Electronic Consultation and Referral (eCR) to Achieve the Quadruple Aim

Session # 307, February 21, 2017

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Conflict of Interest

J. Nwando Olayiwola, MD, MPH, FAAFP
& Delphine Tuot, MDCM, MAS

Have no real or apparent conflicts of interest to report.
Agenda

• Background
  ✓ Terms: eConsult / eReferral / eCR
  ✓ eCR @ San Francisco Health Network

• Organizational Readiness
  ✓ Elements for Successful Implementation

• Metrics & Data Sources
  ✓ Quadruple aim
  ✓ IOM’s Quality Domains
  ✓ Data Collection

• Audience Discussion & Breakouts
Learning Objectives

• Compare approaches to eCR system development and adoption based on organizational resources, interest and demographics

• Identify potential evaluation metrics and data sources using the Quadruple Aim framework or IOM quality domains

• Design short and long term evaluation plans for individual organizations and systems
Opening Question 1

My primary role in my organization is:

1. Clinical Leader or Clinician
2. Admin / Operations / Finance
3. IT / Informatics
4. Other
Opening Question 2

I would describe my organization’s status on eConsults as:

1. Actively considering
2. Early stage implementation
3. Implemented and optimizing
4. Not considering / Huh?
Applying the STEPS Model to Evaluation of eCR Systems

- **S** – the evaluation model emphasizes the importance of assessing the satisfaction and experience of all stakeholders, including health care providers and patients
- **T** - the evaluation model focuses on developing a robust set of clinical and outcomes metrics based on available data source
- **E** - the evaluation model is centered around electronic information and data capture, which requires invaluable input from delivery, IT and senior leadership
- **P** – the evaluation model also includes strategies for elucidating patient engagement roles and experiences from diverse voices, using eCR systems for better population health
- **S** - the evaluation model also prepares organizations to identify cost related measures and examine potential areas for cost-savings
6 days for eConsult vs. 24 days for visit

**Access to Specialty Care**
(Olayiwola, *Ann Fam Med*, 2016)

**Communication Between Primary & Specialty Care**
(Tuot, *Healthcare*, 2015)

71% of primary care providers report high quality specialist communication

**Wait Times for In-Person Specialty Appointments**
(Chen, *NEJM* 2013)

Average wait times dropped from 112 days to 49 days after 9-months post-implementation
Background
Background
System Types

eConsult

eCR

eReferral
**Background**

- **eReferral**
  - Expectation that patient will be seen by specialist
  - Efficient referral management/tracking and review by specialist

- **eConsult**
  - Request for a patient's condition/treatment to be evaluated by a specialist
  - Does not carry the expectation that a specialist will see the patient
  - Focus on bi-directional communication

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**Integrated eCR**

- Single portal of entry for referring providers; does not require providers to distinguish referrals from consultations
- All submissions are reviewed by a specialist

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*Tuot, BMC Health Services Research, 2016.*
Background

eCR at San Francisco Health Network

- Problem: inefficient referral process AND poor specialty access
- Developed in 2005
- Piloted with gastroenterology, expanded to 120+ services
- Now a model for improving access to specialty care.
Background

eCR Process

Adapted from Chen AH, NEJM, 2013.
Organizational Readiness
Organizational Readiness

10 Steps for Successful Implementation

1. Partners
   • Form your project team

2. Platform
   • Leverage what’s already deployed

3. Pilot
   • Start small and grow

4. Product
   • Practical form & workflow design

5. Privacy
   • Ensure security & privacy requirements met

6. Process
   • Fit into clinics’ workflows

7. Participants
   • Sustained engagement

8. Payment
   • Remuneration and duty of care

9. Provide Feedback
   • Evolve based on regular feedback

10. Plan the Transition
    • Prepare for sustainability

(Liddy et al, 2015)
Organizational Readiness
Successful Implementation Facilitators

(Tuot, BMC Health Services Research, 2015)
Metrics & Data Sources
Metrics & Data Sources

Quadruple Aim Framework

Lower Costs
Population Health
Patient Care Experience
Care Team Experience

(Bodenheimer and Sinsky, 2014)
Metrics & Data Sources

Institute of Medicine

Quality Domains

- Patient-Centered
- Timely
- Effective
- Efficient
- Safe
- Equitable

Healthcare Quality

Institute of Medicine, 2001
Measures Used at San Francisco Health Network

<table>
<thead>
<tr>
<th>Population Health</th>
<th>Care Team Experience</th>
<th>Patient Focus Groups</th>
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<tbody>
<tr>
<td>• Unclosed loop</td>
<td>• Satisfaction</td>
<td>• Satisfaction with access</td>
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<tr>
<td>• Average time for response</td>
<td>• Educational value</td>
<td>• Acceptability</td>
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<td>• Time for third next available appointment</td>
<td>• Patient benefit</td>
<td>• Convenience</td>
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<td>• <strong>Strategy:</strong> health system and eCR platform metrics</td>
<td>• <strong>Strategy:</strong> Provider surveys, focus groups</td>
<td>• <strong>Strategy:</strong> Patient focus groups and surveys</td>
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Audience discussion

• What type of eCR system might be best for your organization?
• Is your organization ready to implement an eCR?
• What framework of evaluation resonates with you?
• What are some possible short-term evaluation metrics?
• What are example long-term evaluation metrics?
## Audience Discussion

### How will I tell if an eCR is working?

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<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Definition</th>
<th>Why this measure?</th>
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Questions

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