

CCIS Questions and Answers

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STRATEGY & SYSTEM INTEGRATION

1. What part does the CCIS and its benefits play in Ontario's Critical Care Strategy?

Initiated in 2005, Ontario's Critical Care Strategy has delivered a number of important programs targeted to improve access to critical care, quality of care, and promote system planning. These have included the implementation of Critical Care Response Teams (CCRTs), investments in critical care capacity, and the deployment of Performance Improvement Coaching Teams. As the information management system for critical care strategy, the CCIS collects data in real-time, providing clinicians, administrators, LHINs and the MoHLTC with secure and reliable information they can use to make better decisions about clinical practice and resource allocation.

The data collected from each critical care unit in Ontario through the CCIS is an important resource for real-time monitoring and longer term planning at the hospital and Local Health Integration Network (LHIN) levels. Here are some examples of how the information is supporting the Critical Care Strategy:

- An ICU Active Patient List maintained by each unit provides a current view of patients occupying ICU beds allowing for more effective discharge and surge planning.
- Hospitals and LHINs can view trends over time for key indicators such as ICU occupancy, delayed discharges, and readmission rates. These reports allow leaders to manage change and resource allocation, and set quality improvement priorities.
- Performance Improvement Coaching teams can help sites to identify areas of focus and develop action plans using this performance management information.
- To date, Ontario has 27 CCRTs in operation in adult acute care settings and 4 paediatric CCRT demonstration projects underway, with plans to expand this number. All adult CCRT teams are entering their assessment information into CCIS, allowing for an evaluation of the uptake and outcomes of having critical care expertise available outside of ICUs.
- By increasing the understanding of how our health care system is working and how resources are being allocated, planners and caregivers can begin to develop utilization benchmarks and identify best practices that can be applied across the whole system.

If you have questions about Ontario's Critical Care Strategy, please contact Robert McKay, Manager, Critical Care Secretariat, at Robert.McKay@moh.gov.on.ca.

2. What part does the CCIS play in the Access to Care Program and other provincial initiatives?

The CCIS is also part of the provincial Access to Care Program, whose portfolio of information management projects aim to reduce wait times and increase access to key services. The CCIS plays an important role in the Access to Care agenda through its measurement of access to critical care resources. For example, since reducing the wait time for a bed in the ICU will also help to relieve the emergency room waiting time for a patient who requires critical care, it is important that these projects are considered under a single umbrella.

3. Is the CCIS implementation mandatory?

Implementation of the provincial Critical Care Information System is mandatory for all hospitals with a critical care unit to ensure we plan for the delivery of critical care as a system. It is anticipated that you will find the CCIS to be easy to use and its data, valuable. Each hospital plays a key role in ensuring that patients have access to all levels of hospital care, regardless of whether the hospital itself provides that level of care. To confirm participation in CCIS implementation, hospital CEOs have received a letter from the MoHLTC indicating their scheduled implementation timeframe

4. Which organizations have implemented CCIS and how will the system be rolled out to remaining critical care units in the province?

As of December 2007, the CCIS has implemented in all Level 3 adult medical/surgical units across the province, capturing patient data from 65 hospital corporations on over 900 critical care beds. Roll-out to these sites started in February 2007 in a series of implementation “waves” and were completed by December 2007.

In 2008, implementation of the CCIS will be expanded to include over 80 ventilated and specialty critical care units. These include Paediatric, Neurological, Cardiac Surgery/Cardiovascular, Coronary, and Burn Units.

Subsequent phases, to be scheduled, will capture remaining medical/surgical Level 2 units and ‘stand alone’ Level 2 medical/surgical units.

5. How were a critical care unit’s level, type and baseline number of vented and total beds defined?

The CCIS implementation relies on the unit-level information captured in the LHIN Critical Care Service Inventory. This inventory was first taken in Fall 2006 in consultation with the Critical care LHIN Leaders and signed off by each hospital CEO. Please be sure to contact the MOHLTC Critical Care Secretariat if there have been changes to a unit’s level, type, and baseline number of beds has since changed. The *Critical Care Service Inventory Notice of Change Form* is located in the CCIS Document Library and should be submitted to the Critical Care Secretariat, your LHIN CEO, and your Critical Care LHIN Leader.

