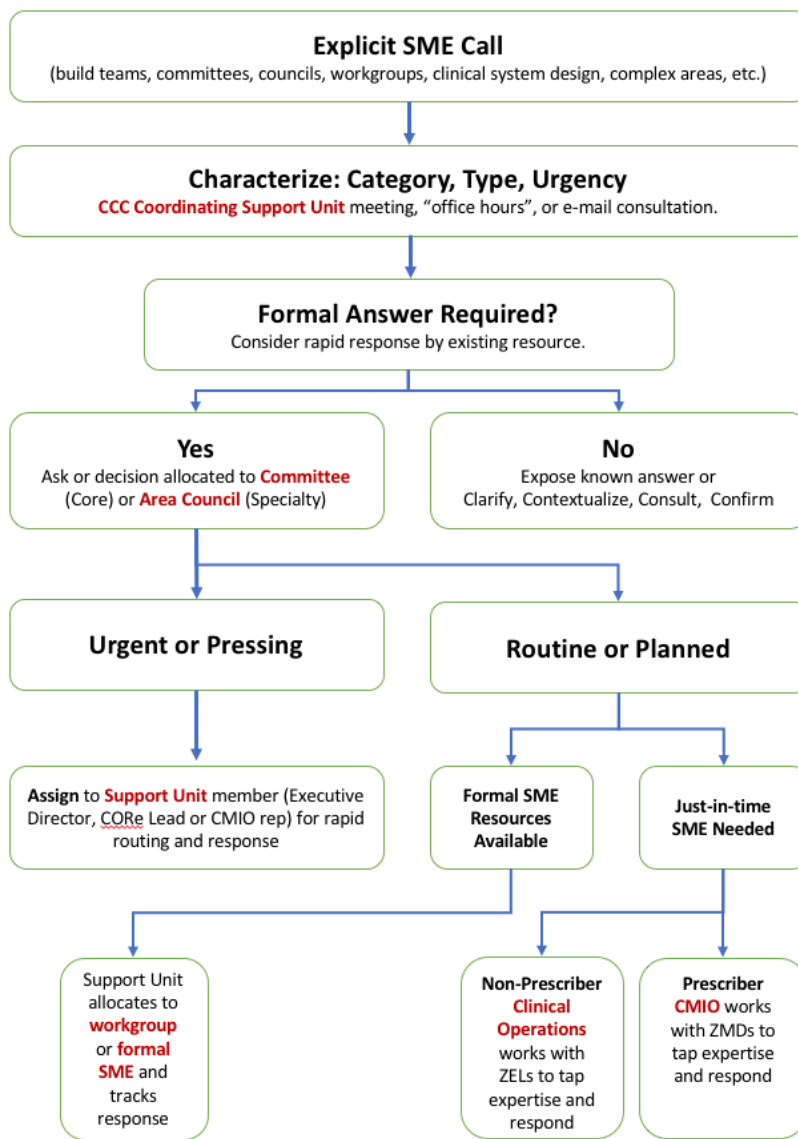# Accessing Subject Matter Expertise

Overview

Subject Matter Experts (SMEs) guide configuration of the Alberta Health Services (AHS) clinical information system (CIS) to align with needs of front-line clinicians and staff. This document describes how calls for subject matter expertise are managed by accountable groups to assure responsive and credible clinical guidance throughout design and build of the Connect Care CIS.

The Connect Care Council (CCC) has overall accountability for SME access. Its CCC Coordinating Support Unit has accountability for this SME access process. These groups work to implement the principles, definitions, processes and pathways summarized in the figure below and described in the text that follows.

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Purpose

The intent of this process is to guide those seeking access to subject matter expertise for Connect Care activities. The goal is to align the right human resources with the type, content and urgency of need.

This process should be used by Connect Care configuration teams, application coordinators, testing coordinators, trainers, committees, councils and event planners.

Principles

The Connect Care initiative brings an integrative CIS to Canada's largest healthcare organization. The CIS can improve the experience of patients, providers and support staff while assuring more sustainable information technology for AHS. Improved outcomes for patients and populations, however, depend entirely on how the system is used. Such "meaningful use", in turn, depends upon end-user adoption of shared values; and acceptance of the CIS as a support to those values.

