (e.g., for drugs like proton pump inhibitors). Informal discussions occur, with the aim of greater continuity of care between institutional and outpatient settings.
Ontario	The ODB formulary list is used as a reference to assist with formulary decision-making. One hospital in Ontario has in-house policies that allow community products (that are not listed in the hospital formulary) to be continued in the hospital if a substitution policy is not in place or not appropriate. The listing status of a drug in a public drug plan formulary is considered because starting a patient in the hospital on a drug that is not covered in the community can be problematic.
New Brunswick	There is an (informal) effort to align the two formularies. However, such an alignment is not always possible, as hospital-only products are not listed on the provincial drug plan and hospital formulary is more restrictive.
Nova Scotia	Public and private drug plan formularies are considered when making formulary decisions. However, it is only for guidance, as other parameters are also considered in making hospital formulary decisions.
Prince Edward Island	The alignment is expected to occur through a single provincial D&TC. However, the process is still in its early stages and there are some areas where role clarity is needed.
Newfoundland and Labrador	The organization has made a request for a government representative (i.e., from the public drug plan) to be a member at the health authority's P&TC.

BC = British Columbia; D&TC = Drugs and Therapeutics Committee; DHA = district health authority; ODB = Ontario Drug Benefit Program; P&TC = Pharmacy and Therapeutics Committee; RHA = regional health authority.

Challenges in Aligning Hospital Formularies With Provincial Drug Plan Formularies

In general, all respondents agree that consistency between formularies of public drug plans, and of hospitals and health authorities, is important to ensure continuity of care. According to respondents, most hospitals and health authorities indeed consider public drug plan coverage when making formulary decisions in the interests of consistent treatment options for patients.

However, respondents stated that there are various challenges in aligning with the public drug plan formulary. According to the respondents, these challenges arise because of differences in roles of these institutions in the health care system, factors affecting the overall cost of adding a drug to formulary, the decision-making process, implementation and resources issues, and product types. These issues (as per the information provided by the survey respondents) are subsequently discussed.

It should be noted that the challenges subsequently discussed represent only the perspectives and opinions of the respondents who were surveyed (representatives from health authorities and hospitals). The small sample size of the survey does not allow for a generalizability to the wider formulary decision-making bodies at hospitals and health authorities across Canada.

Role in the Health Care System

Some respondents perceived the public drug plans solely as the funders of the drugs as opposed to funders, suppliers, and administrators of drugs (i.e., in hospitals). Respondents attributed this to the resulting differences in the cost of the drug to the institution. Additionally, they stated that partial reimbursement is an option for public drug plans but not for the hospitals, which have to either pay the total drug cost or not cover the drug at all.

Factors Affecting the Overall Cost of Adding a Drug to a Formulary

Respondents claimed that, in addition to the cost of the drug, hospitals and health authorities also consider the cost of managing an illness, which includes costs associated with human resources, ethical considerations, quality of care, etc. As such, these additional considerations may lead to an increase or decrease in the overall cost of adding a drug to a hospital formulary. Respondents stated that these additional factors result in the differences between the drugs listed in the hospital formulary and those in the public drug plan formulary. In addition, drug cost savings are also thought to be achieved through different mechanisms in different institutions, resulting in variation in formularies.

Respondents also stated that hospital contract costs can be significantly different from public drug plan costs. Different drug purchasing contracts (group purchasing organizations) in secondary care also create inconsistency in the cost between the public drug plan, and the health authority and hospital formularies. They also consider this as a reason why contracted brands supplied in hospitals may not be the brand covered by the public drug plan. As per one respondent, one possible solution to this issue would be to have “molecule” coverage rather than “brand name” coverage.

Decision-Making Process

According to the respondents, variations in the formulary processes of health authorities and hospitals, and the public drug plans, may affect the evidence presented to support decision-making. The same evidence may be seen from widely different points of view, which creates conflict in the formularies. There is also a perception that the cost negotiations, such as price listing agreements, may take precedence over the evidence or a CDR recommendation, therefore making it difficult for hospitals to align their formularies with that of the public drug plan.

One respondent stated that some of the reasons for limiting hospital formulary listings were to guide best practices by having the most effective products available, to address safety concerns (e.g., if there are look-alike and sound-alike products), to limit the number of products practitioners need to be familiar with, and to decrease inventory and associated cost.

One respondent shared his view that specialists in the hospitals should be informing community practice and not the other way around. However, another respondent expressed concern over the influence of physicians on formulary decisions.

