

A 365-bed, not-for-profit hospital in the midwest engaged Corazon to perform a review of quality data for their transcatheter aortic valve replacement (TAVR) program to validate overall clinical quality & operating performance.



### Quality Assessment:

Corazon's TAVR quality review included an analysis of the hospital's TVT Registry reports and excel spreadsheets of collected data. This exercise validated metrics for the hospital, along with individual clinical care segments in order to assess their comparative position against national benchmarks. Results revealed the hospital is performing as expected in many metrics, with a few opportunities for improvement.

TAVR is associated with a significant risk of requiring permanent pacemaker implantation due to the adjacent position of the aortic valve annulus to the conduction system. Post-TAVR PPMI is a complication associated with increased length of stay, rehospitalizations, and other costs.

### Operating Performance & Optimization:

Corazon developed and shared findings, conclusions, and recommendations with key leadership, with a comprehensive review to outline the organization's best next steps:

- Pre-Procedural Processes: A prerequisite for establishing and running a profitable TAVR program includes thorough pre-procedural planning, and collaboration between cardiologists and cardiac surgeons. This hospital was holding a weekly multidisciplinary valve clinic for the MDT.
  - **Recommendation**: Optimize patient throughput by re-evaluating the day of the week and time of day for the clinic, parallel with the procedure day, which was a contributor to delays in clinic when cases ran over.

- **Periprocedural Processes:** Studies show that conscious sedation is associated with fewer requirements for inotropes/vasopressors, shorter length of hospital stay, and shorter procedural / intervention times along with earlier patient mobilization. At this facility, the use of conscious sedation (versus general anesthesia) increased from 66% in Q1 2020 to 72% in Q3 2020, with some patients extubated prior to transfer to CVU.
  - **Recommendation:** Optimize the use of conscious sedation when appropriate which is shown to lower costs, have better health outcomes, and have greater patient satisfaction.
- **Post Procedural Processes:** Optimized post-procedure management and early mobilization is crucial with TAVR patients. It is shown to decrease Length of Stay in the ICU which is advantageous from a financial and clinical perspective.
  - **Recommendation:** The hospital developed a goal for early mobilization, starting from 6 hours after TAVR, and discharge within 24 to 48 hours. This not only results in cost savings but also reduces the risk of postoperative delirium and results in a faster improvement of the patient's quality of life.



### Corazon's Recommendations:

TAVR care is rapidly evolving as technology, procedural approaches, and patient needs change. **By operationalizing a series of best practices, this facility can achieve excellent outcomes through a continued multidisciplinary approach.** Corazon recommended the following to their team:

- Review and Update TAVR Protocols
- Review and Update Cardiac Surgery Protocols / Order Sets
- Random Chart Reviews by a Corazon Physician Advisor
- Corazon TAVR Accreditation

### Final Thoughts:

By focusing on quality improvement efforts, this hospital will continue to improve its quality profile, decrease costs, and work to achieve best practice status within their TAVR program. Corazon believes that a focus on quality remains of utmost importance, as the national healthcare system continues to shift towards value-based care. Transparency and outcomes should drive how care is delivered.

*For more information on Corazon's TAVR engagement, call 412-364-8200.*