Challenging Tradition: A Hospital Without Walls

Newton Medical Center

Collaborative work toward improving clinical outcomes for super users
Objectives

• Identify a potential community partner
• Describe shared population problems
• Explain which baseline metrics and/or measurable outcomes would best depict collaborative success
• Describe methods to carry out delivery goals through utilization of existing resources
Not so super

SUPER USERS
“Problem children”

Super users: 3 visits in 90 days
1. ED: Young adults with psychosomatic issues
2. EMS and ED super users who need social work assistance
3. Chronically ill older adults who rely on EMS and hospital frequently

Locations
- Community
- Long term care facilities (50% of readmissions from LTCF)
2015 Initiatives

- Transitional Care Task Force
  - CHF Readmission Reduction Program
  - Right On Track Program
- ED Community Case Management
- Community Paramedicine
  - Fall prevention
Timeline

2014-2015
Recognized and researched the multiorganizational Super User problem

2015-2016
Prepared targeted interventions for specific populations and settings

2016-present
Implemented interventions, measured responses
Newton Medical Center

103-bed, not-for-profit facility dedicated to providing health care services to residents of Harvey County and surrounding counties
Super User Goals

- Apply IHI Triple Aim
- Navigate super users to resources in the right settings, at the right cost, for the right outcomes
- Reduce ED super users

- Note NMC evaluation of super utilizers and NFEMS did not always intersect
Problem Child #1

“CAROLINE”
Sweet Caroline

• 5 admissions and 1 ED visit
• PMH: A-fib and CHF
  – 9 days on inpatient rehab unit in addition to stays on acute
  – Dc’d home with HHS
  – Readmitted for CHF 16 days later
  – DC’d to area nursing facility
  – CHF zone education done with facility
  – CHF follow up calls done with facility
  – ROTP initiated- weekly phone calls/ APRN home visit
  – Patient did not readmit
Goals:

Decrease readmissions in CHF patients

Improve transition from NMC to home.

Improved self-monitoring

Improve transitions between NMC and facilities
<table>
<thead>
<tr>
<th>Assessment</th>
<th>Yes</th>
<th>No</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge orders received and understood</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implemented daily weights</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility protocol in place if 3-5 lbs weight gain noted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is patient on sodium-restricted diet?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diuretic administered as ordered</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arrangements made for outpatient follow-up with PCP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow-up call comments</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
### LACE Tool: Predictive Modeling of Readmission Risk

<table>
<thead>
<tr>
<th>Assessments</th>
<th>LACE Index Scoring Tool</th>
<th>LACE Index Scoring Tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of Stay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>○ Less Than 1 Day</td>
<td>○ 2 Days</td>
<td>○ 4 - 6 Days</td>
</tr>
<tr>
<td>○ 1 Day</td>
<td>○ 3 Days</td>
<td>○ 7 - 13 Days</td>
</tr>
<tr>
<td>Acute Admission Comorbidity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>☐ No prior history</td>
<td>☐ Mild liver disease</td>
<td></td>
</tr>
<tr>
<td>☐ Previous MI</td>
<td>☐ Any tumor</td>
<td></td>
</tr>
<tr>
<td>☐ Cerebrovascular disease</td>
<td>☐ Dementia</td>
<td></td>
</tr>
<tr>
<td>☐ Peripheral vascular disease</td>
<td>☐ Connective tissue disease</td>
<td></td>
</tr>
<tr>
<td>☐ Diabetes without complications</td>
<td>☐ AIDS</td>
<td></td>
</tr>
<tr>
<td>☐ Congestive heart failure</td>
<td>☐ Moderate or severe liver disease</td>
<td></td>
</tr>
<tr>
<td>☐ Diabetes with end organ damage</td>
<td>☐ Metastatic solid tumor</td>
<td></td>
</tr>
<tr>
<td>☐ Chronic pulmonary disease</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Room Visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>○ 0 visits</td>
<td>○ 1 visit</td>
<td>○ 2 visits</td>
</tr>
</tbody>
</table>

| LACE Score | |
|-------------||
| LACE Index Score | |
| Probability of a Problem (%) | |
| Risk of Readmission | |
Right On Track: Readmission Prevention Program

NMC’s Right on Track Program

Right on Track is a free program offered by Newton Medical Center to assist you in maximizing optimal health after discharge from acute care.

Over the next 30 days you can expect:
- Frequent follow up calls from the NMC Community Case Manager to ensure your progression.
- One visit from a nurse practitioner (at your home, nursing home, etc.) to evaluate your health status and needs within 14 days from discharge.
- Collaboration with your primary care physician as needed.
- Collaboration with your health care team (nursing home staff, home health, home maker staff, etc.)

Your successful return to the community following your hospitalization is very important to us. Thank you for allowing us to participate in your care.

With any questions about the Right on Track program, please call (316) 800-6222.

