Reducing Antipsychotic Medication Use in Long Term Care: Spreading an Approach from CFHI’s EXTRA Program for Healthcare Improvement

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WRHA Extra Project:
Reducing Potentially Inappropriate Use of Antipsychotics in Long Term Care
WRHA PCH Program

• 39 Personal Care Homes (nursing homes) in Winnipeg
• Support >5,600 people
• Variety of ownership models
  • Regional
  • Not for Profit
  • Corporate – For Profit
• Operating budget approx. 348 million
RAI/MDS - Winnipeg

- RAI = clinical decision support system for monitoring QI’s, outcome measures and population case-mix
- Implemented across all 39 nursing home sites in Winnipeg since 2007
- Detailed picture of > 5600 residents living in the Winnipeg nursing homes, all data submitted to CIHI since 2009
- Potential to guide continual quality improvement and assist with evidence-informed decision making at all levels
RAI Assessments sent to CIHI(CCRS) from WRHA
interRAI Countries

North America
- Canada
- US
- Mexico

Central/South America
- Brazil, Chile
- Peru

South Asia, Middle East & Africa
- India, Israel, Lebanon, Qatar
- South Africa, Ghana

Europe
- Iceland, Norway, Sweden, Denmark, Finland, Netherlands, France, Germany, Switzerland, UK, Italy, Spain, Czech Republic, Poland, Estonia, Belgium, Lithuania, Russia
- Portugal, Austria

Pacific Rim
- Japan, China, Taiwan, Hong Kong, South Korea, Australia, New Zealand
- Singapore
RAI LTC Adoption in Canada

RAI is a well researched tool used across Canada and the world
Multiple Possible Uses for RAI/MDS Data Collected

Clinical Decision Making/ Clinical & Utilization Research
- e.g. Are we developing effective Care Plans? What are the outcomes of care? Do our residents achieve their health goals? What resources were used?

Operational Management & Strategic Planning
- e.g. Are we getting the best outcomes for our health care dollars? How effective are our services? What are the priorities for quality improvement?

Public Accountability & Engagement
- e.g. How do resident populations at different facilities compare? How does our region compare with other regions across Canada?
What is the Problem/Challenge?

- RAI has not been used to inform decision making at nursing home sites and regional levels
- Value of the RAI data not seen by staff & management
- Reports not consistently being used to identify areas for improved resident care or to inform operational or policy changes
Causes of the Problem

- RAI generates lots of information – Sites overwhelmed
- RAI not tied to standards or accreditation
- No strategy or mandate to use the RAI data
- Data does not equate to knowledge translation
Goal of the Project

• To use the RAI data to identify areas for quality improvement and then use the RAI data to gauge the effectiveness of our intervention.
What Evidence did we use to Inform our Project?

1. Participatory Education and Leadership are key to effective and sustained knowledge translation (Stolee et. al, 2009; Barba & Fay, 2009; Marzlin, 2010; Morgan et al., 2007)

2. Antipsychotic Lit.: “In patient populations for whom the evidence of the efficacy of antipsychotic medications is limited and the risk of a fatal side effect is clear, prudence would suggest that the use of these drugs should be reduced sharply.” (Schneeweiss S, Avorn J., N Engl J Med, 2009 Jan 15; 360 (3):225-35)

3. Our RAI data
How Does our IP Affect the Problem?

• Choosing one RAI quality indicator, high antipsychotic usage, to focus on:
  – Provides for a focused approach
  – Allows for a quick measurable success
  – Prove success with one indicator and then move to the other quality indicators
  – Potential to link indicator with clinical initiative
How we Reduced Antipsychotics?

• To reduce antipsychotic usage = intensive implementation of P.I.E.C.E.S™ which is a dementia care model

• Physical, Intellectual, Emotional, Capabilities, Environment and Social

• P.I.E.C.E.S promotes the use of medications as a last resort to manage challenging resident behaviors
Challenges and Change Management Strategies

1. Effectively communicate the project to all relevant stakeholders
   • Face to face meetings at various tables

2. Spread change throughout the region
   • Decision for pilot site
3. Effectively educate entire site
   • Intensive education
   • Classroom education for all staff
   • ‘Huddles’
   • Posting RAI Data
   • Online learning module
Challenges and Change Management Strategies

4. Management and MD “buy-in” and support
   • Management and MD meetings

5. Enthusiasm of staff
   • Kick off party, regular postings of data and progress, staff forums, regular unit feedback

6. Project Human Resources
   • We are the resources ☺ No additional resources
Project Results

- **Quantitative:**
  - 10% reduction in antipsychotics overall at site
  - > 25% reduction in antipsychotic medication prevalence within cohort
  - No ↑ physical restraints or behaviors

