

# Who Needs the Hospital?

# Hardwiring Clinical Pathways for Ambulatory Care Coordination Improves Quality, Efficiency, and Outcomes

**Barney Newman, MD**  
Medical Director

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Associate Medical Director for Quality

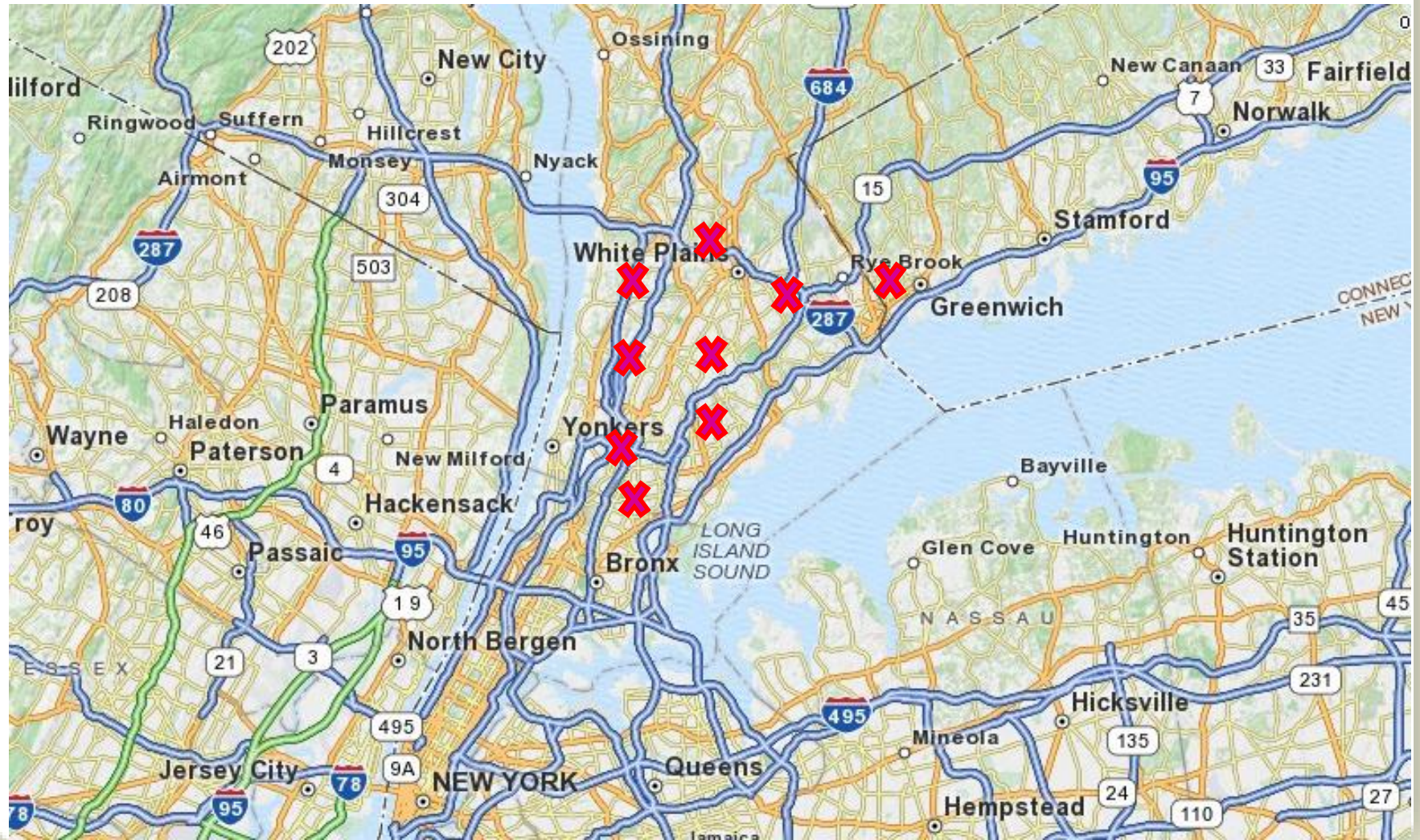


# WESTMED Medical Group



- Established 1996 by 16 physicians
- 225+ physicians caring for over 250,000 patients
- Over 30 specialties represented
- 4 polyclinics—90,000 sq. ft., 65,000 sq. ft., 100,000 sq. ft., and newest with 30,000 sq. ft.
- Lab and imaging services
- Advanced IT and shared EMR

