A Lean Approach to Multi-Disciplinary Rounds
Cintia Ulloa-Hays

- Regional Director of Women’s Health Service Line
- Certified Lean Six Sigma Black Belt
- Industrial Engineer
- Over 17 years of Operations experience
- 12 years in Operational Excellence/Lean
Stephanie McGuire

- Transition Nurse on 3rd Floor Unit
- RN, BSN
- 5 years at MCSA
- ACLS, Chemo certifications
- PEP – Professional Excellence Program / Career Ladder – Level 5
Nicole Wolf

• Nurse Manager – 4 years
• RN, BSN
• Chemo Certification
• 16 years at MCSA
• Manage 130 employees, 60 bed unit
• Passionate about Lean – extensive training
• Chief Hospitalist, Sound Physicians- Mount Carmel St. Ann’s
• Board certified in internal medicine
• Over 19 yrs of clinical practice including inpatient, outpatient and residency faculty
Mount Carmel Health System

- Mount Carmel is a non-profit organization
- Member of Trinity Health, one of the largest Catholic health care delivery systems in the nation
- 10,000 employees, 1,600 physicians and 1,000 volunteers is committed to the quality care of our patients and their families.
- We serve >1 Million patients each year in central Ohio
- MCE, MCW, MCSA – Regional Medical Centers
- MCGC, MCF&H, MCNA, DRMC
Overview of MCSA

- Mount Carmel St. Ann’s regional medical center
- St. Ann’s is home to:
  - Cardiovascular center of excellence with open-heart capabilities
  - Primary Stroke Center
  - Women’s Health Center
  - Maternity Pavilion that welcomes more than 4,500 new babies every year
  - Network Cancer Program
  - First Cyberknife® robotic radiosurgery center in central Ohio
  - Dedicated orthopedics and spine unit.
- 400 bed hospital
Partnership with Ohio State & Cardinal Health

- Attended a 1 week Lean training for team through Fisher College of Business – Academy of Excellence in Healthcare
- MCSA, Mayo Clinic, Mercy Hospital, Air-Evac and ViaQuest
- Cohort structure with monthly progress updates, and white paper
Academy Team

- Multi-disciplinary team focused on eliminating process inefficiencies
- Nurse Manager, Clinical Manager, Case Manager, Physician, Performance Excellence, SLT support
- 3N = 40 bed Medical/Surgical and Oncology Unit
- Started lean through implementation of 5S, LSW, kanbans, and A3 problem solving
A3 Used for Problem Solving
LOS – Pre Kaizen Event

3rd Floor Unit - Days over GMLOS

Days


Patient Volume

Days over GMLOS

Patient Volume

Goal
Gather Data

GOAL: Reduce LOS in pneumonia patients (with Sound Physicians) by 20% by Dec ’15

- Of the patients discharged on 3N, Pneumonia had the highest opportunity for improvement
- Sound Physicians see over 59% of patients on 3N (12% COPC, 5% Family Practice, 24% Other)
Analyze Using Process Map

- Team approach to process mapping
- Learn roles and identify pain points of each discipline
- Visually see the complexity of process
- Value of going to the gemba
- Process map revealed many non-value added steps
- NVA steps delayed patient care = longer LOS
21 Issues Addressed from Process Map

1. Nurse’s Critical Thinking and plan of care inconsistent from RN to RN. New RNs rely on preceptor for training - **Care paths / Standard Work**
2. Rehabilitation Department (PT, OT and ST)- have late consults creating LOS delays
3. Physical and Occupational Therapies Consults- **RN Case Managers not entering orders**
4. PT and OT **batch** orders
5. Pre-Cert: **delays** in getting pre-certs from Humana, Buckeye and Anthem
6. Reduce **delays** for change of antibiotics - waiting on blood culture results
7. Social Workers inconsistent from person to person - implement **Standard Work**
8. Need better patient **education** on admission
9. RN to Physician **communication**
10. Timely **communication** at hand-off is critical for pat. care from care team.
11. Delay in **communication** to wean O2.
12. Lack of **communication** between the MD, PT, OT – MDR’s
13. Develop **early ambulation** program - partnership between PT and RN & Tech’s to increase ambulation
14. **Delay** in placement – need to discuss daily to ensure proper placement
15. **Communication** with patient and family regarding discharge date and plan
16. Home Oxygen **delay** order
17. Scripts not given with discharges- **Standard Work**
18. **Delays** with pulmonary consults within 24 hours
19. **Incorrect LOS** related to DRG's- clinical documentation specialist to train and educate the physicians
20. Opportunity for **discharge planning** is needed to align all resources.
21. **Underutilized Info** between disciplines and during hand-offs.
Communication = #1 Issue

• Complex process. Need structure for daily team communication
• Improve communication across all functions
• Align resources to meet patient milestones
• Standardize communication to patients and families on their plan of care, medications and anticipated discharge date
• Enabling daily communication with doctors and nurses and enable teamwork
• Communicate expected LOS vs actual LOS goals within unit

