Telemedicine services for emergency and inpatient ophthalmology consultations during COVID pandemic at tertiary academic center

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Introduction

Telemedicine has enabled safe remote eye care delivery, especially during the pandemic with the social distancing measures in place. This report was aimed at examining the uptake, results, and patient experience of telemedicine services at an academic ophthalmology emergency department during the COVID-19 pandemic.

Results

423 encounters were included - 258 (61%) during 4 weeks preceding telemedicine and 165 (39%) during the subsequent 4-week period. A total of 120 (28%) encounters were conducted using telemedicine. In-person emergency department (ED) encounters (as percent of total encounters) decreased from 60% to 36% (p<0.01) between week 1 and week 8 of the study. Inpatient telemedicine consultations were utilized in 34 of 165 (21%) consultations. Of those, 20 (59%) were high acuity and 1 (3%) was escalated to the ED for in-person evaluation. Management decisions made included medication prescription in 46 (55%) patients and scheduling follow-up for 44 (30%) patients. In a survey administered to all 120 patients seen with telemedicine, respondents were in general agreement (Cronbach's alpha = 0.92) and expressed high satisfaction (mean weighted score of 4.7 out of 5) with emergent and inpatient telemedicine.

Methods

Electronic health record data for emergency and inpatient ophthalmology patient encounters were retrieved for a 4-week period preceding and succeeding the deployment of telemedicine services (phone, eConsult, and video visits). Numbers of in-person and telemedicine encounters were documented for the study duration to study trends. All telemedicine encounters were subsequently coded (by two reviewers) for diagnosis, management decisions, acuity of visit, escalation of visit to an in-person encounter. A four-item questionnaire was offered to patients who completed a virtual consultation.

Conclusions

Telemedicine services provided a safe, efficient, and effective way of continued eye care delivery and patient triage in the emergency and inpatient ophthalmology setting. Even though in-person encounters in the emergency department decreased significantly during the pandemic, telemedicine encounters allowed recovering significant portion of those lost encounters by bridging the gap between patients and physicians using modern telecommunications technology. Patient-reported consensus generally indicated very high level of satisfaction with emergent telemedicine-enabled ophthalmology services.
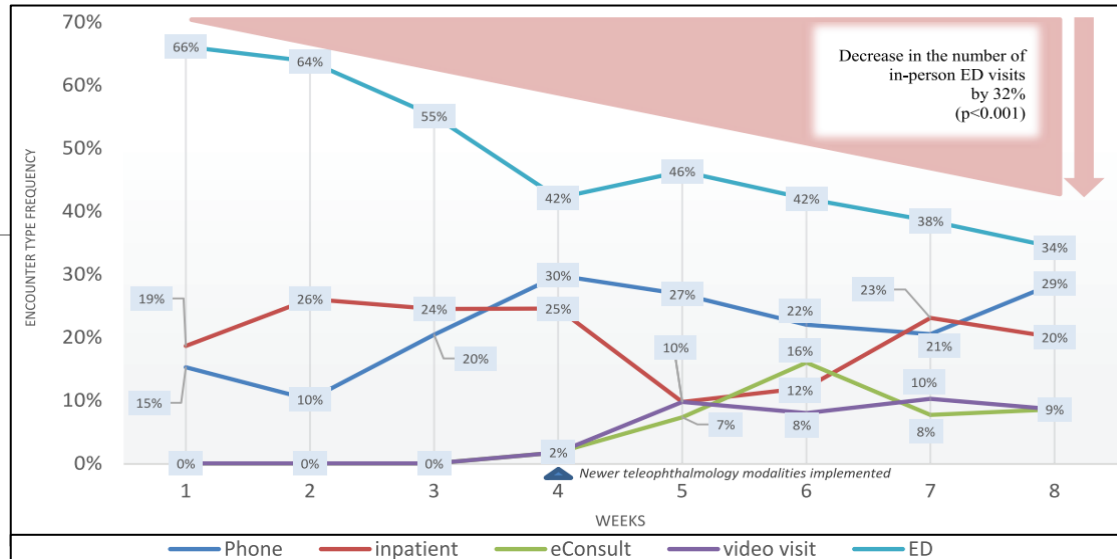

Figure: Trends in emergency and inpatient ophthalmology consultations during the 8-weeks study period.