# Locations



# Governance Structure

- Professional Corporation (PC)
- Wholly owned by physician shareholders
- “Republican” form of governance with elected shareholder Board of Directors
- Physicians in senior management roles
- No hospital or related ACO Partners

# Multiple ACO-Based Contracts

- Empire Medicare Advantage
- Oxford Medicare Advantage
- Cigna Commercial
- Oxford Commercial
- Aetna Commercial
- Medicare Shared Savings Program
- 16,000 Medicare lives
- 30,000 Commercial lives

# Value-Based Strategy

- **Initial cost savings and quality improvement by focusing on reducing unnecessary expenses (low-hanging fruit)**
  - 1. Hospital care**
  - 2. ER and outpatient facilities**
  - 3. Specialty referrals and diagnostic testing**
  - 4. Pharmacy costs**

# Strategies for Paradigm Change

- Reduce unjustified variation
- Leverage EMR
- Leverage outpatient office infrastructure
- Make the right thing to do the easy thing to do
- Coordinate care



# Care Coordination

- **Care Coordination is the deliberate organization of patient care activities**
- **Main goals:**
  1. **Transferring information**
  2. **Transferring accountability**



“And so you just threw everything together?... Mathews, a posse is something you have to organize.”

# **WESTMED Shared Savings: Initial Strategic Goals**

- **Reduce unnecessary hospitalizations**
- **Reduce unnecessary ER visits**
- **Reduce “leakage” to OON facilities**
- **Reduce “leakage” to OON specialties**
- **Reduce unnecessary imaging, procedures**
- **Reduce inappropriate end-of-life care**

**WHILE DELIVERING HIGH QUALITY CARE**

# Phase I (approx. 6-9 mos)

## BUILDING INFRASTRUCTURE:

First task was to assemble workgroups designed to implement the tactics, resources, educational efforts, etc. necessary for successful ACO quality and utilization oversight

# Initial Workgroups

1. Case Management
2. Palliative Care
3. Urgent Care Management
4. Referral Management
5. Ambulatory Pathways

# Workgroup Assignments

- **Appoint Project Leader and define/assemble team**
- **Analysis to refine tactics/strategy**
- **Set initial target goals**
- **Develop project plan to achieve goals: tactics, needs, timeline, reports, etc.**

# Ambulatory Pathways Workgroup Team

- Art Forni, MD, MMM
- Maria Bradley, RN, MBA
- Anthony Korosi, MD—Specialty Care Nephrologist
- Rupal Chhabra, DO—Primary Care Internist
- James Cawley, PA—UCC
- Deidre Morgan—Project Coordinator

# Ambulatory Pathways Workgroup Rationale

- Hospital care is expensive and potentially unsafe (med errors, infections, etc.)
- Subsets of patients not critically ill better served in outpatient settings if coordinated care orchestrated
- Multidisciplinary “polyclinics” facilitate such care, with ability to efficiently deliver wide range of services: UCC, outpatient IV suites, ambulatory endoscopy/surgery



# Ambulatory Pathway Workgroup Goals

- Define outpatient sensitive conditions amenable to pathways
- Define specific pathway teams
- Develop pathways as per protocol to standardize and optimize how our clinicians treat patients with a variety of common conditions
- Provider education and availability of resources
- Reports to evaluate utilization, safety, and efficacy of pathways
- Refine pathways based on analysis of above metrics

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# Ambulatory Pathways

## PROGRESS TO DATE:

1. DVT
2. Acute Diverticulitis
3. Cellulitis
4. Diabetic foot ulcer
5. Community-acquired pneumonia
6. TIA
7. Upper GI bleed
8. Lower GI bleed

