



CASE STUDY

Keystone Telehealth™ Powered by EmOpti Delivers Triage Solutions Amidst Pandemic Surge

93% Reduction in Patients Left Without
Being Seen (LWBS) in 90 Days



[KeystoneHealthcare.com](https://www.KeystoneHealthcare.com)



INTRODUCTION

Olean General Hospital (OGH) is a member of Kaleida Health and part of the Upper Allegheny Health System, **which serves more than 140,000 in Southwestern New York state and Northwestern Pennsylvania.** Located in Olean, NY, OGH features a 280-bed facility with an average daily census of 117 and 31,000 annual emergency department (ED) visits.

Situation

ED overcrowding has been a long-standing and complex issue for decades, and the COVID-19 pandemic has only exasperated the challenges related to quality ED care and patient throughput. While multiple interventions and improvements can be utilized to combat the problem, few hospitals have prioritized the need for transformative innovation until now, and those that have, struggle to execute. Quantitative quality outcome measures for emergency medicine (EM) have been endorsed by the National Quality Forum (NQF) and include Left Without Being Seen (LWBS) and Length of Stay (LOS). (Welch et al., 2010).

Implementing a tele-Triage solution and placing a virtual provider in triage improves performance metrics, decreases waiting times, LWBS, and LOS rates, and provides a cost-effective, patient-centered method for improving quality ED care and patient throughput.

The Challenges

Like many EDs throughout the country, OGH was facing a variety of challenges that stemmed from legacy staffing patterns compounded with COVID-19-related patient care challenges.

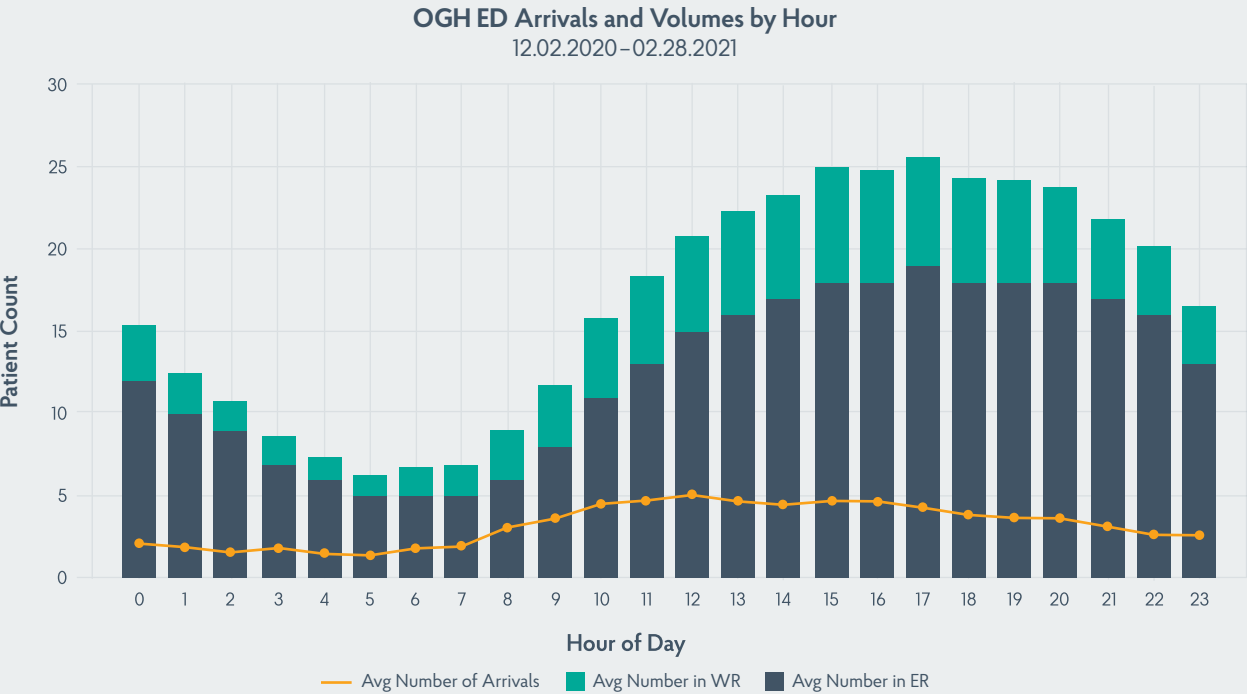
- **High Rate of LWBS:** The rate of patients LWBS was averaging over the reasonable standard of 3%.
- **Unacceptable Door-to-Triage Time:** Door-to-Triage times were significantly greater than the Center for Medicare and Medicaid's guideline of < 10 minutes. The team had to identify a triage solution that would complement, and not interfere with a variety of operational changes to improve Door-to-Triage times.
- **Long Overall LOS:** OGH had an average LOS that ranged from 257-263 minutes, which was reducing potential bed capacity and impeding the ability to achieve maximum levels of volume.
- **Unmanageable Patient Surges:** The vast majority of patients were coming between 11am-11pm, requiring a triage program that would effectively address surges.
- **Change Management Challenges:** With COVID-19 presenting all-consuming daily challenges, there was a resistance to change amongst the workforce for anything that might distract from the immediate, palpable challenges.

