Electronic Referral and Consultation Systems (eCR): Improving Primary and Specialty Care Collaboration

May 28, 2014
Today’s Speakers - UCSF/SFGH

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Today’s Speakers - CHCI

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The Community Health Center, Inc.

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Associate Director
Center for Excellence in Primary Care, UCSF
Today’s Speakers – Brigham and Women’s

Jeffrey Greenberg,
Associate Medical Director, Brigham and Women's Physicians Organization
123,500 patients/clients

14 primary care health centers
70,000 primary care patients

comprehensive ambulatory specialty and diagnostic services
332,000 visits in 2012-2013

behavioral health services
acute and trauma care
jail health services
long term care
State of PC-SC Interface Circa 2005

- Paper, telephone, and fax based referral system
- Clerical process of first referred, first scheduled
- Significant inefficiencies
  - referral to wrong clinic
  - unnecessary referrals
  - premature referrals
  - inability to discern referral question
  - lack of equitable triage
- Wait times up to 11 mo
eReferral Workflow

PCP submits electronic referral

Consult reviewed electronically by specialist
*Includes all relevant clinical data from EMR*

Appropriate specialty referral
AND
Pre-referral work-up complete

Nonurgent
-> Schedule Next Available

Urgent
-> Overbook

Consult question unclear
Pre-referral work-up incomplete
PCP can manage with guidance

Eventually Scheduled

Never Scheduled

not scheduled and more information requested
July 2011-June 2012
27,604 new submissions (excluding diagnostics)

Specialist reviews

- Appropriate and complete consults: 60% (16,466)
- Consult inappropriate or incomplete or clinic visit not needed: 40% (11,138)

- Scheduled:
  - Need to be seen in clinic: 50% (13,783)
  - Urgent overbook appointment: 10% (2,683)

- Not initially scheduled:
  - Specialist responds to request more information and/or make recommendations
  - Iterative communication as needed
  - PCP provides information, initial evaluation complete, visit needed: 20% (5,641)
  - No appointment 6 months after last exchange: 20% (5,397)

Adapted from Chen AH, Murphy EJ, Yee HF, “eReferral – A New Model for Integrated Care.” NEJM 2013;368(26):2450-3.
eReferral Impact on Wait Times

- Endocrinology
- Rheumatology
- Pulmonary
- Cardiology
- Nephrology

Wait Time for New Patient Appointment (days)

Months since eReferral initiation
Primary Care Satisfaction with eReferral

Overall, how has eReferral changed clinical care for your patients?

81% response rate (298 of 368)

Bidirectional Feedback for Improvement
Widespread Interest in eCR

• Specialty visits comprise >50% of all ambulatory visits
  – For patients <65, 1/3 patients referred to specialist/year
  – For patients ≥ 65 average of 2 referrals per person/year

• On average, for every 100 Medicare patients a PCP takes care of, s/he has to interact with 99 other physicians in 53 different practices

• Lack of timely specialty care can result in adverse outcomes, unnecessary ED visits and hospitalizations, and potentially higher health care costs
Key Informant Interviews

Goals

• Drivers
• Facilitators/barriers to eCR implementation
• Best practices
• Evaluation metrics
Study Participants

California
- AccessOC
- Alameda Health System
- L.A. Care Health Plan
- Los Angeles County Department of Health Services
- Marin Community Clinics
- Riverside County Regional Medical Center
- San Mateo Medical Center
- UCLA Health
- UCSF Medical Center
- Ventura County Health Care Agency

United States
- Brigham and Women’s Hospital
- Community Health Center, Inc
- Denver Health
- Harborview Medical Center
- Hawaii Medical Service Association
- University of Massachusetts Memorial Health Care

International
- Bruyere Research Institute (Ottawa, Canada)
- National Health Service (England)
# Drivers of Implementation

<table>
<thead>
<tr>
<th>eReferral</th>
<th>eConsult</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Enhance clinical efficiency</td>
<td>• Improve access to specialty care</td>
</tr>
<tr>
<td>- Triage</td>
<td>- Supply/demand mismatch</td>
</tr>
<tr>
<td>- Legibility</td>
<td>- Desire to enhance PCP capacity</td>
</tr>
<tr>
<td>- Communication between providers</td>
<td></td>
</tr>
<tr>
<td>- Efficient first visit</td>
<td>• Delivery of coordinated care</td>
</tr>
<tr>
<td>• Enhance operational efficiency</td>
<td>• Patient satisfaction</td>
</tr>
<tr>
<td>- Referral tracking for PCPs</td>
<td>• Patient retention; decrease leakage to other delivery systems</td>
</tr>
</tbody>
</table>
Facilitators/Barriers to eCR Implementation