MDR’s are the vehicle for coordinated care and improved communication
RAIL

• Rolling Action Item List created for MDR implementation
• Involved the senior leadership team to help remove barriers of implementation
  – Physician and ancillary team alignment
  – MDR requirements and expectations
• Included Directors for each discipline involved in MDRs to train staff on expectations and roles
• Used lean tools for PDCA cycles
Transition Nurse

- Responsible for assuring RN timeliness to MDRs. Continue rotating RNs until all patients have been covered.
- Ensures MDR starts and ends on time
- Regulates pace and structure of MDR
- Manages active participation and solicits missing information
- Synthesizes information, summarizes:
  - Goals for the next 24 hours
  - Gap between anticipated and expected discharge
  - Potential or realized barriers to progression of care or discharge
  - Increased risks for readmission
- Completes Pareto chart with LOS delays, and determines root cause
Created Standard Work by Discipline

Physician

• Introduce patient by name, DOB, then give brief 10 seconds summary of:
  – Reason for admission (including active problems requiring inpatient care) and pertinent comorbidities
  – Recent or frequent admissions (past 6 months)
  – Medical goals for next 24 hours, including tests/procedures/consults

• Anticipated LOS and discharge date and any barriers to discharge

• Assists with addressing barriers; signs off on plans for next 24 hours and for discharge.
Nurse

- Clinical update, including any clinical issues and concerns:
  - Pertinent vitals, labs, and new or pending results
  - Poor pain control/over sedation
  - Safety Issues: Falls risk, restraints, lines, drips, tubes, isolation, skin issues
  - Mental status changes
  - Fluid status and oral intake
  - Foley status, central or other lines, VTE prophylaxis, pressure ulcers
  - O2 or other respiratory needs in-house or post discharge
  - Flu and pneumococcal pneumonia vaccine status
  - Changes in condition

- Patient and family concerns
- Any barriers to progression of care
- Nursing goals for the next 24 hours
- Referrals/consults needed
- Discharge readiness
Created Standard Work by Discipline

Pharmacist

• Any medication concerns
• IV vs. PO
• Medication education needs
• Highlight medications with fall risk potentials
• VTE prophylaxis
• Identify patients who will need assistance with medication compliance
• Recommend less expensive medications
Rehab Services – PT/OT/ST

- Mobility assessment/falls risk
- Equipment and therapy needs post discharge
- Verify orders are submitted for consults
- Speech Therapy – swallow status
Created Standard Work by Discipline

Case Manager
• Readmission patient? Y/N
• Risk of readmission
• Psychosocial needs
• Patient and family concerns
• Code status/Advanced Directives
• Palliative consult if needed
• Pre-cert for ECF if needed
• Expected LOS
• Scribes on MDR Board
• Transportation

• Barriers to equipment/therapy needs post discharge
• Patient placement/barriers to placement
• Identify and facilitate complex clinical transition planning and home health need
• Status inpatient or observation, if observation do they meet inpatient criteria
Created Standard Work by Discipline

• **Social Worker** - Any addiction or psych issues; abuse; other special needs
• **Dietitian** - Nutritional status and dietary needs
• **Chaplain** - Spiritual needs
• **Stroke Coordinator** - needs for compliance with stroke pathways
• **Clinical Documentation Specialist** - Sends expected LOS info to CM. Ensure proper documentation
Physician Culture

• Geographic physician assignments on unit
• Cultural shift – dedicate 30 min in MDR
• Include all Sound patients in MDRs
• Determine expected discharge date on all patients within 24 hours upon arrival
MDR – Video Clip
Multi-Disciplinary Rounds Roll-Out

- Kick-off Sept 2015 with Sound physician patients
- MDR Team - RN, Physician, CM, SW, Pharmacist, PT/OT/ST, Facilitator
- CDI introduced to MDRs Oct 2015
- Goal = 1 min per patient
- Visual Management – shows ahead/behind condition
- Improved clinical report out to include patient summary and history
- Family Medicine physicians join Nov 2015 (5% of patients on 3N)
MDR Visual Board

- Visibility to Patient Care Plan and Expected LOS
- 24 hour care plan
- Visibility to LOS trends unit
- Night shift uses board to see action items
- Retail Pharmacy uses board to monitor expected discharge date
Physician Benefits

• Collaboration with staff, improved communication = improved relationships
• Geographic rounding enables physician availability on unit
• Improved communication with patient and family
• Pharmacy present for medication questions
• Issues addressed during MDR reduced interruptions later
• Better understanding of roles on team
• Improved care and quality outcomes
“I get the summary of the patients care and get updated on any events I missed. Together, the team can plan the patients’ discharge which helps *reduce delays*. *MDRs save me time* in that I have the entire care team there. It’s also helped *reduce readmissions* because we can address the root cause during MDRs.”
“MDRs help with communication with the entire care team. It also helps with staffing. We are able to plan the number of discharges for that day to properly staff the unit. MDRs also allow us to pre-plan patient discharges and avoid delays.”
“I have face-to-face access to nursing, physicians, social workers, and case management to help answer any questions or follow-up on any issues about the patient’s care. I’m able to convert patients from IV to PO more timely. It’s also good to have a broader picture of the patient - much of that is missed by reading the patient’s chart.”
Physical and Occupational Therapist