Another challenge identified by a respondent was on the lack of communication between small and large hospitals' P&TCs. Large teaching hospitals continue to introduce new expensive medications that are continued upon transfer of the patient to small hospitals. However, small hospitals may not have the drug in its formulary because of limited drug budgets. In addition, physicians in small hospitals rely on specialists from teaching hospitals. Therefore, the small hospital's pharmacist is under pressure to add new drugs to the formulary, as these drugs are in the large teaching hospitals' drug formulary.

Implementation and Resources

The respondents stated that implementation of new medications in the hospital formulary takes time, as there may be many internal policies and procedures that need adapting — for example, staff education, pre-printed orders, therapeutic interchange policies, purchasing systems, and contracts. However, it is perceived that a public drug plan decision is active as soon as it is announced.

Some respondents also expressed concerns regarding the time delay between the CDR recommendation and the public drug plan listing, which was thought to be due to cost negotiation; that is, price listing agreements. Respondents claimed that inventory issues (storage, expiry dates) and associated costs are concerns for hospitals. For example, one health authority responsible for multiple acute care sites stated that there may be waste because of an excess of expired products if their formulary is completely aligned with the province's public drug plan formulary. Respondents claimed that the public drug plans do not have to address concerns such as storage or expiry dates.

In terms of human resources to support the formulary process, some hospital review groups are performing this task "off the side of their desk" and may not have the dedicated staff that is available to public drug plans.

In addition, as both provincial and federal plans (e.g., Non-Insured Health Benefits [NIHB]) are in effect in any province, hospitals face challenges when they have to align with two public drug plans whose formularies are not consistent with each other.

Highlighting an administrative challenge, a respondent from a small hospital stated that the hospital has a provision to order non-hospital formulary drugs for in-patients. However, they need to coordinate with the patient, physician, and community pharmacy to ensure that there is continuity of care once the patient is discharged from the hospital. As such, this process requires that the patient's drug plan be identified, that the approval process is initiated with the community pharmacy, and that the availability of the drug in the community pharmacy is ensured. Hence, a non-formulary drug may not be initiated until outpatient coverage and approval has been established.

Product Type

One respondent stated that hospitals carry hospital-only products that would not be on the public drug plan formulary, a reflection of the different therapeutic considerations for treatment in acute settings. In addition, in tertiary care centres, specialists need to have access to emerging treatment options, and there may be off-label use of drugs for rare indications.

Respondents also stated that hospital formulary is more restrictive for drugs within a therapeutic class and utilizes therapeutic interchanges that are not used in public drug plans. This requirement was attributed to the Accreditation Canada's standard, which requires hospitals to minimize therapeutic duplication, limiting the different strengths of products supplied. Respondents claimed that this can have effects on continuity of care at discharge if there are inconsistencies with the public drug plan.

Additional Issues

One respondent shared that there is a lack of resources to support a single equitable process, although the support is growing. Another respondent raised a concern over duplication of work, as these formulary decision-making bodies are not necessarily aware of when others are completing reviews of the same drug. Another respondent stated that local implementation may vary across the country and among institutions, depending on financial resources and the availability of specialists with the knowledge to safely and effectively use certain drugs and non-drug technology.

Findings From Quebec

The respondent from Quebec represented the Institut national d'excellence en santé et en services sociaux (INESSS). The respondent stated that INESSS is aware of all of the CADTH products and services. However, INESSS does not specifically use CADTH products in their formulary decision-making process. INESSS conducts health technology assessments and makes recommendations to the Minister of Health and Social Services regarding the drugs to be listed on the hospital formularies, as well as the provincial public drug plan in Quebec, the Régie de l'assurance maladie du Québec (RAMQ). There are between five and ten full-time employees who are directly or indirectly involved in the drug review process.

Regarding collaboration between the health authorities and hospitals and the provincial drug plan, the respondent referred to the *Loi sur les services de santé et services sociaux* Act, which states:

> *No institution may furnish medicines other than those appearing on the list drawn up by the Minister for that purpose. The list shall include only medicines in respect of which a notice of compliance has been issued by the federal government for approved indications. It shall be updated periodically after considering the recommendations of Institut national d'excellence en santé et en services sociaux. The Régie de l'assurance maladie du Québec must publish the list and each of its updatings.*[8]

However, the Act has provisions to allow an institution in which a council of physicians, dentists, and pharmacists is established to add medicines other than those appearing on the list (i.e., as referred in the Act aforementioned) that have received a notice of compliance (NOC) from the federal government. In addition, medicines that have not received a NOC may also be added to the list in exceptional circumstances. Prior approval and authorization are required in both these circumstances.

