Care Management and Information Management Alignment to Achieve Patient Outcomes

11/15/15
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Objectives

• Why the need for change in how we manage patients
• Carilion Clinic’s overall approach to PHM
• Case management changes and how we are addressing PHM through a collaboration with care coordination and health information technology

The Region We Serve
By The Numbers

- Headquarters in Roanoke, Va.
- Employed physicians: 750+ representing more than 60 specialties
- 7 hospitals include Carilion Roanoke Memorial Hospital, the third-largest in Virginia (703 beds)
- Practice sites: 220
- Primary care visits: 850,000
- Urgent Care Visits: 50,000
- Employees: 11,400
- Licensed beds: 1,187 (does not include 60 Neonatal ICU beds available)
- Admissions: 56,391
- Emergency Department visits: 162,000
- Total revenues: $1.4 billion (net)
- Predominantly FFS (85%) with 56% of market share

Education That Makes a Difference

- Virginia Tech Carilion School of Medicine
- Jefferson College of Health Sciences
- Graduate Medical Education
  - 250+ residents and fellows
  - 11 residencies
  - 12 fellowships

The Mission We Deliver

Improve the health of the communities we serve
Reducing costs does not have to compromise clinical quality. Instead, with the right focus, improving clinical quality will actually lower costs.
Population Health 101

- In order to move from volume to value, and accept more risk, you must understand the patient population.
  - Define – Who am I responsible for?
  - Measure – standard metrics
  - Analyze – understand risk
  - Improve – what interventions
  - Control – Create accountability
Need for Change – External Forces

• National
  – ACA
  – Value Based Purchasing
  – Readmission Penalties
  – CMS Conditions of Participation
  – Two midnight rule, various transmittals

• State
  – As of July 1st, 2015 in the state of Virginia
    • House Bill 1561 – Notification of patients in observation or outpatient status
    • Code of Virginia amended

Need for Change – Internal Forces

• CMI
  – Sicker patients = greater resources
  – Change in workflows

• Throughput issues
  – Declines
  – Covering new territory

• Readmission rates
  – Flat rates
  – Need to change to improve

Community Impact

Patients are denied prompt access because RMH is too full to safely accept them. Often these patients do not have access to equivalent alternative care. We projected a 30% increase in declines in FY15.

<table>
<thead>
<tr>
<th>Year</th>
<th>Declines</th>
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</thead>
<tbody>
<tr>
<td>FY13</td>
<td>461</td>
</tr>
<tr>
<td>FY14</td>
<td>408</td>
</tr>
<tr>
<td>FY15*</td>
<td>648</td>
</tr>
</tbody>
</table>

* anticipated
CRMH 30-Day Readmissions

System Interactions - Occupancy

Where have we been ……

- Hard look at Current state
  - Time to identify gaps/ opportunities
  - Time to acknowledge strengths
- Everyone speaking a common language
- Reading
- Benchmarking
- Tools

FY15 is more at variable vs the previous years. Has 4 of the 5 worst months and the 3 best months.
Current State

- Team based concepts
  - Care Coordination
  - Case Management
- Daily Unit Based Huddles
- Discharge Review Board / Long LOS Meeting
- Engagement with Center for Case Management
- Addition of Epic Case Management

Where are we going....

- Revised and defined work flows
  - Eliminate drift
  - Efficiency and consistency
  - Meet the needs / decrease non value added time
- Ensure staff have needed technology
- Improved support during transitions and across the continuum
- Eliminate barriers
- Expand Presence of Care Management
Discharges Before Noon

Collaboration

• Data rich, information poor
  ➜ How to get the right information to the right person at the right time
• Importance of collaboration with informatics and analytics
  ➜ Importance of workflows to get information
  ➜ Availability of the entire record to identify gaps in care
  ➜ Documentation across the continuum

The Importance of Informatics

• Need to understand the workflow on the front end
• Design fields to capture appropriate information necessary for analytics
What is the desired workflow

- Interconnectivity
  - Care plans across the continuum
  - Inside and outside of the organization
- Single platform if possible
  - Minimal duplication of work
  - Stay in one system
- Mobile
- Shared lists of high risk patients
- UM
- Agnostic to providers

Analytics

- Attribution
- Gaps in care
  - Claims vs clinical
- Risk stratification
- Decision support
- UM
- Tracking throughput
  - Barriers to CM
- Data visibility
  - Dashboards

![CM Platform](CM Platform)
Example Workflows

- Case Example

  66 year old, Medicare, admitted with CHF. Has been in the hospital 3 times this year and has had 2 ED visits in the past month. PMH of HTN, DM, and COPD.

