



## Surviving CSD

### What is Clinical System Design?

Clinical system design (CSD) is about how we plan, select, design and build clinical content into the Connect Care clinical information system (CIS), where content is all the documentation, decision and inquiry supports that help us work, learn and improve. Indeed, CSD may well be the key to achieving Connect Care’s goals. It expresses our intent and leverages our consensus about best practice.

There are three levels of CSD work. The first “components” level sorts out all the building blocks for clinical content; the way we define and classify health care, the tests and interventions that can be ordered, and the data standards needed for meaningful measures. The second “core” level sets norms for documentation, decision and inquiry supports, while building content that applies across the continuum of care. The third “specialty” level attends to the customizations needed to ensure that the particular requirements of specialty services are addressed.

### Where are we at with CSD?

As of summer 2018, the work of component CSD is largely complete, allowing core and specialty CSD to proceed. Core CSD has also finished its part of what is essential for getting the CIS launched. Connect Care’s Clinical Documentation Committee, Clinical Decision Support Committee and Clinical Inquiry Support Committee (all accountable to the Content & Standards Committee) have been extraordinarily productive, answering or validating many hundreds of design questions.

Specialty CSD remains our focus through February 2019, when essential customizations must be in place in order for Connect Care to stay on schedule. The work is critically important but logistically challenging. Whereas core CSD benefitted from seasoned committees able to convert their expertise to nimble decision-making, responsibility for addressing specialty CSD questions rests with Connect Care Area Councils and the Specialty Workgroups they supervise. These channels for provincially adjudicated clinical and operational expertise are new to AHS, but already proving remarkably resourceful, positive and productive. Our challenge is to help them succeed in the face of intense time and workload pressures.

### How is CSD Work being Streamlined?

**Connect Care Area Councils** (CCACs) and **Specialty Workgroups** (SWG) are stressed by multiple demands from multiple quarters. This is no surprise. Connect Care is large and complex, with diverse groups trying to design and build many things at the same time. Accordingly, we have consolidated under one accountability any and all design activities that might relate to CSD, with resources allocated to promote maximally efficient work.

CSD deliverables are organized into seven work streams, all harmonized by the Connect Care Council Coordinating Support Unit.

Stream	Description	Examples
Customization	Closed (“how should this look?”) and Open (“how many of which tools are adapted or developed?”) essential customizations needed pre-go-live.	Closed: Navigator sections, History additions, Summary Chart Review, etc. Open: Flowsheets, Smart Tools, Procedure Documentation, Express Lanes, etc.
Order Sets	Selection, adaptation and development of condition-specific order combinations that are evidence-informed to improve care and reduce unhelpful variation.	Definition and use of standardized building blocks that appear in multiple order sets, design of template to extend for more specific needs, selection of starter order sets for go-live, etc.



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Flowsheets	Selection, adaptation and development of nursing and allied health flowsheets, scores and forms.	Falls risk, symptom scores, delirium risk, alcohol withdrawal (CIWA) symptom tracking, etc.
Metrics	Specialty markers of CIS use, processes, outcomes and other measurables.	Meaningful use: order-entry, allergy review, etc. Processes: wait times, readmission rates, etc. Outcomes: BP control, infection rates, etc.
Reports	Specialty report templates for convenience (e.g. patient panels), monitoring (e.g. risk surveillance), safety (e.g. device recalls).	Reporting workbench templates for specialty interests and needs. Slicer/Dicer population definitions. Chronic disease management reports.
Dashboards	Integrative views of key resources, metrics, sub-reports assembled to support specialty goals.	Dashboard layouts. Information resource shortcuts. Embedded AHS analytics infographics.
Inquiry	Specialty-specific processes for asking and answering questions about care.	Research eligibility, recruitment, consent. Quality improvement protocol support. Patient safety event tracking and reporting.

Critical pre-go-live deliverables in each stream are analyzed, described and organized into consistent “work packages”. These ensure that CCACs and SWGs receive decision-making questions in a practical format that makes sense in an AHS context. All related questions, work, standards and content is assembled together with an inventory of adaptable content from Epic’s foundation system. Applicability analysis is done, decision implications are summarized in a standardized way, e-safety considerations are flagged and recommendations are provided. Most importantly, only those questions that matter to CCACs and SWGs are assigned. Work packages are the key to avoiding unnecessary work.

All work packages, with the latest enhancements, are maintained in the [CSD Support Kit](#).

### Who Does the Work of Streamlining?

Each Area Council has an [Area Council Support Unit \(ACSU\)](#) tasked to process work packages and organize for maximally effective and respectful use of subject matter expertise marshalled by the Area Council and/or its SWGs. The Connect Care Council Coordinating Support Unit (CSU), in turn, supports the ACSUs to ensure that they work to a common understanding of core CSD decisions, avoid duplication and promote compatible decisions.

