The Dream and the Reality

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Faculty/Presenter Disclosure

Faculty: Agnes Joyce

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- **Grants/Research Support**: none
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- **Consulting Fees**: none
- **Other**: none
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  • No conflict of interest - benefits from the sale of a product that will be discussed in this program.
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• The planning committee and speakers of this program have complete control over the content of this program. There has been no influence from the sponsors on the content.

• No sponsors or their representatives are members of the program planning committee or any working groups related to the Canadian Stroke Congress.

Personal Conflicts –
- No conflicts
Personal Disclaimer

Smith, AB
3 hours north
Edmonton, AB
Background
UK ranked #1 across the board AND 2nd cheapest to run
2nd to last overall ranking with high cost....
Non-sustainable healthcare cost increases in Canada:
Alberta is above average

1975 to 2010
- Expenditure increases = 3.5 fold
- Population increases = 1.5 fold
Background

Dr. Cy Frank
Esteemed AHS Researcher
Order of Canada 2014
Background

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Current health care is unsustainable. “We must bend the curve”.
Current health care is unsustainable. “We must bend the curve”.

Push research into practice to move more effective care to our front-lines.
Background

Ergo Strategic Clinical Networks:
Background

Cardiovascular Health & Stroke Strategic Clinical Network:

- Innovation
- Provincial scale and spread of best practice
- Pushing client-focused research into practice
- For stroke, building on AB Provincial Stroke Strategy success of established Primary Stroke Centres and urban Early Supported Discharge teams
- Stroke Unit Care proven but inaccessible in rural areas….
How can guidelines be applicable when this is what size of communities our all of our guidelines are based on...

Large urban centres with high stroke volumes
1.2 Million

91,000
1.2 Million

91,000

55,032
1.2 Million

91,000

55,032

18,069
Hence, Stroke Action Plan (SAP)
Methods

SAP is a cost-effective model integrating three services at established Primary Stroke Centres:

– “Stroke unit equivalent care” (SUEC) - replicate the experience of stroke unit care for rural and smaller urban areas; small staff enhancements; 14 sites

– Early Supported Discharge (ESD) and Community Rehabilitation (CR); 5 of the 14 larger volume sites
  • Full rehab teams established using Summits and modified Kaizen process – Use patient-centred outcomes (e.g. COPM, AusTOMs)
But to bend that curve quickly….  

…. It can’t be done alone in administrators’ offices.

….We need to motivate and empower the front-line clinicians to want to make and to see how THEIR change directly improves care.
Improvement/Innovation Collaboratives

**Innovation Collaborative Learning Session 1**
- Learn
- Share
- Plan
- Together

**Site Implementation Teams**
- Work on quality improvement project

**Innovation Collaborative Learning Session 2**
- Learn
- Share
- Report Out Progress
- Plan
- Together

**Site Implementation Teams**
- Work on quality improvement project

**Innovation Collaborative Learning Session 3-4**
- Learn
- Share
- Report Out Progress
- Plan
- Together
## Balanced Scorecard Methodology

