Medical Toxicology Telemedicine Initiative

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Abstract

Telemedicine is an emerging method of providing patient care from a remote location. I am developing a telemedicine protocol to be used by the Division of Medical Toxicology to provide billable patient care encounters in the inpatient and emergency department setting.

Background and Significance

Telemedicine is the use of a real-time audio-video to provide remote clinical care for patients. Telemedicine is increasingly used in the US to improve patient outcomes and access to care.

Our medical toxicology service provides bedside consultation in the emergency department and inpatient settings at four area hospitals. However, due to scheduling and distance constraints, the attending physician is often unable to be at the bedside and instead provides telephone back-up to the medical toxicology fellow.

Telemedicine will improve patient care by allowing real-time interview and examination by an attending medical toxicologist and produce a billable patient encounter.

Goal

To develop and implement a telemedicine protocol for inpatient and emergency department consultation for the medical toxicology service

Objectives

- HIPAA-compliant real-time videoconferencing application for use in patient care
- Delineate current reimbursement policies of insurance companies, Medicaid, and Medicare for telemedicine patient care in the state of Pennsylvania
- Produce a telemedicine billing sheet with appropriate E&M codes and modifiers
- Produce a patient consent for the provision of telemedicine services
- Survey study investigating patient and provider satisfaction with telemedicine patient care
- Post-implementation study on number of encounters and reimbursement

Methods and Approach

Zoom HIPAA was chosen as the teleconferencing software for provision of patient care. Division members will require training in its use.

The telemedicine protocol was developed by me in conjunction with other members of the division. I am participating on the institutional Telemedicine Committee.

I developed an ICD-10 billing sheet for telemedicine patient encounters.

The institutional telemedicine consent was modified to be appropriate for inpatient and emergency department use.

I developed study protocols for both a survey study and a post-implementation study.

Short Term and Long Term Outcomes

Short Term Outcomes
- Protocol Development
- Consent Approval
- Billing Sheet
- IRB Approval of Survey Study
- Begin Patient Care

Long Term Outcomes
- Improve Billing Reimbursement Through Discussions With Insurers
- Advocate for Telemedicine Parity Laws in State of PA
- Publication of Survey Study Results in Peer-Reviewed Journal
- Post-Implementation Study

Challenges

Billing: There is no parity law for telemedicine in the State of PA. Insurers may not reimburse telemedicine patient care encounters. In the post-implementation period, demonstrating the number of encounters and billing reimbursement may be used to argue for improved billing recovery.

Evaluation and Assessment Strategies

Survey Study: A survey study that investigates patient and provider satisfaction with telemedicine patient care and to what extent patient and provider believe that telemedicine enhanced patient care or patient outcomes will be used to demonstrate the contribution of telemedicine implementation to patient care.

Post-Implementation Study: A post-implementation study of the number of patient encounters and billing reimbursement will be used to demonstrate the value of the initiative to the division and institution.

Discussion and Impact

The Medical Toxicology service currently provides emergency department and inpatient consultation services that are unbilled as the attending physician is not physically present at the bedside. Implementing a telemedicine protocol will improve patient care and result in a billable patient encounter.

Demonstration of the success of this project may be used to encourage other sub-specialty services at DUCOM to replicate our protocol to improve their own patient care and reimbursement.

Publishing the results of the survey study and post-implementation study in the peer-reviewed literature will enhance DUCOM prestige and may encourage medical toxicology services at other institutions to replicate our protocol.

References