A Level 3 unit is capable of providing the highest level of service to meet the needs of patients who require advanced or prolonged respiratory support, or basic respiratory support together with the support of more than one organ system. This is generally considered a “full service” Critical Care unit despite the fact some specialized services may not be available (e.g. dialysis). All Level 3 units are capable of invasive ventilator support.

A Level 2 unit is capable of providing service to meet the needs of patients who require more detailed observation or intervention including support for a single failed organ system, short-term ventilation, post-operative care, patients “stepping down” from higher levels of care or “step ups” from lower levels of care. These units provide a level of care that falls between the general ward (Level 1) and a “full service” Critical care unit (Level 3). Level 2 units **do not** provide invasive ventilator support. Critical care units that provide invasive mechanical ventilation for a short period (for example ≤ 48 hours but need to transfer those patients who require more long-term invasive ventilation to a Level 3 unit, are considered Level 2.

Please Note:

1. For institutions that combine Level 2 and Level 3 type critical care service in one geographic area (i.e. unit), the unit designation should reflect the highest level of care provided (i.e. Level 3) – even if all patients may not be receiving that level of care.
2. Monitored settings (e.g. capable of cardiac monitoring, O2 saturation monitoring) or telemetry beds are **not** considered critical care areas for the purpose of this CCIS data collection.

6. Why do smaller critical care units need to implement the CCIS?

Smaller hospitals play a key role in managing moderate and major surges in ICU demand – surges happen every day in Ontario. The idea behind the CCIS is to ensure that we plan for the delivery of critical care as a system. Each hospital plays a key role in ensuring that patients have access to all levels of hospital care, regardless of whether the hospital itself provides all levels of care. If hospitals, LHINs and the province don't have a clear picture of how critical care services are being utilized at all levels, then those resources become particularly difficult to manage and use effectively and efficiently and can potentially slow patient movement through the system. Because hospital services are inter-related and inter-dependent, the added knowledge of critical care in all hospitals will enhance our ability to admit, discharge and transfer patients to the appropriate level of care allowing everyone timely access to the care they require, whether it be surgery, diagnostic treatment, emergency room care or care in another area of the hospital, or in another, more appropriate care setting.

Given the limited ICU resources across Ontario and their cost to taxpayers (the most expensive resource that hospitals provide), we have a responsibility to use them as effectively and efficiently as possible. The CCIS not only supports crisis management, but also supports and helps us to understand, anticipate and respond to the day-to-day demand for critical care services.

7. What is the role of the University Health Network and the CritiCall organization in the CCIS project?

Matthew Anderson, Senior Vice President, Performance and Technology, University Health Network, was asked by the Ministry of Health and Long Term Care to be the Critical Care Information Management Lead for the province. Under Matthew Anderson's leadership, a provincial CCIS Project Team was formed at the University Health Network/Shared information Management Services to lead the project management, development, implementation, decision support, and operational support for the CCIS program on behalf of the MoHLTC and Hamilton Health Sciences Centre, who is accountable for the prescribed registry collecting the CCIS' personal health information.

CritiCall Ontario is the province's existing acute care bed and resource registry and patient transfer service, and provides a 24-hour-a-day emergency referral service for physicians across Ontario. CritiCall Regional Project Managers have partnered closely with the CCIS Implementation Team to provide in-ICU training and change management support for all hospital expert users, including second-level application training support to CCIS users.

Development and implementation of the CCIS is guided by a CCIS Advisory Committee, comprised of senior hospital, MoHLTC, LHIN and CritiCall representatives and chaired by Matthew Anderson, the Provincial Critical Care Information Management Lead. The CCIS Provincial Project Team is led by Jackie Kwong Leung, CCIS Senior Project Manager (Jackie.KwongLeung@uhn.on.ca).

8. Does the CCIS replace the CritiCall Registry?

The CCIS does not replace hospitals' requirement to input data into the existing CritiCall Bed and Resource Registry. The information that is collected in this Registry is needed for CritiCall to facilitate the transfers of critically ill patients. Therefore, it is important that hospitals continue to provide regular updates to the CritiCall screens, four times a day. Call takers at the CritiCall Call Centre have access only to the CritiCall Registry and not to the patient-identifying information collected in the CCIS. A 2008 upgrade to the CCIS will allow for real-time reporting of bed availability status (e.g. occupied, available, not available beds) directly in the CCIS web portal, allowing for a convenient and consistent view of where open beds may be found across the province and providing the ability to analyze the reasons for why beds are not available (e.g. staffing shortages, infection control). When this feature becomes available, policy changes will be communicated to CCIS and CritiCall Registry users.

