Improving Quality to Create Value

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President, UM Health System and
Executive Vice Dean for Clinical Affairs

AAMC CMOG & GFP Joint Meeting
February 25-26, 2016  Charleston, SC
Successful organizations endlessly adapt to the changing world...
If the rate of change on the outside exceeds the rate of change on the inside, the end is near.

Jack Welch, Former CEO, GE
“Successful organizations endlessly adapt to the changing world...

...changing their structure and processes while preserving the core missions and values of the organization.”

Modified from Collis and Porras HBR, 1996
University of Michigan Health System Mission

We create the future of healthcare through the discovery of new knowledge for the benefit of patients and society; educate the next generation of physicians, nurses, health professionals and scientists; and serve the health needs of our citizens.
Today’s Agenda

- Value
- Patient-centered care
- Quality improvement through a population lens
  - Patient centered medical home
  - Medical neighborhood
  - Clinical design
Value Equation in Healthcare

Value = Appropriateness \times (Outcomes/Costs)

Modified from Michael Porter
Patient and Family Centered Care

- Patients are active participants in their care
- Patients serve on operating committees
- Patients participate in the design of new facilities
- Care processes examined from the patient prospective
The University of Michigan Population Health Focus

- Institute for Health Policy and Innovation
- Physician Group Practice Demonstration (PGPD) 2005-2010
- PGPD Transition 2010-2012
- Pioneer Demonstration 2012-2014
- Medicare Shared Savings Program 2014-Present
- Michigan Primary Care Transformation Project 2012-2016
- Focus: Improve quality, reduce total cost of care
### Spending Change Associated with Physician Group Practice Demonstration

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<th>Beneficiary Type</th>
<th>Estimated Change in Spending Annually (95% CI) US Dollars</th>
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Modified from Colla et al, JAMA September 12, 2012, Vol. 308, 1015-1023
UMHS - Managing Populations: Stratified approach to care management

I. Healthy Population

- I. Healthy Population

II. Mild-moderate illness
- Well-compensated multiple diseases
- Single disease

- 50% of population
- Caseload ~1000

III. Complex
- Complex illness
- Multiple Chronic Disease
- Other issues (cognitive, frail elderly, social, financial)

- 3-5% of population
- Caseload 50-200

IV. Most complex
- (e.g., Homeless, Schizophrenia)

- <1% of population
- Caseload 15-40

Source: Williams BC. Complex care for high utilizing patients-lessons from the University of Michigan experience. UHC Imperative for Quality Web conference; May 13, 2015
Patient Centered Medical Home

- Disease registries/EHR
- Care Navigators
- Patient portal
- Patient access
- Risk assessment, Stratification
- PharmD and mental health integration
- Quality and patient satisfaction expectations
# Panel Size/Disease Registries

## QMP Database Patient Counts: Primary Care Panel Size and Chronic Condition Summary

**Data through:** 3/31/2015  
**Grouped by:** ACU, Clinic

<table>
<thead>
<tr>
<th>ACU/Clinic</th>
<th>Panel Size</th>
<th>Count of Patients by Registry</th>
<th>Total Unique Patients on One or More Registries</th>
<th>Distribution of Patients by Registry Count</th>
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<th>Hypertension</th>
<th>Pediatric Obesity</th>
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Patient Counts By Clinic with Payor and Program Details
Please send questions/comments to QMP.Feedback@med.umich.edu
Report Number: UMPCP_263736M_01
Printed: 7/15/2015 at 9:12:18AM
## Ambulatory Care Unit Quality

