Who Needs the Hospital?
Hardwiring Clinical Pathways for Ambulatory Care Coordination Improves Quality, Efficiency, and Outcomes

Barney Newman, MD
Medical Director

Arthur Forni, MD, MMM
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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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

Patient with symptoms consistent with cellulitis → CBC, CMET unless only mild infection. Also consider CPK, ESR, blood cultures if moderate/severe infection.

Presence of any of the following:
- Hypotension, tachycardia, toxicity
- PE findings concerning for deep infection: violaceous bullae, 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

→ yes Hospitalize

→ no
Cellulitis (cont.)

- Presence of any of the following:
  - 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

  *no*

  **Outpatient Management**

  *no*

  - Failed outpatient oral antibiotics but no severe criteria noted above to warrant hospitalization

  *yes*

  **Consider Hospitalization**

  **OR**

  Discuss with ID to see if candidate for outpatient IV antibiotics: 682-6511 or 681-3148

Clinical Infectious Diseases 2005; 41:1373–406
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.
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
Ambulatory Pathway Workgroup Goals

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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
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HOSPITALIZE
Integrating Pathways into the EMR

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Presence of any of the following:  ● Yes  ○ No
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- Presence of foreign body
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- Failed outpatient oral antibiotics
Integrating Pathways into the EMR

Cellulitis-TEST: Sarah S. Oberheim

Evaluation and Management

Outpatient Management

Patient Information

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Prev Form (Ctrl+PgUp)  Next Form (Ctrl+PgDn)  Close
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Outpatient Manage.
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**Where Can I Get More Information?**
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”
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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
Phase II (Analyzing Metrics)
Phase II (Analyzing Metrics)

![Graphs showing metrics data over time]

- **Total LOS**
- **MCR LOS**
- **30 d readmission %**
Phase II (Analyzing Metrics)

Weekly ER Visits

- 8/19/2012
- 8/26/2012
- 9/2/2012
- 9/9/2012
- 9/16/2012
- 9/23/2012
- 9/30/2012

ER Visits

WESTMED MEDICAL GROUP
"Well, Bob, it looks like a paper cut, but just to be sure let’s do lots of test."
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”