CCIS DATA COLLECTION

9. Who in the hospital will have access to the CCIS data collection screens?

Granting staff access to the CCIS data collection screens is at the discretion of the hospital through a designated Local Registration Authority. Since the data collection screens capture patient-identifying information, the hospital must adhere to Provincial Privacy Legislation (as outlined in the CCIS Participation Agreement), as well as the organization's own privacy policies and procedures. Since patient-identifiable data in the CCIS Active Patient List should only be available to users who are in the patient's immediate circle of care, data collection screens are generally limited to ICU unit clerks, nurses, nurse managers, and CCRT coordinators. These users will be able to add new patients, view and update patient information, enter life support intervention information, and discharge patients.

The workflow for collecting and entering data will be at the discretion of the hospital; your CCIS Provincial Team site coordinator can provide you with the options that other sites have implemented. A detailed data collection and workflow guide is also available for sites to understand workflow options based on experience with the Lead Site implementation. Please contact your site coordinator or email us at CCISFeedback@uhn.on.ca to request a copy.

10. How often is data entered into CCIS?

Patients are entered into the CCIS when they enter or leave the ICU's care, and Life Support Information is entered into CCIS on all ICU patients twice daily in two 12-hour time blocks (24 00h to 11 59h, 12 00h to 23 59h). The selected workflow, size of the unit, the number of patients on the unit, the interventions applied to the patients during the reporting period, and the flow of discharges and/or transfers to and from the unit will influence the actual time it takes to enter data. A Group Life Support Intervention function allows a unit to efficiently update the life support status on all of their unit's active patients.

11. What is the CCIS Core Data Set?

The CCIS Core Data Set (ICU and CCRT elements) includes:

- Medical Record Number
- Last Name
- First Name
- Middle Name
- Gender
- Date Of Birth
- Address
- City
- Postal Code
- Telephone
- Patient has a Health Card
- Health Card Number
- Health Card Type
- Health Card Version Code
- ICU Admission Date
- ICU Admission Time
- ICU Admission Source
- ICU Admitting Service (also distinguishes scheduled/unscheduled admission)
- Scheduled Surgery (Y/N)
- Transferred From (Hospital)
- Patient is Awaiting Transfer/Discharge (Y/N and Start Date/Time)
- ICU Admitting Diagnosis
- Bed spaced (Y/N, Start Date/Time and Location)
- ICU/CCRT Discharge Date/Time
- ICU Discharge Destination
- Reason for Reverse Discharge
- Date/Time of Intervention Report
- Life Support Intervention – Ventilation Status (Y/N)
- Life Support Intervention – CVL or Arterial Line Status (Y/N)
- Life Support Intervention – Inotropic/Vasoactive Medication Status (Y/N)
- Life Support Intervention – Intra-Cranial Pressure (ICP) Monitoring (Y/N)
- Life Support Intervention – Acute Dialysis (Y/N)
- CCRT – Type of Consult (New, Follow-up, ICU Discharge Follow-up)
- CCRT – Admitting Service (required for New, ICU Discharge Follow-up)
- CCRT – Primary reason for call
- CCRT – Calling Criteria Met (Y/N)
- CCRT – Patient Reassessed
- CCRT – End of Life discussion (Y/N and reasons)
- CCRT – Date and Time CCRT & CCRT MD notified
- CCRT – Date and Time CCRT seen (MD, RN, RT)
- CCRT – Notified By (Health professional that notified CCRT)
- CCRT – Time last team member left
- CCRT – Time with patient after ICU admission
- CCRT – Date and Time of admission request to ICU
- CCRT – Date and Time of Actual ICU Admission
- CCRT – Call Outcomes
- CCRT – Consult or No Consult Audit (Timeliness Audit, Event, Time of Event)
- CCRT – Time Period of Primary event

CCRT monthly statistics are also captured:

- ICU 48-hour readmit rate

- ICU LOS (all patients admitted from ward)
- ICU LOS (CCRT consult patients admitted from ward)
- Number of in-patient hospital admissions

The CCIS Data Collection Policy Guide and Data Dictionary provides guidance for end-users around data collection and entry. If you would like a copy of this guide please visit the Document Library in the CCIS system or email us at CCISFeedback@uhn.on.ca.