### Table: PMPM Cost by PU, PCMH Results, and Clinical Quality Fee Uplift

| PU Name                        | Practice Type | Number of PCPs | Ave Risk Score | Ave Diag per Claim | Ave Cost of Care | 2015 Designation | Q|U|E Percentile | PCMH Percentile | Final Designation Score | Uplift Result | Overall Percentile Rank |
|-------------------------------|---------------|----------------|----------------|-------------------|------------------|-------------------|------------------|-------------------|------------------------|----------------|-------------------------|
| **Family Medicine**           |               |                |                |                   |                  |                   |                  |                   |                        |                |                         |
| Briarwood Fam Med             | family        | 21             | 1.2            | 2.7               | $261.12          | Y                 | 65.3%            | 99.6%             | 82.5                   | Y              | 88.9                    |
| Chelsea Fam Med               | family        | 19             | 1.3            | 1.3               | $282.92          | Y                 | 41.0%            | 99.6%             | 70.3                   | N              | 68.2                    |
| Dexter Fam Med                | family        | 10             | 1.2            | 2.4               | $255.12          | Y                 | 62.3%            | 99.6%             | 80.9                   | N              | 45.4                    |
| Domino's Farms Fam Med        | family        | 17             | 1.2            | 2.5               | $252.89          | Y                 | 66.8%            | 99.6%             | 83.2                   | N              | 48.2                    |
| Ypsilanti Fam Med             | family        | 9              | 1.3            | 2.9               | $305.17          | Y                 | 64.5%            | 99.6%             | 82.0                   | N              | 69.8                    |
| **General Medicine**          |               |                |                |                   |                  |                   |                  |                   |                        |                |                         |
| Briarwood Gen Med             | adult         | 9              | 1.7            | 3.3               | $338.09          | Y                 | 85.3%            | 100.0%            | 92.7                   | Y              | 93.9                    |
| Brighton Gen Med              | family        | 10             | 1.5            | 2.4               | $294.55          | Y                 | 67.7%            | 99.1%             | 83.4                   | Y              | 82.9                    |
| Canton Gen Med                | adult         | 7              | 1.5            | 3.1               | $288.17          | Y                 | 86.1%            | 100.0%            | 93.0                   | Y              | 96.5                    |
| E. Ann Arbor Gen Med          | adult         | 7              | 1.5            | 2.5               | $292.60          | Y                 | 66.4%            | 100.0%            | 83.2                   | N              | 46.2                    |
| Northville Gen Med            | adult         | 2              | 1.9            | 3.8               | $409.47          | Y                 | 86.9%            | 100.0%            | 93.4                   | Y              | 94.3                    |
| Saline Gen Med                | adult         | 2              | 1.6            | 3.1               | $323.86          | Y                 | 84.8%            | 100.0%            | 92.4                   | N              | 30.6                    |
| Taubman Gen Med               | adult         | 24             | 1.6            | 3.0               | $321.91          | Y                 | 48.7%            | 100.0%            | 74.3                   | N              | 48.1                    |
| W. Ann Arbor Gen Med          | adult         | 4              | 1.4            | 2.3               | $314.55          | Y                 | 95.7%            | 100.0%            | 97.9                   | Y              | 89.5                    |
| **Med-Peds**                  |               |                |                |                   |                  |                   |                  |                   |                        |                |                         |
| Canton Med-Peds               | family        | 7              | 1.2            | 2.7               | $257.96          | Y                 | 91.0%            | 99.6%             | 95.3                   | Y              | 98.4                    |
| E. Ann Arbor Med-Peds         | family        | 5              | 1.1            | 2.7               | $218.81          | Y                 | 63.4%            | 99.6%             | 81.5                   | N              | 72.9                    |
| **Pediatrics**                |               |                |                |                   |                  |                   |                  |                   |                        |                |                         |
| Briarwood Peds                | peds          | 8              | 0.5            | 2.3               | $205.50          | Y                 | 88.9%            | 97.4%             | 93.1                   | N              | 21.8                    |
| Brighton Peds                 | peds          | 6              | 0.5            | 2.1               | $127.50          | Y                 | 75.2%            | 97.1%             | 86.2                   | Y              | 82.4                    |
| Canton Peds                   | peds          | 7              | 0.6            | 2.4               | $131.26          | Y                 | 71.4%            | 96.7%             | 84.0                   | N              | 74.5                    |
| E. Ann Arbor Peds             | peds          | 6              | 0.5            | 2.1               | $129.36          | Y                 | 77.8%            | 97.9%             | 87.8                   | N              | 23.0                    |
| Howell Peds                   | peds          | 5              | 0.6            | 2.3               | $121.64          | Y                 | 77.7%            | 97.9%             | 87.8                   | N              | 39.4                    |
| Northville Peds               | peds          | 6              | 0.5            | 2.2               | $131.09          | Y                 | 68.9%            | 97.9%             | 83.4                   | Y              | 94.5                    |
| Saline Peds                   | peds          | 3              | 0.5            | 3.0               | $109.85          | Y                 | 68.1%            | 97.9%             | 83.0                   | N              | 62.4                    |
| W. Ann Arbor Peds             | peds          | 3              | 0.6            | 1.9               | $141.63          | Y                 | 94.1%            | 96.7%             | 95.4                   | Y              | 86.1                    |
| Ypsilanti Peds                | peds          | 4              | 0.6            | 2.0               | $131.84          | Y                 | 55.5%            | 97.9%             | 76.7                   | N/A            | N/A                     |
| **Geriatrics**                |               |                |                |                   |                  |                   |                  |                   |                        |                |                         |
| *E. Ann Arbor Geriatrics      | adult         | 24             | 2.8            | 3.6               | $498.54          | N/A               | N/A              | N/A               | N/A                    | Y              | 80.5                    |

### Legend Percentile Performance

- **°** >90th
- **°** 75th-90th
- **°** 50th-75th
- **°** 25th-50th
- **×** <25th