<table>
<thead>
<tr>
<th>QUALITY DIMENSIONS:</th>
<th>ACCESSIBLE</th>
<th>APPROPRIATE</th>
<th>EFFECTIVE</th>
<th>EFFICIENT</th>
<th>APPROPRIATE</th>
<th>SAFETY</th>
<th>ACCEPTABLE</th>
<th>ACCEPTABLE</th>
<th>SAFETY</th>
<th>SAFETY</th>
<th>ACCESSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELECTED MEASURE:</td>
<td>Median wait (in days) from hospital to ESD intake (target should be 2 days)</td>
<td>% stroke patients for whom stroke ordersets/protocols were implemented on admission</td>
<td>Average number of therapy hours per stroke patient per day for appropriate patients</td>
<td>Reduction in median &amp; mean acute care length of stay (sites to track mean)</td>
<td>% of clients that would refer friends/family to ESD program if appropriate.</td>
<td>% of stroke patients who feel they participated in the decision making about their treatment</td>
<td>% of Caregivers/support persons who feel that the stroke survivor is safe in their home.</td>
<td>% of stroke patients who were provided with written stroke information (As determined by SAP survey questions)</td>
<td>% of acute stroke patients who are screened for depression using a standardized tool (sites to track mean)</td>
<td>% of stroke patients receiving a 72 hour assessment to determine post acute rehab needs using a standardized Protocol such as alpha-fim</td>
<td>% of acute stroke patients provided with written stroke information (As determined by SAP survey questions)</td>
</tr>
<tr>
<td>10 (Targeted Ideal)</td>
<td>2 days</td>
<td>100%</td>
<td>3.0</td>
<td>3.0</td>
<td>9.5/4.0</td>
<td>90</td>
<td>85</td>
<td>80</td>
<td>0</td>
<td>0</td>
<td>80</td>
</tr>
<tr>
<td>9</td>
<td>2.1</td>
<td>92%</td>
<td>2.9</td>
<td>2.85</td>
<td>9.8/8.3</td>
<td>95</td>
<td>77</td>
<td>95</td>
<td>95</td>
<td>90</td>
<td>80</td>
</tr>
<tr>
<td>8</td>
<td>2.2</td>
<td>87%</td>
<td>2.8</td>
<td>2.75</td>
<td>10.0/8.5</td>
<td>90</td>
<td>73</td>
<td>90</td>
<td>90</td>
<td>80</td>
<td>70</td>
</tr>
<tr>
<td>7</td>
<td>2.3</td>
<td>72%</td>
<td>2.6</td>
<td>2.5</td>
<td>10.3/8.8</td>
<td>85</td>
<td>70</td>
<td>85</td>
<td>85</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>6</td>
<td>2.45</td>
<td>57%</td>
<td>2.4</td>
<td>2.25</td>
<td>10.5/9.0</td>
<td>80</td>
<td>65</td>
<td>80</td>
<td>80</td>
<td>60</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>2.6</td>
<td>42%</td>
<td>2.2</td>
<td>2.0</td>
<td>11.9/5.0</td>
<td>75</td>
<td>60</td>
<td>75</td>
<td>75</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>4</td>
<td>2.75</td>
<td>28%</td>
<td>2</td>
<td>1.75</td>
<td>11.5/9.6</td>
<td>70</td>
<td>55</td>
<td>70</td>
<td>70(71.4%)</td>
<td>70(11.1%)</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>27.3%</td>
<td>1.75</td>
<td>1.5</td>
<td>11.9/10</td>
<td>60%</td>
<td>50%</td>
<td>60%</td>
<td>60%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>3.5</td>
<td>9 (7.4%)</td>
<td>1.5</td>
<td>1.0</td>
<td>4.0</td>
<td>50</td>
<td>40</td>
<td>50</td>
<td>50</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>9</td>
<td>1</td>
<td>0.5</td>
<td>2.5</td>
<td>60</td>
<td>30</td>
<td>40</td>
<td>40</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>WEIGHTING (%)</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>

**PERFORMANCE LEVEL**

<table>
<thead>
<tr>
<th>ESD</th>
<th>SUEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*Choose your Best Practice indicator*

**ACHIEVED! TEAM TO CELEBRATE SUCCESS.**

= Real time feedback for front-line staff on quality improvement
And now for the best part…
Results- Patient and caregiver experience

• “Receiving care in the home helps a lot. It really helps, because you’re in your own environment and you’re not so afraid...you’re happy.” – Edna, Camrose

• “It’s just an amazing program. They actually treat the whole person, not just the physical, but the emotional and mental, and not just the patient, but also the spouse” - Jane, Grande Prairie (Caregiver)

• “It is also more viable from a financial standpoint by implementing shorter stays in hospital and all the expenses incurred by such, as well as the convenience for families.” – Elwood, Red Deer
Clinician feedback

• “It’s a dream come true” to work on a team like this to be able to work with truly client-centred practice directly in the home- Karen, Lethbridge

• “We didn’t work on walking or stairs, I helped him play the piano again at HIS own piano – this was worth 1000 stairs for his mental health.” Carla, Red Deer

• “I have never in all my years felt this level of team cohesiveness before and it directly benefits the patient”  Sarah, Camrose
Pre-SAP – Stroke Unit Care
Pre-SAP – Stroke Unit Care

Phase 1 (Sites receiving both SUEC/ESD)
Pre-SAP – Stroke Unit Care

Phase 1 (Sites receiving both SUEC/ESD)

ESD radius
Pre-SAP – Stroke Unit Care

Phase 1 (Sites receiving both SUEC/ESD)

ESD radius

Phase II (Sites receiving SUEC only)
Preliminary Data Trends

- 704 through SUEC and 255 patients through ESD to date
- Length of Stay Target 10.4 days
  - Mean = 9.4 days, median = 5 days
- Rehab hours within 48 hours - most sites already achieving
- Reduction in post-stroke complications – baseline 4%, now at 3.75%
- *35% increase in use of Stroke Order Sets – huge impact
Key performance measures to come

- **Effectiveness**
  - Patients treated in ESD/CR will have clinically significant improvements in their functional abilities
- **30-day mortality rate:** will measure impact
- **Cost-effectiveness**
- **Acceptability**
  - 85% of stroke survivors report being moderately or very satisfied with ESD
  - 85% of immediate caregivers and healthcare providers will be moderately or very satisfied with ESD
  - 80% of stroke survivors will be VERY satisfied with the SUEC inpatient care they receive
# ESD Program Performance using AusTOMs