# Ambulatory Pathways

## COMING SOON:

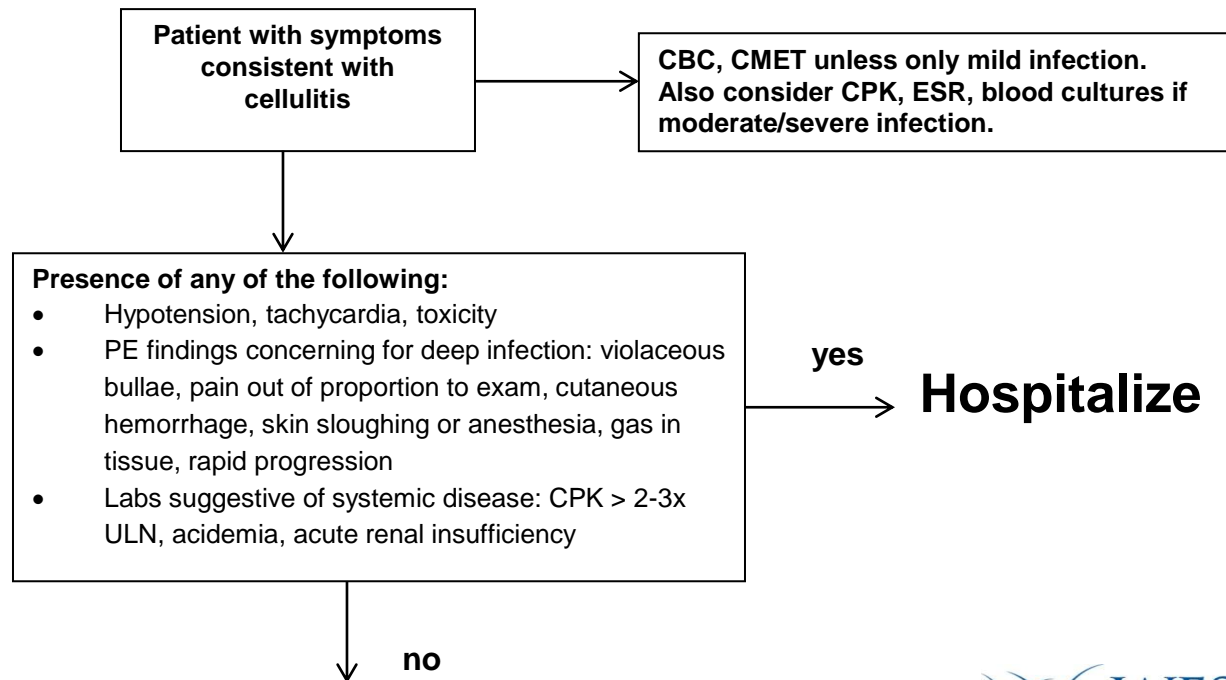
1. **UTI/pyelo/prostatitis**
2. **CHF**
3. **Chest pain**
4. **Syncope**
5. **Asthma**
6. **COPD**
7. **Electrolyte abnormalities**
8. **Low back pain**
9. **Adverse drug reactions**
10. **Diabetes (hyperglycemia)**
11. **Palliative Care**
12. **Pain Management**