Keystone Healthcare™ partners with EmOpti to deliver a tele-triage solution that can be applied in almost any hospital to quickly and effectively address long-standing ED challenges that have become even more taxing recently, such as workforce shortages, throughput issues, patient capture, and quality outcomes.



The Challenges *continued*

This graph illustrates OGH's ED arrivals and volumes by hour, showing the unmanageable surge of patients between 11am-11pm . The spike in patient volume during these hours led to OGH's need for a more effective triage program.



The Solution

As a long-standing and trusted partner of OGH, Keystone Healthcare™ proposed piloting a tele-Triage program to address the front-end throughput challenges. With buy-in from OGH leadership, Keystone Healthcare™ lead a 180-day pilot program to:

- **Identify Key Metrics for Improvement & Develop Shared Goals:** Keystone Healthcare™ worked with the OGH team to focus on the front-end process with the explicit intention of improving key metrics:
 - Reduce the rate of patients LWBS to < 1%
 - Reduce Door-to-Provider time to < 15 minutes
 - Identified goals, measured in minutes, as compared to current state for:
 - » Overall LOS
 - » LOS to Admit
 - » LOS to Discharge
 - Address Surge Needs



The Solution *continued*

- **Design a Solution & Build a Plan:** Keystone Healthcare™ took a methodical approach to conducting a detailed review of current operations and establishing a plan that would most effectively address the front-end challenges while staying within the scope of a pilot program. Steps included:
 - Identifying the greatest time of need in a 24-hour period, defined by arrival volume/hour
 - Reviewing staffing patterns and current processes
 - Establishing a go-live date
 - Building Virtual Command Center Capacity through:
 - » Credentialing APPs and physicians for the location
 - » Providing education to key stakeholders, including nurses, physicians, and APPs
 - » Delivering training both virtually and in-person
- **Execute the Plan:** Keystone Healthcare™ took ownership and accountability to project manage and execute the plan, including:
 - Hosting regular meetings with IT, nursing, and provider teams. Each group owned a piece of the process and accountability was driven through regular meetings and clear expectations.
 - Conducting onsite and virtual training for implementation. Technology adoption, process clarity, and key accountabilities were all clearly established as part of the training process.
 - Supporting the process onsite post implementation. Keystone Healthcare™ maintained onsite presence to ensure that the process was running smoothly and optimized.
- **Evolve the Process:** Keystone Healthcare™ didn't stop with the initial project. Rather, we used the pilot program to identify other areas of opportunity that could benefit from telehealth solutions. Some opportunities included Rapid Tele-Discharge, which would increase the in-person physician capacity by employing a virtual provider to discharge patients, as well as Tele-Collaboration, which would allow for APPs to readily collaborate with a physician colleague virtually.

OGH was asked to provide these facility-based requirements to help Keystone Healthcare™ deliver on the pilot program:

- Dedicated triage nurse
- Dedicated nurse/staff to carry out orders
- Forward-facing tablet
- IT support at facility level
- Designated space for patient processing
- Allotted time for expedited training of staff
- Vendor to facility IT communication to meet integration needs



The Results

The tele-triage pilot program produced impressive results in just 90 days.

93%

REDUCTION IN
PATIENTS LWBS

37

MINUTE
REDUCTION ON
OVERALL LOS

21%

REDUCTION IN
DOOR-TO-PROVIDER
TIME

50%

OF TOTAL DAILY
PATIENTS BEING
TELE-TRIAGED

“It’s an interactive approach to integrating remote resources alongside traditional, onsite resources. A tele-triage program can result in onsite labor cost savings but more importantly, can deliver better clinical results, which is the primary goal. By reducing a facility’s Left Without Treatment rate by just a few percentage points you drive incremental ER revenue while also improving patient satisfaction.”

– Melissa King, DNP, FNP-BC, ENP-BC
Keystone Healthcare’s Vice President of Telehealth,
Patient Access & Connected Care



About Keystone Healthcare™

Keystone Healthcare Partners™ (Keystone Healthcare™) is a leading provider of Emergency Medicine and Hospital Medicine physician management services and staffing solutions for hospitals. We efficiently deliver high-quality, patient-centered care through strong physician leadership and involved management that drive our innovative and integrated business model and performance metrics.



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