Project CORE
Coordinating an Optimal Referral Experience Through eConsults and Enhanced Referrals

Robert Ernst, MD
Sr. Associate Division Chief, General Internal Medicine
Asst. Chair for Primary Care, Dept. of Internal Medicine
University of Michigan

Background

• Considerable Access Issues for Specialty Consultations
• 25% “Inappropriate” Consults
• Curbside Consult Problematic
  – Not all faculty have network
    • Hospitalists, off-site, new faculty
  – Specialists overburdened/undercompensated
  – Lack of documentation/access to record
• Pressure from Patients for Specialist Involvement
• Limited Interaction Between Primary Care Faculty and Specialists in an “Integrated” Health System
Background

Referral Rates are Highly Variable across PCPs

Referrals / 100 Primary Care Visits by Individual PCPs at 1 AMC

CORE: Coordinating the Optimal Referral Experience

• Goals:
  – Right-sizing referral rates
  – Reducing variation in pre-referral evaluation
  – Improving communication and coordination between PCPs and specialists

• Key elements of the CORE model
  – EMR-based point of care decision support tools and enhanced clinical workflows that enable efficient, high quality exchanges between PCPs and Specialists
  – Establish a culture that breeds collegiality, shared values, and mutual respect between PCPs and specialists
  – Incentives that align PCPs and specialists (0.5 RVU each)
CORE: Coordinating the Optimal Referral Experience

• eConsults
  – Structured ‘curbside’ consultation for defined questions in participating specialties
  – Asynchronous electronic exchanges initiated by a primary care provider (PCP) and submitted to specialist colleagues in lieu of an in-person visit
  – 72 hour turnaround time
  – Facilitated and documented in the EHR
  – RVU incentive for PCPs requesting and specialists providing an eConsult

• Enhanced Referrals
  – Condition/problem specific structured guides to referral
  – Built-in decision support to improve information capture and transfer
  – Co-management expectation setting

Timeline

March-July 2016
Initial Planning
• CORE 101
• Provider Engagement
• IT Build
• Data Infrastructure
• Specialty Selection

August 2016
Wave 1
• Go Live with Endocrinology, Neurology, Rheumatology
• Quality Assurance/Quality Improvement

March 2017
Wave 2
• Go Live with Nephrology, Hematology, GI-Luminal, Hepatology
• QA/QI

July 2017
Wave 3
• Go Live with Allergy, Pulmonary, Infectious Disease
• QA/QI

Current
Wave 4
• Build with Physical Medicine and Rehab, Reproductive Endocrinology, Pain Clinic
• QA/QI
# CORE: Wave 1

**Metabolism, Endocrine and Diabetes**
- Abnormal Thyroid Function
- Adrenal Mass
- Diabetes Mellitus
- Hypercalcemia
- Hyperparathyroidism
- Hyperprolactinemia
- Hyperthyroidism
- Hypothyroidism
- Low Testosterone
- Pituitary Mass
- Thyroid Nodule
- Vitamin D Deficiency
- Unspecified

**Neurology**
- Back and Limb Pain
- Distal Polyneuropathy
- Headache
- Memory and Aging
- Seizure
- Tremor
- Unspecified

**Rheumatology**
- Back Pain
- Fibromyalgia
- Gout
- Joint Pain
- Osteoarthritis
- Rheumatoid Arthritis
- Systemic Illness
- Systemic Lupus erythematosus
- Unspecified

---

# CORE: Wave 2

**GI-Luminal**
- Abdominal Pain
- Anemia
- Diarrhea
- Dysphagia
- GERD
- IBS
- Nausea/Vomiting
- Pancreatitis
- H. Pylori
- Unspecified

**Hepatology**
- Asymptomatic Elevated Liver Function Test
- Hepatitis C
- Presumed Benign Liver Mass or Cyst
- Unspecified

**Nephrology**
- Chronic Kidney Disease (CKD)
- Rapid Creatinine Rise
- Hypertension
- Proteinuria
- Hematuria
- Unspecified

**Hematology**
- Anemia
- Erythrocytosis
- Leukocytosis
- Leukopenia
- MGUS
- Thrombocytopenia
- Thrombophilia
- Unspecified
Allergy
- Asthma
- Atopic Dermatitis/Eczema
- Contact Dermatitis
- Food Allergy
- Hives
- Medication Allergy
- Primary Immunodeficiency
- Rhinitis
- Unspecified