Conclusion

Twenty-three health authorities (operating at the provincial, regional, or district level) and hospitals across Canada were surveyed on their awareness and use of CADTH products. Twenty organizations responded, with at least one

stakeholder from each jurisdiction. All respondents were familiar with at least one of CADTH's products and services. The Common Drug Review, Therapeutic Review, and Rapid Response products were the most recognized and also the most commonly used CADTH products in formulary decision-making processes.

Potential opportunities to enhance CADTH products to better support formulary decision-making processes at health authorities and hospitals include:

- conducting reviews of hospital-only products
- conducting therapeutic reviews of oncology products
- incorporating the continuity of care issues, ethical parameters, and best practices in the reviews.

Regarding hospital-only products, respondents suggested a number of services, including the following:

- conducting drug class reviews of hospital-only products, including economic analyses
- providing information on therapeutic substitutions
- providing information on how other hospitals are using these products.

Although the majority of the respondents stated they were aware of CADTH products and the types of evidence used in CADTH drug reviews (see Table 1), the suggestions respondents provided for improving CADTH products suggest that there are opportunities to enhance awareness around CADTH's drug review processes (see Table 5 and footnotes). Many of the respondents' suggestions on improving CADTH's products and services (except for those on hospital-only products) were considerations already incorporated in CADTH's products and services (see Table 5 footnotes). This indicates that CADTH needs to increase awareness of not only its products but also its processes — in particular the types of evidence used in its reviews. Such an increased awareness could potentially lead to an increased use of CADTH products and services in formulary decision-making processes at hospital and health authorities.

The survey indicated that CADTH products and services would be specifically helpful in settings where resources are limited, such as in small hospitals, hospitals in rural locations, and hospital and health authorities with limited capacity to conduct on-site health technology assessments. However, CADTH products may be equally valuable to larger organizations, as suggested by a respondent from a provincial health authority who is increasingly using CADTH products to inform formulary decisions at his organization.

Regarding collaboration and consistency in formulary decision-making, the survey indicates that there are various ongoing efforts to ensure continuity of care for patients by making consistent formulary decisions. Some of these (formal/informal) efforts include establishing a single committee to make formulary decisions for both public drug plans and hospitals in a province, establishing a single provincial hospital formulary, establishing provincial-level working groups or advisory committees, re-evaluating the role of the P&TC, and/or sharing drug reviews between institutions. The majority of the respondents indicated that hospitals and health authorities consider public drug plan coverage when making formulary decisions in the interests of consistent treatment options for patients.

Respondents, however, stated that there are various challenges in aligning with the public drug plan formulary. According to the respondents, these challenges arise because of differences in the roles of these institutions in the health care system, factors affecting the overall cost of adding a drug to a formulary, decision-making processes, implementation and resources issues, and product types. It should be noted that the challenges discussed represent only the perspective of the health

authorities and hospitals surveyed. Hence, these comments cannot be generalized to the wider formulary decision-making bodies at hospitals, health authorities, or public drug plans. Rather, the purpose of this report is to identify potential trends and possible explanations around existing variation in these drug formularies and, more importantly, encourage further discussion among the relevant bodies.

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APPENDIX 1: CADTH HOSPITAL FORMULARY ENVIRONMENTAL SCAN SURVEY QUESTIONNAIRE

A. Awareness of CADTH products and services[a] at RHA, DHA, and hospitals

1. **Which of the following CADTH products, services and processes are you familiar with?** *(Please select all that apply)*
   - ☐ Different types of products/services offered by CADTH
   - ☐ The process to request products/services from CADTH
   - ☐ How CADTH evaluates drugs through the CDR process (i.e., types of evidence used, rigour in research)
   - ☐ How CADTH conducts therapeutic reviews/optimal use projects (i.e., types of evidence used, rigour in research)
   - ☐ How CADTH products/services are used in making public drug plans' formulary decisions
   - ☐ How CADTH products/services can be used in making RHA/DHA/Hospital formulary decisions

2. **Which of the following specific CADTH products and services are you familiar with?** *(Please select all that apply)*

