Integrated Comprehensive Care

Moderator:
Winnie Doyle, Vice President Clinical Services, St. Joseph’s Health Care Hamilton

Presenters and Discussants:
Carolyn Gosse, Director of Medicine and Emergency Services
Donna Johnson, Coordinator, Integrated Comprehensive Care
### St. Joseph’s Health System (SJHS)

**St. Joseph’s Home Care**
- SJHC provides a multitude of services that respond to community needs. Mandate is to help people including the frail, elderly, and disabled, lead more independent lives. This is done through nursing, personal and home support, and volunteer services, as well as our Constant Care, Palliative Care, Healing Touch, With Seniors in Mind, and Corporate Health Programs.

  - **No. of beds**: n/a
  - **No. of Staff**: 164
  - **Annual budget**: $10 M
  - **Established**: 1921

**St. Joseph’s Lifecare Centre, Brantford**
- SJLC is a multigenerational place of care, hope and education. The new concept of health care combines long term care with Brant County’s first hospice as well as a centre for research and academics. The SJLC commitment to the Mission and philosophy of providing compassionate care will never change.

  - **No. of beds**: 205
  - **No. of Staff**: 165
  - **Annual budget**: $11 M
  - **Established**: 1955

**St. Joseph’s Villa - Dundas**
- SJV has built a new vision of long term care; one that understands that “there’s no place like home”. SJV staff embrace the mission; providing compassionate care with dignity and respect. Over $70 million in new buildings transformed the Villa and Estates into a modern home able to meet the needs of seniors and their families.

  - **No. of beds**: 452
  - **No. of Staff**: 306
  - **Annual budget**: $22 M
  - **Established**: 1879

**St. Joseph’s Health Centre Guelph**
- St. Joseph’s Health Centre, Guelph has been serving the Guelph and Wellington community since it first opened as a refuge for the sick, injured, frail and the indigent in 1861. Today it is Guelph’s leading, fully accredited, non-for-profit provider of resident long term care, complex continuing care, and rehabilitation services.

  - **No. of beds**: 235
  - **No. of Staff**: 340
  - **Annual budget**: $30 M
  - **Established**: 1861

**St. Mary’s General Hospital, Kitchener**
- SMGH provides adult, acute care to people in Waterloo Region and beyond. As home to the Regional Cardiac Care Centre SMGH provides a full range of cardiac care including surgery, angioplasty, and pacemaker insertions. SMGH continues to meet the needs of the community, recently opening a 100,000 sq. ft. addition.

  - **No. of beds**: 160
  - **No. of Staff**: 921
  - **Annual budget**: $120 M
  - **Established**: 1924

**St. Joseph’s Healthcare, Hamilton**
- CHARLTON CAMPUS is a tertiary care teaching centre, which includes the regional kidney transplant centre, oncologic surgery and a large acute care hospital.

- KING STREET CAMPUS provides state-of-the-art, stand-alone facility including a Surgery and Satellite Dialysis Centre.

- WEST 5TH CAMPUS provides specialized tertiary mental health services for residents of Central South Region in Ontario.

- **No. of beds**: 760
  - **No. of Staff**: 4,432
  - **Annual budget**: $500 M
  - **Established**: 1890

---

**International Outreach Program**

International Outreach has been bringing good intentions to life around the world since 1986. From Haiti to Uganda to Sudan, IOP partners with developing countries to provide training in current medical and nursing techniques, transport basic medical supplies, and make donated equipment operational. International Outreach is funded by the Sisters of St. Joseph of Hamilton, Canada and supported by member organizations and friends of St. Joseph’s Health System. Projects are aimed at building capacity for sustainable programs; teams include physicians, nurses, biomedical engineers, and other healthcare personnel.
The Case for Change

Care is often fragmented between Hospitals, CCAC and Home Care Providers

Home care is delivered in silos
  • Independent home care agencies
  • No collaboration between independent home care providers
  • Difficult to collaborate with Physicians

Continuity of care for the client is disrupted
  • Complications, ED visits, readmissions, and costs

Duplication of information

Frustrated health care providers and clients
**ICC Model**

**Before ICC**
- Hospital Process, Team, Record
- CCAC Process, Team, Record
- Home Care, Process, Team
- Hand offs between sectors

**ICC Program**
- Single Clinical Team
- Single Care Process
- Single Medical Record
- One point of contact

**Value**
- Bundle of care with a better outcome at a lower cost
Our Clients: 3000 + to date

St. Joseph’s Healthcare Hamilton – Year 1- ongoing
  • Hip and knee replacement
  • Lung Cancer Surgery
  • Chronic Diseases
    • COPD and CHF

St. Mary’s General Hospital – Year 2 - ongoing
  • Lung Cancer Surgery
  • Chronic Diseases
    • COPD and CHF
  • Cardiovascular surgery
  • Esophageal Cancer
Hip and Knee Replacement Surgery