Openness to transformation will largely hinge upon overall credibility of the CIS; and specific acceptance of its documentation, decision and inquiry supports. When the going gets tough, clinicians will question the reasoning behind this "content." Accordingly, it is vitally important that Connect Care follow principles-based processes for tapping trusted expertise for design, testing, training, implementation and optimization.

The following principles guide access to subject matter expertise for Connect Care, and should be followed when SME processes are adapted to specific circumstances.

	Principle	Implications
1.	**Accountability**: ensure that expert input is endorsed by an accountable entity.	Facilitating access to subject matter expertise is the responsibility of the Connect Care Council and Area Councils, where terms and membership reflect clinical, operations and enterprise interests.
		Oversight, troubleshooting and improvement of SME access processes is the responsibility of the Connect Care Council Coordinating Support Unit.
		Area Council Support Units have responsibility for facilitating SME access processes at a specialty level, promoting balanced consideration of information technology, operations, and clinical interests.
2.	**Visibility**: ensure that the source if expert input is identifiable, preferably in expertise registries, and recorded.	Design and configuration activities should record which committee, council or other source of expertise responded to a request or participated in decision-making.
		Consultations, including urgent requests for advice, should note how expert input was identified and who responded.
3.	**Predictability**: prefer use of planned SME resources, such as councils and workgroups, over ad hoc calls.	Just-in-time and other ad hoc processes may be necessary, but use limited consultative resources. Pre-allocated resources, such as committee and council meetings, should be used when equal to the type and urgency of expertise request.
		When time permits, prefer consultation with established and provincially endorsed sources such as Strategic Clinical Networks, Clinical Knowledge & Content Management, etc.
		Experts holding formal or defined Connect Care roles, such as design leads, medical informatics leads and clinical informaticians, should be tapped to take advantage of pre-allocated resources.
		Planned SME sources should accommodate the majority (> ¾) of need, with ad hoc recruitment used to fill gaps.

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Principle	Implications
4. **Acknowledgement**: attribute and recognize expert contributions.	Documentation of configuration and clinical system design work should identify and recognize expert contributions, where possible.
	Connect Care portfolios (CMIO, Clinical Operations) should provide associated subject matter experts with a report of their contributions, with acknowledgement, in a form that can be used for annual review, professional development or other career advancement processes.
5. **Compensation**: while SME contributions are not financially compensated, track and reimburse extraordinary travel and accommodation costs.	With rare exception, subject matter experts are not provided extraordinary compensation for the quantity or quality of advice given.
	Reduce travel and accommodation expenses through use of teleconferencing and leveraging existing meetings and events as much as possible.
6. **Efficiency**: match SME needs to the most efficient pathway for acceptable resolution.	Urgent and just-in-time expertise requests are more resource-intensive and bias-prone and should be limited to unforeseen, time-sensitive, system build dependencies.
7. **Balanced**: manage SME access to minimize availability, specialty and volunteer biases.	The most immediately accessible experts may not be the most appropriate for representative answers to complex questions (availability bias). The most obvious expert, such as a subspecialist working in a specific clinical area, may not represent the interests of key persons affected by the decision, such as the consulting primary care provider (specialty bias). Volunteer experts may be convenient but motivated by special interests (volunteer bias).
	Potential SME biases should be minimized by balancing allocated expertise backgrounds, perspectives, zones and, as much as possible, by providing more than one expert to assist with a particular question.

Parameters

Requests for subject matter expertise should be "characterized" before allocating to one or another pathway for resolution. Characterization is normally done by a council support unit and will consider the following request attributes.

Category

Some SME needs are best addressed through different groups focused on different categories of guidance:

Scope	Input to decisions about whether and how Connect Care should interoperate or interface with devices, applications or databases where clinical or safety gaps are identified in foundation CIS functions.
Workflow	Input to choices about how information flows and user interface navigation can best support Connect Care optimized clinical, operational and support workflows.
Clinical System Design	Input to core and specialty configuration and customization of CIS supports for efficient and effective documentation, clinical decision-making and inquiry-driven clinical improvement.
Testing	Participation in or review and validation of iterative testing of CIS functions, interfaces and interoperation processes.
Training	Input to and review of approaches to end-user training and support, including validation of curriculum content and delivery methods.
Implementation	Planned and just-in-time advice about local implementation strategies, barriers to adoption and real-time troubleshooting.

