Canadian Health Outcomes for Better Information and Care
C-HOBIC
ClinicalConnect™ Integration

January 2014
Agenda

- What is Canadian-Health Outcomes for Better Information and Care (C-HOBIC)
- What is the C-HOBIC Transition Synoptic Report (TSR)
- How is the C-HOBIC TSR accessed through ClinicalConnect™
- How is the C-HOBIC TSR interpreted and used in practice
C-HOBIC

- National initiative to advance the Canadian Health Outcomes for Better Information and Care (C-HOBIC) dataset in Canada

- Funding contributions by Canada Health Infoway and the participating provincial jurisdictions (Ontario and Manitoba) and partners (ClinicalConnect™, HINext, Institute for Clinical Evaluative Sciences)

- Sponsored by the Canadian Nurses Association
A Set of Standardized Clinical Outcomes

A suite of clinical concepts that can be collected systematically and standardized across the health care system

<table>
<thead>
<tr>
<th>Acute Care and Home Care Measures</th>
<th>Long-term Care and Complex Continuing Care Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functional Status</strong>: ADL* &amp; Bladder Continence* (IADL* for home care)</td>
<td><strong>Functional Status</strong>: ADL* &amp; Bladder Continence*</td>
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<tr>
<td><strong>Symptom management</strong>: Pain, Fatigue*, Dyspnea*, Nausea</td>
<td><strong>Symptom management</strong>: Pain*, Fatigue*, Dyspnea*, Nausea</td>
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<td><strong>Safety Outcomes</strong>: Falls*, Pressure Ulcers*</td>
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<td><strong>Therapeutic Self-care</strong></td>
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<tr>
<td>Collected on admission &amp; discharge</td>
<td>Collected on admission, &amp; quarterly/client condition changes</td>
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<td>* interRAI measures</td>
<td>* interRAI measures</td>
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</table>
Underlying Principles of C-HOBIC

- Emphasis on data for which there is empirical evidence that nursing/health care providers impact patient care (outcomes).
- Focus on consistent collection of data electronically at the point of care – to provide real-time feedback of information that clinicians can use in planning for and evaluating care.
- Avoid duplication - Integrate C-HOBIC data capture with existing assessments.
- Maximize electronic capture through existing systems – work to build these questions into assessments.
- Provide access to information for clinicians, healthcare managers, researchers and ministry planners.
- Work with clinicians regarding the value of this data to their practice.
C-HOBIC Dataset

- Endorsed by the Canadian Nurses Association and Canadian Nursing Informatics Association

- On January 11, 2012, the C-HOBIC Dataset was approved as a Canadian Approved Standard

- On April 25, 2012, HOBIC Dataset received Ontario Health Informatics Standards Council (OHISC) approval
ADL Self Performance

Assess for performance over full 24 hour periods, considering all occurrences of activity.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Independent</th>
<th>Set up help only</th>
<th>Limited assistance</th>
<th>Extensive assistance</th>
<th>Maximal assistance</th>
<th>Total dependence</th>
<th>Activity did not occur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathing</td>
<td></td>
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<td>Personal Hygiene</td>
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<td>Walking</td>
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<td>Transfer Toilet</td>
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<td>Toilet Use</td>
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<tr>
<td>Bed Mobility</td>
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<tr>
<td>Eating</td>
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</tbody>
</table>

*See below for clarification of grid components:

**Bladder Continence (Assess for last 24 hrs)**

- 0. Continent
- 1. Control
- 2. Infrequently incontinent
- 3. Frequently incontinent
- 4. Incontinent
- 5. Did not occur

**Fatigue (Assess for last 24 hours)**

- 0. None
- 1. Minimal
- 2. Moderate
- 3. Severe
- 4. Unable to commence day to day activities

**Nausea (Assess for last 24 hours)**

- 0. No nausea
- 1. Mild nausea
- 2. Moderate nausea
- 3. Severe nausea
- 4. Incapacitating