12. How were the CCIS ICU and CCRT Core Data Sets determined?

Decision support indicators that drove selection of ICU and CCRT data elements were chosen based on reviews of national and regional critical care performance measurement and data sharing initiatives, and implementations of critical care intervention teams in other jurisdictions. CCIS core data sets have been vetted in ICU and CCRT focus groups and by a multi-disciplinary advisory group including intensivists, critical care researchers, nurses, and administrators. In a November 2007 consensus conference, an expert panel group was reconvened to prioritize key critical care indicators and data elements for the CCIS going forward.

The following design and data selection principles were applied:

- Data elements should be kept to a minimum to ensure compliance and participation by units of all types
- Data should be robust enough to drive action at the LHIN and MoHLTC levels
- Data elements should be ICU-specific with objective definitions
- Collection should be simple by interfacing with existing hospital ADT systems wherever possible
- A general system that can be used by all units is preferred to complex customization by site

REPORTS AND DATA USAGE

13. What kind of report data is available to report users?

CCIS data is available for review in a number of convenient methods to support organizational, local (LHIN) and provincial decision-making efforts to ensure that patients are receiving the right care, in the right place at the right time:

- CCIS Portal Reports: On-demand pre-defined reports and dashboards available on-line, providing a real-time or trended view of patients and resource utilization associated with their care. Report users can drill-down to different levels of detail, depending on their level of access (see Question #14).
- CCIS Portal Core Data Export: Detailed transactional data available on-line to designated Data Analysts
- CCIS Quarterly Report: An analyzed Excel-based report of key indicators compiled by the CCIS Decision Support group and released for LHIN review every three months. Critical Care LHIN Leaders and LHIN CEOs are working together to review preliminary quarterly indicator reports from the data collected. Hospital leaders will be engaged to help understand the patient population and utilization patterns unique to each critical care

unit, and to collaborate on system planning. The CCIS web portal and its reports will continue to evolve as new decision support needs are identified.

14. Who has access to the CCIS portal reports and how are viewing permissions defined?

What a user can do and see in the CCIS portal reports depends on the user's role:

	Individual reports	Aggregate reports (individual sites are not identified)
<i>ICU Level</i>	Own ICU	Provincial, own LHIN, peer group within own LHIN, Hospital Corporation, Site within own hospital.
<i>Hospital Executives/Managers</i>	All ICUs within hospital corporation	Provincial, own LHIN, peer group within own LHIN, own Hospital Corporation, Sites within own hospital
<i>LHIN CEOs, Critical Care LHIN Leaders, authorized LHIN staff</i>	All ICUs within LHIN	Provincial, all LHINs, peer groups within each LHIN, Hospital Corporations within own LHIN, Sites within own LHIN
<i>MoHLTC</i>	All ICUs	Provincial, all LHINs, peer groups for each LHIN, all hospital corporations, all sites
<i>Critical Care Response Teams (CCRT) Users</i>	Own CCRT	Comparison reports where other CCRTs are shown without identification
<i>Hospital Data Analysts</i>	Core Data Export	

A hospital or LHIN's Local Registration Authority is responsible for identifying and registering the appropriate data collection and report users for their organization. Authorization of all users will be in accordance with Provincial Privacy Legislation, and guided by individual organizational protocols and operating procedures.

15. How are LHINs and the MoHLTC using the CCIS data?

LHIN leaders and the MoHLTC recognize that critical care units are not homogenous and that different resource utilization practices are appropriate for different unit types, patient populations served, and geographies. The CCIS has been implemented to begin capturing key indicators on our critical care utilization to better understand how we use these resources to serve patients locally and provincially. These metrics include indicators of access (e.g. bed occupancy rates, length of stay, number of end of life discussions) and patient safety or outcomes (e.g. ICU mortality rates, hospital cardiac arrest rates).

