

SUMMARY

Valis performed a Telemedicine Needs Assessment and ROI Pro-Forma overview of a 53 bed Acute Care Hospital. The Hospital has experienced significant outmigration and transfers due to gaps in provider call coverage. There was also limited or no specialty call coverage for neurology, pediatric, psychiatry, orthopedic, pulmonary, renal, GI and cardiology. Primary transfers included Cardiology, Gastroenterology, Pulmonology, Neurology, and Pediatric Intensive Care cases. In addition, the ICU was managed by hospitalists.

A significant opportunity exists to provide a higher level of patient care if additional specialty providers were available. With TeleIntensivist support, it is possible to retain and care for more complex patients locally by reducing transfer retention opportunities.

KEY FINDINGS

- No 24/7 Respiratory Therapy services
- Limited Psychiatric/BH services in ED & IP settings
- Limitations with current EMR system
- Appropriateness of ICU admissions
- Between 600 and 750 transfers per year
- Low CMI in the ICU
- Prior experience with Telemedicine Services
- Leadership support and Receptive staff

REVIEW METHODOLOGY

Valis conducted a Transfer Analysis to assess transfer retention opportunities. The analysis showed that 121 patients were transferred during a 2 month period. Based on patient diagnoses, 73 patients were selected for further clinical review to determine whether transfer could be avoided with teleintensivist support. Potential types of patients that could be retained with TeleIntensivist services are:

- Low cardiac risk cases
- Moderate to severe renal insufficiency with non-critical electrolytes
- Post-arrest encephalopathy patients with otherwise stable medical status
- Atrial dysrhythmias in non-ischemic patients
- Worsening or persistent seizures
- Complicated ventilator care patients
- CHF in patients without ischemia or critical valvular heart disease
- CVA patients

ESTIMATED ROI

From the projected 12-17% projected retention rate, it was estimated that 93 to 130 patients per year could be retained with TeleIntensivist Services.

Projected Margin Intensive Care Unit	Cost
Average reimbursement for ICU Patients	\$9,600
ICU average adjusted All Payor cost-per-case	\$5,400
All Payor net revenue margin per retained transfer in the ICU	\$4,200
ROI impact (58-95 retained transfers x \$4,200 net margin)	\$234,600 - \$399,000 net margin/yr
Estimated cost of service	\$156,000 + \$30,000 (one time fee) or \$186,000
Final projected ROI	\$57,000 to \$213,000/yr

TELEINTENSIVIST SERVICE IMPACT

- Transfer retention opportunity in 2016 was 12%-17%. After implementation of TeleIntensivist services, transfer retention opportunities decreased to 0 to 3% indicating an increase in patient retention rates.
- Reduction in unnecessary transfers and costs
- Improved ICU patient rounding by Intensivists
- Increased admissions by reducing unnecessary ED transfers
- Increased ventilator care and support
- Improved clinical outcomes as demonstrated by established clinical metrics/benchmarks
- Improvement with Clinical Care Bundles
- Improved compliance with Leap Frog goals, Core Measures, Joint Commission and CMS requirements
- Daily review and reconciliation of medications
- Improved ICU, Med/Surg and ED nursing skill sets and job satisfaction