ACHIEVING EXCELLENCE IN LONG TERM CARE: TECHNICAL VS ADAPTIVE CHANGE

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Adopting “Evidence Based Practices”

**Strategies to adopt EBP**
- Believe change is needed
- Staff should lead effort
- Workflow redesign

**Evidence Based Practices**
- Need Tools, Knowledge & Skills to use the tools

**Outcome**
Balance technical vs adaptive changes

Technical changes often do not work because the adaptive changes needed to get staff to adopt and utilize the technical change have not been addressed.

New form vs workflow redesign to complete the new form
AHCA Quality Initiative Goals

- **Reduce Hospital Readmissions**
  - By March 2, 2015 at 12:00 p.m., reduce the number of hospital readmissions within 30 days during a SNF stay by 15 percent

- **Increase Staff Stability:**
  - By March 2, 2015 at 12:00 p.m., reduce turnover among clinical staff (RN, LVN, CNA) by 15 percent

- **Reduce the Off-Label Use of Antipsychotics:**
  - By December 31, 2012 at 12:00 p.m., reduce the off-label use of antipsychotics by 15 percent

- **Increase Resident Satisfaction:**
  - By March 2, 2015 at 12:00 p.m., increase the number of customers who would recommend the facility to others up to 90%
Use of Long Term Care Services

1. Mor et al., 2010
2. MedPAC 2010
3. Commonwealth 2011
4. Jencks NEJM 2009
Why Hospitals care about you

- CMS has implemented a payment penalty to hospitals with high 30 d readmission rates for discharges with diagnosis of
  - CHF
  - Pneumonia
  - Myocardial infarction
- Partnering with LTC providers
  - Referring to low readmission providers
  - Admitting patients directly from ER
**Numerator:** # of individuals sent back to any hospital (excluding ER-only visits) from your facility within 30 days of admission as indicated on the MDS discharge assessment

**Denominator:** All residents admitted from an acute hospital to your facility who have an MDS admission assessment

**Risk adjustment:** Logistic regression is used to risk adjusted for 33 different clinical variables (see next slide). Compares your observed rate to your expected rate

**Data Source:** MDS 3.0 admission assessments & MDS discharge assessments
Risk Adjustment Variables Used

- **Demographic**
  - Age $\geq 65$
  - Male
  - Medicare as Primary Payor

- **Functional Status**
  - Total Bowel Incontinence
  - Eating dependent
  - Needs 2 person assistance in ADLs
  - Cognitive Impairment (Dementia)

- **Prognosis**
  - End Stage prognosis poor
  - Recently rehospitalized
  - Hx of Respiratory Failure
  - Receiving Hospice Care

- **Clinical Conditions**
  - Daily pain
  - Pressure Ulcer Stage $\geq 2$ (split into 4 variables)
  - Venous Arterial Ulcer
  - Diabetic Foot Ulcer

- **Diagnoses**
  - Anemia
  - Asthma
  - Diabetes Mellitus
  - Hx of Viral Hepatitis
  - Hx of Septicemia
  - Hx of Heart Failure
  - Hx of Internal bleeding

- **Services & treatments**
  - Dialysis
  - Insulin prescribed
  - Ostomy care
  - Cancer Chemotherapy
  - Receiving Radiation Therapy
  - Continue to receive IV Medication
  - Continue to receive oxygen
  - Continued tracheostomy care
AHCA Members 30d Rehospitalization Rates (March 2012)

Average: 18.1

20th Percentile

Targeted for 15% reduction

30 Day Risk adjusted Rehospitalization Rate

# of Facilities

0 100 200 300 400 500 600 700

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
State Rankings 30d Rehospitalizations

State Average March 2012

New Jersey

Nat Avg

Average % rehospitalization

MT HI ID SD UT VT WY ME ND NE NH NM MA MN OK WA IN LA MD ME WV DE FL KY MO TX AR MD NJ NY PA SC TN WI AL CA IA IN KS OH VA AZ CT DC GA ME IL MS LA
Distribution of NJ Facilities’ Rehospitalizations

Facilities Distribution by Rehospitalization Rate in NJ

Number of Facilities

Rehospitalization Rate (June 2012)

- 05 to 10: 4
- 10 to 15: 35
- 15 to 20: 146
- 20 to 25: 122
- 25 to 30: 32
- 30 and above: 4
# NJ Members and their % Change in Rehospitalization

Change between 4th quarter 2011 and 2nd quarter 2012 for AHCA Members
Where Can I Get Data on My Rates?