As many sites have only recently begun to use the CCIS, it is understood that it can take several months for data accuracy and completeness to reach the level required for system management. A CCIS Quarterly Report will be generated every four months by the CCIS Provincial Project Team to provide a summary view of each hospital's

indicators to support LHINs and hospitals in the interpretation of the data collected. Please note that at any time, a hospital may use the online Core Data Export and CCIS portal reports to view and analyze its own trends.

The CCIS data is only part of a LHIN's more rigorous performance management framework that includes the setting of critical care benchmarks and targets for performance improvement. The framework will be designed to ensure the most efficient use of resources and capacity and will consider numerous factors, in addition to CCIS data. It will also take some time before the CCIS is fully implemented across the province and the data is robust and complete enough to be used in making funding decisions.

The CCIS Provincial Project team continues to meet with stakeholders across the system to demonstrate the CCIS in action and update them on the types of reports it can generate to support decision-making at the MoHLTC, LHIN and individual hospital and unit levels. We welcome your feedback on how the CCIS data can better support your needs at CCISFeedback@uhn.on.ca.

16. How do I get training on the CCIS online portal reports?

Monthly Report Training webinars are scheduled by the CCIS Provincial Team to demonstrate the reports available through the CCIS portal. If you are interested in registering for a CCIS Reports training webinar, please email ccistraining@uhn.on.ca. Your hospital site's CCIS expert user and CritiCall Regional Project Manager is also available to help you navigate all features of the information system.

IMPLEMENTATION

17. What resources will hospitals need to implement the CCIS and what is involved?

Organizational pre-implementation planning takes several weeks in order to ensure system compatibility, development and testing of interface solutions with the hospital's existing ADT systems (if required), as well as to allow adequate time for end user training.

Remaining Units at Hospitals Live on CCIS

For hospitals which have one ICU already live with CCIS as a result of implementing in Phase I or Phase II, the project activities at these sites will consist of change management activities such as user registration, coordination of end-user training (including identification of expert users to participate in Train-the-Trainer sessions), and unit go-live preparation and support. A designated Project Manager/Lead will be required for the unit.

Units at Hospitals Not Yet Live on CCIS

Corporations which have not yet implemented CCIS at their hospital, will require a dedicated Project Manager (0.5 FTE) to lead the coordination of the implementation process for a three to four month period. This individual may have a project management background, although we recognize that expertise may vary. He or she will plan and work closely with clinicians and able to coordinate activities with network and HL7 experts. The CCIS Provincial

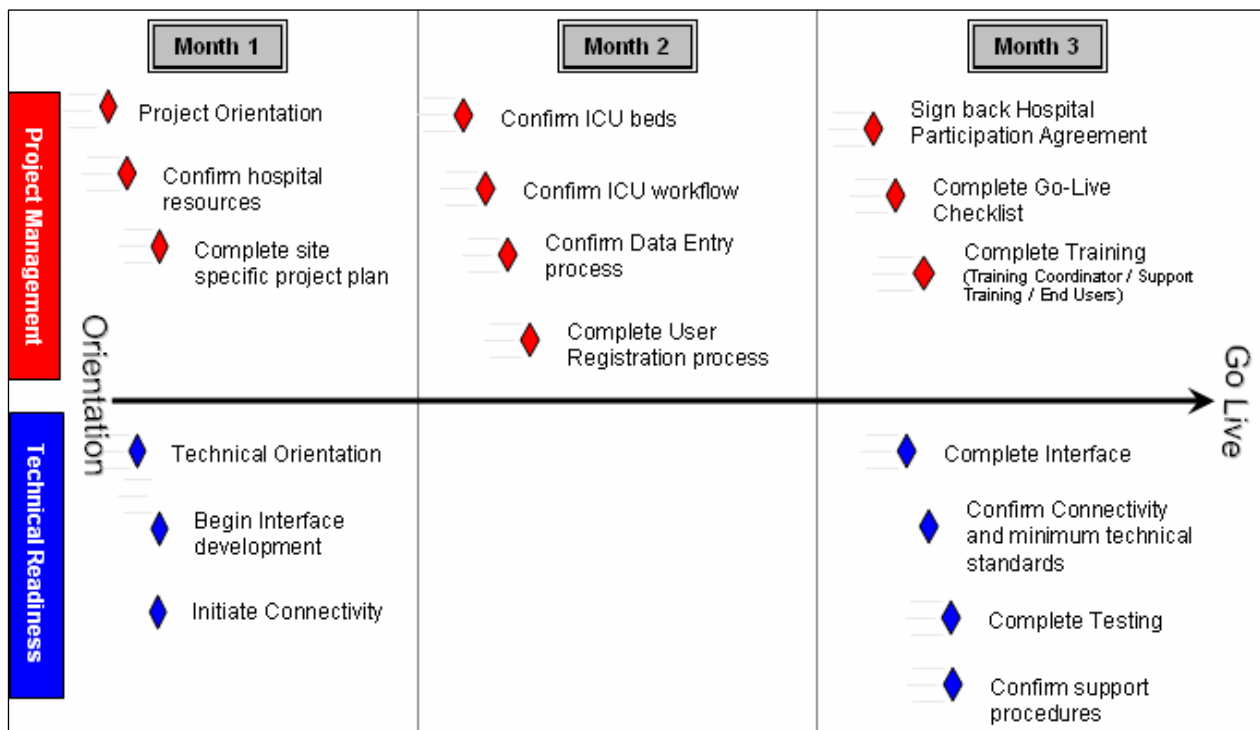
Project Team has dedicated Site Coordinators who work closely with and support all site project managers with documentation and tools to implement the project effectively

