Implementing an Enhanced Recovery After Surgery Joint Replacement Program in a Small Acute Hospital Using a Multi-Disciplinary Approach

Dr. Luis Corrales, MD, Cynthia Lopez, MSN, NP, RN, Suzi Johnson, PT, Michelle Marmol, MSN, BSN, RN, PCCN, Noriann Forrest-Ready
Casa Colina Hospital and Centers for Healthcare

BACKGROUND

- Total joint replacement surgery has become one of the most commonly performed surgeries across the United States. With this increase in numbers, years of evidence-based research have gone into this specific population to ensure that the practice is standardized and regulated. With evidence-based research (EBP), patients are then cared for in the safest way possible.
- Several orthopedic surgeons came to the facility without standardization of care. Medications, pre-op standards, intra-op medications, and even post-operative care all varied across the continuum.
- Casa Colina Hospital started electives surgeries in 2017 with a significant amount of cases being either total hip or total knee replacement surgeries.
- As of 2020, there have been a total of 846 total joint replacement surgeries performed alone.
- Without standard protocols in place for total joint surgery, a multi-disciplinary approach team was formed and created under the vision of Dr. Luis Corrales, MD.
- Standardization of care across the patient continuum became a reality along with the creation of clinical practice guidelines (CPGS) formulated after the Enhanced Recovery After Surgery Model (ERAS) and evidenced based research.
- Using Dr. Corrales’ expertise, the team collaborated to formulate the foundation that would be used to introduce guidelines, standards, and protocols to work to normalize the process, identify areas of improvement, and guarantee patient safety.
- With the incorporation of the Revive Joint Program, patients have experienced enhanced recovery along with significantly lowered risks of infection or readmission rates.

METHODS

Step I: Form a Multi-Disciplinary Team
- Dr. Luis Corrales, MD (Director)
- Dr. Fadi Tahrawi, DO (Anesthesiology)
- Ms. Cynthia Lopez, NP
- Suzi Johnson, PT (Joint Navigator)
- Nori Forrest-Ready (Quality)
- Ligia Lanuza (Total Joint class [Spanish] and Med-surg RN)
- Michelle Marmol, RN (Pre-op Prep/Post)
- Rachel Johnson, BA, RN
- Monica Schofield, RN (Pre-admit testing class)

Step II: Gather Research and Formulate CPGS
- EBP gathered from varying regulatory bodies to formulate CPGS and standard of work
- Identify key stakeholders or core group of Revive Total Joint Program to review research and data
- Get input from other Advanced Certified Hospitals in surrounding area
- Create a pre-admission testing class to register and screen elective surgeries to ensure medical clearance and education completion
- Review articles and guidelines published from, but not limited to: AORN, ASPAN, American Academy of Orthopedic Surgeons, American Society of Anesthesiologists
- Clinical Practice Guidelines available in each department

Step III: Put Evidence into Action
- Regulated requirements for candidacy for elective surgery along with medical clearance
- Mandatory attendance of Total Joint classes with patient’s choice of Joint Coach
- 24/7 Access to Joint Navigator beginning with scheduling of surgery
- Standardized education hospital wide to ensure orthopedic trained care across the continuum of care
- Require mandatory annual training and education for all employees of facility in each department
- Clinical Practice Guidelines available in each department and updated in company’s policy

Step IV: Surgery
- Standardized care given for pre-op, intra-op, post-op, and med-surg
- Frame goals established and reviewed with patient in every department
- Reducing use of Foley catheter intra-op and post-op using POUR scale
- Mandated spinal anesthetics or alternative nerve block administration
- Ambulation within hours of surgery

Step V: Next Steps with Continued Growth
- The facility has since adopted even additional spine and orthopedic surgeons
- The facility is in the process of looking to the next steps of Advanced Certification for Total Joint Replacement Surgery
- On going protocols and guidelines have been formulated for same day discharges

TOTAL JOINT REPLACEMENT PROGRAM METRICS

<table>
<thead>
<tr>
<th>Metric</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infection Rate Post Surgery*</td>
<td>0%</td>
<td>1.1%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Readmission Rate*</td>
<td>3.5%</td>
<td>4.9%</td>
<td>1%</td>
</tr>
<tr>
<td>Patient Satisfaction/HCAP6+</td>
<td>93%</td>
<td>97%</td>
<td>97%</td>
</tr>
<tr>
<td>Average Days Spent in Hospital</td>
<td>1.3</td>
<td>1.5</td>
<td>1.3</td>
</tr>
</tbody>
</table>

CONCLUSION

Patients have personal guidance and support of a Total Joint Navigator and Joint Coach at Casa Colina Hospital for their efforts with the specific population

The Revive Joint Program is continuously updating protocols and workflow via process improvement

With the increased growth in surgical cases, the newest goal is to be able to safely discharge all patients from same day

ACKNOWLEDGEMENTS

Multi-disciplinary team would like to thank administration, leadership, as well as other key members that of the multi-disciplinary team at Casa Colina Hospital and Centers for Healthcare which have helped to make the program what it is today. The program is on-going with continued process improvement.

Contact: Michelle Marmol / michmarm@gmail.com