

# Early e-consult face-to-face conversions

Jennifer Pecina MD and Fred North MD

Mayo Clinic, Rochester MN, USA

- No disclosures

# BACKGROUND

## Mayo Clinic Internal e-consults

- Began in 2008 between generalists and specialists
- In 2011 process adapted to allow specialist to specialist e-consult
- Most are requested by provider
- Few are automated processes leading to e-consults
- All providers share the same EMR



## E-consultation process

- E-consult requested (or automated)
- E-consultant reviews request and any pertinent records and renders written e-consultation note in the EMR
- Process incorporated into usual work flow (same ordering and reviewing process as other consults)
- Generally completed in 2-3 business days (or less)

# Definition

## Early face-to-face conversion

- A F2F visit that occurs with a specialist in  $\leq 28$  days with *same speciality* as e-consult

# Purpose

- To review econsults that had an early F2F conversion for possible reasons for F2F visit
- To review frequency of specific test recommendations made at the time of the econsult

## Methodology

- Retrospective review of 8 specialties with highest number of e-consults
- January 2012-June 2013
- Reviewed all for “early F2F conversions” ( $\leq 28$  days)
- Randomized 20 for each specialty (ex ID) for core content review
- Both authors reviewed independently then

## Content review of econsultation

- Diagnostic complexity
  - More than one dx possibility stated by e-consultant
- Treatment complexity
  - More than one rx possibility stated by e-consultant
- E-consultant stated “complex” or “complicated”
- F2F visit recommended by e-consultant (explicitly versus conditionally)
- “not appropriate for e-consult”



# Content review continued

- Specific physical exam needed
- Potentially serious/life threatening/urgent

## Content review continued

note: categories not mutually exclusive

- Specific test recommendations made by e-consultant

# Results

Specialty	e-consult requests/specialty N=5115 (% of total of all e-consults)	Number of early F2F conversions (% of total per specialty e-consults)
All	5115	547 (10.7)
Hematology	970 (19.0)	132 (13.6)
Gastroenterology	860 (16.8)	79 (9.2)
Endocrinology	735 (14.4)	77 (10.5)
Cardiology	701 (13.7)	94 (13.4)
Nephrology	544 (10.6)	63 (11.6)
Psychiatry	520 (10.2)	48 (9.2)
Pulmonary	410 (8.0)	43 (10.5)
Infectious Disease	375 (7.3)	11 (2.9)



# Results

- 151 e-consults reviewed

Category	Number (%)
<b>F2F recommended</b>	<b>97 (64.2%)</b>
Diagnostic complexity	93 (61.6%)
Specific test recommendation made	63 (41.8%)
Treatment complexity	32 (21.2%)
F2F conditionally recommended	20 (13.2%)
Provider stated complexity	12 (7.9%)
Uncertain	9 (6.0%)
Not appropriate for econsult	3 (2.0%)
Potentially urgent	2 (1.3%)
Need for specific physical exam	2 (0.1%)

Category	Number (%)
<b>F2F recommended</b>	<b>97 (64.2%)</b>
Diagnostic complexity	93 (61.6%)
Specific test recommendation made	63 (41.8%)
Treatment complexity	32 (21.2%)
<b>F2F conditionally recommended</b>	<b>20 (13.2%)</b>
Provider stated complexity	12 (7.9%)
Uncertain	9 (6.0%)
Not appropriate for econsult	3 (2.0%)
Potentially urgent	2 (1.3%)
Need for specific physical exam	2 (0.1%)

Category	Number (%)
F2F recommended	97 (64.2%)
<b>Diagnostic complexity</b>	<b>93 (61.6%)</b>
Specific test recommendation made	63 (41.8%)
<b>Treatment complexity</b>	<b>32 (21.2%)</b>
F2F conditionally recommended	20 (13.2%)
<b>Provider stated complexity</b>	<b>12 (7.9%)</b>
Uncertain	9 (6.0%)
Not appropriate for econsult	3 (2.0%)
Potentially urgent	2 (1.3%)
Need for specific physical exam	2 (0.1%)

Category	Number (%)
F2F recommended	97 (64.2%)
<b>Diagnostic complexity</b>	<b>93 (61.6%)</b>
Specific test recommendation made	63 (41.8%)
<b>Treatment complexity</b>	<b>32 (21.2%)</b>
F2F conditionally recommended	20 (13.2%)
<b>Provider stated complexity</b>	<b>12 (7.9%)</b>

Diagnostic and/or Treatment and/or provider stated “complex” = 114/151 (75.5%)



Category	Number (%)
F2F recommended	97 (64.2%)
Diagnostic complexity	93 (61.6%)
Specific test recommendation made	63 (41.8%)
Treatment complexity	32 (21.2%)
F2F conditionally recommended	20 (13.2%)
Provider stated complexity	12 (7.9%)
Uncertain	9 (6.0%)
<b>Not appropriate for econsult</b>	<b>3 (2.0%)</b>
<b>Potentially urgent</b>	<b>2 (1.3%)</b>
<b>Need for specific physical exam</b>	<b>2 (1.3%)</b>

Category	Number (%)
F2F recommended	97 (64.2%)
Diagnostic complexity	93 (61.6%)
<b>Specific test recommendation(s) made</b>	<b>63 (41.8%)</b>
Treatment complexity	32 (21.2%)
F2F conditionally recommended	20 (13.2%)
Provider stated complexity	12 (7.9%)
Uncertain	9 (6.0%)
Not appropriate for econsult	3 (2.0%)
Potentially urgent	2 (1.3%)
Need for specific physical exam	2 (0.1%)



# Results

## Test recommendation(s) made

	Overall (%)	When F2F recommended (%)	When F2F conditionally recommended (%)
Test recommendation(s) made	63/151 (41.8%)	38/97 (39.2%)	15/20 (75%)

Category	Number (%)
F2F recommended	97 (64.2%)
Diagnostic complexity	93 (61.6%)
Specific test recommendation made	63 (41.8%)
Treatment complexity	32 (21.2%)
F2F conditionally recommended	20 (13.2%)
Provider stated complexity	12 (7.9%)
<b>Uncertain</b>	<b>9(6.0%)</b>
Not appropriate for econsult	3 (2.0%)
Potentially urgent	2 (1.3%)
Need for specific physical exam	2 (0.1%)

## Uncertain reason for F2F visit

- 4 had test recommendation(s)  
[though no other categories to indicate reason  
for F2F visit]
- 5 had no categories coded

# Conclusions

- Most early F2F e-consult conversions appear to be due to clinical complexity and specific recommendations for a F2F visit by the e-consultant

# Suggestions

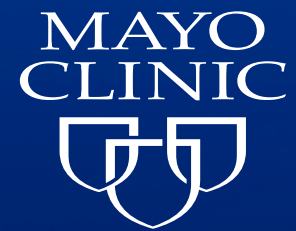
- If tests suggested
  - give possible next steps to be taken based on results
- If medication is suggested
  - specify doses and possible alternatives if available
- If physical exam needed
  - suggest responses to specific findings



# Mayo Clinic Locations







## Questions & Discussion