**Pain Intensity**

- 10 = Worst possible pain
- 9
- 8 = Horrible
- 7
- 6 = Distressing
- 5 = Moderate pain
- 4 = Discomforting
- 3
- 2 = Mild
- 1
- 0 = No pain

**Pain Symptoms (Assess for last 24 hours)**

- 0. No Pain
- 1. Present but not exhibited in last 24 hrs
- 2. Exhibited in last 24 hrs

**Dyspnea (Assess for last 24 hours)**

- 0. Absence of symptoms
- 1. Absent at rest, present w/ moderate activity
- 2. Absent at rest, present w/ day to day activity
- 3. Present at rest

**Falls**

- 0. No fall in last 90 days
- 1. No fall in last 30 days, but fell 31-90 days ago
- 2. One fall in last 30 days
- 3. Two or more falls in last 30 days

**Most Severe Pressure Ulcer**

- 0. No pressure ulcer
- 1. Any area of persistent skin redness
- 2. Partial loss of skin layers
- 3. Deep craters in skin
- 4. Breaks in skin exposing muscle or bone
- 5. Not codeable, e.g. necrotic eschar predominant
1. Do you know what medications you were taking at home, before you came to the hospital?

   - 0 Not at all
   - 1 Somewhat
   - 2 Very Much
   - 8 Unable to Assess
   - 9 Not Applicable

2. Do you know why you were taking your medications?

   - 0 Not at all
   - 1 Somewhat
   - 2 Very Much
   - 8 Unable to Assess
   - 9 Not Applicable

3. Did you take your medications (pills, drops, creams) as ordered by the doctor?

   - 0 Not at all
   - 1 Somewhat
   - 2 Very Much
   - 8 Unable to Assess
   - 9 Not Applicable

4. Were you able to notice symptoms (changes in your body) related to your health? Examples of symptoms: pain, feeling tired, dizzy.

   - 0 Not at all
   - 1 Somewhat
   - 2 Very Much
   - 8 Unable to Assess
   - 9 Not Applicable

5. Were you able to carry out treatments to manage your symptoms (changes in your body)? Example of treatments: massage painful area; work at my pace if tired; breathing exercise for shortness of breath.

   - 0 Not at all
   - 1 Somewhat
   - 2 Very Much
   - 8 Unable to Assess
   - 9 Not Applicable

6. Were you able to do your everyday things (like bathing, shopping, preparing meals)?

   - 0 Not at all
   - 1 Somewhat
   - 2 Very Much
   - 8 Unable to Assess
   - 9 Not Applicable
5. Were you able to carry out treatments to manage your symptoms (changes in your body)? Example of treatments: massage painful area; work at my pace if tired; breathing exercise for shortness of breath.

- 0 Not at all
- 1 - Somewhat
- 2 - Very Much
- 8 - Unable to Assess
- 9 - Not Applicable

6. Were you able to do your everyday things (like bathing, shopping, preparing meals)?

- 0 Not at all
- 1 - Somewhat
- 2 - Very Much
- 8 - Unable to Assess
- 9 - Not Applicable

7. Did you have someone to call if you needed help to do everyday things (like bathing, shopping, preparing meals)?

- 0 Not at all
- 1 - Somewhat
- 2 - Very Much
- 8 - Unable to Assess
- 9 - Not Applicable

8. Did you know who to call in case of medical emergency?

- 0 Not at all
- 1 - Somewhat
- 2 - Very Much
- 8 - Unable to Assess
- 9 - Not Applicable

Therapeutic Self Care Score

HOBIC Reference Link
C-HOBIC - Background to Proposal

- C-HOBIC responds to Canada Health Infoway’s Innovation program by:
  - increasing clinicians’ access to information that is of value to their practice
  - provides access to information across the continuum of care to support quality patient care
  - ultimately increase the productivity of clinicians through the provision of evidence-based standardized clinical outcomes information at the point of care

- Project began February 2012; due to be completed March 2014
C-HOBIC - Implementation in Ontario

• Dataset being collected in 186 sites across Ontario – funded by the Ontario Ministry of Health and Long-term Care. Collected at the point of care and submitted along with Admission, Discharge and Transfer (ADT) information to a database that is housed at the Institute for Clinical Evaluative Sciences.