High Risk Patients - Re-admission

<table>
<thead>
<tr>
<th>CBH</th>
<th>Ph Name</th>
<th>Den/Unit</th>
<th>LOS (Days)</th>
<th>ED (Stays)</th>
<th>PHAB (Score)</th>
<th>YrRisk</th>
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</thead>
<tbody>
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<td>10</td>
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</table>
Transitions of Care

- Focused on CHF
- Goal is to improve care and reduce readmissions
- Team effort
- Using model to predict patients at high risk for readmission
- Standardized care pathways
- Visibility across the continuum

Team

- Medical Director
- Project Manager
- IP admin coordinator
  - developing patient lists, workflows, and facilitating patients getting the help they need.
- OP nurse coordinator
  - Coordinates care with agencies, SNF, transitions to OP visits etc...

Process

- Identify patients daily (harder than we thought)
  - Daily huddle
- The approach of the team is largely non-medical and focuses on removing barriers that prohibit patient compliance including
  - affording medications
  - arranging transportation to and from appointments
  - understanding discharge instructions
  - self-management techniques and disease education.
  - Identifying any psych issues that need to be addressed
Outreach

- Case Management
- Office visit within 7 days
- HH Transitional visits
- SNF follow up
- Palliative care

Readmission Data

- CRMH Medicare Heart Failure Readmission Rate

Home Health TV

- Call Transitional Visit (TV) Readmission Analysis
Future

- Expand to AMI
- Utilize both CM and EMR tools for increased efficiency
- Improved metrics and patient identification
- Expand HH outreach

Skilled Nursing Collaborative

<table>
<thead>
<tr>
<th>Measure</th>
<th>Carillon Doctors Connected</th>
<th>All MSSP ACOs*</th>
<th>National Medicare Fee For Service</th>
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</thead>
<tbody>
<tr>
<td>SNF Discharges Per 1,000 Person-Years</td>
<td>97</td>
<td>62</td>
<td>69</td>
</tr>
<tr>
<td>SNF Expenditures Per Beneficiary</td>
<td>$1,018</td>
<td>$721</td>
<td>$820</td>
</tr>
</tbody>
</table>

Skilled Nursing Homes

Early Trending in our data

- Wide variance in SNF performance
  - Overall readmission rates range from 5-20%
  - LOS 5-30 days
  - Aggregated dollar costs
  - Variation with specific DRGs
- Opportunity to share data and improve together
  - SNFs motivate for collaboration
Closing Care Gaps

- Office and centralized outreach
- Claims and clinical data used to identify gaps
- Revenue (projected for work in 2014):
  - $4-6M
- Clinical Potential
  - HTN 2009-2014: 62% → 74%
  - 6,600 more patients controlled
  - 183 strokes or heart attacks prevented
  - $6K to $8K per stroke/MI
    - $1.2M in direct costs prevented

Challenges

- Changes in workflow and culture
- HIEs not robust enough, and limited in SW Va
  - Lack of shared data for analytics
- Likely first step
  - Await changes in available technology
  - More seamless integration
- IT and Analytics
  - Skill set
  - Prioritization

Current Status

- Claims analysis
- Risk stratification
- SNF
- Trends in claim information
- Claims analysis
- Gaps in care
Future

- Aggregation of data in EDW
  - Claims and clinical
- Dashboards
- Predictive models
- Telemedicine
  - SNF
  - HH
- Enhanced connectivity

Key Points

- Case management is evolving
  - Transitions are critical
- Patient engagement and satisfaction
- Collaboration between CM/UM critical to success
  - Develop workflows to capture information needed
  - KPIs
- Market is changing for software to support CM/UM- choose wisely
- Quality data and analytics are Key