Ontario's Critical Care Information System (CCIS)
Hospital Accountability Statement

1. Purpose

To clarify expectations, accountabilities, and timelines in relation to hospitals entering information into the Ontario's Critical Care Information System (CCIS) via either automation or manual entry. Data entry in CCIS is required as per the Hospital Service Accountability Agreement (HSAA).

2. Scope

The following accountability conditions apply to all hospitals that are funded by Ontario Health and the Ontario Ministry of Health (MOH) and provide level 3 and/or level 2 critical care services for adult, paediatric, or neonates, and/or host MOH funded Critical Care Response Teams (CCRTs).

3. Background

The CCIS provides near-real time information on every adult, paediatric, and neonatal patient admitted to level 3 and level 2 critical care units in Ontario's acute care hospitals. The system captures data on bed availability, critical care service utilization and patient outcomes. CCIS also captures patient-specific data from adult and paediatric CCRTs. This provides consistent and reliable information on the utilization of critical care resources across the province. The system provides an important medium for monitoring and managing the province's critical care resources more effectively, and for highlighting opportunities to implement quality improvement initiatives at individual hospitals and across the Ontario Health regions.

CritiCall Ontario's Provincial Hospital Resources System (PHRS) is the provincial bed and resource registry which is used by CritiCall Ontario to provide a 24-hour-a-day emergency referral service for physicians across Ontario. An interface exists between PHRS and the CCIS Bed Availability Tool (BAT), which allows for critical care bed information to be automatically transferred from BAT to CritiCall Ontario's PHRS ICU screens. BAT is used in real time by CritiCall Ontario agents to help make informed decisions about placement of patients when hospitals experience a capacity issue (e.g., Moderate Surge, Natural Disasters, Pandemic, etc.).

Therefore, every effort must be made to ensure accountabilities for data entry are followed and that CCIS data is accurate and current.

4. Accountabilities

4.1. Service inventory changes in CCIS:

a) Hospitals/units are required to submit a *'Service Inventory Change Request Form'* to CCSO within 30 days of any changes to the hospitals critical care capacity, e.g., increase or decrease in critical care beds. Changes to the inventory in CCIS will ***not*** be made without prior approval of Critical Care Services Ontario (CCSO).

4.2 Data entry accountabilities of critical care units

a) Units are required to adhere to CCIS data entry requirements as outlined in the *CCIS Adult, Pediatric and Neonatal Data Collection Guides.* Refer to the Adult, Paediatric and Neonatal Data Collection Guides located in the CCIS Resources section within the CCIS application to ensure data entry accountabilities are met.

i) Hospitals that have onboarded to the new CCIS Application in August 2023 shall follow the CCIS data entry reference sheet to ensure all data entry is complete and accurate.

If a technical error occurs, manually enter the data into CCIS application and report the issue per the guidelines located in the CCIS Data Collection Guide.

Note: If data automation fails or there is a scheduled/unscheduled Electronic Medical Record (EMR) downtime, hospitals/units are required to enter the data manually. Timelines outlined in the Hospital Accountability Statement need to be followed.

b) Units are required to input data on **all** critical care patients being cared for by the Level 2 or Level 3 critical care team. Data on patients being cared for by critical care physicians or nursing staff physically located outside of the critical care unit (e.g., minor surge location) must also be entered into CCIS.

c) Units are required to ensure admission and discharge data are entered into CCIS as soon as possible and no later than within 2 hours of the patient admission and discharge time. The Bed Availability Tool (BAT) automatically appears with updated information every time a user admits, discharges or reserves a bed for a patient.

d) All critical care units / critical care teams caring for critical care patients are required to enter data (either via automated HL7 message or manually):

i) Manually update 'Not Available' data on the BAT any time there is a status change (e.g., Not Staffed, Shortage of Equipment, etc.), or minimum once in a 24-hour period if there is no status change.

ii) Enter data on Life Support Interventions (LSI) once per 24-hour calendar day (including on the day of discharge), prior to 05:00 hours the following day, to reflect patient activities or interventions for the previous calendar day.