“During MDRs, I can speak to the physician and nurse about appropriate consults for rehab. It allows me to help keep patients from getting deconditioned.”
“MDRs give all of us an opportunity to compare notes, coordinate care, and better understand the patient’s plan. We can remove barriers in the moment”
Clinical Manager: “Patients are more aware of their plan of care. There’s better collaboration and improved relationships between nursing and hospitalists.”

Nurse Manager: “I can quickly see LOS trends on my unit and work with the team to ensure we have the best plan in place.”
Process Improvement Tools

• Discharge Checklist

Discharge Check List

____ Discharge Order from Attending Physician
____ Is it ok to discharge from the Consulted Physicians
____ Discharge Needs Met
   Check with Case Management about placement, O2, Devices etc.
____ All treatment and care completed
   (Ex. ATB, Tolerating Diet, Dressing Care)
____ Remove Lines, Tubes or Drains
____ Check Discharge (Depart Form) Completed
____ Check to see if you have all your Prescriptions
____ Add appropriate Education to Discharge paperwork
____ Complete and Print Discharge Instructions
____ Verify Patient Belongings and have patient sign sheet
____ Review Discharge Instructions and Education, provide and discuss Scripts
   (Patient should be able to teach back and verbalize understanding)
____ Remove ID band and Wheel patient out

Place completed forms in file folder at nurse’s station
Process Improvement Tools

- Discharge Checklist
- MDR Nurse Order
Process Improvement Tools

- Discharge Checklist
- MDR Nurse Order
- Paper template for RNs
Process Improvement Tools

- Discharge Checklist
- MDR Nurse Order
- Paper template for RNs
- Standard Work for Case Management and RN Leaders for MDR Rounding
Process Improvement Tools

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- MDR Nurse Order
- Paper template for RNs
- Standard Work for Case Management and RN Leaders for MDR Rounding
- Consistent MDR Leader to follow-up on action items, provide continuity, and driver of on-going process improvements in MDRs
Process Improvement Tools

- Discharge Checklist
- MDR Nurse Order
- Paper template for RNs
- Standard Work for Case Management and RN Leaders for MDR Rounding
- Consistent MDR Leader to follow-up on action items, provide continuity, and driver of on-going process improvements in MDRs
- Leadership team rounds on MDRs

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**Table: MDR Audit Results**

<table>
<thead>
<tr>
<th>Category</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Best Practice</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>White board preparation</td>
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<tr>
<td>Ethernet, actual LOS and expected LOS are uploaded on the board from the previous MDR.</td>
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<td>Next 24 HR Patient Care Goals</td>
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<td>General goals discussed without owner or specific action. Goals meet hospital strategy rather than KPI.</td>
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<td>Follow-up Items</td>
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<td>Documented follow-up items on MDR.</td>
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<td>Content Preparedness</td>
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<tr>
<td>Staff is not aware of patient status.</td>
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<td>Meeting Logistics</td>
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**Check the box that means orange card. If only partial compliance, select previous box.**
Results of Kaizen Team

3rd Floor Unit - Days over GMLOS

Kaizen Team Created

Days


Days Over GMLOS

Patient Volume

(0.50)

(1.00)

(1.50)

(2.00)

(2.50)

(5.00)

(10.00)

(15.00)

(20.00)

(25.00)

(50.00)

(100.00)

(200.00)

(250.00)
Results of Kaizen Team

3rd Floor Unit - Days over GMLOS

- Days Over GMLOS
- Patient Volume
- Linear (Days Over GMLOS)
- Linear (Patient Volume)
• Patient Satisfaction scores top box rate hospital 89.7%
• Communication with Nurses top box 96.6%
• Communication with Doctors top box 82.1%
We’re Continuously Improving

• Early discharge indicator – electronic bed board system
• Readmission focus
• Including other physician groups to cover 100% of our patients
• LOS cards for all RNs to start patient/family discussions early
MDR Implementation - Hospital Wide

Phase 1: Jan 2016 - 4 New Units
Phase 2: Feb 2016 - 1 New Unit
Phase 3: March 2016 - 2 New Units
Financial Results

CMALOS

Excess Cost

$1.7M/year savings

Discharges - Dec YTD

Emergency Room Visits - Dec YTD
Lessons Learned

• Get buy-in from all levels of organization
• Use Lean approach – visual management, process mapping, go to the gemba, escalation process
• Critical that all disciplines are engaged
• Constant monitoring required – audits
• MDR steering team - PDCA cycles
Questions?