Point of Care Testing for Suspected Streptococcal Pharyngitis in a Telehealth Setting

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BACKGROUND

Connect Care is Intermountain Healthcare’s direct-to-consumer urgent care telehealth practice. During a Connect Care encounter, a patient uses a video-enabled computer, tablet, or smart phone to engage in a visit with a doctor or advance practice clinician for an urgent care consultation.

Sore throat is a common complaint in urgent care settings, including telehealth. Sore throat may be caused by viral, bacterial, or other causes. Streptococcal pharyngitis (caused by Streptococcus pyogenes) requires antibiotic therapy to improve time to recovery and reduce the likelihood of serious complications. Viral sore throat does not improve with antibiotic treatment. Treatment of viral sore throat with antibiotics may result in medication side effects and antibiotic resistance.

For purposes of proper medical care and antimicrobial stewardship, presumptive antibiotic treatment of sore throat without confirmatory testing with a rapid antigen detection test (RADT) or throat culture is strongly discouraged.1,2

RESEARCH QUESTION

A quality improvement project was devised to enable Connect Care patients with sore throat to get laboratory testing prior to treatment without the need for confirmatory testing with a rapid antigen detection test or throat culture. This process also resulted in lost revenue and provider time for Connect Care practice for a sore throat encounter involved:

1. Directing the patient to an in-person site of care for a consultation and test.
2. Canceling the Connect Care visit and waiving the visit fee.
3. Utilization of the testing process during the pilot study.

BACKGROUND

Because a patient in a direct-to-consumer telehealth encounter is not at a medical facility, laboratory testing has not previously been a part of telehealth care. Prior to initiation of this quality improvement project, Connect Care practice for a sore throat encounter involved:

1. Process:
   a. Patient’s use of Connect Care
   b. Provider writes orders in iCentra
   c. Lab runs RADT
   d. Pharmacy Dispenses Antiviral
   e. Lab reports RADT
   f. Culture
   g. Patient to Pharmacy for RX

2. Utilization:
   a. Process focused experiment in the form of a pilot project was implemented from January 20th to May 31st, 2017 to test the feasibility of incorporating laboratory testing into the Connect Care evaluation of sore throat. This project involved:
   - Identifying outpatient draw stations (Intermountain Laboratory Services—Bountiful, Layton, Sandy, Taylorsville) based on high Connect Care utilization, pre-existing representatives of Laboratory Services, Pharmacy, Billing, Compliance, Legal, and other groups who could be cared for by Connect Care without the need for an additional encounter.
   - Clinical Quality and Zero Harm: We were able to bring Connect Care in line with Intermountain and national care guidelines while keeping the encounter within the Connect Care practice.
   - Utilization: During the pilot 88% of eligible patients chose to participate (Figure 2).

RESULTS

Process: We were able to solve for the operational, clinical, compliance and technical barriers and implement this new process, resulting in a greater number of patients who could be cared for by Connect Care without the need for an additional encounter.

Clinical Quality and Zero Harm: We were able to bring Connect Care in line with Intermountain and national care guidelines while keeping the encounter within the Connect Care practice.

Utilization: During the pilot 88% of eligible patients chose to participate (Figure 2). Geographic considerations were a significant limiting factor in utilization. Participants cited smooth transitions, accessibility, ease of use, and helpfulness of the service as the important factors. Seventy-five percent of patients rated the service as very good or excellent and indicated they were likely to use it again (Table 1).

CONCLUSION

This project demonstrates that the implementation of laboratory-based point-of-care testing for sore throat can improve clinical guideline adherence and reduce the need for referral to in-person care. We observed high utilization rates among eligible patients and high patient satisfaction. Geographic limitations represent a significant barrier to utilization. Expansion of this service to additional sites is underway.

REFERENCES


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