# Pathway Format

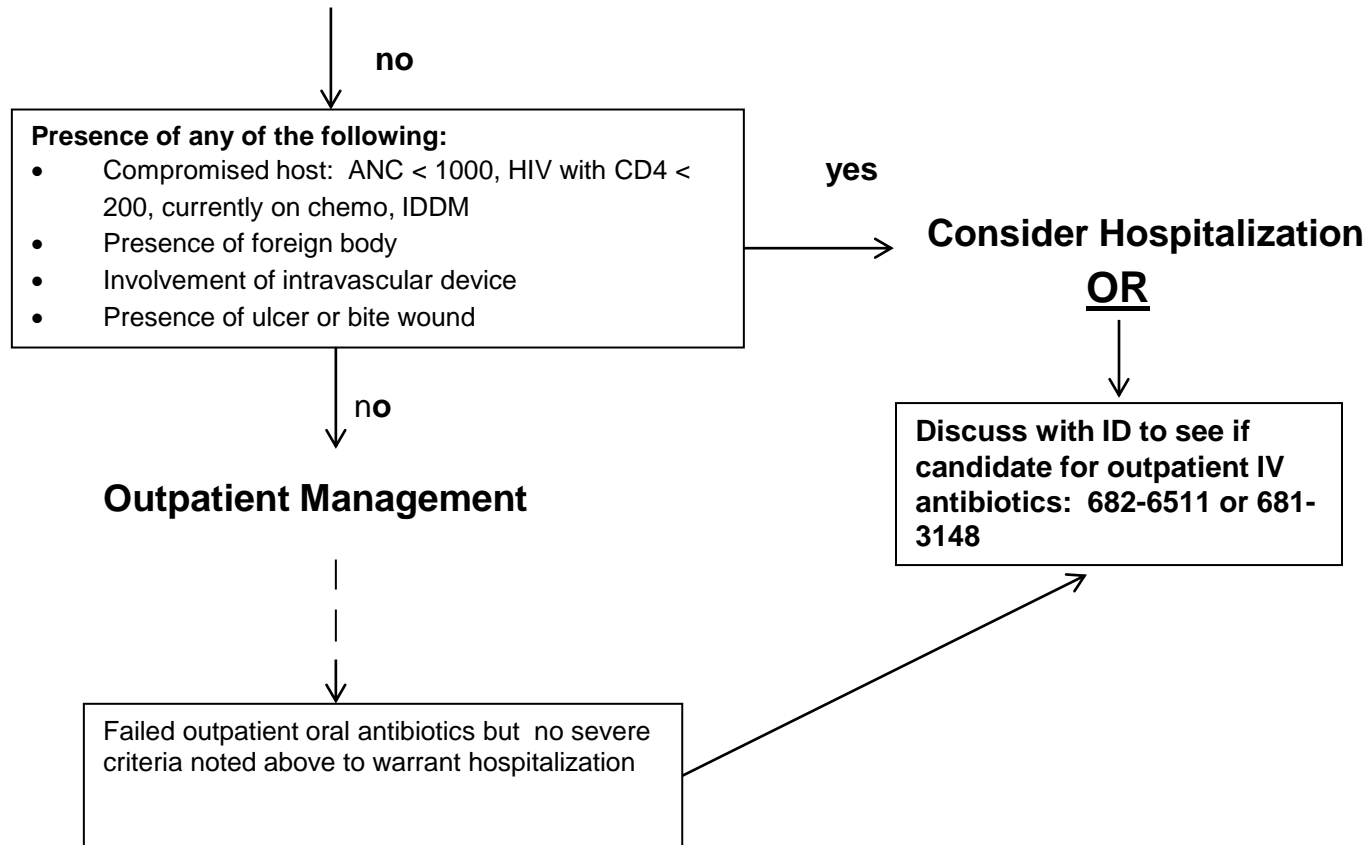
- Initial diagnostic evaluation
- Stratification (inpatient vs. outpatient) section
- Outpatient management
- Literature guideline reference that the pathway is based on
- Patient handout

# Example: Cellulitis

## Outpatient Evaluation and Management of Cellulitis



# Cellulitis (cont.)





# Cellulitis

## Outpatient Management

### 1. Antibiotic Therapy (7-10 days), consider one of the following:

Dicloxacillin 500 mg PO QID  
Cephalexin 500 mg PO QID  
Augmentin 875/125 mg PO BID  
Clindamycin 300 mg PO Q6-8 hrs

### \*\*If associated abscess or purulent drainage, consider one of the following for MRSA therapy:

Clindamycin 300 mg PO Q6-8 hrs (not active against all MRSA strains)  
Trimethoprim/sulfamethoxazole DS 1 tab PO BID  
Doxycycline 100 mg PO BID  
Linezolid 600 mg PO BID

### \*\*If associated animal bite wound, consider one of the following:

Augmentin 875/125 mg PO BID  
Clindamycin 300 mg PO Q6-8 hrs + Ciprofloxacin 500 mg PO BID

### 2. Follow up in 2-3 days to monitor response to therapy.

### 3. Instruct patient to call for:

- Increasing pain, swelling, redness
- Fever, chills, lightheadedness
- Rash or itch
- Inability to tolerate oral antibiotics
- Nausea, vomiting, or diarrhea

### 4. Provide patient with handout.

# Cellulitis

## Patient Information: Cellulitis

### What is Cellulitis?

Cellulitis is an infection of the skin and soft tissue below the skin. It is usually caused by bacteria that normally live on the skin, such as staphylococci or streptococci. It usually develops when there is a break in the skin which allows bacteria to enter the skin and grow, causing redness and swelling.