### Financial Impact

<table>
<thead>
<tr>
<th>Eligible Payments</th>
<th>PCMH Results</th>
<th>Clinical Quality Fee Uplift</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**UMHS Overall**

| Practice Type | Number of PCPs | Ave Risk Score | Ave Diag per Claim | Ave Cost of Care | 2015 Designation | Q|U|E Percentile | PCMH Percentile | Final Designation Score | Uplift Result | Overall Percentile Rank |
|---------------|----------------|----------------|-------------------|------------------|------------------|------------------|-------------------|-------------------|------------------------|----------------|-------------------------|
|               |                |                |                   |                  |                  |                  |                   |                   |                        |                |                         |
| **UMHS Overall** |               |                |                   |                  |                  |                  |                   |                   |                        |                |                         |
**Ambulatory Care Unit “Heat Map”**  
**C&G CAHPS**

<table>
<thead>
<tr>
<th>ACCG</th>
<th>ACU</th>
<th>Respondent Count</th>
<th>Saw provider within 15 min of appt (last visit only)</th>
<th>Office followed up with test results</th>
<th>Provider explained things in a way you understand</th>
<th>Provider listened carefully to you</th>
<th>Provider gave easy to understand info in resp to quest/ concerns</th>
<th>Provider knew important info about your medical history</th>
<th>Provider showed respect for what you had to say</th>
<th>Provider spent enough time with you</th>
<th>Recommend this office to family/friends</th>
<th>Clerks/Receptionists were helpful</th>
<th>Clerks/Receptionists treated you with courtesy/respect</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>75th Percentile</td>
<td>50th Percentile</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>2014 National CAHPS Database Benchmarks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>93%</td>
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<td>94%</td>
<td>92%</td>
<td>86%</td>
<td>95%</td>
<td>93%</td>
<td>91%</td>
<td>91%</td>
</tr>
<tr>
<td>Ambulatory Care Target&gt;&gt;&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>BRIARWOOD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>71%</td>
<td>77%</td>
<td>92%</td>
<td>99%</td>
<td>84%</td>
<td>68%</td>
<td>99%</td>
<td>86%</td>
<td>90%</td>
</tr>
<tr>
<td>BRIARWOOD FAMILY MEDICINE</td>
<td>[n=31]</td>
<td></td>
<td></td>
<td></td>
<td>64%</td>
<td>52%</td>
<td>79%</td>
<td>85%</td>
<td>82%</td>
<td>78%</td>
<td>86%</td>
<td>80%</td>
<td>78%</td>
</tr>
<tr>
<td>BRIARWOOD HEALTH ASSOCIATES</td>
<td>[n=75]</td>
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<td></td>
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<td>100%</td>
<td>N/A</td>
<td>90%</td>
<td>100%</td>
<td>100%</td>
<td>70%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>BRIARWOOD HEARING REHAB OTO</td>
<td>[n=11]</td>
<td></td>
<td></td>
<td></td>
<td>57%</td>
<td>100%</td>
<td>85%</td>
<td>85%</td>
<td>71%</td>
<td>72%</td>
<td>86%</td>
<td>100%</td>
<td>85%</td>
</tr>
<tr>
<td>BRIARWOOD MEDICAL GROUP</td>
<td>[n=8]</td>
<td></td>
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<td>49%</td>
<td>82%</td>
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<td>90%</td>
<td>80%</td>
<td>85%</td>
<td>99%</td>
<td>90%</td>
<td>77%</td>
</tr>
<tr>
<td>BRIARWOOD REPRODUCTIVE MEDICINE</td>
<td>[n=25]</td>
<td></td>
<td></td>
<td></td>
<td>65%</td>
<td>62%</td>
<td>96%</td>
<td>82%</td>
<td>88%</td>
<td>72%</td>
<td>88%</td>
<td>86%</td>
<td>79%</td>
</tr>
<tr>
<td>BRIARWOOD WOMEN CHILDRN YOUNG ADULTS</td>
<td>[n=41]</td>
<td></td>
<td></td>
<td></td>
<td>84%</td>
<td>50%</td>
<td>85%</td>
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<td>91%</td>
<td>72%</td>
<td>94%</td>
<td>93%</td>
<td>76%</td>
</tr>
<tr>
<td>BURLINGTON PAIN CLINIC - ANESTHESIOLOGY</td>
<td>[n=26]</td>
<td></td>
<td></td>
<td></td>
<td>83%</td>
<td>43%</td>
<td>96%</td>
<td>91%</td>
<td>83%</td>
<td>75%</td>
<td>86%</td>
<td>92%</td>
<td>81%</td>
</tr>
<tr>
<td>BURLINGTON SPINE PM&amp;R</td>
<td>[n=69]</td>
<td></td>
<td></td>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

The Provider rating is based on the percentage of respondents giving a '9' or '10' rating for this question (on a 0-10 pt scale).

