Building on Your EHR Investment

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The LTPAC Challenge

- Balance the broken equation by using HIT to:
  - Dramatically increase "Clinical Leverage"
  - Expand use of less skilled caregivers - without incurring additional risk
  - Lower G&A while improving audit / legal defenses
  - Know thy costs (thy true costs) – and thy metrics
  - Keep the resident and the family (and everyone else who needs to be) informed and engaged
  - Implement data-driven continuous improvement
Dramatically Increasing “Clinical Leverage”

• **Focus caregiver time on the moment of truth – when and where needed most**
  - Tele-Health – constantly streaming data into the EHR from monitoring devices
  - Continuous rules-based monitoring across full clinical context to fire alerts and make CPG-driven intervention recommendations
  - Push alerts to engage caregiver (and other stakeholders as appropriate) when attention needed

• **Optimize caregiver efficiency at the moment of truth – seconds count**
  - Seamless, secure access to the guaranteed latest chart
  - Highly optimized and streamlined order entry capability pre-populated with CPG-driven care recommendations
  - Ability to quickly accept or revise care recommendations and document reason
  - Ability to securely e-sign and commit orders to the care setting system of record

• **Data and supporting documentation created and captured as a by-product of care**
  - not as a barrier or pre-requisite to providing care
Expanding Use of Less-Skilled Caregivers
(without incurring additional risk)

- Provide caregivers (and assistants) with “guided workflows”
  - Intelligent, standardized assessments that invoke various care protocols based upon assessment findings
  - Embedded protocol support from FAU, Johns Hopkins, AMDA, etc.
  - Continuous rules-based monitoring across full clinical context to fire alerts and make CPG-driven intervention recommendations
  - Push alerts to engage caregiver (and other stakeholders as appropriate) when attention needed

- Point-of-Care workflows mimic the care process, enforcing documentation requirements
  - Data and supporting documentation created and captured as a by-product of care, not as a barrier or pre-requisite to providing care
# Categories of CDS Embedded in an EHR

<table>
<thead>
<tr>
<th>Types of CDS</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevant data presentation</td>
<td>Graphs, dashboards or flow sheets</td>
</tr>
<tr>
<td>Documentation forms &amp; templates</td>
<td>Structured data collection: Physical Exam; Research tested assessment tools</td>
</tr>
<tr>
<td>Order sets</td>
<td>Research supported recommendations for treatment of specific conditions: Physician order sets/ Care Plan Interventions</td>
</tr>
<tr>
<td>Protocol Pathway Support</td>
<td>Based on evidence based guidelines and medical history: CHF</td>
</tr>
<tr>
<td>Provider reference information and guidance</td>
<td>Epocrates; Clinical web sites</td>
</tr>
<tr>
<td>Alerts and reminders</td>
<td>Flu Vaccine; Drug-Drug Interaction</td>
</tr>
</tbody>
</table>
5 Rights of Clinical Decision Support

1. The right information
   – Evidence-based, discreet data
2. To the right person
   – All caregivers
3. In the right intervention format
   – Alerts, guidelines, order sets, flow sheets, care plans
4. Through the right channel
   – Clinical systems, mobile devices, work stations
5. At the right point in workflow
   – At the point action is needed
Lowering G&A
(while improving audit / legal defenses)

• Consolidated service centers / COEs
  • Marketing and Intake Management
  • Claims and Revenue Cycle Management
  • Facilities Management / MRO Planning and Auditing

• Centralized Clinical Oversight / Quality Assurance
  • Ability to monitor, analyze, and correct variation in care practices across the enterprise

• No data entry / data re-entry / entry errors
  • All data captured in performing the business process
  • APIs and Interoperability services provide integration points

• Automated preparation of common “audit packages”
  • Streamlined assembly of commonly requested information
  • Restricted access user roles for auditors
Know Thy Costs (Thy True Costs) and Metrics

- Must aggregate longitudinal data to understand true cost of care
  - Direct and indirect costs by care setting
  - Overhead / allocated enterprise costs
  - External care episodes (leakage)

- eQuality Measures
  - Readmission rates – average, min, max, compared to county/state/national norms

- Operational Metrics
  - Census trends
  - A/R analysis
  - Payer Mix

- Role-based delivery to device-of-choice
  - Internal delivery
  - External stakeholder delivery
Keeping Everyone Informed and Engaged

