Innovations in Post-Acute Care Delivery to Seniors: A Collaborative Model

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Collaborators:
The Perley and Rideau Veterans’ Health Centre and The Ottawa Hospital

Supporters:
Champlain Community Care Access Centre (CCAC)
Champlain Local Health Integration Network (LHIN)
Ontario Ministry of Health & Long Term Care (MOHLTC)
Objectives

1. Appreciate the outcomes of suboptimal post-acute care (AC) for seniors in AC hospitals

2. Describe a new model of sub-acute care (SAC) delivery developed at The Ottawa Hospital and The Perley and Rideau Veterans' Health Centre

3. Discuss progress to date and potential for scaling it up in the future.
Background

- ¼ Canadians > age 65 by 2036
- Occupy 40% acute care beds
- LOS 1.5 times vs. < age 65
- High risk of:
  - Iatrogenic illness & deconditioning
    - Decreased function and independence post-D/C
- Currently, neither AC hospitals or LTC homes do not meet the needs of this group of patients

Statistics Canada 2014; CHIH 2011; McElhaney 2014; Convinsky 2011
Proposed Model

• Foster a common commitment between LTC and AC
• Quality care; Smooth transition; aligned with the unmet needs of the frail elderly; in an appropriate environment
• A novel and innovative project to deliver safe care in a community-based setting
• Creation of a Sub-Acute Care Unit for the Frail Elderly (SAFE) within an enhanced LTC facility
Goals of S.A.F.E. unit

1. Provide rapid access to targeted patients who
   - Would benefit from assess and restore
     - Estimated need: 30-day stay to recover medically and improve their function
     - Discharge destination back to their own home or a retirement home
2. Enhanced capacity within the LTC facility
3. To reduce readmission to the acute hospital
The Perley and Rideau Veterans’ Health Centre

- Seniors Village in Ottawa, Ontario with 3 key focal points:
  - Assistance to seniors in their homes plus on site programs
  - On-site apartments designed for independent and assisted living
  - Health care centre with programs for long-term care, specialized behaviour, and short term care (convalescent and respite); 450 beds, 250 of these are designated for veterans
Advantages of LTC at Perley

- Experts in caring for frail elderly
- Community-based care
- Restorative philosophy
- Rehabilitative environment
- Holistic approach
- Lower cost of LTC vs. AC
- On-site medical & other services
- Reduce risk of transfer to AC
S.A.F.E. Unit Overview

- 20-bed unit
- Focus on medically complex, frail elderly
- Short-stay program (LOS 30 days max.
- Restorative care approach, addressing frailty, activation, strength for return home
- Rehabilitative focus
- Interprofessional approach
Patient Profile

- 65 years and older
- Medically complex*
- Discharge destination
  - Home or RH (not LTC) within 30 days
- At risk of deconditioning in hospital
- Has defined, achievable goals
- Willing and able to participate in program
- Discharge plan agreed upon
Exclusion Criteria

- Patient is not going home (or RH)
- Undergoing active chemotherapy or radiation
- Total Parenteral Nutrition
- Unmanageable behaviours (determined by unit)
- Acquired brain injury
- Ventilator
- Requires end-of-life care
Admission to S.A.F.E. Unit

- Intake Specialist: screen and assess patients
- Integrated with AC and LTC
- Consultative process (acute care and LTC)
  - Maintain balance
  - Ensure care needs can be met
- “Pull” model
Anticipated Benefits of a S.A.F.E. Unit

1. Prevent further deconditioning
2. Improve health outcomes
3. Enable patients to return home or to retirement home
4. Decrease hospital length of stay/ALC rate
5. Increase system capacity, LTC capacity
6. Reduce cost to health care system
Project Development Process

- Bi-weekly or monthly meetings: Feb-June 2016
- Members from LTC, TOH, CCAC
  - Admins, MDs, RNs, SW, others
- Open communication and active participation by all members - facilitated by S.A.F.E. unit manager
- Smaller working groups
- Decisions made based on consensus
Progress to Date

- Patient profile
- Screening tools
- Minimum data set
- Care pathway
- Education plan
- Human resources plan
- MD resources and model of care
- Environmental modifications
- Clinical services plan - xray, lab, pharmacy
- Communication with stakeholders
Section 1: Basic Screening

1. Does the patient have a discharge destination of home or retirement? *(i.e. Not LTC)*
   - Yes → Continue to Question 2
   - No → Not a S.A.F.E. Unit Candidate at this time; assess again as appropriate

2. Is the estimated date of discharge < 30 days?
   - Yes → See admission criteria below
   - No → Not a S.A.F.E. Unit Candidate at this time; assess again as appropriate

3. Are the patient and family expectations aligned with the philosophy of the S.A.F.E. unit? *(Patient and family must have an understanding of the unit capabilities.)*
   - Yes → See admission criteria below
   - No → Further discussion with patient and family is required (refer to brochure for program description and philosophy)

Admission Criteria
A patient must meet all of the criteria listed below to qualify for referral to S.A.F.E. Unit.