All scales are 'higher is better'; the colors of each cell reflect the value - red is lower performance, green is higher performance, yellow is in between.

All response counts are based on valid respondents only (respondent must have had an appointment with the listed physician)

N/A = No data available

---

**Note:**

The numbers in the table represent the percentage of respondents giving the highest rating ('top-box') for each question. The table is color-coded to indicate performance: red for lower performance, green for higher performance, and yellow for intermediate performance.
• 11 embedded pharmacists in all primary care clinics
  • 5.2 clinical FTE
  • 8 general medicine and 6 family medicine sites
• Pharmacist’s time at PCMH sites varies depending on patient volume (range: 1 – 3 days/week)
• Provide disease management services (diabetes, hypertension, and hyperlipidemia) and comprehensive medication review services
Patient Enrollment and Service Delivery

- **Disease Management Services**
  - Focus on diabetes, hypertension, and hyperlipidemia.
  - Proactively identify potential candidates through disease registry and/or provider clinic schedule.
  - Patients are scheduled for initial 30-minute clinic appointments or phone
  - Schedule patients for 15 – 30 minutes follow-up appointments to improve disease control and/or medication management.
Comprehensive Medication Review (CMR) Services

- Initial appointment:
  - focus on patient’s medication concerns, confirm medication use, assess patient’s understanding of disease states and treatment plan, and identify potential barriers to treatment including drug cost.
- Follow up appointment (2 weeks); discuss new treatment plans to improve efficacy, safety and lower drug costs.
- Both initial and follow up appointments can be conducted over the phone or at the clinic for a total of 75 - 90 minutes of CMR experience.
Outcomes –
Therapeutic Interventions by PCMH Pharmacists

Total: 2,674 interventions in 1 yr.

- Increased dose: 1338
- Added medication: 523
- Decreased dose: 245
- Deleted medication: 211
- Optimized regimen: 357

Total: 2,674 interventions in 1 yr.
### Medical Director Satisfaction Survey

**June 2015**

(Scale: 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, 5-Strongly Agree)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am satisfied with the care provided by the clinical pharmacist.</td>
<td>5</td>
</tr>
<tr>
<td>The clinical pharmacist provides useful drug information to me as a clinician.</td>
<td>4.9</td>
</tr>
<tr>
<td>The collaborative practice agreement which allows pharmacists to independently modify medications is a valuable aspect of the clinical pharmacist/provider relationship.</td>
<td>5</td>
</tr>
<tr>
<td>The clinical pharmacist provides useful communications to me regarding the health status of my patients.</td>
<td>4.9</td>
</tr>
<tr>
<td>The clinical pharmacist makes appropriate clinical decisions for my patients.</td>
<td>5</td>
</tr>
<tr>
<td>The clinical pharmacist positively impacts the health status of my patients.</td>
<td>5</td>
</tr>
</tbody>
</table>
PCMH Practice Model: Building Blocks for Future Innovations

- Expansion of PCMH pharmacy care model to specialty clinics
- Building a medical neighborhood by developing collaborative care between PCMH and community pharmacies
- Creating telehealth partnership with home care services
- Implementation of employer-based comprehensive medication review program
**Connecting Medical Neighbors**

**Physician Organization Group**

- PCMH #1: 1 day
- PCMH #2: 1 day
- PCMH #3: 1/2 day
- PCMH #4: 1/2 day

Embed PCMH pharmacist at the sites encouraging physicians and care managers to funnel referrals and questions to pharmacist with established relationship. Promotes centralized process.

**Community Pharmacy**

- Rx#1
- Rx#2
- Rx#3
- Rx#4
- Rx#5

PCMH pharmacist develops collaboration with community pharmacists to care for mutual patients.

Identify PCMH sites
Moving from “Good Idea” to Reality: Pilot Initiative with Community Pharmacy

- Two pilot PCMH sites with embedded PCMH pharmacists
- Two pilot CVS pharmacies near PCMH sites
- 4-Step Process
  - Month 1 – 3
    - Train 2 CVS Pharmacists (0.5 FTE/pharmacist) at PCMH to establish relationship with providers and PCMH team
  - Month 3 – 18
    - Extend direct patient care in the community by offering PCMH services at pilot CVS pharmacies
  - Month 7 – 18
    - Train staff pharmacists at pilot CVS pharmacies to provide adherence counseling, disease-specific education, and target certain quality measures
  - Month 12 – 18
    - Initiate new collaboration with other physician organizations
• A standard approach to measure cost and outcomes for an episode of care

• Clinical design and clinical teams work together to measure and understand variations in clinical outcomes, processes and cost

• Utilize a “Lean” approach to determine root causes, develop and implement countermeasures and monitor results
Clinical Design Process

