Session 4: Quality on the Front Lines: Innovative Approaches to Quality Improvement Planning, Measurement, and Sustaining Change

Moderator: Dr. Matthew Morgan
Presenter Disclosures

Presenters: Dana Hardy, Marilynne Gordon, David Girard, Brenda Carter, Dr. Hussein Moloo, Rebecca Brooke, Dr. Bruce Stanners, Gillian Kean

Relationships with commercial interests: None
Disclosure of Commercial Support

This session has received no commercial support
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Use hashtag

#HQT2014
Residents First

Did we really make a difference in Quality of Care?

Prepared by:
Dana Hardy, National Director Quality Improvements
Marilynne Gordon, Regional Manager Education and Resident Services
About Revera

- Leading seniors’ accommodation, care and services company
- 50-year history, formed in 1961
- Approximately 28,500 employees
- 227 sites
  - 189 Canada
  - 38 US
- Approximately 28,000 clients served every day
- Four areas of business: Home Health, Retirement Living, Long Term Care and U.S. Nursing & Rehab
- Canadian owned and operated
Leadership Across Four Lines of Business

**RETIREMENT LIVING**
Our vibrant retirement communities offer accommodation, health and wellness, and hospitality services designed to help seniors live their life to the fullest.

**LONG TERM CARE**
Quality professional and compassionate care in a warm, friendly atmosphere.

**HOME HEALTH**
Supporting individual independence, our home health personnel provide a full range of services in private homes, retirement residences, long term care homes and hospitals across Canada.

**US NURSING & REHAB**
We help our residents achieve the highest quality of life and independence possible, by offering both short term rehabilitation and long term care.
Revera + HQO = Partnership
Experiential Learning

- Building capacity
- Clear aim statements
- Home Teams
- Engagement of all persons involved in the topic area
- Root cause
- Accept failures
Measures of Success

• Qualitative
• Quantitative
• System level
• Site level
Results - Celebrated Success

Wave I Falls Data

![Falls 1: Number of Harmful Falls](chart.png)
Wave II Responsive Behaviours Data

# Responsive Behaviours in month
Aggregate ($n = 7$)
Aim: To reduce Falls by 43% from 21 to 12 per month on Hewson House by May 2013.

Congratulations!
Aim: To reduce total physical responsive behaviours on the Brant home area by 85% from 278 (our median from baseline) to 42 by December 2013.
Aim: To reduce the number of verbally aggressive behaviours on first floor by 25% from 56 to 42 by December 31, 2013.

Congratulations!
Next steps

• Commitment
• Sustainability
• Spread
Improving Surgical Oncology Wait Time Performance at Kingston General Hospital Through a New Active Wait List Management Process

Brenda Carter, Vice President, Cancer Services and Diagnostic Imaging
David Girard, Project Manager, Cancer Services
Background

May 2012

• Kingston ranked 32/35 CSA hospitals in Ontario
• 63% of cancer surgery cases completed in target
• Hospital Board, Leadership, community wanted improvement
Aim and Purpose

Aim To improve surgical oncology wait time performance from 63% to 80% within 12 months, and to 90% within 18 months.

Purpose

• Improve patient care
• Build cohesiveness
• “people-ize” the data
• Ensure data quality
• Reinstall confidence with the community
• Standardize and integrate processes
### Results

**KGH Surgical Oncology Wait Times**

Percent Completed within Wait Time Target

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</tr>
</thead>
<tbody>
<tr>
<td>% Met Target</td>
<td>86</td>
<td>79</td>
<td>84</td>
<td>77</td>
<td>90</td>
<td>73</td>
<td>66</td>
<td>76</td>
<td>67</td>
<td>70</td>
<td>67</td>
<td>70</td>
<td>66</td>
<td>70</td>
<td>62</td>
<td>73</td>
<td>72</td>
<td>73</td>
<td>72</td>
<td>73</td>
</tr>
<tr>
<td>Project Target (80%)</td>
<td>63%</td>
<td>63%</td>
<td>61%</td>
<td>61%</td>
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<td>65%</td>
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<tr>
<td>CCO Target (90%)</td>
<td>95%</td>
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<td>95%</td>
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</table>

**Project Start**

**Target Hit!**
Active Wait List Management

START

Case Study Reviews

Engagement & Education (Surgeons + Project Team)

Patient Consult: Wait Time Target Determined (Surgeon)

OR Date Booked (Medical Secretary)

Pre-OR Wait Time Audit

In Target?

Out of Target?

Series of Wait Time Access Options for Each Patient

Access Opportunities & Data Quality Check (Project Team)

Post-OR Wait Time Audit

Surgery (Surgeon + SPA Program)

Dashboard Created

Continuous Improvement

FINISH
Tools
Lessons Learned

• Leadership support
• Project approach
• Large scale change takes time
• In-person communication
• Walk-in the patient’s shoes
• Analytical tools and accountability must go hand in hand
Thank You

Brenda Carter, Vice President, Cancer Services and Diagnostic Imaging
carterb@kgh.kari.net

David Girard, Project Manager, Cancer Services
girarrd@kgh.kari.net
Appendix - Measures

Outcome Measures
• Percent of completed cases meeting wait time target: Priority 2 - 14 days, Priority 3 - 28 days, Priority 4 - 84 days.