- **Qualitative:**
  - Improved teamwork
  - Growing leaders
  - Evidence based practice
Antipsychotics Middlechurch Pilot Site

<table>
<thead>
<tr>
<th>Facility Medication</th>
<th>Fiscal Quarter</th>
<th>2009 Q4</th>
<th>2010 Q1</th>
<th>2010 Q2</th>
<th>2010 Q3</th>
<th>2010 Q4</th>
<th>2011 Q1</th>
<th>2011 Q2</th>
<th>2011 Q3</th>
</tr>
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<tbody>
<tr>
<td>The Middlechurch Hm Of Winnipeg</td>
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<td></td>
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</tr>
<tr>
<td>Antipsychotics</td>
<td></td>
<td>38.9%</td>
<td>39.4%</td>
<td>39.7%</td>
<td>43.2%</td>
<td>39.9%</td>
<td>33.5%</td>
<td>30.2%</td>
<td>27.8%</td>
</tr>
</tbody>
</table>
Lessons Learned

• RAI: identifies areas for improvement /evaluates effectiveness of interventions.
• ↓ antipsychotics = ↑ quality of life while ↓ cost
• Participatory learning is effective
• Site management needs to play a visible and active role
• P.I.E.C.E.S™ is effective
• “Lead from where you stand”
• Keep messaging simple and repeat often
• Do fewer ‘projects’ - more targeted approach to assist PCHs with quality improvement
CIHI Video
Spread & Sustainability – The Rural Experience
Interlake-Eastern RHAPCH Program

- 16 Personal Care Homes – over 700 beds
- 12 are owned and operated by the RHA/ 4 are private
- PCHs are smaller than in WRHA – largest one is 130 bedded; most are between 20 and 50 beds
- Communities are small; health care resources are not always available in every community (hospital, specialists, diagnostics, etc.)
- Staff live within these small communities: PCH residents are often well known by staff
What’s Different About the Interlake-Eastern Experience?

• No RAI/MDS available rurally
• Using DPIN (Pharmacy data) and subjective data only
• Expanded the curriculum to include more interpersonal/team coaching and education
• Family education has been developed
• Applying a LEAN methodology with teams
• Development & implementation of a “Champions” mentorship to build in sustainability
How are we doing so far?

• We have worked intensively with 4 homes so far:

• Teams are demonstrating more collaboration across the multi-disciplinary team

• Families are engaged and supportive

• MD and pharmacy are on board and very supportive

• Regionally we have reduced our antipsychotic usage from 32% to 26% (from November 2014 – April 2015)

• We continue to work with each home; targeting 2-3 PCHs /year
Reducing Antipsychotic Medication Use in Long Term Care: 
Results from CFHI’s pan-Canadian Collaborative
CFHI’s pan-Canadian Collaborative: Reducing Antipsychotic Use in Long Term Care
1 in 3 long term care residents in Canada is on an antipsychotic without a diagnosis of psychosis.
REACH: Facilities, Teams & Residents

- Pan-Canadian Reach: 7 Provinces - 1 Territory - 57 LTC facilities
- QI team members trained: 181
- Total resident population served: 7034 across 57 implementation facilities
- Average facility size: 124 beds
- Number of reporting facilities: 24
- Range of pilot target cohort size: 10 (Western Health) – 95 (Sienna Senior Living)
- Average target cohort size: 38.5
A TEAM BASED Approach to Dementia Care

Family & Resident Engagement:
- Acknowledging families’ fears, reassure them one on one, and educate them
- Build trust with families
- Communicating regularly with families

Staff Engagement:
- Empowering frontline staff were empowered to lead change.
- Targeting frontline employees who are resistant to became champions

Physician Engagement:
- Early engagement, demonstrating evidence, allowing autonomy, regularly communicating results using data and stories, and establishing good relationships

Pharmacist Engagement:
- Early engagement, involved in medication reviews developing ongoing monitoring tools and key to success.
Teams are Communicating/Spreading their Results and Stories!
Reducing Antipsychotic Use in Long Term Care Collaborative:

Results from Target Cohort-Level Analysis
Measurement and Data Collection Plan: Cohort-level

CFHI worked with Teams to Establish a Common Set of Measures

Process Measures:
- % of target residents with medication review complete within targeted time period
- Daily cost of antipsychotic and other psychotropic medication prescribed