### How is Cellulitis Treated?

Most cases of cellulitis are mild and heal completely with antibiotic treatment. However, the infection can be complicated by abscesses needing drainage or can become severe and cause a systemic infection if left untreated.

### When Should I Call the Doctor?

You should seek immediate medical attention for any of the following symptoms:

- Temperature greater than 100.5 degrees F or chills
- Severe or worsening pain, swelling or redness of the area
- An inability to tolerate fluids or your antibiotics
- Severe rash or itch
- Nausea, vomiting, or diarrhea

### What Kind of Follow Up is Recommended?

You should make a follow up appointment with your doctor around 2-3 days after your initial visit and diagnosis.

### Where Can I Get More Information?

MedlinePlus

<http://www.nlm.nih.gov/medlineplus/cellulitis.html>



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# Small Group Meetings

- **Preview the Pathways**
- **Solicit feedback, constructive criticism**
- **Encourage use of pathways—highlight the ease of use and coordination of resources**
- **Communicate with team—flag, email, call**
- **Continue the experiment**

# Early Lessons

- Many providers unaware of resources available
- They do not know how to easily mobilize resources
- Clinical guidance not enough to accomplish our goals
- Need to make the pathways practical and accessible

**“Make the right thing to do the easy thing to do”**

# Integrating Pathways into the EMR

The screenshot displays the Centricity EMR interface for a patient named 'APPT1 TEST'. The patient's information includes ID 547938, DOB 01/01/2000, and PCP Jack Berger, MD. The chart shows a visit on 09/13/2012 at 1:21 PM. A diagnostic pathway window is open, listing conditions such as Cellulitis, DVT, and GI Bleeding. The interface includes a menu bar, a toolbar, and a taskbar at the bottom.

Centricity EMR - Arthur Forni, MD @ Internal Medicine (wmg1) - 9/13/2012 1:21 PM - [Chart]

Go Actions Options Help  
Desktop Chart Appts Reg Reports New View Print Help EXIT

**APPT1 TEST** Patient ID: 547938 Home: (914)555-1616 Work: None Cell: None PonchoTest55@GEPOL.COM  
12 Years & 8 Months Old, Male (DOB: 01/01/2000) PCP: Jack Berger, MD Insurance: BCBS - B (1150) Group:

Find Pt. Protocols Graph Handouts Probs Meds Refills Allergies Directives Flowsheet Orders End Update

Summary History Problems Medications Alerts/Flags Flowsheet Orders Documents Update

Doc ID: 93 Properties: Office Visit at IM-210 on 09/13/2012 1:21 PM by Arthur Forni, MD Alerts(0)/Flags(0)

Summary: Drug interactions Attach Properties

Favorites  
Blank image  
Ambulatory Clinical-TEST  
UTI Visit Forni - TEST

Inserted  
Ambulatory Clinical-TEST

Attachments

Arial 10 B I U L  
[Ambulatory Clinical-TEST]

Ambulatory Clinical-TEST: APP11 TEST

Cellulitis	DVT
Community-Acquired Pneumonia	GI Bleeding, Lower
Diabetic Foot Ulcer	GI Bleeding, Upper
Diverticulitis, Acute	TIA

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# Integrating Pathways into the EMR

Cellulitis-TEST: Sarah S. Oberheim

**Evaluation and Management**    Outpatient Management    Patient Information

**HOME**

**Patient with symptoms consistent with cellulitis:**  
**Order CBC, CMET unless only mild infection and consider CPK, ESR, blood cultures if moderate/severe infection.**

**Presence of any of the following:**     Yes     No

- Hypotension, tachycardia, toxicity
- PE Findings concerning for deep infection: violaceous blae, pain out of proportion to exam, cutaneous hemorrhage, skin sloughing or anesthesia, gas in tissue, rapid progression
- Labs suggestive of systemic disease: CPK > 2-3x ULN, acidemia, acute renal insufficiency

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**HOSPITALIZE**

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**Presence of any of the following:**  Yes     No