- AHCA – Long Term Care Trend Tracker
  - Free AHCA member benefit
  - [www.ltctrendtracker.com](http://www.ltctrendtracker.com)
  - Now includes claims-based measure
  - By end of 2012, will have MDS-based, risk adjusted Point Right measure
- Many MDS vendors include in their systems
- Real-time internal data collection & analysis
  - Advancing Excellence free excel tracking tool
Your Member Benefit

- Survey History
- Resident Characteristics
- Staffing Information & Turnover
- Cost Report and Medicare Utilization
- CMS Five Star Rating
- Hospitalization & Antipsychotic rates

www.ltctrendtracker.com
### LTC Trend Tracker - AHCA Outcome Measures (Rehospitalization) Report

**Org:** Facility b  
**Geographic Market:** State : 1  
**Peer Group:** All (Peers)  
**Time Period:** Annual (Quarterly Update)

#### 30 Day SNF Rehospitalizations

<table>
<thead>
<tr>
<th>Measure</th>
<th>Org</th>
<th>Peer</th>
<th>Diff</th>
<th>%Diff</th>
<th>Org</th>
<th>Peer</th>
<th>Diff</th>
<th>%Diff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Annual Admissions</td>
<td>150.0</td>
<td>163.2</td>
<td>-13.2</td>
<td>-8.1%</td>
<td>143.0</td>
<td>134.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted Rehospitalization Rate</td>
<td>12.8</td>
<td>14.8</td>
<td>-2.0</td>
<td>-13.5%</td>
<td>10.4</td>
<td>14.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected Rehospitalization Rate</td>
<td>22.4</td>
<td>20.2</td>
<td>2.2</td>
<td>10.9%</td>
<td>22.5</td>
<td>24.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual Rehospitalization Rate</td>
<td>14.7</td>
<td>17.6</td>
<td>-2.9</td>
<td>-16.4%</td>
<td>11.9</td>
<td>17.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Exclusion Key**

- N/A(1) - Small Sample Size
- N/A(2) - Patient Matching Issues (>5%)
- N/A(3) - Sample Size and Matching Issues
Factors Associated with low rehospitalizations

- 47 Nursing homes in NY (N=26,746 patients)
- Measured Clinical and non-clinical factors associated with rehospitalization rates
- Three strongest predictors
  1. Training provided to nursing staff on how to communicate effectively with physicians about a residents condition
  2. Physicians who practice in this nursing home treat residents within the nursing home whenever possible, saving hospitalization as a last resort
  3. Provided better information and support to nurses and aides surrounding end-of-life care

Strategies to Reduce Hospitalizations

- Track your rehospitalizations
- Improve Communication
  - Externally (e.g. with hospital/ER)
  - Internally (e.g. between nursing & physicians)
- Identify small changes in a resident’s status early on
- Change Staffing
  - Consistent Assignment
  - Reduce staff turnover
  - Utilize nurse practitioners
- Advance Care Planning

INTERACT III
Is a comprehensive program that uses these strategies
## INTERACT EFFECTIVENESS

