Improving Stroke Outcomes
QI, Teamwork & Integration

Quinte Health Care

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December 12th, 2019
QHC’s stroke journey & pathway

- Integrating stroke care at QHC
  - Coordinating & integrating services in acute care
  - Leveraging high functioning IP Rehabilitation

- Mixing home & outpatient rehabilitation services
- Improving quality & team work in the ED
- Stroke Prevention Clinics
- Community support groups
PATIENT JOURNEY MAP

YOUR RECOVERY JOURNEY AFTER STROKE

In-Hospital Acute & Rehabilitation Care

Stroke Event
Call 911

Stroke Prevention Clinic
Medical Follow-up
Support Groups
Community Services

Community-Based Rehabilitation In-Home | Outpatient
Driving & Transportation
Home Care

Return to:
- Life Roles
- Leisure & Recreation

Recovery Begins
Transitioning to Community
Recovery Continues

STROKE NETWORK of Southeastern Ontario
# QHC Stroke Services

## Stroke Resource Nursing Care

<table>
<thead>
<tr>
<th>Hyper acute Care</th>
<th>Integrated Care</th>
<th>Complex Care</th>
<th>Outpatient (hospital) Rehab</th>
<th>SPC</th>
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<tbody>
<tr>
<td>Acute DSU</td>
<td>Inpatient Rehab</td>
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History of Stroke at QHC

- tPA KGH at KGH
- tPA at BGH
- tPA at BGH + EVT KGH wk days
- tPA at BGH + EVT KGH 24 hrs
- QHC becomes a District Stroke Centre
- Stroke Prevention Clinic Opens
- Co-location BGH
- RAPID CT BGH
- SPC move
- Champions
- Formal Launch DSU
- ISU Launch Dec 11, 2018

Happy Birthday ISU !!
Dec 11, 2019
Acute / DSU
Acute Stroke & General Medicine
Increasing Volumes
From 2015-2018 we have seen....

- tPA - 19 (76%)
- Code Stroke – 80 (42%)
- DSU – 56 (16%)
What were we thinking???

Bed flow
Over capacity
Staff Frustration

...

Let’s build a new unit !!!

Improve best practices
Improve survivor experiences
Integrated Stroke & Rehabilitation
# QHC ISU Project Summary

<table>
<thead>
<tr>
<th>Primary Driver</th>
<th>Secondary Driver</th>
<th>Primary Driver</th>
<th>Secondary Driver</th>
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<tbody>
<tr>
<td>Physical Environment</td>
<td>Floor Mapping (define beds)</td>
<td>Stable, Trained Human Resources</td>
<td>Recruitment</td>
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<td>Equipment</td>
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<td>Staffing model (nursing / allied)</td>
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<td>Bed Flow &amp; Care</td>
<td>Criteria and flow algorithm</td>
<td>Communication</td>
<td>Staff leadership group</td>
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<td>Cardiac monitoring</td>
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<td>Bed Flow &amp; Care</td>
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<td>Repatriation options</td>
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<td>Medical patients not getting to rehab</td>
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<td>Surge planning</td>
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<td>Secondary Drive</td>
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<td>Sills 3 education</td>
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<td>On unit resources</td>
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Improving Standard Practices

**Staff**
- Nursing assignments
- Swallowing Screening
- Shared Experiences
- Education

**Survivors**
- Up & Dressed
- Meals & Groups
- Shared Experiences
- Same Bed

**Operation Stroke**
Staff ............
Education

Stroke days
Medical days
Cardio days (nursing only)
Mentorship
# QHC IP Rehab Outcomes after ISU (Q4 Jan-Mar 2019)

Data below is for stroke only

<table>
<thead>
<tr>
<th></th>
<th>QHC IP Rehab 1819 Q4</th>
<th>QHC IP Rehab 1819 All</th>
<th>Peers IP Rehab (32 hospitals) 1819 Q4</th>
<th>Peers IP Rehab (32 hospitals) 1819 All</th>
<th>All Ontario IP rehab 1819 Q4</th>
<th>All Ontario IP rehab 1819 All</th>
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<tbody>
<tr>
<td><strong>FIM efficiency</strong></td>
<td>1.1</td>
<td>1.1</td>
<td>0.9</td>
<td>1.0</td>
<td>0.8</td>
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<tr>
<td><strong>Total functional score changes divided by LOS days to get Total Functional Changes per Day on Unit</strong></td>
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<tr>
<td><strong>Days waiting for IP Rehab</strong></td>
<td>6.5</td>
<td>5.5</td>
<td>10.0</td>
<td>10.0</td>
<td>11.0</td>
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<tr>
<td><strong>Acute days waiting before admission to rehab (goal is 5 days ischemic &amp; 7 days hemorrhagic)</strong></td>
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<tr>
<td><strong>Rehab face to face minutes</strong></td>
<td>74.0</td>
<td>79.0</td>
<td>68.0</td>
<td>68.0</td>
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<tr>
<td><strong>AVG number of minutes (measured over 6 days per week) all patients spends in face to face therapy with PT, OT, SLP and PTA/OTA/CDA</strong></td>
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<tr>
<td><strong>IP rehab LOS (median)</strong></td>
<td>29.5</td>
<td>29.0</td>
<td>32.0</td>
<td>30.0</td>
<td>28.0</td>
<td>30.0</td>
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<tr>
<td><strong>Median rehab LOS for all stroke patients (typical goal is 30 with less acute at 20 and higher acuity 40-48)</strong></td>
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<tr>
<td><strong>Total Functional Change</strong></td>
<td>29.0</td>
<td>26.0</td>
<td>25.0</td>
<td>38.0</td>
<td>25.0</td>
<td>25.0</td>
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<tr>
<td><strong>Total amount of change in motor, cognition and speech for entire rehab LOS</strong></td>
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<tr>
<td><strong>% went home</strong></td>
<td>90%</td>
<td>75%</td>
<td>75%</td>
<td>86%</td>
<td>77%</td>
<td>77%</td>
</tr>
<tr>
<td><strong>% of patients that went back home after coming to hospital from home</strong></td>
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QHC - Mixed IP Rehab data (non stroke patients)
Integrated Stroke & Rehabilitation

CURRENT STATE
Rehab Day Hospital

Outpatient Stroke Rehabilitation Clinic

FY 2018/19

- 186 discharged clients
- OT, PT, SLP & CDA
- Multi visit appointments
- Pre-discharge tour from Sills 3 ISU
Hyperacute

...
tPA and Code Stroke (2011-2018)
Door to Needle Variation

Median Mins

Goal
QHC Door to Needle
FY 1112 to 1920 (Q2)
- Kaizan (QI) event held May & July 2019
- Staff & physician goals / agenda
- QHC’s Transformation office led event
- SE regional team attended
- **Focus to improve 4 key areas**
  - Reduce practice variation
  - Improve nursing teamwork in ICU & ED
  - Renew momentum & ownership for hyperacute care
  - Reduce door to needle times for tPA
- Peripheral focus - IP activation & LVO screening
Stroke Prevention Clinic

Wait time (days)

1516 1617 1718 1819

L1 L2
QDSAC
Quinte & District
Stroke Advisory Council

• Excellent local support
• CCSH, QDR, QHC, Stroke Survivors, SE H&CC & more
• Co-chair also leads community stroke support groups
• Recent meeting had 3 survivors attend !!
Our team !!!