Program Engagement
• Target service
• Identify core team and patient population

High Level Gap Analysis
• Financial
• Outcomes
• High level VSM
• Access
• Gemba

Detailed Work at Provider & Procedure Levels
• Tools that meet departmental needs

Finalize & Implement
• Develop work plan
• Implement the future state

Sustainability
• Track changes
• Visual analytics
• Daily management
• Modify interventions

Pre-work Work Sessions Project teams
Initial Targeted Programs

- **Surgical Services**
  - Total hip arthroplasty
  - Total knee arthroplasty
  - Mitral Valve Replacement
  - Colectomy
  - Radical Cystectomy
  - TAVR

- **Medical Services/Other Condition**
  - Head and Neck Cancer
  - Pancreatectomy
  - Esophagectomy
  - Atrial Fibrillation
Joint Replacement Program

- ACO beneficiary testimonials
- Physician Organization of Michigan ACO data: Subacute Nursing Facility (SNF) average length of stay – 27 days
- Average Length of stay after joint replacement 27 days
- Percentage of total joint replacement patients going to SNF 40%
Joint Replacement in US

Approximately 1.4 million per year

332,000 THA, 719,000 TKA
We Are Different

Hip:Knee Discharges Ratio, 2012-2014

Primary
Primary + Revision

[Graph showing the ratio of hip to knee discharges for different hospitals and health systems over the years 2012 to 2014.]
### Problems

<table>
<thead>
<tr>
<th>What isn't working well?</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR efficiency</td>
<td>Fewer cases done</td>
</tr>
<tr>
<td>OR scheduling</td>
<td>Uneven scheduling, resource utilization</td>
</tr>
<tr>
<td>IP bed availability</td>
<td>PACU delays</td>
</tr>
<tr>
<td>OP pharmacy delay</td>
<td>Discharge delay</td>
</tr>
<tr>
<td>Clinic scheduling/yield</td>
<td>See greater number of patients to fill OR schedule</td>
</tr>
<tr>
<td>Clinic delays</td>
<td>Patient and staff dissatisfaction</td>
</tr>
<tr>
<td>IP coordination</td>
<td>Delays in patient progression to discharge ready</td>
</tr>
<tr>
<td>Discharge delays</td>
<td>Bed utilization</td>
</tr>
<tr>
<td>Discharge destination</td>
<td>High SNF utilization and cost</td>
</tr>
<tr>
<td>Pre-op screening</td>
<td>Cancellations</td>
</tr>
<tr>
<td>Referrer satisfaction</td>
<td>Fewer referrals</td>
</tr>
</tbody>
</table>
Project Objectives

- Reduce length of stay for knee and hip replacement
- Increase patient satisfaction
- Increase provider satisfaction
- Reduce clinic wait times
- Improve transitions and continuity of care
- Improve appointment wait times/appropriate access
- Maximize surgeon utility (slots/week)
- OR Efficiency (Scheduling processes?)
## Orthopedics Joint Project

### Status Key:
- Green circle: Project is on schedule, within budget, within scope, no major issues.
- Orange exclamation mark: Project is on schedule, within scope, but there are issues.
- Red exclamation mark: Project has major issues which require management attention.

### 23-Dec-15
- **(Project is on schedule, within budget, within scope, no major issues)**

### Open Issues:
- Carolyn met with the edit team to discuss the layout and what can be cut.

### Deliverables

<table>
<thead>
<tr>
<th>Objective/Target</th>
<th>Start Date</th>
<th>Expected Completion</th>
<th>Responsible</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 New Patient Clinic Re-Design Team</strong></td>
<td></td>
<td></td>
<td>Carolyn</td>
<td></td>
</tr>
<tr>
<td><strong>Target:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Task 1a:</strong> Create Joint Specific MChart Referral Program</td>
<td>8-May-15</td>
<td>In process</td>
<td>Joe</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Task 1b:</strong> Develop plan for PT in clinic</td>
<td>8-May-15</td>
<td>In process</td>
<td>All</td>
<td></td>
</tr>
</tbody>
</table>

### Barriers / Strategies / Comments
- **Task 1a:**
  - Joe is working with Derek on image tool. Currently another team uses an Excel tool, but Derek is exploring whether it can be added to MiChart or other web-based app.
  - Start using MiChart to enter data at call center.
  - Need to develop a form to adapt the copied data.
  - Need to follow up on proper place for patient info to be seen.

- **Task 1b:**
  - Develop plan for PT in clinic.