   ☐ Rapid Response ☐ Horizon Scan ☐ Environmental Scan
   ☐ Therapeutic Review ☐ Optimal Use ☐ Common Drug Review (CDR)
   ☐ Pan-Canadian Oncology Drug Review (pCODR)

3. **Are you familiar with how the provincial drug plans use CADTH products and services?**
   ☐ Yes ☐ No

B. Use of CADTH products and services at RHA, DHA and hospital formulary

4. **Do you currently use CADTH products and services in your drug formulary decisions?**
   ☐ Yes (please proceed to question 4a) ☐ No (please proceed to question 4e)

   a) If *yes*, please select the products and services that you have used in the past 6 months?
   ☐ Rapid Response ☐ Horizon Scan ☐ Environmental Scan
   ☐ Therapeutic Review ☐ Optimal Use ☐ Common Drug Review (CDR)
   ☐ Pan-Canadian Oncology Drug Review (pCODR)

   b) If *yes*, how frequently did you use CADTH product and services in the past 6 months?
   ☐ 1-2 times ☐ 2-5 times ☐ 5-10 times ☐ > 10 times
   ☐ Did not use any products in the past 6 months, but have used products previously

[a] Please see Appendix 3 for a complete list of CADTH's products and services.

c) If *Yes*, how have you used CADTH products and services to inform drug formulary decisions
- ☐ Used as the *only or primary* resource
- ☐ Used in combination with other available resources (e.g. hospital drug review, submission binder from manufacturers, clinical practice guidelines, etc.)
- ☐ Used infrequently or only as a minor resource

d) If *Yes*, what aspects of CADTH products and services have you used to inform your drug formulary decisions? *(Please select all that apply)*
- ☐ A list of available research evidence to base your review on (i.e., reference list)
- ☐ A review of research evidence (systematic review, meta-analysis, network meta-analysis, health technology assessments)
- ☐ Recommendations (listing) on a single drug technology (i.e., Common Drug Review)
- ☐ CADTH recommendations on drug classes or drug categories
- ☐ Economic assessment (e.g., cost-effectiveness, budget impact analysis)
- ☐ Information on emerging health technologies (i.e., drugs)
- ☐ Other_____

e) *If No***,** please specify the reasons

5. What other sources of evidence do you use to inform formulary decisions e.g. PubMed, Medline, internal databases, expert opinion? (*Please list the sources)*

C. Resource capacity

6. How many resources (i.e., approximate number of FTEs) are currently utilized (directly or indirectly) to support your drug review process by the Pharmacy and Therapeutics Committee?

☐ 1-5 ☐ 5-10 ☐ 10-15 ☐ >15

7. Describe any ongoing initiatives your institution may be initiating or exploring to better support your drug review process.

D. Utility of CADTH to undertake reviews of "hospital-only" products

8. How can CADTH products and services be improved to become more useful to your context?

9. What information from CADTH on 'hospital-only' products would be useful for your formulary decision-making?

E. Collaboration and consistency between RHA, DHA, hospital formularies and provincial drug plans

10. How do provincial drug plan formulary decisions influence your drug formulary decisions?
(Please select all that apply)

- ☐ A single/coordinated committee (mandated by legislation) to make formulary decisions for both provincial public drug and RHA/DHA/hospital formularies
- ☐ A single/coordinated committee to make formulary decisions for both provincial public drug plan and RHA/DHA/hospital formularies; but NOT mandated by legislation
- ☐ Provincial public drug plan representatives involved in the hospital Drug/Pharmacy and Therapeutics Committee
- ☐ Public drug plan formularies are used as a resource for RHA/DHA/hospital formulary reviews
- ☐ Independent process (i.e. no collaboration with the provincial public drug plans)
- ☐ Others (please specify)

11. Are there any formal policies or informal processes in place and/or any initiatives underway to align with provincial drug plan recommendations?

- ☐ No
- ☐ Yes (If *Yes*, please specify the policy/process and/or the initiative that is underway)

12. What challenges have been identified in your jurisdiction to align hospital formularies with provincial drug plan formularies?

