

## Introduction

### Background:

- Telehealth has become an expected healthcare communication tool linking providers, consultants and patients in interactions that are secure, inexpensive and well documented.
- Predictions are that utilization of the direct to consumer telehealth (DTC TH) sector will increase 20% to 1.2MM this year (Beck, 2016).
- Despite rapid growth, there is a scarcity of data evaluating the quality of care provided to patients employing DTC TH, particularly for urgent/emergent conditions.

### Importance:

- While there is little data assessing the value of DTC TH, several recent studies have questioned its quality (Resneck, 2016; Schoenfeld 2016).
- While DTC TH brings value through cost savings, true value will be lost if clinical quality suffers
- Our research focuses on the clinical validity / quality of DTC TH by comparing care received through videoconferencing to “in-person” visits in urgent care (UC) and emergency medicine (EM)

### Goals of Investigation:

- Using the recommendations of the Choosing Wisely® as a quality assurance tool, we sought to establish the clinical reliability of DTC TH when compared to similar providers of “in-person” on-demand healthcare (UC and EM).

## Methods

- Study design: Retrospective Chart Review
- Setting: Thomas Jefferson University, Philadelphia PA: DTC TH, Urgent Care, and EM Department
- Chart selection:
  - Within DTC TH records, chief complaints file searched for the terms cough, sinusitis, upper respiratory infection, cold, sore throat, and congestion from Sept 2015 thru Aug 2016 (n = 170)
  - Each DTC TH chart matched to corresponding charts from UC and EM services based on date and similar chief complaint. Selection made at random if more than 1 chart for given date
  - Exclusions: ED charts for admissions, codes, major trauma, unstable medical conditions were excluded
- Two trained abstractors then used a standardized form to determine adherence to the CW recommendations concerning sinusitis (American College of Emergency Physicians & American Academy of Family Physicians)

## Results

Table 1: Patient Characteristics

	DTC	UC	EM	Total
Patients (n)	170	170	170	510
Age (Avg.± SD)	37.0 ± 20.1	35.0 ± 14.6	34.8 ± 16.1	35.6 ± 17.1
Female (n, %)	112 (66%)	84 (49%)	98 (58%)	294 (58%)
Hypertension	14 (8%)	12 (7%)	21 (12%)	47 (9%)
COPD / Asthma	11 (6%)	18 (11%)	22 (13%)	51 (10%)
Diabetes	5 (3%)	8 (5%)	9 (5%)	22 (4%)

Table 2: Sinusitis Diagnosis by Site of Care

	DTC	UC	EM	Total
Uncomplicated Sinusitis	70 (41%)	58 (34%)	51 (30%)	179
Complicated Sinusitis	51 (30%)	35 (21%)	22 (13%)	108
Not Sinusitis by Chart Review	49 (29%)	77 (45%)	97 (57%)	223

Table 3: Choosing Wisely® Adherence by Site of Care

	DTC	UC	EM	
CW Followed	89 (74%)	57 (61%)	54 (74%)	P = .09
CW Not Followed	32 (26%)	36 (39%)	19 (26%)	

\*CW not applicable not included in % or P value calculations

## Conclusions

- Using the Choosing Wisely recommendations as a quality assurance tool, DTC TH provides its patients the same or better healthcare decision-making in relation to sinusitis as would be found in those same conditions evaluated “in-person” by providers of urgent care and emergency medicine.

## Limitations

- Inclusion based on chief complaint vs. diagnosis, reduced cases available for inclusion
- Choosing Wisely® itself does not have rigorous definitions
- Single diagnostic entity examined at single center
- No cost-benefit data associated
- Chart review limited by documentation – HPI, Physical Exam, Comorbidities

## References

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