• C-HOBIC Transitions Synoptic Report (C-HOBIC TSR) will be made available to clinicians in the Hamilton Niagara Haldimand Brant and Waterloo Wellington Local Health Integration Networks through the ClinicalConnect™ Portal.
C-HOBIC – Participating Sites

- Hamilton Health Sciences
  - General Site
  - Juravinski Site
- St. Mary’s General Hospital
- Haldimand War Memorial Hospital
- Niagara Health System
  - Niagara-On-The-Lake Site
  - Douglas Memorial Site
- Norfolk General Hospital
- Joseph Brant Hospital
- Brant Community Healthcare System
  - Brantford General Site
- Grand River Hospital
  - Kitchener-Waterloo Site
  - Freeport Site
Accessing the C-HOBIC TSR

- Available to Health Care Providers (HCP) with access to ClinicalConnect™
- C-HOBIC TSR is in the Transcription Module
- The Event Date associated with the C-HOBIC TSR is the encounter discharge date
- Only the most current C-HOBIC TSR will display in ClinicalConnect™
- Confirm that the C-HOBIC displayed is concurrent with the most recent hospital encounter
- Personal identifiers are not on the C-HOBIC TSR pdf
ClinicalConnect™ Visits Module
ClinicalConnect™ Visits Module
# ClinicalConnect™ Transcription Module

## Patient Information

- **Attending Physician:** Male
- **MRN:** 0000010000
- **DOB:** 07/07/1970
- **Medical Record:** 250014/10
- **Admit Age/Gender:** 36/F
- **Facility:** General
- **Reason For Visit:** Short of Breath, Heavy Chest, Abdominal Pain
- **Encounter Date:** 29/09/2010 13:33
- **Status:** ADM IN
- **Location:** CRT CARE ICU E
- **Height (Metric):** 165.1 cm
- **Weight (Metric):** 0.750 kg
- **BMI:** 0.3
- **SSN:** 0.26

## Transcription

- **Event Date:** 10/01/2014
- **Transcribed Date:** 10/01/2014 16:38
- **Name:** Special Testing Report
- **Department:** SPECIAL TESTING
- **Dictated By:** St. Mary's General Hospital
- **Status:** Active
- **Site:** C-HOBC-St. Mary's General Hospital

<table>
<thead>
<tr>
<th>Event Date</th>
<th>Transcribed Date</th>
<th>Name</th>
<th>Department</th>
<th>Dictated By</th>
<th>Status</th>
<th>Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>29/11/2013</td>
<td></td>
<td>C-HOBC Transitions Report</td>
<td>SPECIAL TESTING</td>
<td></td>
<td></td>
<td>C-HOBC-St. Mary's General Hospital</td>
</tr>
</tbody>
</table>

Displaying 1-2 of 2 total
ClinicalConnect™ Transcription Module

ClinicalConnect

Main Menu
- Modules
  - Allergies
  - Lab
  - Admissions
  - Blood Bank
  - CCAC
  - Face Sheet
  - Health Records (HIS Data Only)
  - Microbiology
  - New Results
  - Orders
  - PACS (HIS Data Only)
  - Pathology and Genetics
  - Patient Summary
  - Pharmacy
  - Radiology
  - Transcription
  - Visits

Transcription Module

- ClinicalConnect
- Allergies

Allergy Information:
- Attending Physician: [Information]
- MRN: [Information]
- DOB: 07/07/1975
- Admit Age/Gender: 35/F
- Status: ADM IN
- ADM IN
- Location: CRIT CARE ICU E
- Room/Bed: ICU-E/17
- Height (Metric): 165.1cm
- Weight (Metric): 0.750kg
- BMI: 0.3

Transcription Details:
- Event Date: 10/01/2014
- Transcribed Date: 10/01/2014 16:38
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- Dictated By: St. Mary's General Hospital
- Status: Facilitated

Displaying 1-2 of 2 total
C-HOBIC Transition Synoptic Report
The C-HOBIC TSR provides a summary (i.e. a synoptic report) of the patient’s C-HOBIC scores on admission and discharge. The scores have been normalized to provide a ‘snap shot’ picture of the information.