**Facilitators**
- Engaged leadership
  - Executives
  - Clinician leaders
- System responds to organizational challenges
- Strong partnerships with stakeholders
- User-friendly technology integrated into clinician workflows
- Reimbursement mechanisms for clinicians
- Dedicated program staff for outreach/marketing

**Barriers**
- Clinician resistance to change
  - PCP workload
  - Changes in PCP workflow
  - Specialist workload
- Lack of integration with EMR
- Inadequate funding
  - Vendor platform and on-going support
  - Specialist compensation
- Liability concerns
Elements of Successful Implementation of Electronic Consultation Systems

- Executive leadership support and commitment to ongoing QI
- Clinical (PCP and specialist) champions and early adopters
- Successful implementation
- Efficient workflows
- Funding and payment models
- Integration with existing EMR
- Meets organizational needs related to specialty access

PCP = primary care provider
EMR = electronic medical record
QI = quality improvement

Graphic template: www.presentationmagazine.com
eReferral Team

Alice Chen, eReferral Director
Peter Cheng, DPH Senior Software Engineer
Kiren Leeds, CIAQ Manager
Tekeshe Mekonnen, eReferral Program Manager
Kjeld Molvig, DPH Internal Application Manager
Lisa Murphy, eReferral Specialty Lead
Justin Sewell, CIAQ/evaluation faculty
Delphine Tuot, CIAQ/eReferral faculty, lead evaluator

www.ciaqsf.org
THANK YOU!

Blue Shield of California Foundation
California HealthCare Foundation
Kaiser Permanente Community Benefit
San Francisco Health Plan
SFGH Foundation
Community Health Center, Inc
Middletown, CT

J. Nwando Olayiwola, MD, MPH, FAAFP
Nicole Jepeal, BA
Overview

1. Organizational Background & Demographics
2. The Problem
3. The Solution
4. eConsult Model & Workflow
5. Results
   1. Visits and access
   2. Clinical
   3. Provider satisfaction
6. Conclusions & Next Steps

Information in this presentation is currently in press – please do not reprint or redistribute

*Study funded by the Connecticut Health Foundation*
Organizational Background and Demographics
Our Vision: Since 1972, Community Health Center, Inc. has been building a world-class primary health care system committed to caring for underserved and uninsured populations and focused on improving health outcomes, as well as building healthy communities.

CHC Inc. Profile:
- Founding Year – 1972
- FQHC Designation
- Primary Care Hubs – 13
- No. of Service Locations - 218
- Licensed SBHC locations – 24
- Organization Staff – 500+
- Patients who consider CHCI their health care home – 130,000
- Health care visits – 410,000 per year

Innovations
- Integrated medical, dental and behavioral health services
- Fully integrated EHR
- Patient portal and HIE
- Extensive school-based care system
- “Wherever You Are” Health Care
- Level 3 PCMH-NCQA
- Joint Commission PCMH
- Centering Pregnancy model
- Residency training for new nurse practitioners and post doc psychologists

CHCI's Weitzman Institute is a community-based research institute focused on quality improvement and innovation in primary care.
CHCI Patient Demographics

- 200% or Less FPL: 91%
- Uninsured: 22%
- Medicaid: 60%
- Under 19y: 44%
- Over 65y: 7%
- Racial/ethnic minority: 63%

FPL = Federal Poverty Level
Y = Years
From:
Sent: Wednesday, June 13, 2012 3:20 PM
To:
Subject: RE: Orthopaedic and Dermatology

Here is the latest greatest news:

Dr. Orthopaedics—states that ALL orthopaedic referrals from the Shoreline Area are to be scheduled locally. If no local orthopaedics, then they are to be referred to .

Dr. —Dermatology—states that he will only see patients that live in the following areas, New London, Groton, Mystic, Gales Ferry and Ledyard. No where else.

For me, this means I have no where to send a managed healthcare patient when they need to see an Orthopaedic. (Unless they have Medicare as the primary coverage, then Orthopaedics will see them.)

As for dermatology, patients that live in Waterford have no where to go at this time.