### Action Plan

#### 1a. Create scheduling algorithm for Call Center nurses.
- **Start Date:** 8-May-15
- **End Date:** 3-Aug-15
- **Responsible:** Marisa, Dorothy
- **Status:** In process
- **Objective/Target:**
  - Create Joint Specific MChart Referral Program

#### 1b. Develop plan for PT in clinic.
- **Start Date:** 8-May-15
- **End Date:** 31-Jul-15
- **Responsible:** All
- **Status:** In process
- **Objective/Target:**
  - Develop plan for PT in clinic

#### 2 Improve Communication with an AP Referral
- **Start Date:** 8-May-15
- **End Date:** 24-May-15
- **Responsible:** Ally, Lisa
- **Status:** Not possible
- **Objective/Target:**
  - Establish surgical case order criteria

#### 3 Improve Communication with an AP Referral
- **Start Date:** 8-May-15
- **End Date:** 24-May-15
- **Responsible:** Ally, Lisa
- **Status:** Not possible
- **Objective/Target:**
  - Establish surgical case order criteria

### Date
- **26-May-15:**
  - In process
  - Develop plan for evaluation of new MA role.
  - Complete

### Date
- **29-Jul-15:**
  - In process
  - Review MiChart telephone encounter.
  - Complete

### Date
- **30-Aug-15:**
  - In process
  - Create MiChart telephone encounter.
  - Complete

### Date
- **5/2/15:**
  - Joe--Suggest more active measurement as opposed to questionaires. Mayo has a Mayo score that combines measures. Our outcomes capture tool is working well. We will add "The Patient's Experience" going through the process, and video the pre-op pathway (Paul).

### Date
- **10/14:**
  - Meeting on 11/5 4:00 - 5:00 to discuss new patient pathways.
  - Include Lindsey & Heather.

### Date
- **11/18:**
  - Working on upgrading the look of the document.

### Date
- **11/23:**
  - Amy is working on a fact sheet to hand out in clinics.
  - Amy had a great success story with helping a patient with BMI of 43.

### Date
- **11/29:**
  - Michelle is working on a fact sheet to hand out.
  - Developing a template for the "Guidelines for your Therapist" for patients to hand to in-home therapists.

### Date
- **8/12:**
  - Phone interview today, (9/9) meeting on 9/22.
  - Investigate combined job with scribe.
  - New RN hired and will start in October.

### Date
- **8/26:**
  - New RN hired and will start post D/C calls.
  - RN rollout in 2 weeks.
  - Need to work on paging to Therapy. RN rollout in 2 weeks.
  - Need to work with Darren to ensure CT scans are complete prior to discharge.

### Date
- **8/19:**
  - Waiting for update from Orthopaedics Web.
  - Waiting for update from Orthopaedics Web.

### Date
- **8/5:**
  - Issue with images downloading from archives. Will investigate.

### Date
- **11/4:**
  - Meeting to show how to do online booking.
  - Install found way to manage versions.

### Date
- **10/7:**
  - Hiring new IP MA with Ruth.
  - Check back on progress in Mid-Sept, and to see what can be developed for new MiChart button.

### Date
- **11/18:**
  - Working on upgrading the look of the document

### Date
- **8/26:**
  - Setting up plan for evaluation of new MA role.
  - Complete

### Date
- **8/19:**
  - Orthopedics Patient LOS's were: 24hrs, 28hrs, 26hrs, 26hrs (are at the 25th target).
  - Nursing education insecurities started. Planned completion by 8/31.
  - Unpaid patient LOS's were: 24hrs, 28hrs, 26hrs, 26hrs (are at the 25th target).
  - Сhildren's Hospital Los Angeles started. Planned completion by 8/31.

### Date
- **8/26:**
  - Official RN Pathway role out 9/1.
  - Looking at any Pathway modifications.

### Date
- **10/28:**
  - There will be a new MiChart button to allow easier sending of edited letters by RNs.
  - Will get job description.

### Date
- **10/7:**
  - Hiring new IP MA with Ruth.

### Date
- **10/14:**
  - Meeting on 11/5 4:00 - 5:00 to discuss new patient pathways.
  - Include Lindsey & Heather.

### Date
- **12/18:**
  - Working on upgrading the look of the document.

### Date
- **11/4:**
  - Amy is working on a fact sheet to hand out in clinics.
  - Amy had a great success story with helping a patient with BMI of 43.

### Date
- **10/28:**
  - Working on upgrading the look of the document.

### Date
- **10/14:**
  - Meeting on 11/5 4:00 - 5:00 to discuss new patient pathways.
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  - Include Lindsey & Heather.

### Date
- **10/7:**
  - Hiring new IP MA with Ruth.

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  - Working on upgrading the look of the document.

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  - Meeting on 11/5 4:00 - 5:00 to discuss new patient pathways.
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Preparing For Surgery

Once your doctor determines that you are a candidate for hip replacement, several weeks of preparations begin to promote healing and offer the best chances of a successful surgery.