Outcome Measures:
- % target residents receiving antipsychotic medication(s) without a diagnosis of psychosis.
- % of target residents with antipsychotic dose reduced/discontinued

Balancing Measures:
- Changes in outcome scales related to cognitive function, aggressive behaviour, use of physical restraints, behavioural symptoms and falls
- Use of other psychotropic medications
Using interRAI Data to Identify the Target Cohort

• Residents in LTC facilities, receiving antipsychotic medications without a diagnosis of psychosis:

**Inclusion criteria:** Residents receiving an antipsychotic

**Exclusion criteria:** schizophrenia, Huntington’s chorea, hallucinations, delusions, and end-of life residents.

• 578 residents were identified who fit the inclusion criteria and followed for the duration of the collaborative.
### Baseline Characteristics of Target Cohort

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Starting Target Resident Cohort (n=578)</th>
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<tbody>
<tr>
<td>Female, n (%)</td>
<td>333 (58%)</td>
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<tr>
<td>Age, mean</td>
<td>83.4</td>
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<tr>
<td>Range (years)</td>
<td>49-110</td>
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<tr>
<td>Diagnosis of Alzheimer’s disease or other type of dementia, n (%)</td>
<td>492 (85%)</td>
</tr>
<tr>
<td>Prescribed antipsychotic medication prior to admission, (n, %)</td>
<td>343 (59%)</td>
</tr>
<tr>
<td>More than one type of antipsychotic drug prescribed, n (%)</td>
<td>61 (11%)</td>
</tr>
<tr>
<td>Receiving other psychotropic drugs concurrently, n (%)</td>
<td>460 (80%)</td>
</tr>
<tr>
<td>Average daily cost of antipsychotic prescription, per target resident</td>
<td>$1.1</td>
</tr>
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AP Collaborative Results:

54% (222/416) of the target residents had their antipsychotic medication **discontinued** or their dose **reduced**

Based on sample data submitted by twenty-four (n=416) of the fifty-seven participating long term facilities
Collaborative Results: Better Health Outcomes

Number of Target Residents discontinued or reduced (54%) 222/416

- Falls ↓ 33
- Verbal Abusive Behaviours ↓ 20
- Aggressive Behaviour no increase 28
- Resisting Care↓ 45
- Socially Inappropriate Behaviours ↓ 23
# Characteristics of AP Use in Residents Reduced or Discontinued (n=222)

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>Q3</th>
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<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Daily cost of antipsychotic prescription, per t.r.</td>
<td>200</td>
<td>$1.2</td>
</tr>
<tr>
<td>Residents receiving one type of antipsychotic drug</td>
<td>201</td>
<td>91%</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>113</td>
<td>51%</td>
</tr>
<tr>
<td>Risperidone</td>
<td>61</td>
<td>27%</td>
</tr>
<tr>
<td>Olanzapine</td>
<td>17</td>
<td>8%</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>7</td>
<td>3%</td>
</tr>
<tr>
<td>Loxapine</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Trifluoperazine</td>
<td>1</td>
<td>0.5%</td>
</tr>
<tr>
<td>Aripiprazole</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Residents on two or more concurrent antipsychotics</td>
<td>21</td>
<td>9%</td>
</tr>
</tbody>
</table>
# Selected RAI - MDS Outcome Measures and Falls

<table>
<thead>
<tr>
<th>Measure</th>
<th>Residents reduced or discontinued (n=222)</th>
<th>Residents remaining on medication (n=194)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Baseline</td>
<td>Q3</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Very severe aggressive behaviour</td>
<td>29</td>
<td>13%</td>
</tr>
<tr>
<td>Higher social engagement</td>
<td>57</td>
<td>26%</td>
</tr>
<tr>
<td>Fell in the last 30 days</td>
<td>41</td>
<td>18%</td>
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</table>
Reduced Use of Antipsychotics with no Increase in the Use of Other Psychotropic Medication

Data source (other psychotropic medications): Quarterly Medication Reviews, Resident Medication Administration Records
Spread:
New Brunswick Appropriate Use of Antipsychotics Collaborative
CFHI and the New Brunswick Association of Nursing Homes (NBANH) are working together, with funding support from the Government of New Brunswick, to improve dementia care through the appropriate use of antipsychotic medications in New Brunswick nursing homes.

The New Brunswick Appropriate Use of Antipsychotic (NB-AUA) Collaborative is a fully bilingual initiative with 15 teams in the first phase of the collaborative. The NB-AUA Collaborative will run from April 2016 to April 2017.

The goals is to have all NB nursing homes participate in the collaborative in successive phases.
Acknowledgements

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Thank you for your attention.