(n=59)

<table>
<thead>
<tr>
<th></th>
<th>Client participation Δ (n=53)</th>
<th>Caregiver participation Δ (n=4)</th>
<th>Distress for Client Δ (n=55)</th>
<th>Spouse/ CG Distress Δ (n=37)</th>
<th>Ave Change IMP Ave Change AL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.2</td>
<td>2.7</td>
<td>2.0</td>
<td>1.9</td>
<td>2.5</td>
</tr>
<tr>
<td>Median</td>
<td>1.0</td>
<td>1.0</td>
<td>0.5</td>
<td>0.5</td>
<td>1.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Learning Imp Δ</th>
<th>Learning AL Δ</th>
<th>Tasks Imp Δ</th>
<th>Tasks AL Δ</th>
<th>Domestic life Imp Δ</th>
<th>Domestic life AL Δ</th>
<th>Inter-personal Imp Δ</th>
<th>Inter-personal AL Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td># ≥1</td>
<td>28.00</td>
<td>34.00</td>
<td>22.00</td>
<td>30.00</td>
<td>36.00</td>
<td>36.00</td>
<td>22.00</td>
<td>17.00</td>
</tr>
<tr>
<td>% ≥ 1</td>
<td>47.46%</td>
<td>57.63%</td>
<td>37.29%</td>
<td>50.85%</td>
<td>61.02%</td>
<td>61.02%</td>
<td>37.29%</td>
<td>28.81%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Community life Imp Δ</th>
<th>Community life AL Δ</th>
<th>Client participation Δ</th>
<th>Caregiver participation Δ</th>
<th>Distress for Client Δ</th>
<th>Spouse/ CG Distress Δ</th>
<th>Ave Change IMP Ave Change AL</th>
</tr>
</thead>
<tbody>
<tr>
<td># ≥1</td>
<td>32.00</td>
<td>40.00</td>
<td>33.00</td>
<td>6.00</td>
<td>27.00</td>
<td>14.00</td>
<td>17.00</td>
</tr>
<tr>
<td>% ≥ 1</td>
<td>54.24%</td>
<td>67.80%</td>
<td>55.93%</td>
<td>10.17%</td>
<td>45.76%</td>
<td>23.73%</td>
<td>28.81%</td>
</tr>
</tbody>
</table>

(Unsworth, Coulson, Swinton, Cole, & Sarigiannis, 2014)
Lessons and Learnings

- Summits and Kaizens to get sites ready and support to sites
- Project Manager keeps track of timelines, scope and budget leaving Practice Leads free to focus on facilitating and supporting work with sites
- Collaborative model provides a solid CoP and front-line engagement
- Data data data – scorecards empower front lines to see the impact they have themselves and understand the usefulness of data to change and improve the care they provide
Lessons and Learnings

- Stakeholder input from start
- Recruitment difficult in rural – “taking from Peter to give to Paul”
- Teams being stretched geographically and to other areas of care
- Physician engagement, site champion, leadership support
- Primary care engagement
- Bixby report – underutilizing telestroke – opportunities at this congress can help us with this
Conclusions

• Impact – yes!
• To re-quote Cy and Elwood:
  – SCNs bend the curve – can we have political implications to improve patient care and reduce costs of health services
• Model applicable beyond stroke
• ....The dream is not so unrealistic
Our researchers pushing that practice:

• Dr. Tom Jeerakathil: Is this model highly cost-effective?
• Luchie Swinton: Effective Kaizen process for team start-up
• Cheryl King: Stroke Unit Equivalent Care
• Todd Farrell: Royal Brisbane Swallow Screen
• Alaina Smith: Inpatient Communication Screen
• Stuart Miller: FES Train-the-trainer model
• Melissa Stym: An integrated approach in rural settings

*Thanks to Dr. Colleen Norris, SCN Scientific Director, for financial support
Our researchers pushing that practice:

- Luchie Swinton:
Other SAP presenters here:

- **Luchie Swinton**: Thank you for all of your contributions!
More Questions?

Would you like to collaborate?

Contact Us:
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agnes.joyce@albertahealthservices.ca
Stroke rehabilitation team helps clients recover

By Marcy Crews, Centre Calgary

The Centre Calgary is working to improve the outcome for stroke patients by helping them recover.

The new program has been able to help 30 people in 12 weeks, and it is designed to help patients with different disabilities improve and learn new skills. The program is offered through the Centre Calgary, which also provides help to patients with other disabilities.

"The program helps people to recover from stroke and other disabilities," said a spokesperson for the Centre Calgary.

For more information, visit the Centre Calgary website at www.centre.ca or call 1-800-387-1111.