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Mean Hospitalization Rate per 1000 resident days (SD)</th>
<th>Mean Change (SD)</th>
<th>p value</th>
<th>Relative Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre intervention</td>
<td>During Intervention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All INTERACT facilities (N = 25)</td>
<td>3.99 (2.30)</td>
<td>3.32 (2.04)</td>
<td>- 0.69 (1.47)</td>
<td>0.02</td>
</tr>
<tr>
<td>Engaged facilities (N = 17)</td>
<td>4.01 (2.56)</td>
<td>3.13 (2.27)</td>
<td>- 0.90 (1.28)</td>
<td>0.01</td>
</tr>
<tr>
<td>Not engaged facilities (N = 8)</td>
<td>3.96 (1.79)</td>
<td>3.71 (1.53)</td>
<td>- 0.26 (1.83)</td>
<td>0.69</td>
</tr>
<tr>
<td>Comparison facilities (N = 11)</td>
<td>2.69 (2.23)</td>
<td>2.61 (1.82)</td>
<td>- 0.08 (0.74)</td>
<td>0.72</td>
</tr>
</tbody>
</table>

Successful Implementation Strategies

- Rely on staff to design & test implementation strategy
  - Top Down vs Bottom up implementation

- Pilot Test, Pilot Test, Pilot Test, Pilot Test
  - N of 1 trials (1 unit, 1 staff, 1 patient/resident, 1 day)
  - Rapid cycle PDSA

- Learn from Peers
  - Learning collaboratives
  - Visit other facilities

- Get at the adaptive change that is needed
  - Ask “what is the problem/issue we are trying to solve?”
  - How will what we/you propose help us solve the problem?
Antipsychotic Medications

- **Conventional**
  - Compazine
  - Haldol
  - Loxitane
  - Mellaril
  - Moban
  - Navane
  - Orap
  - Prolixin
  - Stelazine
  - Thorazine
  - Trilafon

- **Atypical**
  - Aripiprazole (Abilify)
  - Asenapine
  - Clozapine
  - Iloperidon
  - Olanzapine (Zyprexa)
  - Paliperidone
  - Quetiapine (Seroquel)
  - Risperidone (Risperdal)
  - Ziprasidone
Distribution of AHCA members’ Antipsychotic use Sept 2012

US Average: 23.0%

Distribution of Facilities Antipsychotic Use in NJ (Sept 2012)

Percentage of Off-label Antipsychotic Usage among Long-Stay Residents in MEMBER Nursing Facilities, NJ

NJ Members and their % Change in Antipsychotic Use

Change between 4th quarter 2011 and 3rd quarter 2012 for AHCA Members using CMS's Quality Measure
#1 Challenge is changing attitude

- Most health care professionals and families believe
  - Behaviors in dementia are abnormal and need to be treated; and
  - these medications are effective to treat behaviors in dementia
- Thus, the adaptive change needed prior to any technical change to reduce antipsychotic medications requires addressing these attitudes & beliefs
What would you do if...?

- Make sense of the situation – what’s going on here?
- How do you feel?
- What do you do?
Effectiveness of Antipsychotics in Dementia

- Antipsychotic effect takes 3-7 days to start working
  - Very sedating medication so acute effect is most likely due to sedating effect not the antipsychotic effect
- Randomized controlled trial (RCTs) is the gold standard method to evaluate the effectiveness of medications
  - RCTs randomized dementia patients to either receive an antipsychotic or a placebo and clinicians are blinded to who gets the meds when rating outcomes
- Meta-analysis is method that combines the results from multiple RCTs
Effectiveness in Dementia is weak

Meta-Analysis (JAMA 2011)

- Aripiprazole, Olanzapine, and Risperidone had a small but statistically significant effect (12 – 20%) when compared to placebo
- Quetiapine did not have a statistically significant effect
- Antipsychotics led to an average change/difference on the NeuroPsychiatric Inventory (NPI) of
  - 35% from a patient’s baseline
  - 3.41 point difference from placebo group
(note: a 30% change and 4.0 difference is the minimum threshold needed for a clinically meaningful result)
- No conclusive evidence was found regarding the comparative effectiveness of different antipsychotics