Integrated Care Coordinator

Home Care Team

HealthAchieve
Integrated Care Coordinators

• Team of Integrated Care Coordinators

• Directly coordinate the care of the client **acute care to community care**

• Expertly trigger **interventions** from both the hospital and community
  
  • Prevent readmissions
  • Prevent complications

• Streamline the **integrated continuum of care**

• Navigate the Health System **WITH** the client

*HealthAchieve*
Edward’s Story

HealthAchieve
Edward

68 years old, lives at home with his wife

Diagnosed with Lung Cancer through the Lung Diagnostic Program at St. Joseph’s Healthcare Hamilton

In the fall of 2012 …

Lung Cancer surgery at St. Joseph’s Healthcare Hamilton

HealthAchieve
Edward

After 7 days in hospital, he is discharged home on Thursday

Saturday evening:
His chest tube site is bleeding and he and his wife decide to go the Emergency Department; they are sent home after a change in dressing.

Thursday evening:
He is suffering from shortness of breath; His wife brings him to the ED for assessment

He waits a few hours for an assessment and tests and is sent home

HealthAchieve
ICC Deliverables

Test a model of integrated case management across hospital and community care

- re-engineering of case management to enable case managers to follow clients from hospital admission to home to independent living

Develop a bundled funding model for specific clinical streams to incentivize the health care provider

- Accountable Care Organization
- Avoid unnecessary costs caused by:
  - complications, infections, readmissions, wait times and unnecessary days in hospital

HealthAchieve
"Please help me fully understand my health challenges so that I can make informed choices about my care."

“İ would like timely care when it is necessary, in the most suitable location.”

“I want to be clear about what will happen next so I can prepare properly and try to worry less.”

“Help support my recovery at home.”
WHY SO COMPLEX?

HOW CAN ED’S JOURNEY BE IMPROVED WITH THE RIGHT CARE, AT THE RIGHT TIME, IN THE RIGHT PLACE — AT THE RIGHT COST?

SUPPORTED BY OUR GOVERNORS, THE ST. JOSEPH’S HEALTH SYSTEM SAW AN OPPORTUNITY FOR HOSPITAL AND HOME CARE TO BE DELIVERED AS ONE PROGRAM, BY ONE TEAM.

HealthAchieve
Value Stream Mapping

- Critical to establishing the current state
- Front line staff engagement
- Identify change ideas which break down barriers
- One integrated care path
- Client value statement always at the core of decisions
ICC Team: Strategic Partnerships

St. Joseph’s Healthcare Hamilton

St. Joseph’s Home Care
- St. Elizabeth Rehab
- St. Elizabeth Health Care
- Therapy Specialities
- ProResp

Physicians
- Specialists
- Primary Care
Seven Key Elements of ICC

1. **Client Centered Care**
   Empowering clients with knowledge, participation and self-care

2. **Integrated Care Coordinators**
   Following clients across the continuum of care

3. **Integrated team committed to standardization**
   Interdisciplinary care pathways spanning hospital and community

4. **A shared electronic health record**
   Also serves as a hub for communication

5. **Simple, available technology**
   Flexibility in communication

6. **Ready access to medical care**
   Community-based 24/7 contact number for clients

7. **Flexibility in the delivery of care**
   Continual process improvement
Spread to St. Mary’s General Hospital (SMGH)

- Spread to community hospital
- Environmental scan
- Identify key stakeholders at SMGH, WW CCAC and WWLHIN
- Collaborative engagement including SJHH, SJHC and SMGH
- Build on learnings and outcomes from Hamilton
- Continue to work in partnership to support ongoing growth and opportunities of the ICCP model
Healthcare Resource Utilization
Integrated Comprehensive Care
St. Joseph’s Health System

PATH Evaluation
Healthcare resource utilization analysis methods

- Selected case mix groups (CMG) and procedures enrolled in the ICC program
  - F2012/2013 (ICC group)
  - F2011/2012 (historical controls by CMG)
- Datasets
  - Discharge abstract database (DAD)
  - National ambulatory care reporting system (NACRS)
  - St. Joseph’s Homecare database (Procura)
  - Integrated Dataset (IDS)
  - SJHH case costing database

*HealthAchieve*
SJHH average total length of stay thoracic lung resection for typical surgical cases:

- **F2011/2012 (control)**
  - CMG 112: Excision Partial, Open Approach: 6.18 days
  - CMG 114: Excision Partial, Endoscopic Approach: 4.37 days
  - CMG 112: Excision Total, Open Approach: 8.01 days
  - CMG 114: Excision Total, Endoscopic Approach: 4.72 days
  - CMG 112: Excision Radical, Open Approach: 16.5 days

- **F2012/2013 (ICC)**
  - CMG 112: Excision Partial, Open Approach: 6.14 days
  - CMG 114: Excision Partial, Endoscopic Approach: 3.63 days
  - CMG 112: Excision Total, Open Approach: 6.28 days
  - CMG 114: Excision Total, Endoscopic Approach: 7.02 days
  - CMG 112: Excision Radical, Open Approach: 7.25 days