- **Activities of Daily Living**: The score is a summary of the following items: ability to bath, transfer to toilet, ambulate and feed - higher scores reflect greater need for assistance.

- **Bladder Continence**: This score reflects the person’s continence level – a higher score reflects increasing incontinence.

- **Pain**: The score reflects the frequency and intensity of the pain the person is experiencing - a higher score reflects greater intensity of pain.

- **Fatigue**: The score reflects the person’s ability to complete normal daily activities – a higher score reflects greater fatigue when performing activities.

- **Dyspnea**: The score reflects the amount of dyspnea a person has – higher scores reflect increasingly greater levels of dyspnea.

- **Falls**: The score reflects the number of falls in the last 90 days.

- **Pressure ulcers**: The score reflects the presence of pressure ulcers.

- **Therapeutic self-care**: The score is a summary of a person's knowledge of their medications and ability to take their medications, manage their symptoms and perform everyday activities and ability to contact someone if there is an emergency – a higher score is reflective of less ability to manage these aspects of self-care.
Considerations when Reviewing the C-HOBIC TSR

- If all the scales are missing no report will be generated.

- If a scale has a value of ‘0’ it will be displayed as a ‘0.5’ on the graph and as ‘0.5’ in the legend. This is so that the scale does not disappear in the middle of the graph.

- If either the admission or discharge assessment has a missing scale the missing scale will be displayed as a ‘0’ on the graph and the scale will be labeled as ‘missing’ in the C-HOBIC TSR legend.
How will the C-HOBIC TSR assist me in my practice?

- By comparing the clinical outcomes between admission and discharge, the Health Care Provide (HCP) can plan the appropriate care and resources to manage ongoing patient care to optimize health.

- Access to this information supports the coordination and effectiveness of care between HCPs and Health Service Providers as the patient transitions from one organization or level of care to another:
  - Family Health Teams
  - Community Health Centres
  - Community Care Access Centres
  - Hospitals
  - Nurse Practitioner Led Clinics

- This coordinated approach facilitates excellent care for all but is especially important in chronic care management for those high needs patients identified in the Ministry’s Health Links initiatives.
How will the C-HOBIC TSR assist me … continued

• Dr. Walter Wodchis linked the HOBIC data to datasets held at the Canadian Institute for Health Information (Discharge Abstract Database - DAD) and found that therapeutic self-care (TSC) scores showed a consistent and significant protective effect for readmission to acute care at 7, 30 and 90 days
  – a one point improvement in TSC scores was associated with approximately a 10% reduction in the likelihood of readmission
  – nausea was more strongly related to early readmissions (3, 7, and 30 days)
  – dyspnea was more strongly related to readmission at later stages (30 and 90 days)

• Dr. Lianne Jeffs examined HOBIC data as a predictor of ALC and LOS, C-HOBIC scores revealed that patients admitted to Acute Care with:
  – higher fatigue and dyspnea scores on admission were significantly more likely to have a longer length of stay.
  – high scores for fatigue and falls and, to a lesser extent, a high ADL composite score on admission were more likely to be discharged to either complex continuing care, long-term care homes or rehabilitation facilities than to be discharged home.
Thank you

For more information about C-HOBIC please visit the C-HOBIC Webpage at:
http://www2.cna-aiic.ca/c-hobic/about/default_e.aspx

If you have any questions regarding the C-HOBIC TSR please contact Peggy White, C-HOBIC Project Director at pwhite@hobic-outcomes.ca