Infectious Diseases
- HIV Pre-Exposure Prophylaxis (PrEP)
- Latent Tuberculosis
- MRSA
- Decolonization
- Recurrent C. Difficile Infection
- Urinary Tract Infection
- Unspecified

Pulmonary
- Asthma
- Chronic Cough
- COPD
- Dyspnea
- ILD/Restrictive Ventilatory Defect
- Mediastinal Lymphadenopathy
- Pulmonary Nodule(s)
- Unspecified

Placing an eConsult
**Additional Metrics Under Development**

- **Time Lag Between Specialty Consult Scheduling and Arrival**
  - Measures average and most frequent duration of time between referral creation and appointment creation as well as average and most frequent duration of time between appointment creation and patient arrival.
- **Referrals > 60 days since creation**
- **New Patient Percentage**
  - Displays new patient visits as a percentage of all completed visits (new patient + other).
- **No Show and Late Cancellation Rate**
- **Primary Care Referral Volume and Rate per 100 Primary Care Visits**
  - Includes a measure of “Leakage” from the System
- **Survey of PCP’s and Specialists**

**Qualitative Measures Under Development**

- **Qualitative Assessment**
  - Primary Care Appropriate Conditions
  - Template Deletion Activity
  - Follow Up Questions
  - Interim Advice
  - Use of the Other Diagnosis Category
  - Charge Capture
- **Quantitative Measurement**
  - Lead Time for Next Available Consultation
  - Referrals > 60 Days
  - New Patient Percentage for Participating Specialties
  - No Show/Late Cancellation Rates for Specialties
  - Primary Care Referral Volume and Rate per 100 Visits
**eConsult Impact on Overall Referral Activity**

<table>
<thead>
<tr>
<th>SPECIALTY/DEPT</th>
<th>REFFERAL COUNTS</th>
<th>REFFERAL RATE PER 100 VISITS</th>
<th>VISIT COUNTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAMILY MEDICINE</td>
<td>287</td>
<td>23.55</td>
<td>1236</td>
</tr>
<tr>
<td>DRV13 FAMILY MEDICINE</td>
<td>150</td>
<td>12.55</td>
<td>623</td>
</tr>
<tr>
<td>MW10 INHAMS MED</td>
<td>62</td>
<td>12.55</td>
<td>623</td>
</tr>
<tr>
<td>CHE FAMILY MEDICINE</td>
<td>344</td>
<td>12.55</td>
<td>623</td>
</tr>
<tr>
<td>DF FAMILY MEDICINE</td>
<td>318</td>
<td>12.55</td>
<td>623</td>
</tr>
<tr>
<td>HSC FAMILY MEDICINE</td>
<td>241</td>
<td>12.55</td>
<td>623</td>
</tr>
<tr>
<td>HHC FAMILY MEDICINE</td>
<td>206</td>
<td>12.55</td>
<td>623</td>
</tr>
<tr>
<td>YM10 MEDICINE</td>
<td>270</td>
<td>12.55</td>
<td>623</td>
</tr>
</tbody>
</table>

**Conclusions**

- **eConsults**
  - Provides for all faculty access to curbside consults and structures the service appropriately
  - Initial and ongoing engagement of both specialists and primary care leaders was critical in the success of the project
    - Effort not dedicated initially
  - PCPs have found eConsults helpful and educational
    - Co-management conferences help
  - PCPs are receiving timely answers to questions
  - Most eConsults are being billed as taking less than or equal to 20 minutes to answer.
    - A time based code for billing of an eConsult would be less than an in-person office visit
  - Ongoing weekly quality assurance review has helped maintain the process and identify any areas of concern early on

*Specialties with highest rates of leakage: Dermatology, Orthopedic Surgery, Neurology, Ophthy, Podiatry*
Future Areas of Development

- Enhanced Referrals
- Incorporating Fellows
- PCP and Specialist Surveys
- Patient Satisfaction
- Third-party Reimbursement
- Specialty-Specialty EConsults
- Pediatric Specialties

Acknowledgements

- Julia Chen, MD
- Dave Serlin, MD
- John Stoffel, MD
- Laura Heinrich, MD
- Pat Lyons – Project Manager
- Nick Tacconelli – Project Manager
- AAMC
Questions?

• robernst@med.umich.edu
• juliach@med.umich.edu