Source: JAMA 306:1359-69 2011; Meta-analysis 38 RCTs in dementia
<table>
<thead>
<tr>
<th>Medication</th>
<th>Low Dose</th>
<th>Normal Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aripiprazole (Abilify)</td>
<td>&lt;2 mg/d</td>
<td>2-15 mg/d</td>
</tr>
<tr>
<td>Olanzapine (Zyprexa)</td>
<td>&lt;5 mg/d</td>
<td>5-10 mg/d</td>
</tr>
<tr>
<td>Quetiapine (Seroquel)</td>
<td>&lt;50 mg/d</td>
<td>50-100 mg/d</td>
</tr>
<tr>
<td>Risperidone (Risperdal)</td>
<td>&lt;1 mg/d</td>
<td>1-2 mg/d</td>
</tr>
</tbody>
</table>
Effectiveness with Low Dose Meta-Analysis (Cochrane 2012)

- Low dose **Risperidone** (<1 mg/d) - small positive effective but also increased risk of adverse events
- Low dose **Olanzapine** (5 mg/d) - no positive effect but does have increased risk of adverse events
- Low dose **Aripiprazole** and **Quetiapine** effectiveness unknown, but Quetiapine at normal dose is ineffective

Source: Cochrane Review 2012; Meta-analysis 16 RCTs in dementia
Associated with adverse outcomes

- Off-label use of antipsychotics in nursing facility residents are associated with an increase in:
  - Death (heart failure or pneumonia)
  - Hospitalization
  - Falls & fractures
  - Venothrombolic events (stroke)

- Conventional antipsychotics are worse than atypical antipsychotics
Odds of having an adverse event after receiving an Risperidone 1 mg/d compared to placebo

<table>
<thead>
<tr>
<th>Adverse Event</th>
<th>Odd Ratio</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality</td>
<td>1.25</td>
<td>0.73 to 2.16</td>
</tr>
<tr>
<td>Somnolence</td>
<td>2.40</td>
<td>1.70 to 3.20</td>
</tr>
<tr>
<td>Falls</td>
<td>0.84</td>
<td>0.63 to 1.14</td>
</tr>
<tr>
<td>Extrapiramidal disorder</td>
<td>1.78</td>
<td>1.00 to 3.17</td>
</tr>
<tr>
<td>UTI</td>
<td>1.40</td>
<td>0.92 to 2.13</td>
</tr>
<tr>
<td>Edema</td>
<td>2.75</td>
<td>1.51 to 5.03</td>
</tr>
<tr>
<td>Abnormal Gait</td>
<td>5.31</td>
<td>2.24 to 12.62</td>
</tr>
<tr>
<td>Urinary Incontinence</td>
<td>13.6</td>
<td>1.81 to 101</td>
</tr>
<tr>
<td>CVA</td>
<td>3.64</td>
<td>1.72 to 7.69</td>
</tr>
<tr>
<td>Drop out (had to stop meds)</td>
<td>1.43</td>
<td>1.01 to 2.03</td>
</tr>
</tbody>
</table>

Source: Cochrane Review 2012; Meta-analysis 4 RCTs in dementia
FDA Black Box Warning

- Issued in 2005
- Warning: Increased Mortality in Elderly Patients with Dementia-Related Psychosis
  - Elderly patients with dementia-related psychosis treated with antipsychotic drugs are at an increased risk of death. [Name of Antipsychotic] is not approved for the treatment of patients with dementia-related psychosis.

**WARNING**

Increased Mortality in Elderly Patients with Dementia-Related Psychosis — Elderly patients with dementia-related psychosis treated with atypical antipsychotic drugs are at an increased risk of death compared to placebo. Analyses of seventeen placebo-controlled trials (modal duration of 10 weeks) in these patients revealed a risk of death in the drug-treated patients of between 1.6 to 1.7 times that seen in placebo-treated patients. Over the course of a typical 10-week controlled trial, the rate of death in drug-treated patients was about 4.5%, compared to a rate of about 2.6% in the placebo group. Although the causes of death were varied, most of the deaths appeared to be either cardiovascular (e.g., heart failure, sudden death) or infectious (e.g., pneumonia) in nature. [this drug] is not approved for the treatment of patients with dementia-related psychosis.
Evidence Base for Discontinuing Meds at Lose Dose