Can my job get any harder to do????????????
The Problem:
Primary Care-Specialty Care Access
From:  
Sent: Thursday, May 10, 2012 12:51 PM  
To:  
Cc:  
Subject: ENT

I just spoke with at ENT and as of today they are no longer accepting ENT patients. The doctor there is not renewing his contract. She does not know if they will be accepting patients in the future.
From:  
Sent: Friday, January 20, 2012 10:08 AM  
To:  
Cc:  
Subject: opthalmology

Just as an FYI, opthalmology is not currently taking any new husky patients.
Director of Endoscopy Department at Hospital

November 6, 2008

RE: GI COVERAGE FOR

To all GI doctors:

There has been a revision in the coverage below. I am writing to announce as of January 1, 2009, that we are all going to be on the same schedule coverage to the clinics, and patient birthday month coverage for GI specialists. The list below confirms the yearly schedule is as follows:

January:
February:
March:
April:
May:
June:
July:
August:
September:
October:
November:
December:

Can you please let me know if this is not the correct schedule we are to use for GI referrals? Thank you for your help in this important matter.

Sincerely,

Director of Endoscopy
The Current Specialty Care Paradigm

- Poor Coordination
- Access Issues
- Waste
- Racial and Economic Disparities
## Wait Times & Costs for Specialty Care

<table>
<thead>
<tr>
<th>Specialty</th>
<th>Average Wait Time (days)</th>
<th>Average Cost ($/visit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allergy/Immunology</td>
<td>36</td>
<td>224</td>
</tr>
<tr>
<td><strong>Cardiology</strong></td>
<td><strong>18</strong></td>
<td><strong>470</strong></td>
</tr>
<tr>
<td>Colorectal Surgery</td>
<td>30</td>
<td>305</td>
</tr>
<tr>
<td>Dermatology</td>
<td>48</td>
<td>157</td>
</tr>
<tr>
<td>Endocrinology</td>
<td>51</td>
<td>266</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>31</td>
<td>206</td>
</tr>
<tr>
<td>General Surgery</td>
<td>19</td>
<td>150</td>
</tr>
<tr>
<td>Neurology</td>
<td>35</td>
<td>278</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>17</td>
<td>130</td>
</tr>
<tr>
<td>Orthopedic Surgery</td>
<td>15</td>
<td>295</td>
</tr>
</tbody>
</table>

CHC Referral Data – February 2011
Community Health Center, Inc.
Contributors to Access Issues

Prohibitive costs
Transportation complications
Inflexible Work Schedules
Geographic Barriers
Lack of Linguistic and Cultural Competency
Low Acceptance of Medicaid

Specialty Care Access Gap
Pilot Data – Cardiology Referrals – Care Gaps

39% of cardiology referrals were confirmed as completed in pilot data

Wait time to completion over 50 days
The Solution – eConsult Model
The CHCI eConsult Model

- Based out of an FQHC not an academic health center
- Contract with UCONN Health Center
- Utilized a secure messaging module within EHR
- Providers had the ability to attach relevant pieces of patients’ chart
- The process was invisible to the primary care provider
- Response within 2 business days
- If a F2F visit was required, the patient could be seen by the specialist of their choice
Referral (Outgoing)

Patient: Test, Adult Imz1 (063359)
Insurance:

‘Ref From: Test, Test
Facility From:

Auth Code:
Start Date: 02/21/2012
Referral Date: 02/21/2012
Appt Date: 02/21/2012
Received Date: 02/21/2012
Priority: Routine

Ref To:
Provider: Carter, Shanti
Specialty: Cardiology

Facility To: 
Auth Type: 
End Date: 02/21/2013
Assigned To: 
Unit Type: V (VISIT)
Status: Open

How would you like to send the referral?
- Print
- Print with Attachments (5)
- Fax
- Fax with Attachments (5)
- Send (EHX)

Send instantly to Carter, Shanti via eCW P2P

Diagnosis / Reason

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Econsult for patient with identified test pain. The EKG, medical summary and CCD are attached.</td>
</tr>
</tbody>
</table>

Diagnosis

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>428.0</td>
<td>CHF [Congestive heart failure], unspecified</td>
</tr>
</tbody>
</table>

Procedures

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
</tr>
</thead>
</table>

Scan | Attachments (5) | Logs | OK | Cancel | Send Referral |
Community Health Center, Inc. – Where health care is a right, not a privilege, since 1972.
Facilitators

- Multi-level stakeholder engagement
- Grant funded
- Process did not increase workload of PCP
- Centralized Referral Coordinator
- eConsult first pass mandate

Barriers

- Provider willingness to change
- Interoperability – ease of use on specialty end, browser compatibility
- Documentation process
- No sustainable payment model
eConsult Workflow and Consort Diagram
The flow chart illustrates the result of every cardiology referral during the 1 year study period.