The key to surviving CSD is a strong ACSU. Each has resources allocated from clinical, operations, information technology and zone stakeholders. Each also is supported by seasoned AHS expertise from [Clinical Knowledge & Content Management \(CKCM\)](#), analytics, research and other capacities.

### How are Decisions Managed?

The many design decisions of specialty CSD must be managed. The CSU helps summarize key design decisions, in plain language, through a [Decision Viewer](#) available to everyone working on CSD activities. More importantly, relevant core or related specialty CSD decisions are embedded right in work packages so that decision-makers can better harmonize their work. All details of design questions and answers are managed with a [Decision Tracker](#) that is then keyed to the task-management tool ([Epic Orion](#)) used by developers and builders.



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## How are Decisions Validated?

Even if CCACs and SWGs are supported through multiple streams of CSD work, their decisions will fall flat if not properly translated into the right build activities, then validated to ensure that the clinical intent is properly expressed. And the quality and actionability of decisions will not improve unless there is awareness of development interpretations.

This need is addressed by an eighth CSD “work stream”: Consultation. Connect Care analysts and builders need just-in-time access to subject matter experts who can help them with questions that may arise when matching design decisions to build bucket tasks. In compliance with a [subject matter expertise access process](#), ACSUs will help CCACs and SWGs form one or more access strategies so that build questions can be answered quickly enough to not hold up Connect Care configuration.

## How are the Supporters Supported?

ACSU composition ensures input from and access to a number of important AHS resource pools:

- **Clinical Knowledge & Content Management (CKCM)**  
CKCM is represented on all support units and can leverage a large number of knowledge leads, clinical topic leads, clinical informaticians and other assets who have already assembled and organized provincial standards, consensus and CIS-ready content.
- **Strategic Transformation Collaborative (STQ)**  
The STQ Collaborative helped prepare AHS for Connect Care and remains a valuable resource that can quickly leverage AHS assets in areas like practice standards, e-Safety, human factors, scope of practice, regulatory review, policy review, privacy and security.
- **Orders Management Workgroup**  
Work related to order panels, building blocks, preference lists, order sets and smart sets occurs in more than one CSD work stream. An orders management workgroup helps coordinate these activities, providing invaluable support to CCACs and SWGs as they devise a coherent approach to their order management needs.
- **Nursing & Allied Health**  
Some CSD work streams focus on the many documentation and clinical tracking tasks that our nursing and allied health colleagues shoulder. Nursing (NCSP) and Allied Health (AH CSP) workgroups support and coordinate this work.
- **Measures, Reports, Dashboards and Inquiry**  
Research, Quality and Registry workgroups have formed to help support specialties as they select measures and indicators to track health processes and outcomes, as well as meaningful use of the CIS.

Some resources are designated to help with specific issues or concerns. Access is facilitated through ACSUs and the Coordinating Support Unit.

- Bev Rhodes – Program Director – eHealth Capacity & Adoption – Connect Care Clinical Operations/ Alison Bowes - Clinical Informatics Lead – eHealth Capacity & Adoption – Connect Care Clinical Operations
- Brandon McKinney – Privacy Impact Assessment Coordinator – CMIO
- Brettany Johnson - Director – Knowledge Management- Practice Support and Education (includes KRS – Knowledge Resource Services – searches).
- Bruce West – Executive Director – Zone Analytics and Reporting Services
- Dave Meurer – Provincial Director – eQuality & Safety (includes Human Factors)/ Elise Mitchell – Clinical Informatics Lead – eQuality & Safety
- Norma Denys – HIM – Provincial Manager – Business Support Services
- Teri Langlois – Executive Director - Health Professions Strategy & Practice (covers areas of CoACT Collaborative Care, Allied health practice, Nursing practice, Policy, Regulation, and Clinical Ethics).



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## Resources

### People

- All Area Council and Specialty Workgroup online collaborative workspaces are openly available through AHS Sharepoint where members are listed and contact coordinates are given – <http://ahs-cis.ca/committees>
- Connect Care Council Coordinating Support Unit – [ConnectCare.CouncilSupport@ahs.ca](mailto:ConnectCare.CouncilSupport@ahs.ca)
- Strategic Transformation Collaborative – [STQ@ahs.ca](mailto:STQ@ahs.ca)

### Products

- CSD Handbook – <http://ahs-cis.ca/csdhandbook>
- CSD Support Kit – <http://ahs-cis.ca/csdkit>
- CSD Update – <http://csd.bytesblog.ca>