In addition to the Project Manager, hospitals should have the following resources identified to provide regular input and participation to ensure the successful implementation of the CCIS:

- Training Lead/Expert User
- ICU Manager/Director as a project sponsor
- HL7 Integration Contact (if applicable to your site's implementation)
- Network Contact
- Onsite Support (during Go-Live)
- CCRT lead (if applicable to site)

The time commitment from these resources will vary throughout the project cycle and details will be provided to each site prior to implementation. Activity in general is as illustrated in Figure 1.

Figure 1: Project Management and Technical Activity for New Site Implementation



The CCIS Provincial Project Team has dedicated Site Coordinators who work closely with and support all site project managers with documentation and tools to implement the project effectively

18. Can the CCIS be integrated with hospitals' existing ADT systems?

Yes. The CCIS can be integrated with each eligible hospital's existing ADT system, easing data collection for patient demographics and hospital admission and discharge information. There is a standard specification for the technical implementation of the CCIS web portal.

19. For ADT-integrated sites, is the patient discharged from CCIS automatically?

The CCIS uses discharge messages from the hospital's ADT feed to automatically enter the discharge date/time of a discharged patient. However the "Discharged Destination" field must be entered in the CCIS for the discharged patient because this is not a data element available through the ADT feed. In the case where a patient is transferred from the unit to another location within the hospital, a discharge message is not sent to the CCIS by the hospital's ADT system. Therefore, the user must enter the date/time of this internal transfer event.

20. Should the ADT feed provide information on all in-patients, or just on critical care patients?

Interface specifications for the CCIS require an (Admission Discharge Transfer) ADT feed from each hospital to send *all inpatient* admission records, including patients that were converted from outpatients to inpatients. The reason for this is because critical care patients can come from several sources within the hospital. This is especially the case for patients seen by Critical Care Response Teams (CCRT). CCIS data collection users identify which patients should be admitted to the CCIS Active Patient List, and then reports are generated from this pool of critical care patients.

21. Can the CCIS be integrated with other existing hospital systems or data collection systems?

More complex integration hospitals' specific clinical documentation systems beyond the ADT-integrated approach described in the CCIS Technical Implementation Guide is not offered at this time. This will allow sites to meet the MoHLTC's data collection objectives and timelines, and to allow for the rapid deployment of two planned system upgrades in 2008. All participating units will proceed with either the ADT-integrated web portal option or the non-integrated web portal option.

The demographic information passed from integrated hospital sites to the CCIS will allow for future integration with other systems, such as the Provincial Enterprise Master Person Index (EMPI) and CIHI's Discharge Abstract Database. These integrations are not within the scope of activity for 2008; however these considerations can be planned under the Access to Care Program in the future.