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Optimization	Ongoing review of end-user satisfaction, performance and evolving needs for agency, empowerment and accountability.

Type

Different types of questions merit routing to different groups via different consultation pathways.

| Clarification	Where scoping, direction-setting or clinical system design decisions have already been made, those attempting to implement decisions may seek clarification about terms used, mapping of AHS to Epic frameworks, or the expectations of decision-makers.
Contextualization	Technical teams may need additional information about the clinical settings, providers or other properties of the person, place or time context for a design decision.
Consultation	Designers and developers may simply need a "sounding board" to check that decisions have been correctly understood, that a need does or does not require decision-making, that an emerging configuration is ready for review, or that testing is appropriate to clinical intent.
Confirmation	Developers may come to appreciate how implementing a decision could affect other decisions, introduce inconsistencies or otherwise have effects that may need re-validation with decision-makers.
Decision-making	CIS configuration teams work to build tasks that may, on occasion, imply decisions that have not been anticipated by preparatory direction-setting or clinical system design processes. Requests for new configuration decisions should, as much as possible, be routed to appropriate committees, councils or workgroups.
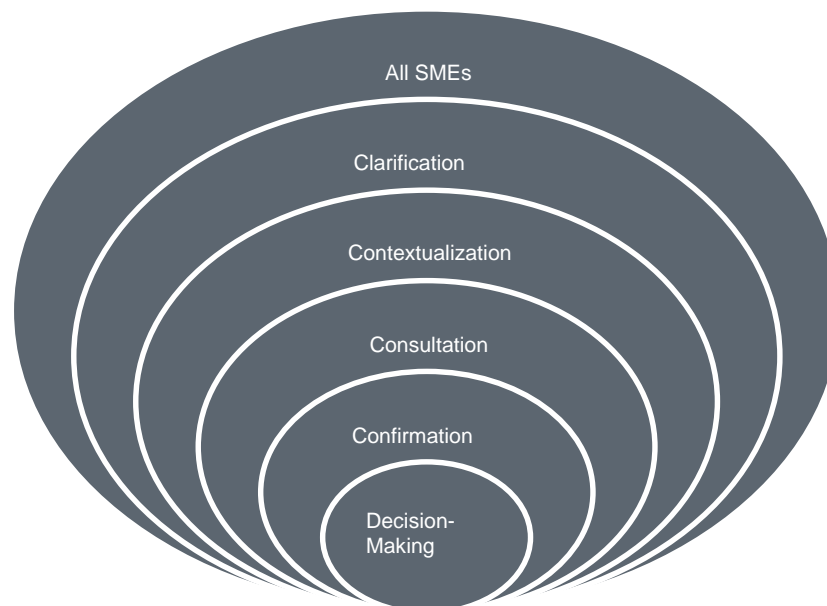
Urgency

The urgency of need for expertise is keyed to configuration dependencies, with priority given to needs that hold up development with compromise to important Connect Care timelines or milestones. For an individual developer, almost any need may feel urgent. The following classification emphasizes quantifiable project-centric urgency.

Urgent	An urgent call must to be addressed within 1-2 days and so cannot wait for formal consideration on a committee or council agenda. Urgent needs are more likely to require just-in-time consultation forums. Unmet needs will delay a critical, milestone-impacting, configuration dependency.
Pressing	Pressing needs must be addressed within 1-2 weeks to prevent compromise to a critical configuration timeline.
Routine	Addressing routine expertise needs may cause adjustment of ongoing configuration work but will not affect whether a critical configuration dependency is satisfied or not.
Planned	Anticipated and planned expertise needs should be addressed by responsible governance, advocacy or advisory groups with input scheduled to fit system build dependencies.

Duration

Some calls for subject matter expertise can be satisfied rapidly, with a single consultation. Others require ongoing retention of expert input that remains aware as different aspects of the need are addressed over a longer period of time.

Expertise

Calls for subject matter expertise should be as clear as possible about whether current (active front-line provider) or historical (active or inactive leader) experience, particular health discipline (e.g., medical, nursing, allied health) perspective, or methods awareness (e.g., patient safety, quality improvement, informatics, etc.) is needed.