Find a support coach
A support coach is a relative or friend that helps you while you prepare for surgery, are in the hospital, and recover at home. You may have more than one support coach if one person is not available for all steps below. A support coach must be available to:
- Attend the pre-op class with you (other family and friends are welcome as well)
- Bring you to surgery
- Come to the hospital the first morning after surgery at 8:00 am to work with you during your physical therapy session and learn about your exercises, pain control, and important hip precautions.
- Assist with all subsequent in-hospital therapy sessions.
- Take you home from the hospital; many patients go home the day after surgery.
- Help you around your house with meals, assistive devices, dressing, self-care, etc.
- Drive you to post-op appointments/labs.

Attend a pre-op class
You will be scheduled to attend a two hour class to learn about your hip replacement. Bring this book and your coach with you to the class. Other family members or friends are welcome to attend. You will learn what to expect before surgery, hospitalization, and post-operative recovery. There is opportunity to ask questions. Patients and families find this session very informative.

Medical history & physical exam
An appointment will be scheduled for you either at the Taubman center or at Domino’s Farms. Bring a list of your medications and dosages or bring all your medicine bottles to this appointment. Your pre-op testing will include blood tests, nasal swabs (see page 27), and possibly an ECG. Some patients may also need to see a medical specialist, such as a heart doctor or lung doctor, before surgery. This decision will be made when you are seen for your physical exam or when we receive the results of your blood tests or ECG.

Stop smoking before surgery
It is important that you stop smoking.
- Smoking is bad for your heart and lungs, interferes with healing, and increases the risk of infection.
- All nicotine must be out of your system at the time of surgery.
- Do not use any products containing nicotine during the 30 days before surgery, including nicotine gum, nicotine patches, electronic cigarettes, etc.
- You may be tested after you stop all nicotine and tobacco products to ensure you are nicotine-free.
- Your surgery may be cancelled if you continue to smoke.
- The Hospital is a smoke free campus.
Care Pathway After Discharge Patient Comments

- “Language was clear, good document”
- “I really like how it has the do’s and don’ts”
- “Well written and self-explanatory”
- “Helped to remind me what to do”
- “I’m going to tell all my friends to come to U of M”
- “Exercise pictures are very helpful”
- “It is a burden, it looks very busy”
SCO=Surgery Combined Orthopaedics (orthopaedics & hospitalists) [more complicated illness/cases]
SJO=Surgery Joint Orthopaedics
Orthopaedics: Results

% Patients d/c to SNF

Mar 2014 – Oct 2015
Joint Replacement Results

- Readmissions reduced 50%
- Total Medicare per beneficiary costs reduced 20% ($24,300 to $19,500)
- Medicare risk adjusted observed to expected cost ratio 1.40-0.80
Invasive Bladder Cancer: Radical Cystectomy

- University of Michigan volume – 150/year
- Men: removal of bladder, prostate, lymph nodes
- Women: removal of bladder, uterus, ovaries and interior vaginal wall
- Urinary tract reconstruction
- Patients are elderly and frail
- 60-80% experience complications
- 90 day mortality 1-5%
Radical Cystectomy: Countermeasures

- Created physician and nurse care pathway
- Improved patient education
- Standardized patient materials, supplies, care pathway
- Created patient journal for patients to record the care journey

A Guide for Ostomy Care & Services

Having ostomy surgery can be a stressful time. The following information is meant as a guide to prepare you for your surgery and provide resources for a successful recovery.

- **Before surgery**—You will meet with the outpatient ostomy nurse. The nurse will provide you with education about living a full life with an ostomy. The ostomy site will be selected. The ostomy nurse will help you identify how to get supplies after you are discharged from the hospital. You may also want to think about a family member or friend that may be available to help you care for yourself at home.

  - **Your resources:** Outpatient ostomy nurse, surgeon

- **After surgery**—While you are in the hospital, the inpatient ostomy nurse will teach you and your family how to care for your ostomy. You will have the opportunity to practice the care yourself and ask questions. Before you are discharged you will receive some supplies to use at home along with a prescription for additional supplies. Arrangements will be made to provide you with the opportunity to receive home care nursing services to continue with your ostomy care. We encourage you to take advantage of this, as most patients benefit from the service.

  - **Your resources:** Inpatient ostomy nurse, staff nurses, your surgery team

- **At home**—The home care nurse will help guide you through the process of caring for yourself independently, including how to obtain your ostomy supplies. Give a copy of the ostomy supply prescription to your homecare nurse so she/he will know what supplies you will need. If you have Medicare or your primary insurer, the home care nurse is responsible for

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Radical Cystectomy: Results

- Robotic surgery – additional cost, no reduced LOS, or improved outcomes
- Reduction in readmissions by 55% (38% → 17%)
- Cost reduction per episode 18%
- Contribution margin increased by 20 percentage points
# Cystectomy With Ileal Conduit Cancer Pathway