22. How do I test HL7 messages?

The Technical Implementation Guide, HL7 Interface Test Cases document and appendices detail all required steps to test HL7 messages at different stages of development. If you have questions about the technical implementation of CCIS at your site, please contact Fabiola Sutanto, CCIS Provincial Team Technical Coordinator (Fabiola.Sutanto@uhn.on.ca).

23. Which patients do we include in the CCIS Active Patient List if we have both Level 2 and Level 3 beds in our ICU?

Many ICUs have a mix of different types of patients. You include all patients admitted to the unit, all types of beds. Life support intervention information should be captured for all of these patients, including critical care unit patients that have overflowed to an area outside of the ICU ("bedspaced outside of the ICU"). For information on this and other policies, please refer to the CCIS Data Collection Policy Guide. It is available for all sites on the CCIS Document Library. Please contact your site coordinator or email CCISFeedback@uhn.on.ca if you would like to receive a copy.

24. Is the MoHLTC providing any CCIS implementation or operational funding?

The MoHLTC is funding the development of the CCIS software application and is providing the application to all adult medical/surgical Intensive Care Units across the province. The Provincial Project Implementation Team is in place to provide ongoing support to hospitals as they implement the system in their own organization. There is no site-specific implementation funding or ongoing operational funding specifically for the CCIS.

25. Now that I am using the CCIS, how do I get training support, technical support, or change access permissions for CCIS users?

Training support. Each hospital has a CCIS expert user trained on the application to train all other CCIS users. Your local CritiCall Regional Project Manager is also available to guide you on the use of the CCIS and its data collection policies.

Technical support and user password administration. If you are experiencing a technical issue with the CCIS, first check with your hospital IT Help Desk to confirm whether this is a local issue. Technical support questions, help with logging in, and enhancements can be directed to the Provincial CCIS Help Desk at CCISFeedback@uhn.on.ca. For urgent issues, a 24/7 hotline is available at 1-866-740-3240. Please note that Local Registration Authorities of each hospital or LHIN are responsible for contacting the CCIS Help Desk to enable and disable CCIS access for their site's users.

PRIVACY**26. What is the CCIS Privacy Policy?**

The CCIS Privacy Policy outlines the privacy practices of the CCIS and is based on the 10 fair information principles of the Canadian Standards Association's *Model Code for the Protection of Personal Information*. These principles have become the foundation upon which most federal and provincial privacy statutes and operational policies have been built, including the Ontario *Personal Health Information Protection Act, 2004* (PHIPA). The policy is supported by two procedures that outline how access to the CCIS is granted, controlled and monitored, and that provide direction to users in the event of a privacy breach involving the CCIS. Together, the CCIS Privacy Policy and procedures govern the activities of CCIS users and outline their specific privacy responsibilities when handling personal health information maintained in the CCIS. The CCIS Privacy Policy has been posted on the CCIS Website

at http://www.health.gov.on.ca/english/providers/program/critical_care/cct_infosystem.html. CCIS Privacy Policy and other privacy procedure documents have been submitted to the Information and Privacy Commissioner/Ontario (IPC) for review (April 2007 and January 2008).

27. What is the definition of personal health information (PHI)?

Personal health information is defined under subsection 4(1) of PHIPA, which applies broadly to any “identifying information” in oral or written form about an individual, if the information:

- Relates to the individual’s physical or mental health, including family health history;
- Relates to the provision of health care, including the identification of persons providing care;
- Is a plan of service for individuals requiring long-term care;
- Relates to payment or eligibility for health care;
- Relates to the donation of body parts or bodily substances or is derived from the testing or examination of such parts or substances;
- Is the individual’s health number; or
- Identifies an individual’s substitute decision-maker.

Information is “identifying” when it identifies an individual or when it is reasonably foreseeable that it could be used, either alone or with other information, to identify an individual.

Based on the above definition, the information that comprises the CCIS Core Data Set required from hospitals involves identifying patient information and, as such, is protected as personal health information. All CCIS data flows involving “identifying information” as described above fall under the definition of personal health information and as such, is governed by PHIPA. However, the transfer of information from the CritiCall Bed and Resource database to the CCIS and any disclosures back to hospitals from the CCIS in de-identified, aggregate form do not trigger the application of PHIPA.

The CCIS as a registry of personal health information for the purpose of section 39(1)(c) of PHIPA has the legal authority to collect and use health card numbers as per sections 34(2)(b) or (d), as the case may be, and to disclose such information as per section 12 of the PHIPA Regulation.