Participants

Requests for subject matter expertise can come from any Connect Care group or activity. Most SME engagements will be "implicit" and covered off by planned committee, council and workgroup activities. "Explicit" SME needs are those emerging or remaining despite planned design and configuration activities. During the design, build and testing phases of Connect Care, explicit needs typically arise from configuration teams, developers and their management processes.

Specialty clinical system design is largely the responsibility of Area Councils and their Specialty Workgroups. Some attend to particularly large or complex domains of clinical activity. They may encounter specialty customization requests which their defined membership is ill-equipped to address. Accordingly, specialty clinical system design is also expected to generate calls for just-in-time and planned expertise.

Process

Connect Care will fulfill implicit SME needs through planned activities. In addition, committees, councils and workgroups should establish rapid-response pathways for identifying and deploying just-in-time expertise to satisfy explicit SME requests. Effective response pathways may include setting regular "office-hours" during intensive design periods, allocating support unit time for SME request management, or appointing a SME SWAT group to quickly field or refer expertise requests.

Just-in-time pathways should focus on clarification, characterization and contextualization-type consultations. Actual decision-making should leverage planned committee, council and workgroup activities.

Developers, Area Councils and Specialty Workgroups can adapt the process map (Figure 1) used by the Connect Care Council Coordinating Support Unit, when setting up processes for managing calls for area or specialty-specific subject matter expertise.

Products

SME Request Form

This process is supported by an online request form that gets routed to the group(s) most able to provide timely responses. Access to subject matter expertise is facilitated by using the form:

- ahs-cis.ca/smerequest

Prescriber SME Registry

The CMIO portfolio maintains a provincial registry of "prescriber" (physician, clinical assistant, pharmacist, midwife, etc.) SME resources. This is populated by nominations from zone medical leadership, self-identified volunteer contributors and a wide range of known experts identified by Strategic Clinical Networks, Clinical Knowledge & Content Management, Strategic Transformation and other provincial initiatives. The registry is used to help satisfy requests for prescriber SME contributions when existing formal resources (Physician Design Leads, Medical Informatics Leads, Associate Chief Medical Information Officers and clinical informaticians) are not available or appropriate to the ask.

- ahs-cis.ca/provider-registry

Stakeholder Registry

The Connect Care Project maintains a listing of all committees, councils, advisory groups and workgroups that may have interest in or be of service to CIS design, build and implementation. This resource can help identify groups who may already have expertise and capacity to address consultation or decision-making requests.

- ahs-cis.ca/stakeholder-registry

Clinical Operations SME Listing

A master listing of Nursing and Allied Health subject matter expert resources, and processes for filling expertise gaps, is managed by the office of the director of Clinical Operations. This is used for rapid identification of resources to address immediate needs and is enhanced as new subject matter experts are recruited to address unanticipated needs.

- ahs-cis.ca/operations-registry

Resources

This process can be referenced in other documents using the link ahs-cis.ca/smeprocess.

Characteristics of SMEs, their contributions and how they are identified is summarized elsewhere ("Byte: Clinical Subject Matter Experts").

The Connect Care Council Support Unit (ccc-support@ahs.ca, ahs-cis.ca/ccc-support) facilitates Connect Care Council (ahs-cis.ca/ccc) accountability for subject matter expertise access processes.

Identification of new SMEs among prescriber stakeholder groups is facilitated by the Chief Medical Information Office portfolio (cmio@ahs.ca) using the Connect Care Prescriber Registry (ahs-cis.ca/provider-registry), Stakeholder Registry (ahs-cis.ca/stakeholder-registry) and Operations Registry (ahs-cis.ca/operations-registry).

Equivalent facilitation for nursing and allied health is provided by Shelley Bannister (primary, shelley.bannister@ahs.ca) and Nora Besler (secondary, nora.besler@ahs.ca) in the Connect Care Clinical Operations portfolio.

Explicit SME Call
(build teams, committees, councils, workgroups, clinical system design, complex areas, etc.)

Characterize: Category, Type, Urgency
CCC Coordinating Support Unit meeting, "office hours", or e-mail consultation.

Formal Answer Required?
Consider rapid response by existing resource.