## Day 0 (Day of Surgery)

- **Activity**: Compression socks at all times, Sit in chair, Incentive Spirometer X 10 per hour, Wear binder, Physical therapy as needed.
- **Discharge Planning**: Confirm insurance coverage, resources available for care.
- **Patient/Family Education**: Introduction to Pathway, Introduction to Ileal Conduit, Review Folder, Preventing patient falls, extra hospital stay.
- **Learning Activity**: Orientation to Pathway.
- **Pain**: IV pain med, 8 oz block coffee, tea, juice, or water every 8 hours.
- **Diet**: No food, gum ok, No solid food, gum ok.
- **Drains/Stents**: Drains and stents in place, Routine nursing care (e.g., vials, measure fluid output, strip drain, etc.).
- **Meds**: IV Antibiotics, Heparin.
- **Tests**: Labs in recovery unit.
- **What are my medications for?**: Alvimopan: Aids in recovery of gut function, Colace: Softens stool, Heparin: Helps prevent blood clot development, Famotidine: Decreases stomach acid.

## Day 1

- **Activity**: Compression socks at all times, Chair x 3, Walk in hall.
- **Discharge Planning**: Evaluate and screen for discharge needs, Identify in-home caregiver/support.
- **Patient/Family Education**: Introduction to Ileal Conduit, Ostomy care, Demonstration of appliance change, Ostomy Care.
- **Learning Activity**: Ostomy care, Demonstration of appliance change.
- **Pain**: IV pain med, Oral/IV pain med.
- **Diet**: Ounce of milk coffee, tea, juice, or water every 8 hours.
- **Drains/Stents**: Drains and stents in place, Every four hours: Routine nursing care (e.g., vials, measure fluid output, strip drain, etc.).
- **Meds**: Colace, Alvimopan, Famotidine, Heparin.
- **Tests**: Labs at 3 A.M.

## Day 2

- **Activity**: Compression socks at all times, Chair x 3, Walk in hall.
- **Discharge Planning**: Check progress and confirm discharge location - level of care needed, Update patient and family about patient pay amount.
- **Patient/Family Education**: Patient Family.
- **Learning Activity**: Patient Family.
- **Pain**: Oral/IV pain med.
- **Diet**: Ounce of milk coffee, tea, juice, or water every 8 hours.
- **Drains/Stents**: Drains and stents in place, Every four hours: Routine nursing care (e.g., vials, measure fluid output, strip drain, etc.).
- **Meds**: Colace, Alvimopan, Famotidine, Heparin.
- **Tests**: Labs at 3 A.M.

## Day 3

- **Activity**: Compression socks at all times, Chair x 3, Walk in hall.
- **Discharge Planning**: Check progress and confirm discharge location - level of care needed, Finalize plan.
- **Patient/Family Education**: Patient Family.
- **Learning Activity**: Patient Family.
- **Pain**: Oral/IV pain med.
- **Diet**: Ounce of milk coffee, tea, juice, or water every 8 hours.
- **Drains/Stents**: Drains and stents in place, Every four hours: Routine nursing care (e.g., vials, measure fluid output, strip drain, etc.).
- **Meds**: Colace, Alvimopan, Famotidine, Heparin.
- **Tests**: Labs at 3 A.M.

## Day 4

- **Activity**: Compression socks at all times, Chair x 3, Walk in hall.
- **Discharge Planning**: Confirm planned date of discharge.
- **Patient/Family Education**: Patient Family.
- **Learning Activity**: Patient Family.
- **Pain**: Oral/IV pain med.
- **Diet**: Ounce of milk coffee, tea, juice, or water every 8 hours.
- **Drains/Stents**: Drains and stents in place, Every four hours: Routine nursing care (e.g., vials, measure fluid output, strip drain, etc.).
- **Meds**: Colace, Alvimopan, Famotidine, Heparin.
- **Tests**: Labs at 3 A.M.

## Additional Days

- **Activity**: Compression socks at all times, Chair x 3, Walk in hall.
- **Discharge Planning**: Write final discharge plan, Sand summary to visiting RN Agency/Renal.
- **Patient/Family Education**: Patient Family.
- **Learning Activity**: Patient Family.
- **Pain**: Oral/IV pain med.
- **Diet**: Ounce of milk coffee, tea, juice, or water every 8 hours.
- **Drains/Stents**: Drains and stents in place, Every four hours: Routine nursing care (e.g., vials, measure fluid output, strip drain, etc.).
- **Meds**: Colace, Alvimopan, Famotidine, Heparin.
- **Tests**: Labs at 3 A.M.

*Note: This pathway is provided by the University of Michigan Health System Urology.*
What’s Next?

- Reduce healthcare acquired conditions
- Re-design 6-8 care pathways per year
- Implement episode treatment and procedure group costing
- Implement activity-based costing system
- Enter into track 2 of MSSP, prepare for APM
Thank You

Steve Bernstein, MD
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Brian Holstrom
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Larry Marentette, MD
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