- Compromised host: ANC < 1000, HIV with CD4 < 200, currently on chemo, IDDM
- Presence of foreign body
- Involvement of intravascular device
- Presence of ulcer or bite wound
- Failed outpatient oral antibiotics

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**Consider Hospitalization**    **But also consider discussing with ID to see if candidate for outpatient IV antibiotics: 682-6511 or 681-3148**

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**Outpatient Manage.**

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# Care Coordination

Transferring information

Transferring accountability

- Primary care was initial focus
- Specialists (access, specialized testing)
- UCC becoming a major hub
- Outreach to our hospitalists and the ED physicians

# Ongoing Process Refinement

- Ease of pathway use on day 1
- Same day specialty consult and testing availability
- Primary provider access for f/u visits
- UCC hours/capabilities
- Patient education and buy-in
- Acute Case Management—“safety net”

# Ambulatory Pathway Workgroup Goals

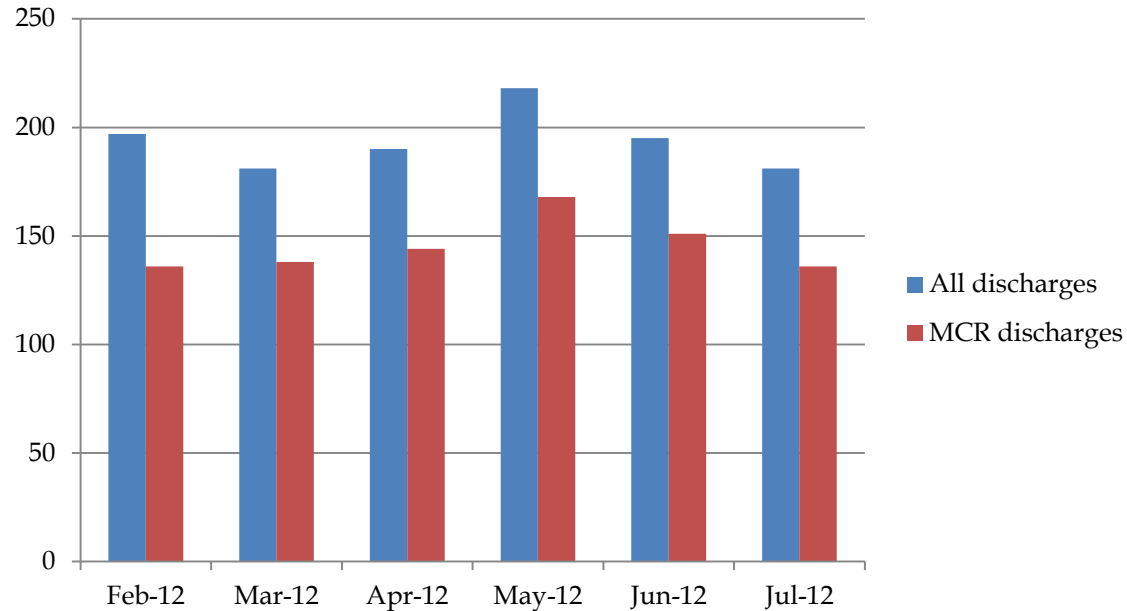
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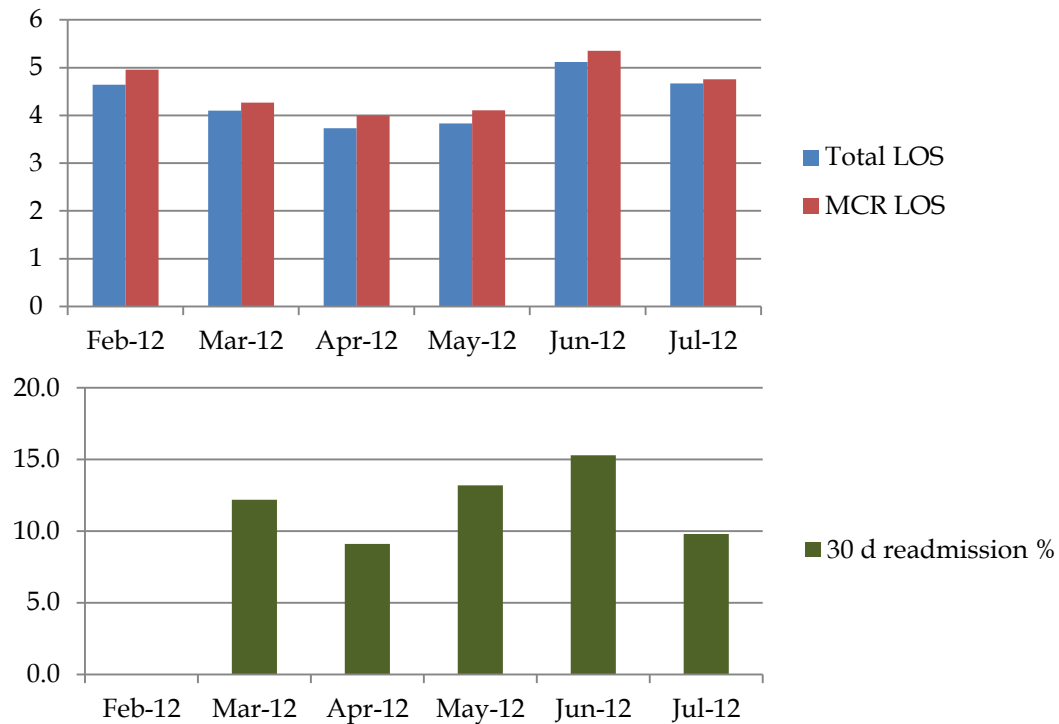
# Phase II (Analyzing Metrics)