*F2F is a face to face appointment
**Appt is an appointment
†Patient deceased due to a non-cardiac related event
Reduction in F2F visits

- Required a F2f: 34 (29.1%)
- Resolved without a F2F: 83 (70.9%)
Results
Cox Regression Model Comparing Time to Visit with Cardiologist among Intervention Groups (N = 590).

| Variable        | Model 1 Exp(Coeff) | Lower CI | Upper CI | Pr(>|z|) | Model 2 Exp(Coeff) | Lower CI | Upper CI | Pr(>|z|) |
|-----------------|--------------------|----------|----------|---------|-------------------|----------|----------|---------|
| Intervention    | 1.45               | 1.21     | 1.74     | <0.001  | --                | --       | --       | --      |
| Intervention eConsult | --    | --       | --       | --      | 3.49              | 2.78     | 4.38     | <0.001  |
| Intervention Traditional | --  | --       | --       | --      | 0.80              | 0.63     | 1.03     | 0.080   |

| Variable        | Model 1 Exp(Coeff) | Lower CI | Upper CI | Pr(>|z|) | Model 2 Exp(Coeff) | Lower CI | Upper CI | Pr(>|z|) |
|-----------------|--------------------|----------|----------|---------|-------------------|----------|----------|---------|
| Intervention    | 1.25               | 1.03     | 1.5      | 0.021   | --                | --       | --       | --      |
| Intervention eConsult | --    | --       | --       | --      | 2.24              | 1.77     | 2.82     | <0.001  |
| Intervention Traditional | --  | --       | --       | --      | 0.81              | 0.63     | 1.03     | 0.089   |
### Comparing Time to Visit with Cardiologist among Intervention Groups (N = 590)

<table>
<thead>
<tr>
<th>Time to visit with cardiologist</th>
<th>A. Median time to visit with cardiologist</th>
<th>B. Median time to visit with cardiologist</th>
<th>A. Patients not seeing a cardiologist within 31 days of referral</th>
<th>B. Patients not seeing a cardiologist within 31 days of referral</th>
<th>A. Patients never seeing cardiologist face to face</th>
<th>B. Patients never seeing cardiologist face to face</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range (days)</td>
<td>Median (days)</td>
<td>Median (days)</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td><strong>Intervention -eConsults</strong></td>
<td>0 – 65</td>
<td>4</td>
<td>5</td>
<td>10</td>
<td>19</td>
<td>3</td>
</tr>
<tr>
<td><strong>Intervention -Traditional</strong></td>
<td>0 – 294</td>
<td>29</td>
<td>29</td>
<td>48</td>
<td>48</td>
<td>25</td>
</tr>
<tr>
<td><strong>Control</strong></td>
<td>0 – 153</td>
<td>24</td>
<td>24</td>
<td>38</td>
<td>38</td>
<td>19</td>
</tr>
</tbody>
</table>
## Clinical End Points

<table>
<thead>
<tr>
<th>Clinical End Points</th>
<th>Intervention</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total N=229</td>
<td>Traditional Pathway N=109</td>
</tr>
<tr>
<td></td>
<td>no. (%)</td>
<td>no. (%)</td>
</tr>
<tr>
<td>Death from any Cause</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Death from Cardiovascular Causes</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Myocardial Infarction</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Coronary Artery Bypass Surgery</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Catheterization with Stenting or Angioplasty</td>
<td>3 (1.3)</td>
<td>1 (0.9)</td>
</tr>
<tr>
<td>Diagnostic Catheterization</td>
<td>1 (0.4)</td>
<td>1 (0.9)</td>
</tr>
<tr>
<td>ED Visits with possible Cardiac Symptoms*</td>
<td>4 (1.7)</td>
<td>3 (2.8)</td>
</tr>
<tr>
<td>Hospitalization for Arrhythmia</td>
<td>2 (0.9)</td>
<td>2 (1.8)</td>
</tr>
<tr>
<td>Hospitalization for Atypical Chest Pain</td>
<td>6 (2.6)</td>
<td>4 (3.7)</td>
</tr>
<tr>
<td>Hospitalization for Syncope or Near Syncope</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hospitalization for Congestive Heart Failure</td>
<td>2 (0.9)</td>
<td>1 (0.9)</td>
</tr>
</tbody>
</table>