- Must coordinate care amongst internal and external stakeholders:
  - Provider staff
  - Primary care physicians and specialists
  - Pharmacists
  - Family Members
  - Case Workers
  - Others
- Think “Coordinating the Virtual Care Team” linking the “Cared For” with the “Caring”
- Allows various stakeholders, inside and outside the provider organization using MatrixCare, to “care for” a resident – independent of care setting
Continuity of Care Document at a Glance

MDI Achieve Care Center Continuity of Care Document

Patient Details:
- Name: Janet Ackerson
- Date of Birth: August 19, 1989
- Home Address: 7875 Nebraska Street
- Patient ID: HN 1047

Current Allergies:
- Drug allergy: Aspirin (ASA), Active Status
- Penicillin (PCN), Active Status
- Liposarcoma, Active Status
- Allergy to substance: Pollen, Active Status
- Food allergy: Asparagus, Active Status

Vital Signs:
- Height: 64.0 in
- Temperature: 98.6°F
- Pulse (per minute): 60
- Respiration (per minute): 14
- Systolic BP (mmHg): 146
- Diastolic BP (mmHg): 99
- O2 Saturation (%): 99.0
- Weight: 146.0 lbs

Advance Directives:
- Directive: Living Will
- Note: On file in paper chart.

Insurance Providers:
- Payer: BC/BS of MN
- Policy type: Commercial Insurance
- Group Name: 35412
- Group number: 392157612
- Policy ID: 1506 Commercial Insurance
- Address: 35412
- Phone: (651) 342-0012
- Fax: (651) 342-1211

Procedures:
- Not available for this record

Results:
- Not available for this record

Table of Contents:
- Medications
- Problems
- Current Allergies
- Vital Signs
- Advance Directives
- Insurance Providers
- Procedures
- Results

Medications:

<table>
<thead>
<tr>
<th>Medication</th>
<th>Frequency</th>
<th>Instructions</th>
<th>Diagnosis</th>
<th>Start Date</th>
<th>End Date</th>
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</thead>
<tbody>
<tr>
<td>Celebrex (celecoxib) capsule: 200 mg, am: 200 mg, oral:</td>
<td>Once A Day</td>
<td></td>
<td>Osteoarthritis</td>
<td>08/13/2013</td>
<td>08/13/2013</td>
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<tr>
<td>losartan</td>
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<td></td>
<td>NOS, lower leg</td>
<td>08/13/2013</td>
<td>08/13/2013</td>
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<tr>
<td></td>
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<td></td>
<td>NOS, lower leg</td>
<td>08/13/2013</td>
<td>08/13/2013</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>NOS, lower leg</td>
<td>08/13/2013</td>
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</tr>
<tr>
<td>Nebivolol tablet: 20 mg, oral:</td>
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<td></td>
<td>Hypertension NOs</td>
<td>07/30/2013</td>
<td>07/30/2013</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>NOS, lower leg</td>
<td>08/13/2013</td>
<td>08/13/2013</td>
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</tr>
</tbody>
</table>

Problems:

<table>
<thead>
<tr>
<th>Problem</th>
<th>ICD-9 Code</th>
<th>Effective Date</th>
<th>Status</th>
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</thead>
<tbody>
<tr>
<td>DM, uncomplicated, type II</td>
<td>250.00</td>
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<tr>
<td>Failure, congestive heart NOS</td>
<td>428.00</td>
<td>08/15/2013</td>
<td>Active</td>
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<tr>
<td>Fibrillation, atrial</td>
<td>427.30</td>
<td>08/15/2013</td>
<td>Active</td>
</tr>
<tr>
<td>Osteoarthritis, NOS, lower leg</td>
<td>713.30</td>
<td>08/15/2013</td>
<td>Active</td>
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<tr>
<td>Pain, generalized</td>
<td>780.56</td>
<td>08/15/2013</td>
<td>Active</td>
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<tr>
<td>Hypertension, essential NOS</td>
<td>401.9</td>
<td>08/15/2013</td>
<td>Active</td>
</tr>
</tbody>
</table>
Implementing Data-Driven Continuous Improvement

- **Driving predictive and preventative care**
  - We can determine the statistical probability of a fall event given the presence of discrete attributes and state changes
  - We can define new rules to trigger alerts and suggest interventions prior to the predicted event

- **Driving performance against specific eQuality measures**
  - We can continue to drive down readmissions by patterning causality by resident segment
  - We can continue to monitor variance in the use of anti-psychotics by physician v. established standards of care

- **Data-driven, learning organizations will emerge as the winners in healthcare, just as they have in other sectors.**
Q&A