Yes
Ask or decision allocated to **Committee** (Core) or **Area Council** (Specialty)

No
Expose known answer or Clarify, Contextualize, Consult, Confirm

Urgent or Pressing

Routine or Planned

Assign to **Support Unit** member (Executive Director, CORe Lead or CMIO rep) for rapid routing and response

Formal SME Resources Available

Just-in-time SME Needed

Support Unit allocates to **workgroup** or **formal SME** and

Non-Prescriber Clinical Operations works with ZELs to tap
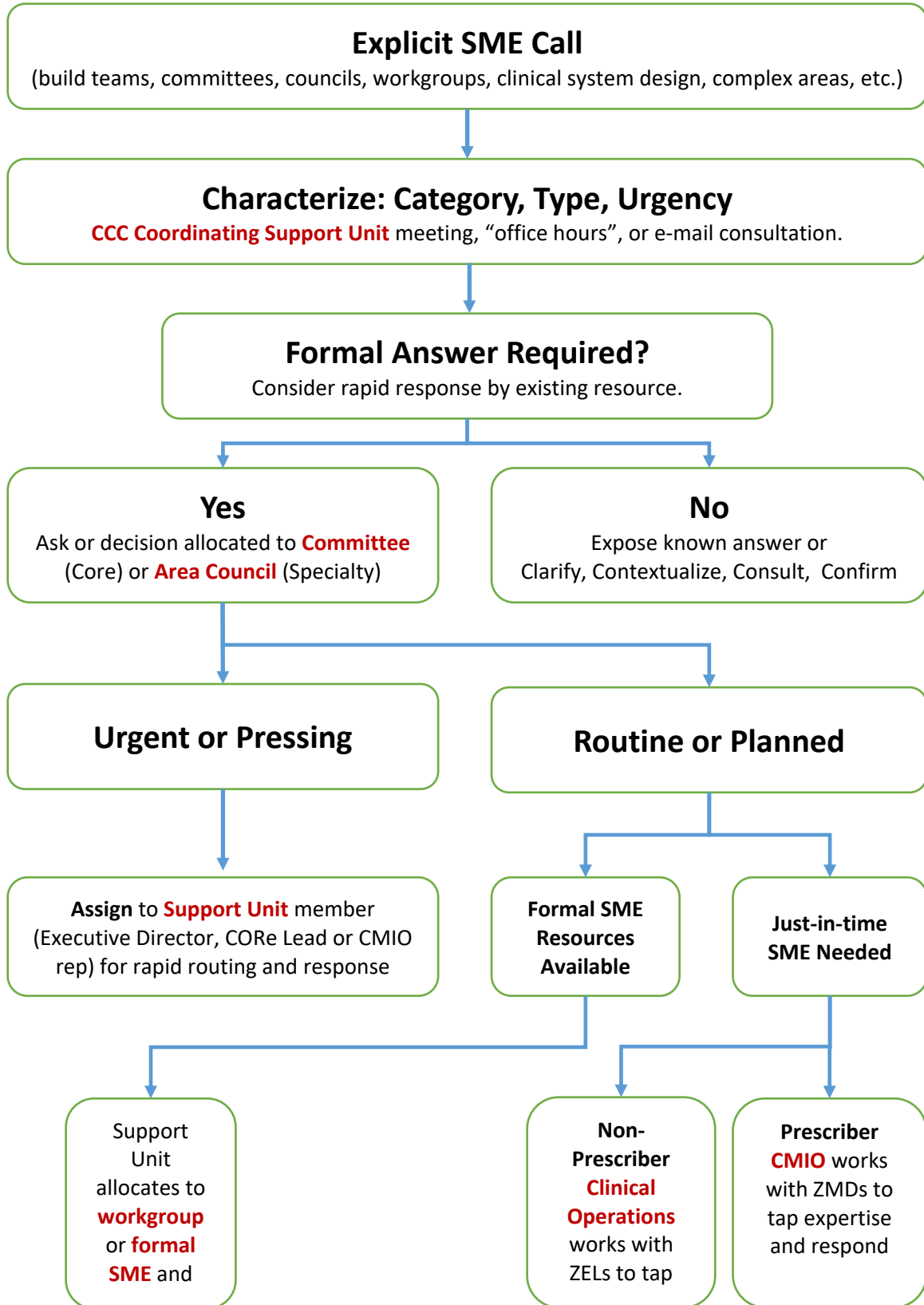
Prescriber CMIO works with ZMDs to tap expertise and respond

Figure 1: SME Access Process Map