*HealthAchieve*
SJHH non-operating room costs for thoracic lung resection for typical surgical cases: F2011/2012 and F2012/2013

HealthAchieve
SJHH length of stay by CMG for typical surgical cases: F2011/2012 and F2012/2013

![Bar chart showing average length of stay for different surgical procedures and the statistical significance of the differences between control (F2011/2012) and ICC (F2012/2013) groups.]
All hospitals 60-day readmission rate by CMG for typical surgical cases: F2011/2012 and F2012/2013
All hospitals 60-day emergency room visit rate by CMG for typical surgical cases: F2011/2012 and F2012/2013
Transfer to Rehabilitation for total joint replacements: F2011/2012 and F2012/2013

- **320 Unilateral Hip Replacement**
  - F2011/2012 (control): 9.64%
  - F2012/2013 (ICC): 7.84%

- **321 Unilateral Knee Replacement**
  - F2011/2012 (control): 6.42%
  - F2012/2013 (ICC): 2.55%

*HealthAchieve*
SJHH length of stay by CMG for typical medical cases: F2011/2012 and F2012/2013

- CMG 139 Chronic Obstructive Pulmonary Disease:
  - F2011/2012 (control): 8.65 days
  - F2012/2013 (ICC): 7.06 days

- CMG 196 Congestive Heart Failure:
  - F2011/2012 (control): 10.14 days
  - F2012/2013 (ICC): 7.69 days
All hospitals & SJHH only - 30 day emergency room visit rate by CMG for typical medical cases: F2011/2012 and F2012/2013

![Bar chart showing emergency room visit rates for CMG 139 COPD and CMG 196 CHF]

- CMG 139 COPD - ALL:
  - F2011/2012 (control): 31.4
  - F2012/2013 (ICC): 18.8

- CMG 139 COPD - SJHH:
  - F2011/2012 (control): 26.7
  - F2012/2013 (ICC): 15.6

- CMG 196 CHF - ALL:
  - F2011/2012 (control): 35.7
  - F2012/2013 (ICC): 24

- CMG 196 CHF - SJHH:
  - F2011/2012 (control): 28.6
  - F2012/2013 (ICC): 24

*HealthAchieve*
All hospitals 30 day readmission rate by CMG for typical medical cases: F2011/2012 and F2012/2013

HealthAchieve
All hospitals & SJHH only - 60 day emergency room visit rate by CMG for typical medical cases:
All hospitals & SJHH only - 60 day readmission rate by CMG for typical medical cases: F2011/2012 and F2012/2013
Impact on Care Providers: Community

• “Clinicians feel empowered”
• “More holistic approach to care”
• “Greater communication with partners in the systems, the flow of information is more direct”
• “Greater autonomy and decision making”
• “Feel much more valued as a practitioner and employee”
• “Feel much more compelled to put more into it”

HealthAchieve
Impact on Clients/Families

- From the first meeting, clients felt as though they were in good hands.

- When compared to previous experiences in the community care setting, ICC-Bundled Care model is viewed as much more efficient, sound, logical and impactful.

- The treatment received in home prevented multiple readmissions due to the fact that clients can contact coordinators for guidance and prevent readmission.

  “The 24/7 telephone availability is an outstanding service”

  “This was the best care experience I have had”
Edward

BEFORE

After 7 days in hospital, he is discharged home on Thursday

Saturday evening:
His chest tube site is bleeding and he and his wife decide to go the Emergency Department; they are sent home after a change in dressing.

NOW

After 5 days in hospital, he is discharged home on Thursday

Saturday:
His chest tube site is bleeding, and he and his wife call the ICC central contact number; They speak with the Integrated Care Coordinator…

The ICC sends the nurse in to assess the bleeding. A picture is sent to surgeon for review. The client stays at home, with a follow up in the clinic in 2 days. All events are documented in the electronic record.

HealthAchieve
SJHC Information System (Procura)

- Team Interactions
- Contact Information
- Patient Folder Scanned Documents
- Visit Workload
- Clinical Documentation
- Tracking Form Contact Info

HealthAchieve

St. Joseph's HEALTH SYSTEM
Edward

BEFORE

After 7 days in hospital, he is discharged home on Thursday

Saturday evening:
His chest tube site is bleeding and he and his wife decide to go the Emergency Department; they are sent home after a change in dressing.

Thursday evening:
He is suffering from shortness of breath; His wife brings him to the ED for assessment

He waits a few hours for an assessment and tests and is sent home

NOW

After 5 days in hospital, he is discharged home on Thursday

Saturday:
His chest tube site is bleeding, and he and his wife call the ICC central contact number; They speak with the Integrated Care Coordinator…
Edward’s Story

Thursday evening:

He is suffering from shortness of

The Integrated Care Coordinator sends a respiratory therapist in the home for assessment, using an oximeter

A direct visit with the thoracic surgeon is scheduled immediately, with all his information provided to the physician