TEXAS MEDICAL ASSOCIATION
Physicians Caring for Texans

TexMed 2017 Clinical Abstract

Please complete all of the following sections and include supporting charts and graphs in this document. Submit a total of two documents - this document and the Biographical Data and Disclosure Form to posters@texmed.org by midnight March 17, 2017.

Procedure and Selection Criteria

- Submissions not directly related to quality improvement or research may be accepted and should follow the standardized format outlined below. Content should enhance knowledge in the field of clinical care and be relevant to a given patient population.

PROJECT NAME: Expanding Medical Care by Physicians working from home in Rural Texas clinics using Telemedicine Cart with Medicare and Medicaid Reimbursement.

Institution or Practice Name: eMD Medical Clinic

Setting of Care: Telemedicine Clinic in Houston Texas

Primary Author: Mohamed Haq

Secondary Author: Abdul Moosa

Other Members of Project Team: Abbas Ali Khan

Is the Primary Author, Secondary Author or Member of Project Team a TMA member (required)?

☐ Yes ☐ No

Please provide name(s) and their role in the project:
TMA Member Name: Mohamed Haq and Abdul Moosa Primary and Secondary remote Physician

TexMed Poster Session Specialty Subject Area: Please check if these apply.

☐ **Enhanced Perioperative Recovery**

☐ **Disaster Medicine and Emergency Preparedness**

Clinical

Background (15 points max): *Describe the purpose for sharing the content. What caused this subject matter to be approached? Why is this content important to share? What is the potential impact if this content is not shared?* *Rural Texas suffers from a severe shortage of Physicians.12% of Texas counties have no physicians; more than 30% have less than 5 physicians. But the 5 large metropolitan areas have almost 60% of MD's. 35% of the physicians don't accept Medicaid and 20% don't accept Medicare. The rural clinic with Telemedicine cart with patient site presenter will allow convenient care in physician shortage rural areas from physicians located in highly competitive urban areas or any interested licensed physician irrespective of their location. Small rural communities with poor and elderly patients will be main beneficiaries of this type of clinics.*

Intended Stakeholders (15 points max): *Identify those individuals, organizations, or interest groups that could be potentially impacted by this information or benefit by obtaining this information.* *Rural community's especially poor and elderly patients, MD's with Texas license interested in working from home especially semi-retired, community Health service organization, rural pharmacy, Medical Assistant/ receptionist seeking employment opportunity in the rural area. Telemedicine cart providers and rental facility (strip mall).*

Description of Accomplished Work (25 points max): *Provide an overview of the work that was accomplished, including any specific methods, tools or techniques. Also, include any milestones or key accomplishments. Note charts, graphs and tables here and send as addendum with abstract form.* The eMD Telemedicine clinic is a small standalone private clinic using a bilingual Medical Assistant (MA) to present the patient to an online physician. It was used as a pilot clinic to study the viability of Telemedicine equipment, patient response and reimbursement. The Clinic has single AMD Global Telemedicine Medical Cart which includes High resolution Examination Camera, Digital Otoscope, Digital Stethoscope, Vital sign monitor etc. Clinic initially opened for evenings and weekends after the regular practice of physicians, becoming fully operational in September 2015.

Following patient registration, the MA does history, vitals, ear or throat pictures, detail Skin exam, depending on symptoms and asynchronously send the information to the physician. After one of the four online physicians is connected, the MA presents the patient to the remote doctor online. Depending on the symptoms the synchronous Medical video examination and the video chat occurs on separate split screens. The abdominal palpitation, range of motion for the joints is performed by the MA with the physician watching the patient. Throat, local infections, Eyes or Edema is easily examined with examination camera using zoom capability. The Ear examination is done with Digital Otoscope. The stethoscope is used along with video chat during heart and lung examination. The blood tests, imaging, EKG etc are done outside like other small traditional clinics and uploaded in the patient chart with history and vitals.

The patients are overwhelmingly amazed; especially when they follow the video of their infected ear compared to the other normal ear, high resolution picture of the oral cavity. The patient can easily discuss the affected site in the video on the monitor. Ease of communication with the physician as they are directly looking at the patient rather than taking notes or holding the equipment during the patient examination was generally the common response. Some of them wanted pictures of the affected area as seen on monitor.

The outcomes are very similar to the other primary care clinic after more than 500 patient encounters. The treatment was mostly for common medical conditions like diabetes, hypertension, acute infections, and obesity. They were more than 100 patient encounters with physician in weight management program. One patient had seven encounters in one year period, but the average was 2.7 encounters per patient. Most patients referred their friends and spouses to the clinic. Two patients did not want to be

treated using telemedicine and four had to be turned away as they required emergency care.

The first ten months were cash only prior to insurance approval. The clinic has received Medicare number and provider credentialing. By Texas law this telemedicine care is considered comparable to traditional face to face medical care. The traditional Medicaid and most of the private insurance are covering now, except Medicare payment is limited to service in rural areas. The payments are comparable to the traditional clinics based on the few insurance filling and payments received until now.

Timeframe and Budget (20 points max): *Provide the start and end dates for the work along with any financial implications that were incurred due to the work accomplished. Note charts, graphs and tables here and send as addendum with abstract form.* *The pilot clinic ran for a year in urban Houston area with equipment cost of about $40,000 and operational cost of $5000/month. The operational cost in a rural area would be closer $3000/month.*

Intended Use (25 points max): *Describe how this information could be used moving forward to impact patient care*
The information is useful in providing better services to rural communities which tend to have poor and/or elderly population. The MD's tend to live generally in urban areas which have better schools and cultural facilities for their families. Living in a rural area is appealing to many people, primarily for the quiet lifestyle and strong community relationships. These "quality of life" variables are important not only to those who want to continue living in a rural area, but also to urban residents that are searching for a change with second homes but see their own physician if possible when needed using the telemedicine clinic. The retention and recruitment of retirement aged residents will become easier by providing quality health care systems. Small rural Telemedicine clinics can become major part of the health care system and become the principal provider of local health care service in rural areas. Telemedicine clinic with multiple remote physicians will also balance the patient care all over Texas based on gender preference, ethnic/language preference, and specialty care in rural areas.