* p= 0.02 for ED Visits with Possible Cardiac Symptom. No other end points were statistically different.
How Satisfied Are You with the Ease of the eConsult Process?
Compared to a Traditional Cardiology Referral How Would You Rate the Quality of the Content of eConsult Responses?
How Satisfied Are You with the eConsult Response Time?
Regarding Workload, Has Sending eConsults:

**Pre-Intervention Survey**
- Increase your workload: 45.5% (15)
- Stay the same: 45.5% (15)
- Decrease your workload: 9.1% (3)

**Mid-Intervention Survey**
- Increased your workload: 69.2% (16)
- Had no effect on your workload (workload stayed the same): 23.1% (6)
- Decreased your workload: 7.7% (2)
Regarding Convenience, Is Sending eConsults:

Pre-Intervention Survey

Mid-Intervention Survey
How Have eConsults Affected Your Patients?

- Convenience: 75.0%
- Access to Specialty Care: 84.6%
- Stayed the Same: 25.0%
- Decreased: 15.4%
Conclusions and Next Steps
What’s Next?

- Sustainable Infrastructure
- Payment Model
- Beyond Geographic Barriers
- Outside the Safety Net
- Multi-payer Engagement
Contact Us

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Vice President/Chief Quality Officer
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Building a Medical Neighborhood at Brigham and Women’s Hospital

May 28, 2014

Jeffrey O. Greenberg, MD, MBA
Associate Medical Director, BWPO
Organization Context

- Brigham and Women’s Hospital is a 777-bed academic medical center in Boston, MA
- Teaching affiliate of Harvard Medical School
- 1,600-member physicians organization, majority of whom are employed (though not always salaried)
- Owned by corporate parent Partners Healthcare, an umbrella organization with two AMCs, 4 community hospitals, and ~6,000 physicians (including BWH/BWPO)
- BWH has home-grown outpatient EMR and inpatient CPOE, but no inpatient EMR
- Implementing Epic in May 2015
Our Referral Problem

• We have no robust system to facilitate referrals to BWH specialists

• This results in:
  
  ➢ Inequity and unpredictable *experience* for referring providers and patients
  
  ➢ Minimal triage and poor *access*
  
  ➢ *Inefficient* workarounds, back doors
  
  ➢ *Leakage* of referrals outside of BWH and difficulty in attracting external referrals
This doesn't support new physicians, external physicians, or patients who do not have access to these custom systems.
Vision: Why Can’t It Look Like This?

One process for all specialties:

- **PCP**
  - Referral needed
  - Question about referral
  - Engages in pre-consult triage with designated specialist through standard medium

- Office contacts specialty through standard medium

- Specialty office contacts patient, schedules appt, alerts referring office

- If needed
Current System Leads to Many Failures

**Inefficiency**
- Referring physicians – both PCPs and specialists, both internal and external – have to re-learn referral process for each specialty, and sometime each physician

**Inequity**
- Experienced physicians email trusted colleagues for advice and referrals – while newer physicians may struggle

**Lack of Integration**
- Substantial visits (30%) to specialists for patients with BWH PCPs land outside of BWH
- Informal curbsides not documented, not reimbursed
Leakage of Patients from BWH

Leakage from BWHC - 06/2012 - 05/2013
New Office Visits for Risk Patients with a BWH PCP

Source: Payer claims. Includes only commercial patients with BCBS, HPHC, THP Jul-2012 to Jun-2013.
Medical Neighborhood: Goals

More appropriate Referrals

- Create an active system to ensure the right patient sees the right provider in the right time frame
- Reduce unnecessary referrals and diagnostic tests
- Improve access to specialists

Standard Process

- Create an easy, standard process for referral patients to all BWH ambulatory specialties
- Decrease leakage of patients outside of BWH
- Increase referral volume to BWH
Three Paradigms For Referrals

- **No triage needed**
  - “I know I need a referral, and I know which physician I want to refer to”

- **Minimal triage needed**
  - “I know which specialty I need, but I do not know, or do not have a preference, as to which MD patient sees”

- **Significant triage needed**
  - “I know I need help in caring for this patient, but I need help with”:
    - Right specialty and right MD
    - Right work-up
    - Right timing of referral

New referral portal

Pre-consult exchanges (through new portal)
What Is Referral Management?