- RCTs comparing withdrawal of medication to continuing antipsychotics will show:
  - the medication to be effective, if more people randomized to stop the medication get worse than those randomized to continue on the medication
  - The medication to be ineffective, if the same percentage of people randomized to stop the medication as continue the medication get worse or do not change
  - The medication to be harmful, if more people randomized to stop the medication get better compared to those who continue the medication
RCT to withdraw antipsychotics

100 w/Dementia on antipsychotics

54 Continue med

54 Continue med

Outcomes assessed over 3 months

Outcomes
- 76% no change in behaviors
- NPI total worse
- Agitation worse
- QOL worse
- 9% stopped due to behaviors

46 Stopped med

46 Stopped med

Meds stopped abruptly and given a placebo

Outcomes
- 67% no change in behaviors
- NPI total worse
- Agitation worse
- QOL better
- 13% stopped due to behaviors

Statistical Difference
- None
- None
- None
- None

RCT to withdraw antipsychotics

165 w/Dementia on antipsychotics

83 Continue med

- Outcomes assessed @ 6 months
- Outcomes (N=51)
  - Cognitive Fxn worse
  - NPI total worse
  - **Verbal fluency worse**
  - ADLs worse
  - Agitation 32%

82 Stopped med

- Statistical Difference
  - None
  - None
  - **Yes**
- Outcomes (N=51)
  - Cognitive Fxn worse
  - NPI Total worse
  - **Verbal Fluency better**
  - ADLs worse
  - Agitation 34%

Meds stopped abruptly and given a placebo

Outcomes (N=51)

RCT to withdraw antipsychotics\textsuperscript{4}

110 w/Dementia with psychosis who responded to antipsychotics

32 Continue med
- Outcomes assessed \textsuperscript{4} @ 4 & 8 months
  - Outcomes
    - 33\% Relapse (n=14)
    - Adverse events worse
    - Completed trial (N=10)
  - Statistical Difference
    - Yes
    - None

40 Stopped med
- Meds tapered over 1 week to placebo
- Outcomes
  - 60\% Relapse (n=23)
  - Adverse events worse
  - Completed trial (n=10)

\textsuperscript{4}Devandand DP et al  NEJM 2012; 367:1497-1507

Third group not shown here: continued med for 4 moths then discontinued meds
Initial steps to reduce

- Discontinue PRN only orders for antipsychotics
- Look at discontinue or gradual dose reduction for residents on medications for greater than 12 weeks (3 months), particularly those on very low doses
- Evaluate need for antipsychotics started on residents during the evening/night shift or over the weekend
- Evaluate the need for continuing antipsychotics at admission
Questions to ask before Rxing

- What did you do to try and figure out why the resident was doing <fill in the blank>?
- What is resident trying to communicate to us about their <fill in blank>?
- What is reason for resident doing <fill in blank>?
  - Unacceptable answer (Dementia or sun-downing)
- What did you try before requesting medications?
All STAFF TURNOVER vs QUALITY

Figure 1: Hypothesized Quality-Turnover Relationship

Turnover Targets based on Quality

- 20%
- 50%

Quality (higher value = lower quality)

Turnover (percent)
Turnover Clinical Staff by State

Turnover (AHCA Survey 2010)

Avg 44%

New Jersey
What Matters Most to Employees?

- Management cares about employees
- Management listens to employees
- Help with stress and burnout
- Workplace is safe
- Supervisor cares about you as a person
- Supervisor shows appreciation

- MyInnerView, Inc. 2005
Initial Step to Take

- Walk rounds
  - Once a week during walk rounds ask 1 staff person how it is going
    - Ask “what frustrates them about their job?”
    - Ask “what they need to make their job easier?”
    - Conduct off hours or weekends at least 1x week
Contact Information

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