- **Process measures—overall pathway use by condition, “acute” case management use, % successful pathway completion**
- **Outcomes measures—decreased ER visits and hospital admissions, successful observation status discharges**

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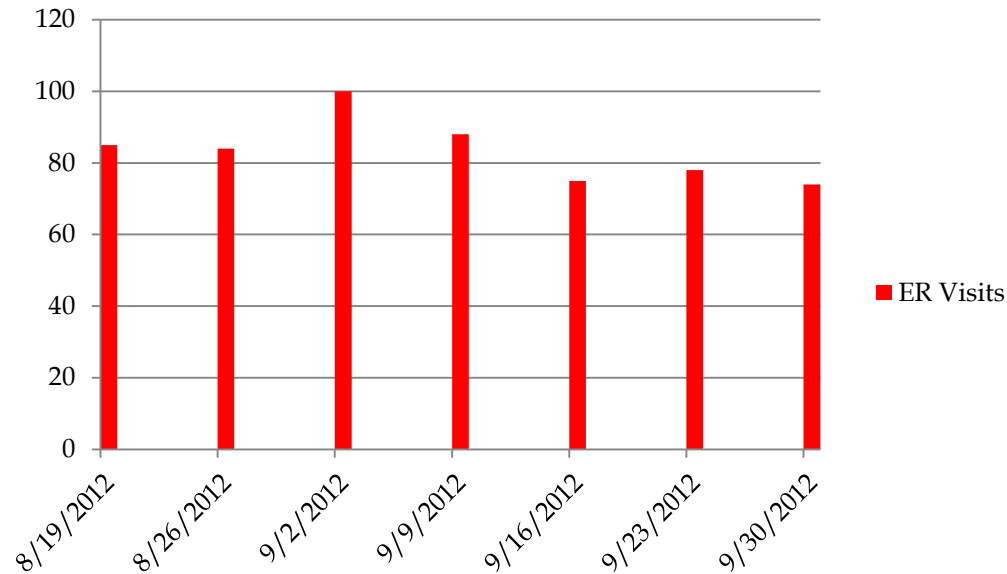


# Phase II (Analyzing Metrics)



# Phase II (Analyzing Metrics)

## Weekly ER Visits





"Well, Bob, it looks like a paper cut, but just to be sure let's do lots of test."

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# Ambulatory Pathways

- **SUMMARY:**

1. Structured care coordination
2. Not just a “keep patients out of the hospital” approach
3. Limit unnecessary variation in clinical practice (especially overutilization)
4. Improve specialty access
5. Prevent errors
6. Provide a more comfortable experience for the patient
7. Decrease cost of care

**“Make the right thing  
to do  
the easy thing  
to do”**