- ≥ 65 years of age
- Has defined and achievable goals
- Is medically complex
- Requires interdisciplinary care
- Weight bearing status is established *(non-weight bearing patients may be accepted if rehab goals exist)*
- Patient is able and willing to participate in the program and has the potential to benefit from the program *(care team to speak with family and provide program brochure prior to referral)*
- Discharge plan has been discussed with the patient/family and consent has been provided

A consultative admission process between TOH, CCAC and PRVHC is required to maintain balance and ensure that care needs can be met within the available resources of the S.A.F.E. Unit.

<table>
<thead>
<tr>
<th>Inclusion Criteria (not limited to):</th>
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</tr>
</thead>
<tbody>
<tr>
<td>✓ PICC lines</td>
<td>X Patient is not going home</td>
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<tr>
<td>✓ VAC dressings</td>
<td>X Patient is going to long term care (LTC)</td>
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<tr>
<td>✓ Bariatric Clients</td>
<td>X Undergoing active chemotherapy or radiation treatments</td>
</tr>
<tr>
<td>✓ Behavioural Management</td>
<td>X Total Parenteral Nutrition</td>
</tr>
<tr>
<td>✓ Peritoneal Dialysis</td>
<td>X Unmanageable behaviours <em>(as determined by the SAFE Unit)</em></td>
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<tr>
<td>✓ O₂ therapy</td>
<td>X Acquired brain injury</td>
</tr>
<tr>
<td>✓ IV Antibiotics</td>
<td>X Ventilator</td>
</tr>
<tr>
<td>✓ Hemodialysis</td>
<td>X Requires end-of-life care</td>
</tr>
<tr>
<td>✓ Tube feeds <em>(PEG)</em></td>
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<tr>
<td>✓ Trachs <em>(stable)</em></td>
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<tr>
<td>✓ CPAP</td>
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<tr>
<td>✓ Wound Care</td>
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<tr>
<td>✓ Patients requiring frequent suctioning</td>
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<tr>
<td>✓ Ostoomy</td>
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<tr>
<td>✓ Pain management</td>
<td></td>
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<tr>
<td>✓ Medication pumps</td>
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Patient Journey to the S.A.F.E. Unit

0-48 hours

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Patient admitted to acute care</td>
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<tr>
<td>2.</td>
<td>Flagged as SAFE Unit candidate</td>
</tr>
<tr>
<td>3.</td>
<td>Acute Care Team makes referral to SAFE Unit using step 1: RMAF form Integrated Consult Team</td>
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<tr>
<td>4.</td>
<td>Perky Assessor receives referral and proceeds with SAFE Unit assessment</td>
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<tr>
<td>5.</td>
<td>ED Home or outpatient is examined by Patient and Family on board</td>
</tr>
<tr>
<td>6.</td>
<td>Patient receives all unknown criteria</td>
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<tr>
<td>7.</td>
<td>Assessor meets with patient/family to discuss care plan and discusses cost of transport</td>
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<tr>
<td>8.</td>
<td>Patient consents to accepted offer</td>
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</tbody>
</table>

48-72 hours

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
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<tbody>
<tr>
<td>9.</td>
<td>Special equipment and supplies ordered</td>
</tr>
<tr>
<td>10.</td>
<td>Unit flowsheets documents to NPI</td>
</tr>
<tr>
<td>11.</td>
<td>Last-minute medical transport arranged by referring unit</td>
</tr>
<tr>
<td>12.</td>
<td>Transfer to S.A.F.E. Unit confirmed with acute care team, patient prepared, Perky/Ready</td>
</tr>
<tr>
<td>13.</td>
<td>Reassessment medical condition reviewed before transfer</td>
</tr>
<tr>
<td>14.</td>
<td>US Report/Transfer of responsibility</td>
</tr>
<tr>
<td>15.</td>
<td>Referring unit completes discharge documents</td>
</tr>
<tr>
<td>16.</td>
<td>Patient is discharged from TOH</td>
</tr>
</tbody>
</table>

LEGEND

TOH | Assessor | SAFE Unit | END POINT | ORIENTATION POINT

PATIENT ARRIVES AT SAFE UNIT BY 6 pm
Case Study 1

- 87 y o male presents with worsening cough, sputum production and shortness of breath
- Past Medical History:
  - Chronic Obstructive Pulmonary Disease
  - Hypertension
  - Osteoarthritis
  - Dyslipidemia
- Medications
  - Advair, Spiriva, Ventolin, Crestor, Altace, Norvasc, Tylenol
Case Study 1

• Social History:
  ▫ Retired music producer
  ▫ 50 pack year smoking history
  ▫ Lives alone in a bungalow, one son, widower
  ▫ Cognition never formally tested, does not have a power of attorney or advanced directives
  ▫ Eats mostly frozen meals, cooks once a week
  ▫ Toilets, feeds, dresses independently
  ▫ Walks with a walker
  ▫ CCAC comes in twice per week to help with bathing
  ▫ Self administers medications
  ▫ Son helps out with finances, groceries, transportation
  ▫ Has a cleaner once a month
Case Study 1