28. Why are detailed patient demographic fields required by the CCIS?

Data collection accuracy. Specific demographic information is captured from your hospital information system and displayed to CCIS data collection users to ensure that the correct patient is selected when admitting a critical care patient into the system admission and when updating patient life support interventions or CCRT assessments. Patient specific information can improve the quality of care and patient safety by supporting clinical audits, chart reviews and other proactive quality improvement initiatives

Real-time decision making and detailed unit-level analysis. The Active Patient List, which contains personal health information, is used to review bed occupancy and can assist with appropriate and individualized patient triage, transfer and discharge planning. The CCIS Core Data Export also allows authorized data analysts to disclose

detailed data records from the CCIS for evaluation and planning purposes. There is an option to display the patient identifiers with this data export.

Integration with other systems. Other provincial reporting data systems with a strategic linkage to the CCIS include the Enterprise Master Patient Index (EMPI), Long Term Ventilation Registry, Safer Healthcare Now, and Trillium Gift of Life. There are opportunities to streamline the ICU data collection process across these initiatives which can only be accomplished with detailed demographic fields to achieve patient data linking and allow for a view of access to care across institutions and over time.

29. What is the retention policy for the CCIS and how long are records kept?

All inpatient information received from hospital ADT systems will be retained for seven days post discharge from the hospital ADT, to allow for CCRT data entry (which sometimes occurs subsequent to patient discharge). For patients who have not been discharged from the hospital ADT system, the CCIS will retain the ADT information for one year, after which point it is removed from the system.

As a general privacy principle, personal health information collected via the CCIS will only be kept as long as required to fulfill the purpose for which it was collected and in the least identifiable form possible (i.e. names, addresses, and other identifying information will be removed once they are no longer required to serve the purpose for which they were collected). The CCIS may need to keep de-identified records of personal health information (e.g. critical care reports composed of aggregated information) indefinitely for historical analysis purposes. PHIPA does not establish any storage or retention periods for records of personal health information stored in the CCIS, as is the case for other types of personal health information, such as medical records in hospitals. Specifically, section 20 of Regulation 965 made under the *Public Hospitals Act* (PHA) requires public hospitals to retain (original) patient care records for 10 years from the time the record was last updated or from when a minor attains age of majority. PHIPA does, however, require records to be kept no longer than prescribed by law and for as long as needed to allow patients to exhaust any legal recourse relating to access requests. This means that if a patient has not completed their right of recourse in the case of an access request where a custodian denied such a request, the custodian is required to keep the record until the access complaint has closed, regardless of the retention period.

30. Will research data be collected through the CCIS?

The CCIS will not be incorporating data elements specifically for research purposes at this time. The priority for data collection as determined by the CCIS Advisory Committee and the MoHLTC is to focus on data and reports that facilitate decisions around resource allocation and bed management. Hospital sites may choose to export their own data for analysis, and to supply information to database initiatives such as the Critical Care Research Network (CCR-Net) at their discretion under a data sharing agreement.

From a privacy perspective CCIS only collects personal health information required to fulfill its statutory function as a prescribed registry under section 39(1) of PHIPA. That is, the CCIS collects personal health information required to facilitate or improve critical care. However, the data collected by CCIS may be shared for authorized research purposes provided that Research Ethics Board approval has been obtained and the specific research rules in section 44 of PHIPA are met.

In those cases, as a prescribed registry, CritiCall (Hamilton Health Sciences) is permitted to use and disclose personal health information for research purposes (as per section 13(4) and 13(5) of the PHIPA Regulation, respectively).

31. Why is the indemnity clause in Participation Agreement to indemnify UHN needed?

The purpose of the indemnity clause is to protect UHN as an organization acting on behalf of the MoHLTC to develop and implement the system in support of Ontario's Critical Care Strategy. The indemnity clause does indemnify UHN from negligence, but not from malicious intent. UHN has sought privacy and security consultation in the design and implementation of the CCIS and has taken appropriate steps to ensure that policies and technical and physical safeguards are in place. UHN and CritiCall staff who are members of the CCIS Provincial Project Team are required to comply with the CCIS Privacy Policy Guidelines.