Deploying Your Telehealth Platform

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Abstract

Telemedicine is a burgeoning industry with potential to enhance patient care and physician outreach. A review of the current literature and legislative laws was conducted along with knowledge from the experience gathered at starting a telehealth platform at Texas Children's Hospital to find the necessary steps for starting a telehealth program. The authors propose their pearls to deploying a capable telehealth platform for the large hospital system. Doing so properly can increase capacity within hospital operations and improve health care economics. Select use-cases can be focused to leverage stakeholder need, while maximizing potential return. Successful deployment of a telehealth platform can be done on a small margin and accrued revenue can be reinvested as the basis for growth. Risk management considerations upfront will help navigate hurdles in the evolving legislative and regulatory landscape. This article presents the authors' stepwise approach for arranging and conducting a teleconsultation between patient and physician along with pearls for risk management considerations to be aware of throughout the process.

Keywords

- ▶ telehealth
- ▶ deployment
- ▶ telemedicine
- ▶ teleconsultation
- ▶ tele-device

Telemedicine is an emerging industry with the means to enhance health care outreach and efficiency both in and out of the hospital setting. As a stakeholder in its expansion, the hospital is essentially investing in a tool to address the growing number of patients flowing through emergency rooms, outpatient clinics, and operating rooms. Telehealth interface allows physicians to prioritize patients based on several variables. It proves a fast and effective tool for assessing the acuity of each situation, and hence triage to urgent, semiurgent, or routine care. This ability to direct patients to the most appropriate level of care has a major impact on hospital economics.^{1,2}

Not only does telehealth enhance workflow efficiency and patient care, but it also generates excess capacity for hospital operations.³ This surplus of capacity can be geared toward creating more value for the organization through a designated telehealth department. More new patient consultations with a telehealth physician are then suitably designated to interdisciplinary/specialized telehealth consultations or physician clinics.

The misconception that greater volume creates greater revenues can be harmful to the health care organization on both a macro and micro level. Wasted resources, including time, as a result of inappropriate designation of patients, contributes to the greater costs and decreased revenue: a detrimental combination to the hospital system and health care industry as a whole. However, greater volume in congruence with appropriate care and higher reimbursements results in greater value produced.

Applying telehealth services in select use-cases can be focused to leverage stakeholder need while maximizing potential return. Current examples in the literature demonstrate skilled nursing facilities utilizing telemedicine to address after-hour primary care coverage. As a result, this strategic play has not only generated increased volume of patients to take on, but more importantly, enhanced overall patient care.⁴

Avizia has mapped out their "7 Steps to Telehealth Success," (► **Fig. 1**) showing that details regarding planning, preparing, designing, implementing, launching, support,

Fig. 1 Avizia's multifaceted approach to implementing telehealth services.

and measuring can be mapped out in congruence with the telecommunication corporation. A close relationship with the corporation can lead to greater success in the initiation and implementation of your telehealth platform. The structural interface of the teleprompting device should include a user-friendly prompt that allows patients to schedule a tele-appointment request. After which the patient request center (PRC) will contact the patient to complete the intake (►Fig. 2). Alternatively, the patient may contact the PRC directly to request a teleconsultation. The PRC then collects the necessary information from the patient, schedules an appointment date and time, and collects data from the patient to upload into the electronic medical record (EMR).

Once the scheduled appointment time approaches (►Fig. 3), the system prompts the nurse to notify the patient of the pending "Zoom interface" meeting. When the patient becomes available, the nurse ensures all medical records are available, up to date, and marks patient as ready. The physician can review the patient EMR information and is then linked with the patient to conduct the consultation. After the interaction between patient and

Fig. 2 Workflow process mapped out for scheduling a televisit.

Fig. 3 Workflow interactions mapped out in a real-time teleconsultation.

physician is complete, the system prompts the patient to evaluate the encounter for quality improvement, and the physician completes their end of the encounter through EPIC/EMR.

If budgeting geared toward the tele-project is thin, providers may seek out a platform that can be scaled around lower margin use-cases while accelerating value creation. In the early stages of platform integration, terms should be negotiated in phases to develop the teleservice application within the organization. Revenue accrued from select use-cases can be reinvested to generate this growth. The organization's clinical outreach can further spread across a vast geographic area through partnering with outside hospitals and health care systems, supporting their operations while increasing referrals toward the tertiary referral center. Tele-radiology implemented into the University of Munich hospital system has provided a cost-effective platform for consultation services to outside community hospitals providing fast and focused treatment along with appropriate

patient care, especially in life-threatening emergencies. Roughly 50% of all teleconsultations recorded ended in transfer to higher level of care—the University Hospital itself. For smaller community hospitals, the result was assurance of quality treatment, reducing wasted resources, and unfit treatment plans.⁵

Current market conditions and legislation present potential barriers to entry that must be taken into consideration throughout the deployment process. Working knowledge of federal and state-specific legislation and regulatory issues is critical to appropriate delivery of care. Risk management strategies set in practice early can aid in avoiding these obstacles. Currently, Medicaid may not approve of telehealth visits from home as they are not perceived to be Health Insurance Portability and Accountability Act compliant locations. The lack of an in-person physical exam presents concerns for “diminished” quality of care and potential for missed complications—this may serve as a source of push-back from hospital compliance

teams. Telehealth staff and technicians must be properly trained. Protocols should be in place to assure quality and consistency of care. Telehealth providers must be properly credentialed and licensed. Unclear definitions for “standard-of-care” treatment on teleplatforms in many states are potential liabilities for the physician in practice. Incident reporting should include tele-encounters. Concerns regarding data breach on unsecure platforms poises as a concern and must be planned for accordingly, ensuring privacy and security measures are in place. Technologic hardware and software must be properly functioning to ensure clear communication/visualization throughout the encounter.^{6–10} Awareness of potential liabilities in the current environment and strategies to mitigate those risks will help ensure smooth deployment of your telehealth program. Through strategic planning, management of an enterprise-wide strategy for telehealth deployment can successfully increase outreach of health care systems, while providing high-quality and expedient care to a larger volume of patients. This, in turn, generates more value for the health care system. We present our considerations to a stepwise approach in deploying a telehealth platform whether it be at a large academic institution in the city or a small private clinic in the rural community. The appropriate use of telemedicine will benefit the system on both a macro and micro scale.

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