- Course in Hospital
  - Admitted to the acute monitoring area (AMA) under internal medicine as he was requiring 6 L of oxygen on arrival, was also tachypnic and hypotensive
  - Stabilized after IV steroids, puffers, antibiotics and fluids
  - Day 4 of admission, IV steroids have been stepped down to oral, still requiring 2 L of oxygen, BP normalized, antibiotics stepped down to oral
  - Having some difficulty ambulating given has been in bed for 4 days
  - Cognition tested in hospital, MoCA 25/30
  - PT has yet to see given backed up caseload
## Comparison to other Sub-Acute Programs

<table>
<thead>
<tr>
<th>Definition</th>
<th>Geriatric Rehabilitation</th>
<th>New Model: Sub-Acute Frail Elderly (SAFE) Unit</th>
<th>Convalescent Care</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rehabilitative care for frail aged patients who have experienced a decline in function due to a recent hospitalization or illness.</td>
<td>Short-stay medical and restorative care focused on optimizing vitality for frail elderly patients who anticipate returning to the community.</td>
<td>Mid-stay services for clients who need to recover strength, endurance or functional ability and anticipate a return to their residence.</td>
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### Key Criteria

- **Target LOS = 8-12 weeks**
- **No presumed Destination**
- **Situated in Hospital**
- **Rehabilitative**
- **Restore Function**
- **Activation, Strength**
- **Addresses Frailty**
- **Medically stable**

- **Target LOS = 2-3 weeks**
- **Destination: Home or retirement**
- **Situated in LTC (cross-sectoral collaboration- 3’ hospital, nearby LTCH)**
- **Rehabilitative**
- **Restore Function (increased focus on restorative care provided by AHPS)**
- **Activation, Strength**
- **Strengthening for Return Home**
- **Addresses Frailty**
- **Medically complex**
- **May include cognitive impairment**

- **Target LOS = maximum of 90 days**
- **Destination: Home**
- **Rehabilitative**
- **Restore Function**
- **Activation, Strength**
- **Strengthening for Return Home**
- **Medically stable**

### Clinical Status

- **Patients are medically stable**

- **Patient population is medically stable, though complex, requiring medical supervision and regular adjustment to the care plan to optimize medical status**

- **Patients are medically stable**

### Nursing and Medical care

- **Some daily scheduled personal, nursing care**
- **Medical oversight**
- **On-call physician and on-site nursing services 24/7**

- **Daily scheduled personal, nursing care**
- **Daily scheduled medical care**
- **On-call physician and on-site nursing services 24/7**

- **Daily scheduled personnel**
- **Limited scheduled nursing care**
- **Weekly scheduled medical care**
- **On-call physician and on-site nursing services 24/7**
Cost Analysis

• The partners are seeking special designation and associated funding for 2 years in order to evaluate the model and its outcomes
• The difference in cost between acute care and the proposed model is approximately $100 per bed day
• For 20 beds, this represents an annual savings to the health care system of approximately $730,000; this grows to $2M for 40 beds
Education of S.A.F.E. Unit Staff

• Five-day training program
• Build capacity in LTC for higher level of acuity
• Clinical practice sessions
• One day simulation based training
• Team building
• “As needed” training for special clinical situations
Evaluation

- ED visits, acute admissions, 30 day readmissions
- ALC rates
- Appropriate screening of ideal candidates
- Flow (acute care, LTC and system)
- Bed availability
- Patient and Family Satisfaction
- Clinical outcomes of patients
- Home discharges
- Access to care
- Financial stability of model
- Service offerings/specialty care in LTC
Anticipated Challenges

- Staffing resources
- Complex discharges (e.g. patient cannot return home)
- Adhering to established length of stay
- Predictability of patient trajectory
- Building confidence in staff to handle acute events and not transfer to hospital
- High turnover of staff and maintaining competency levels
Summary: Potential Benefits

- **Patient-Centred:**
  - Right care, right place, right time, right patient
- **Proactive, needs-based, fiscally responsible**
- **Safe, consistent & reliable model of care**
- **Excellence** - academic and research driven quality of patient care in LTCH
- **Scaling Up:**
  - Transform how LTCH manage illness in residents
  - Potential to transform how AC hospitals treat older patients at risk of ALC and deconditioning
References

• Population by broad age groups and sex, 2011 counts for both sexes, for Canada, provinces and territories; "Population projections: Canada, the provinces and territories, 2013 to 2063," The Daily, Wednesday, September 17, 2014
• Population Projections for Canada, Provinces and Territories, 2009 to 2036; Canadian Demographics at a Glance.
• Convinsky, K.E., Pierluissi, E., Breen Johnston, C. Hospitalization-associate disability “She was probably able to ambulate, but I’m not sure”. JAMA. 2011; 306(16): 1782-1793.