APPENDIX 2: INFORMATION ON SURVEY RESPONDENTS

Organizations Represented by Survey Respondents		Level of Operation	Location Served
Province	**Organization**		
Yukon Territories	Yukon Hospital Corporation	Territorial	Remote
Northwest Territories	Stanton Territorial Health Authority	Regional	Remote
Nunavut	Government of Nunavut, Qikiqtani General Hospital	Hospital (via telepharmacy)	Remote
British Columbia	British Columbia Health Authorities	Provincial	Urban and rural
	Lower Mainland Pharmacy Services (Fraser Health Authority, Providence Health Care, Provincial Health Services Authority, and Vancouver Coastal Health)	Regional	Urban and rural
	Island Health and British Columbia Health Authorities	Regional and provincial	Urban and rural
Alberta	Alberta Health Services	Provincial	Urban and rural
Saskatchewan	Regina Qu'Appelle Health Region	Regional	Urban and rural
	Saskatoon Health Region	Regional	Urban and rural
	Heartland Health Region	Regional	Rural
Manitoba	Winnipeg Regional Health Authority	Regional	Urban
	Interlake-Eastern Regional Health Authority	Regional	Rural
Ontario	North West Telepharmacy Solutions, *servicing* St. Francis Memorial Hospital	Hospital (via telepharmacy)	Rural
	Queensway-Carleton Hospital	Hospital	Urban
	London Health Sciences Centre	Hospital	Urban
Quebec	Institut national d'excellence en santé et en services sociaux	Provincial	Urban and rural
New Brunswick	Provincial Drugs and Therapeutics Committee — Horizon Health Network, and Vitalité Health Network	Provincial	Urban and rural
Nova Scotia	Capital District Health Authority	District	Urban
Prince Edward Island	Health PEI	Provincial	Urban and rural
Newfoundland and Labrador	Eastern Health	Provincial/ Regional	Urban and rural

APPENDIX 3: SUMMARY TABLE OF CADTH'S PRODUCTS AND SERVICES[a]

Product Type	Description	Approximate Turnaround Time[b]
Rapid Response	**Purpose:** To provide a list or review of the best available evidence to inform an urgent decision-making need. **Final format:** A concise report in PDF. Some of these reports are accompanied by a one-page brief (available in HTML and PDF).	5 business days to 6 months, depending on scope
Environmental Scan	**Purpose:** To provide an overview of how a health technology is being used in the early development and adoption phase. It may also address policy, practice, and research issues for established technologies. It is based primarily on a grey literature search and/or surveys. **Final format:** A report in PDF and HTML ranging from 4 to 40 pages.	1 to 3 months
Horizon Scan	**Purpose:** To provide an overview of issues surrounding new and emerging health technologies that are not yet in widespread use in Canada. **Final format:** A concise bulletin ranging from 4 to 12 pages available in English and French, peer-reviewed by external clinical experts.	4 to 8 months
CADTH Common Drug Review (CDR)	**Purpose:** To provide formulary listing recommendations to all Canadian publicly funded federal, provincial, and territorial drug plans, with the exception of Quebec. To reduce duplication, to maximize the use of limited resources and expertise, and to enhance the consistency and quality of drug reviews. **Final format:** Clinical and economic report, recommendations report, and request for advice brief document.	5 to 7 months
pan-Canadian Oncology Drug Review (pCODR)	**Purpose:** To provide formulary listing recommendations for cancer drugs to cancer agencies and all Canadian publicly funded federal, provincial, and territorial drug plans, with the exception of Quebec. To bring consistency and clarity to the assessment of cancer drugs. **Final format:** Recommendations report, clinical and economic guidance reports, and reports on initial recommendation and feedback.	5 to 8 months
Therapeutic Review	**Purpose:** To review evidence regarding a single new drug, drug class, drug category, or drugs for a specific indication. It is designed to coincide with a CDR submission review; therefore, it informs the CDR	6 to 9 months

Product Type	Description	Approximate Turnaround Time[b]
	submission review, listing recommendations, and drug plan decisions. **Final format:** Science report and recommendations report. Advice statements and supporting tools may be included.	
Optimal Use	**Purpose:** To provide a comprehensive review of a health technology (drug or device) to encourage ideal prescribing, purchasing, and use. The selected health technology is generally one that has been on the market for some time. **Final format:** A clinical report, economic report, recommendations report, and supporting tools. A current practice and current use report may be included.	6 to 9 months

[a]This summary table was last updated on June 3, 2014.
[b]This is the approximate turnaround time from the point of topic refinement. These products may be tailored to meet the needs and timelines of the requestor, and are subject to the quality and quantity of the published literature. The turnaround times are subject to the capacity and ongoing projects at CADTH. Timelines will be negotiated between a CADTH representative and the requestor at the time of topic refinement.

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