iii) Record admission data, including COVID-19 and Influenza status on admission. If lab results are pending on admission, update the test results prior to 05:00 hours the following day.

iv) Record data on Antimicrobial Stewardship (AMS) and Incidents of Influenza and COVID-19, during ICU stay for all patients per CCIS Data Collection Guide.

v) Record each diagnosed incident of C. difficile, Ventilator Associated Pneumonia (VAP), Central Line Infection (CLI), and Unplanned Extubation for all patients during their stay in critical care units.

vi) Update patient 'Awaiting Transfer' status when the physician determines that the patient no longer requires critical care services, regardless of whether there is a bed available for transfer.

In addition to the accountabilities for all units above, there are patient population accountabilities listed below.

Accountability	Adult Units	Paediatric Units	Neonatal Units
Collect data on Multi Organ Dysfunction Score (MODS) data for adults at the time of admission and record the information into CCIS by 23:59 hours the following day.	**X**		
Collect data on Pediatric Index of Mortality-2 (PIM 2) data on admission and record the information into CCIS by 23:59 hours the following day (paediatric patients only).		**X**	
Record data on Paediatric Logistic Organ Dysfunction (PELOD) once per 24-hour calendar day, prior to 23:59 the following day.		**X**	
Record Respiratory Syncytial Virus RSV status on admission. If lab results are pending on admission, update the test results prior to 05:00 hours the following day.		**X**	**X**

4.3 Critical Care Response Teams (CCRTs) and Paediatric CCRT (PCCRT)

a) MOH funded adult and paediatric CCRTs are required to enter a set of indicators into CCIS, as outlined in the '*CCIS CCRT/PCCRT Data Collection Guide'.* All CCRT and PCCRT data is currently via manual CCIS data entry.
b) CCRT Leads and Co-Leads are required to ensure data is entered into CCIS within 24 hours after consult or follow up with a patient. Submission of accurate and timely data to the CCIS is the responsibility of each CCRT.
c) CCRT monthly statistics must be entered into CCIS within 10 business days following the last day of the month.
d) Qualification for ongoing funding is predicated on meeting the accountability requirements identified in the MOH funding letter.
e) CCRT/PCCRT data entered into CCIS will be used for performance monitoring and program evaluation by CCSO.

4.4. Data Quality

a) Hospitals/units are responsible to ensure that training is arranged for all staff entering data in CCIS. This training is available through CritiCall Ontario.
b) Ensuring accurate and timely entry of data into CCIS is the responsibility of each unit/hospital.
c) Participating in data accuracy audits/quality improvement initiatives as requested by CCSO is required for each unit/hospital that enters data into CCIS.

4.5. Performance Management and Quality Improvement

a) Hospital senior leadership and ICU leaders must review and assess CCIS data with their respective Ontario Health Sub-Regional Critical Care Leaders on a quarterly basis as a part of their ongoing efforts to improve patient safety and access to care.
b) Hospital senior leadership and ICU leaders must review the quarterly CCIS reports and the critical care scorecard reports in order to monitor unit/hospital/Sub-Regional/Regional performance, recognize success and facilitate conversations regarding improvements and decision-making, informed by data.
c) A set of CCIS/CCRT reports can also be accessed through the Reports Portal functionality in CCIS at a hospital level to monitor performance and process.

4.6. Privacy and Security

a) The CCIS is a prescribed health registry and in keeping with the Personal Health Information Protection Act (PHIPA), privacy policies and related procedures are in place to protect the personal health information (PHI) being entered into the system. All CCIS-related privacy and security policies and procedures are available in the CCIS Document Library.
b) In requesting access to the CCIS for staff, hospitals are attesting to the fact that their users have undergone internal privacy/security training and awareness.
c) CCIS users are responsible for protecting all PHI entered into the CCIS and for complying with the CCIS Password Policy.

For more information about the expectations, accountabilities, and timelines for reporting information into CCIS or on unit levels of care or unit type, please contact Critical Care Services Ontario via info@ccso.ca.