Process Measures
• Completed surgery volume: # of surgeries for each priority category.
• Throughput ratio: The contrast between patients added to the wait list vs. patients that were treated (i.e. removed from the wait list).

Balancing Measures
• Priority distribution ratio: Distribution of priority 2, 3 and 4 cases.
• 90th percentile wait time: The number of days waited by the 90th percentile patient.
## Appendix – Yellow Cases Report

### Pre-OR Wait Time Audit (Active Approaching Target) Report

<table>
<thead>
<tr>
<th>Active patients with a scheduled surgery date: % expected to exceed wait time target</th>
<th>Active patients without a scheduled surgery date: % expected to exceed wait time target in 1-week’s time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scheduled_Surgery_Date</strong></td>
<td><strong>Scheduled_Surgery_Date</strong></td>
</tr>
<tr>
<td><strong>Over_Target_Flag</strong></td>
<td><strong>Over_Target_Flag</strong></td>
</tr>
<tr>
<td>(Multiple Items)</td>
<td>(blank)</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data</th>
<th>Patient Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHED_OR_Expected_Over_Target_Flag</td>
<td>No</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>Grand Total</td>
<td>47</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

**Patients with a scheduled OR date and not currently over their target. If they wait until their scheduled OR date, will they be over target?**

<table>
<thead>
<tr>
<th>Data</th>
<th>Patient Count</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNSCHED_OR_Expected_Over_TargetIn1Week</td>
<td>No</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>Grand Total</td>
<td>38</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

**Patients without an OR date currently scheduled: if left for 7 days, would they be over target?**
Use of NSQIP Clinical Outcome Data and CUSP Quality Improvement Methodology to Reduce Surgical Site Infections at The Ottawa Hospital

Husein Moloo and Rebecca Brooke
Observed Rate: 10.59%
Pred. Obs. Rate: 9.41%
Expected Rate: 5.21%
Odds Ratio: 2.01
Status: High
A system produces the results it is designed to produce

Don Berwick
Creating a Culture of Quality

THE FOUR ESSENTIALS OF QUALITY

In our research, we examined tools commonly used to make employees care about quality, including training, best-practices sharing, and monetary incentives. We concluded that only four attributes actually predict a culture of quality:

**Leadership Emphasis**
Managers are told that quality is a leadership priority.
Managers “walk the talk” on quality.
When evaluating employees, bosses emphasize the importance of quality.

**Message Credibility**
Messages are delivered by respected sources.
Workers find that communications appeal to them personally.
Messages are consistent and easy to understand.

**Peer Involvement**
Most employees have a strong network of peers for guidance.
Peers routinely raise quality as a topic for team discussion.
Like members of a sports team, peers hold one another accountable.

**Employee Ownership**
Workers clearly understand how quality fits with the job.
Workers are empowered to make quality decisions.
Workers are comfortable raising concerns about quality violations and challenging directives that detract from quality.
CUSP
Comprehensive Unit-Based Safety Program

Presented by:
Elizabeth Wick, M.D.
Deborah B. Hobson, BSN
CUSP executive team

CUSP TEAMS – divisional/corporate

CUSP advisory committee

Perioperative Logistics

*QI COORDINATORS KEY!!*
## SSI Interventions

<table>
<thead>
<tr>
<th>Category</th>
<th>Number of unique interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peri-operative Patient Warming</td>
<td>6</td>
</tr>
<tr>
<td>Antibiotics</td>
<td>5</td>
</tr>
<tr>
<td>Wound management</td>
<td>8</td>
</tr>
<tr>
<td>Environmental sterility</td>
<td>11</td>
</tr>
<tr>
<td>Blood glucose management</td>
<td>5</td>
</tr>
<tr>
<td>Surgical instruments</td>
<td>4</td>
</tr>
<tr>
<td>Fall risk</td>
<td>3</td>
</tr>
<tr>
<td>Communication</td>
<td>4</td>
</tr>
<tr>
<td>OR supply chain improvements</td>
<td>5</td>
</tr>
<tr>
<td>(LEAN process)</td>
<td></td>
</tr>
</tbody>
</table>
Example: Patient Warming
Results

Normothermia in all surgical cases >1 hour

- Pre-warming at all campuses, OR temperature increased
- Heated mattresses at Civic & Riverside
- Heated mattresses at Civic & Riverside

Percent Normothermic

- Baseline (Median)
- Normothermia
Results

Cefazolin Re-dosing Success (Cases >4 hours)

- Re-dosing <4 hours
- Median

- Manual timers
- SIMS timer live at Civic
- SIMS timer live at General and Riverside
TOH NSQIP Unadjusted SSI Rate

Month of NSQIP Participation
May 2010 - May 2014
Lessons Learned

Frontline
Multidisciplinary
Infrastructure
Quality Improvement
Owen Sound Family Health Team
Diabetes Strategy

Dr. Bruce Stanners
Gillian Kean, RN, MN, NP-PHC candidate
Diabetes Prevention: History of the PCDPP