Newton Medical Center

600 Medical Center Drive | Newton, KS 67114 | www.newtonmed.com
CHF Initiative

2016 CHF Readmission Rate Initiative

US Average 24.6%

2017-2018 10.6%

National Avg. CHF readmission rate
Oct-June NMC Rate
NMC HRRP
CHF Initiative

2016 CHF Readmission Rate Initiative

- **US Average**: 24.6%
- **CY2018**: 9.8%
- **NMC After 16%**

National Avg. CHF readmission rate

Before 20%

Oct-June NMC Rate

NMC HRRP
Moving Forward CY2018

- Expanded LACE assessment for all admissions
- Expanded ROTP to include all diagnoses

ALL READMISSIONS TO SAME HOSPITAL

5.5%

PEER GROUPS PER PEPPER 14.5-15.6%
Problem Child #2

“ELIZABETH”
Elizabeth’s Emergencies

Problem
4 ED visits in 1 month for falls and inability to care for self

Solution
3 CCM interventions
Placed in LTCF
No ED visits since then
Community Case Manager

- Patients with ≥3 ED visits in 90 days
- SW referral from Physician
- Referrals from Paramedicine
  - Lack of primary care provider
  - Lack of insurance
  - Psycho-social concern
Amanda Knowles, LBSW
NMC Community Case Manager

Newton Medical Center's Community Case Manager, Amanda Knowles, LBSW, is available to provide additional assistance to the high-risk population of Harvey County. She also serves as a resource to connect patients with outpatient services as needed, as well as a liaison for those patients who are not admitted to a bed, but still in need of assistance with referrals.

When to Refer:
• ED presentation three times in 90 days
• Socio-economic needs
• DNR or DPOA requested
• Homeless
• High-risk
• Physician or nurse referral

How to Refer:
• Call (316) 804-6020 (externally) or Ext. 1702 (internally).
• Place a social service consult request in Meditech and include reasoning for the request.

Newton Medical Center
600 Medical Center Drive | Newton, KS 67114

(316) 804-6020 or Ext. 1702 | M-F, 8:30 a.m. to 5 p.m.
Community Case Manager

- FY2018
- Average 4 ED consults per day
- Diagnoses
  - Self Care Deficits (ADLs)
  - Falls
  - Mental Health Crisis/ Addiction
  - Caregiver Fatigue
  - Uninsured/ Under-insured
  - No PCP
Newton Fire/ EMS

Service area: 275 miles

Service delivery: 28,000 people

3600 calls per year

Medical calls 80% of call volume
Community Paramedicine

What should the future of emergency service delivery look like in our community?

What do we already know?

How can we do better?
What We Already Know

• Increasing 911 call volume
  – Very sick
  – Kind of sick
  – Not sick

• System Super-Users
  – >3 EMS calls in 90 days
  – Non-emergent
  – Non-medical
  – EMS / ED inappropriate

• Fire/EMS: Agency of Last Resort
  – Citizens doing what they’re trained to do
How Can We Do Better?

- Stabilize or contain call volume
- Deliver better service to at-risk & underserved
- Decrease superuser 911 use
- Prevent new superusers
- Decrease falls
- Improve quality of life
- Manage resources appropriately
- Engage community partners.
Newton Medical Center

...dedicated to a constant pursuit of excellence
Timeline

2014-2015
- Internal discussion
- Strategic partnership with Newton Medical Center
- Planning

2016
- Phase I: Superusers & Potential Superusers
- Fall Prevention Pilot

2017
- Phase II: Fall Prevention, Expanded Community Partnership

2018
- Evaluation
- Adjustment
- Marketing
- Expansion
- Phase III?
Predictive Super-User Screening Tool

13 Characteristics

- No Primary Care Physician
- No Social Support
- Medicare/Medicaid
- Alcohol / Drug Abuse
- Female
- Psych problems
- Fall Risk
- Transportation
- Home O2
- Needs of Daily Living
- Age 65+
- Comorbidities
- Smoker
Fall Prevention

- Falls >30% EMS Call Volume
- In-Home Appointments
- Risk Assessment & Follow-Up
- Social Interaction
- Other Safety / Prevention Opportunities
- Engaged Community Stakeholders
  - Home repairs & modifications
  - Equipment & supplies
Community Paramedicine: Results

Objectives

- Stabilize / Contain Call Volume
- Decrease superuser 911 use

Results

- Fire/EMS Call Volume
  - 2015: +4%
  - 2016: +3%
  - 2017: Flat!
  - 2018: +1.6%

- Super-user Call Volume
  - 2015: 41%
  - 2016: 30%
  - 2017: 23%
  - 2018: 20%
## Community Paramedicine: Results

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deliver better service to at-risk &amp; underserved</td>
<td>Navigation</td>
</tr>
<tr>
<td>Prevent new superusers</td>
<td>– Managed care</td>
</tr>
<tr>
<td>Decrease falls</td>
<td>– Staying home</td>
</tr>
<tr>
<td>Manage resources appropriately</td>
<td>Slight SU increase</td>
</tr>
<tr>
<td></td>
<td>Falls trending down</td>
</tr>
<tr>
<td></td>
<td>Right crew / right patient</td>
</tr>
<tr>
<td></td>
<td>No additional cost to citizens</td>
</tr>
</tbody>
</table>
Community Paramedicine: Results

Objectives
• Improve quality of life

Results
• Heightened feelings of health & satisfaction
• Increased social engagement
• Freedom from fatigue & pain
• Reduced emotional distress
  – “Being a burden”
  – Fear of the future
  – Someone is paying attention
• Other benefits
  – Focused risk reduction
  – Fire safety education
  – Smoke detectors
Community Paramedicine: Next Steps

Added inquiries about mental health and depression to in-field screening tool

Direct referral to Prairie View

Same-day appointments and 24/7 crisis hotline
FALL PREVENTION & HOME SAFETY

• Mission: To engage healthcare and community members in a proactive approach
• Maintain Independence
• In-home safety check
• Assistance with grab bars and hand railings
Challenging Tradition: A Hospital Without Walls

Newton Medical Center

Jennifer Speer, RN, CM
Director Case Management Services, Newton Medical Center
Jennifer.Speer@newtonmed.com

Scott Metzler, MPA
Chief, Newton Fire/EMS
scottmetzler@newtonfireems.com