

## SUMMARY

Valis performed a Telemedicine Needs Assessment and ROI Pro-Forma overview of a 74 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 critical care, neurology, pediatric, psychiatry, orthopedic, pulmonary, renal, GI and cardiology. Primary transfers included Cardiology, Neurology, and Pulmonology 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 and TeleNeurology support, it is possible to retain and care for more complex patients locally by reducing transfer retention opportunities.

## KEY FINDINGS

- Approximately 600 patients transferred per year
- Prior experience with Telemedicine Services
- Engaged Hospital Board and Hospital Leadership
- 24/7 Radiology Services including TeleRadiology
- On Call Access to a Clinical Pharmacist
- New CDI program and a strong focus on Readmissions
- Access to IP and OP Renal Dialysis Services
- Limited Cardiology consultation services

## REVIEW METHODOLOGY

Valis conducted a Transfer Analysis to assess transfer retention opportunities. The analysis showed that 600 patients were transferred in 2015. Based on patient diagnoses, 276 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
- Atrial dysrhythmias in non-ischemic patients
- CHF in patients without ischemia or critical valvular heart disease
- Moderate to severe renal insufficiency with non-critical electrolytes
- Worsening or persistent seizures CVA patients
- Post-arrest encephalopathy patients with otherwise stable medical status
- Complicated ventilator care patients

## ESTIMATED ROI

From the projected 11% projected retention rate, it was estimated that 68 patients per year could be retained with TeleIntensivist and TeleNeurology Services.

Projected Margin Intensive Care Unit	Cost
Average reimbursement for Patients	\$9,427
Average adjusted All Payor cost-per-case	\$3,729
All Payor net revenue margin per retained transfer	\$5,698
ROI impact (68 retained transfers x \$5,698 net margin)	\$387,464 net margin/yr
Estimated cost of TeleIntensivist service	\$60,000-\$288,000 (\$60k one time fee)
Estimated cost of TeleNeurology service	\$60,000
<b>Final combined projected ROI</b>	<b>\$39,464 to \$267,464/yr</b>

## TELEINTENSIVIST & TELENEUROLOGY SERVICE IMPACT

- Reduction in unnecessary transfers and transfer costs
- Improved clinical outcomes as demonstrated by established clinical metrics/benchmarks
- Improved compliance with Leap Frog goals, Core Measures, Joint Commission and CMS requirements
- Improved timeliness of Urgent and Scheduled Neurology Consults
- Improvement with Clinical Care Bundles
- Improved ICU, Med/Surg and ED nursing skill sets and job satisfaction
- Improved recruitment success (Surgery, Cardiology)
- Reduced Hospital Acquired Infections or Conditions
- Improved physician skills in critical patient management of neurology diagnoses
- Improved patient and family satisfaction