- The OSFHT Primary Care Diabetes Prevention Program was originally one of 6 pilot projects set up by the Ministry of Health and Long-Term Care as part of the Ontario Diabetes Strategy in 2011.
- The PCDPP is based on the Group Lifestyle Balance curriculum which was designed by the University of Pittsburgh Diabetes Prevention Program.
- The program is offered to those at high risk of developing diabetes.
- Funding has been extended to March 2015
- Total # of participants to enter the program is 466 (2011-2014)
Program Requirements

- Participants are referred to the program by Primary Health Care Providers based on the following criteria:
  
  1) Pre Diabetes and/or
  2) Metabolic Syndrome and/or
  3) CANRISK score >33
Program Structure

- The program consists of the following:
  - 12 core sessions offered on a weekly basis
  - 7 maintenance sessions offered bi-weekly
  - 3 maintenance sessions offered monthly
  - Monthly meetings are offered after program completion for additional support

- Session topics include: healthy eating, physical activity, problem solving and dealing with social cues, healthy behaviour strategies, stress management, sedentary behavior reduction and mindfulness.

- Sessions are taught in group format and are one hour in length.

- Supervised exercise sessions are offered before or after the weekly meetings for 40 minutes in length.
RESULTS

In 2013, 114 participants enrolled. There was a drop out rate of 31.6%.

The following data is for participants who completed Maintenance phase of the program between 2013 and July 2014:

37.6% MET THE 7% WEIGHT LOSS GOAL
PARTICIPANT WEIGHT LOSS GOAL (-7%)

- Weight Loss Goal Completed by Program End (%)
- Weight Loss Goal NOT Reached by Program End (%)

42.3% MET THE PHYSICAL ACTIVITY GOAL
PHYSICAL ACTIVITY GOAL (150 MINUTES/WEEK)

- Weight Loss Goal Completed by Program End (%)
- Weight Loss Goal NOT Reached by Program End (%)

A1C RESULTS (AVERAGE)

- A1c Level at Program Start
- A1c Level at Program Completion (Average)

FASTING BLOOD SUGAR RESULTS (AVERAGE)

- Fasting Blood Sugar Level at Program Start
- Fasting Blood Sugar Level at Program Completion

AVERAGE WEIGHT & WEIGHT LOSS VALUES

- Weight at Program Start (kg)
- Weight at Program Completion (kg)

AVERAGE WAIST CIRCUMFERENCE

- Waist Circumference at Program Start (cm)
- Waist Circumference at Program Completion (cm)
Diabetes Management: Diabetes Clinic Days

Population
• 35,000 patients
• 2,900 patients with diabetes

Staff
• 20 physicians, 5 NPs
• Nurses, clerical & allied health staff

2009
• Beginning of quality improvement journey for diabetes management

2013
• All physicians participating in quarterly diabetes clinic days
Clinic-Wide Standardization

Diabetes Action Team

Electronic Medical Record

- Quarterly visit encounter form
- Clinic-wide auto-generated reminders
- Patient recall process
- In-house referral process to allied health professionals

Patient report cards

Physician report cards

Patient educational resources

Tracking outcome & process measures

Collaboration with local diabetes community resources

Continuing staff education programs

In-house referral process to allied health professionals

Patient educational resources

Tracking outcome & process measures
Planning: Diabetes Clinic Days

**Planning**

- Prepare EMR
- Define team member roles & responsibilities
- Establish goals & outcome/process measures
- Staff education
- PDSAs & Process Mapping

**Experience-based & patient-centered design**

- Patient feedback/experience surveys
- Patient & family advisory committee

**Population identification**

- Establish groups (i.e. DM group A, B, C) & identify on EMR
- Book appointments every 3 months for all diabetes groups
### Process Flow: Diabetes Clinic Days

<table>
<thead>
<tr>
<th>Approaching Clinic Day</th>
<th>Clinic Day</th>
<th>End of Clinic Day Appointment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automated phone call reminder to all patients using voice message delivery system re: date of upcoming appointment</td>
<td>Nurse sees patients first, completes CDM custom form, assessments, education, &amp; lifestyle counselling</td>
<td>Initiate referrals in-house or externally</td>
</tr>
<tr>
<td>Ensure blood work completed prior to appointment, if necessary</td>
<td>Physician reviews patient information with nurse &amp; sees patient for medication adjustments, ordering tests, etc.</td>
<td>Ensure patient has requisition for blood work due prior to next clinic day</td>
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<td>Give appointment card for next quarterly visit</td>
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</table>
Measurement & Sustainability

LDL completed annually
HbA1C completed quarterly
Blood pressure twice annually
Retinal eye exam completed annually
Foot exam completed annually

LDL at target
Statin therapy > age 40 or diabetes r > 15 years & over age 30
BP < 130/80
ACEI or ARB ≥ age 55 and/or microvascular or macrovascular disease

Quarterly data collection & reporting to physicians via Physician Report Card

Quarterly reporting of patient-specific outcome & process measures via Diabetes Report Card

Identification & reporting of goals, outcome & process measures

Accessible
Patient-centred
Equitable
Efficient
Committed
Continuing education
Evaluation
Questions & Discussion