1. Simplify and **standardize process** to make referring to BWH easy from internal or external MDs
   - Increase **volume**
   - Simplify **process**

2. Enable active **triage** of referrals (pre-consult exchange)
   - Improve access
   - Win in **population management**

3. **Track** referrals to know when they are scheduled, whether patients show-up
   - Major requirement for PCMH certification
   - Important to CRICO

4. **Measure** processes and outcomes of referrals
   - Building incentives
   - Developing and monitoring new programs, growth strategies
BWHC eReferral

• Cloud-based referral portal allowing “one-stop shopping” for any BWH ambulatory specialist
• Referrals land in a “work queue” for each specialty; specialty staff call patients to book appointments
• Linked to outpatient EMR for patient identification and demographics and single sign-on
• Developed by par8o, LLC, and heavily configured for BWH
• Launched in January 2014 and ramped up over two months
• “Teamcare”: Module within eReferral that facilitates e-consults
Implemented eReferral in January 2014
BWHC eReferral Work Queue

<table>
<thead>
<tr>
<th>Patient</th>
<th>Sent</th>
<th>Updated</th>
<th>Status</th>
<th>Referred To</th>
<th>Referred From</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROBERT SISSON</td>
<td>02/07/14</td>
<td>Draft</td>
<td>Orthopedics</td>
<td>Dr. Andrea Young</td>
<td></td>
</tr>
<tr>
<td>KIMBERLY GOIDELL</td>
<td>02/07/14</td>
<td>Draft</td>
<td>Orthopedics</td>
<td>Dr. Andrea Young</td>
<td></td>
</tr>
<tr>
<td>ELAINE PIERCE</td>
<td>01/31/14</td>
<td>Draft</td>
<td>Hearing Aid and Audiology Services</td>
<td>Dr. Andrea Young</td>
<td></td>
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<tr>
<td>CONNIE BOYLE</td>
<td>02/04/14</td>
<td>Draft</td>
<td>Brigham Obstetrics and Gynecology Group</td>
<td>Dr. Andrea Young</td>
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</tr>
<tr>
<td>WILLIAM KEANEY</td>
<td>02/03/14</td>
<td>Draft</td>
<td></td>
<td>Dr. Andrea Young</td>
<td></td>
</tr>
</tbody>
</table>
Specialties Responding Promptly Even with Rising Volume

Total referral volume to all BWH specialties, by week (bars)
Time from referral receipt to first phone call to patient (line)

Referral Volume and Time to First Action

PCPs Increasing Share of Undifferentiated Referrals

Actual percentage of referrals to ‘group’ vs. specific MD, 1/28/2014-5/1/2014

- Survey of BWH PCPs in January 2014 showed 55% would prefer to refer to specific specialist, rather than a group (n=105).

Time to Appointment Commensurate with Urgency

Urgency of referrals
Percent of total

- 19%
- 5%
- 36%
- 41%

Time from patient contact to scheduled visit
Days

- Urgent (<3d)
- <1 week
- <1 month
- Pt convenience

Next Step: TeamCare
Updated Work Queue
Teamcare Question

TeamCare

Patient Information
First Name: Ken
Last Name: Walters
DOB: February 6, 1926
GENDER: MALE
DOES THIS PATIENT HAVE A LEGAL GUARDIAN? YES
Patient Contact Information
PREFERRED METHOD OF CONTACT: HOME
HOME PHONE: 651-651-6516
MOBILE PHONE: 654-651-6516
WORK PHONE: 654-651-4651

From: Reema Alshirawi, MD
To: General Cardiology TeamCare Support

TeamCare Question:
65 F with chronic atrial fibrillation well controlled on rate-control regimen, now symptomatic. Would like guidance around picking the best rhythm control strategy for her - is there an anti arrhythmic you suggest I start with or would you like to see her first? Thanks.

Send to My Staff to Complete
Send Now
Takeaways

- Referrals are a key inflection point in patient care
- Optimizing and standardizing referral processes is a winning strategy in fee-for-service or accountable care
- Technology is important, but workflow is more important
- Data speak: Leakage moved needle at BWH