**TABLES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Clinical Variable | Monitored Anesthesia Care  (n = 244, 69.9%) | General Anesthesia  (n = 105, 30.1%) | *P-*value | Number with incomplete data |
| Age (years) | 76.9 | 77.8 | .324 | 0 |
| Male | 240 (98.4) | 102 (97.1) | .434 | 0 |
| No History of Tobacco Use | 62 (25.4) | 36 (34.3) | .093 | 0 |
| Prior Tobacco Use, But Not in Past 12 Months | 157 (64.3) | 60 (57.1) | .229 |
| Tobacco Use Within Past 12 Months | 25 (10.2) | 9 (8.6) | .698 |
| Body Mass Index (kg/m2) | 30.4 | 28.7 | **.010** | 0 |
| History of COPD or Emphysema | 103 (42.2) | 41 (39.0) | .636 | 0 |
| Prior History of Cardiac Surgery | 68 (27.9) | 43 (41.0) | **.018** | 0 |
| Preoperative Atrial Fibrillation | 74 (30.3) | 36 (34.3) | .530 | 0 |
| Prior History of Myocardial Infarction | 63 (25.8) | 22 (21.0) | .345 | 1 (0.3) |
| History of Diabetes on Oral Medications or Insulin | 103 (42.2) | 46 (43.8) | .814 | 0 |
| Creatinine (mg/dL) | 1.2 | 1.3 | .228 | 0 |
| Preoperative Hemoglobin (g/dL) | 12.7 | 12.2 | **.031** | 0 |
| Preoperative Hemoglobin A1c (%) | 6.2 | 6.2 | .779 | 46 (13.2) |
| VASQIP Estimated Mortality (%) | 2.18 | 6.11 | **< .001** | 4 (1.1) |

**Table 1.** Baseline characteristics of all patients undergoing transcatheter aortic valve replacement. Percentages shown in parentheses. COPD, chronic obstructive pulmonary disease; VASQIP, Veterans Affairs Surgical Quality Improvement Program.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Complication | Monitored Anesthesia Care  (n = 244, 69.9%) | General Anesthesia  (n = 105, 30.1%) | *P-*value | Number with incomplete data |
| Postoperative Myocardial Infarction | 1 (0.4) | 2 (1.9) | .216 | 0 |
| Renal Failure Requiring RRT | 0 (0) | 0 (0) | - | 0 |
| Intraoperative Cardiac Arrest | 1 (0.4) | 3 (2.9) | .083 | 0 |
| Postoperative Cardiac Arrest | 1 (0.4) | 0 (0) | 1 | 0 |
| New-Onset Atrial Fibrillation | 4 (1.6) | 4 (3.8) | .248 | 0 |
| Cerebrovascular Accident | 0 (0) | 1 (1.0) | .301 | 0 |
| Discharged Elsewhere Besides Home | 7 (2.9) | 2 (4.7) | .628 | 62 (17.8) |
| 30-Day Mortality | 1 (0.4) | 3 (2.9) | .083 | 0 |
| 180-Day Mortality | 8 (3.3) | 13 (12.4) | **.002** | 0 |
| OR time (minutes) | 146 | 198 | **< .001** | 0 |
| ICU LOS | 1.4 | 1.8 | **< .001** | 0 |
| Total Hospital LOS | 3.4 | 5.4 | **< .001** | 0 |
| Total Hospital Cost (in $1000) | 48.8 | 52.6 | **.011** | 0 |
| Overall Cost (in $1000) | 81.3 | 85.4 | **.010** | 0 |

**Table 2.** Complications and cost analysis for all transcatheter aortic valve replacement patients performed under monitored anesthesia care vs. general anesthesia. Percentages shown in parentheses. ICU, intensive care unit; LOS, length of stay; OR, operating room; RRT, renal replacement therapy.

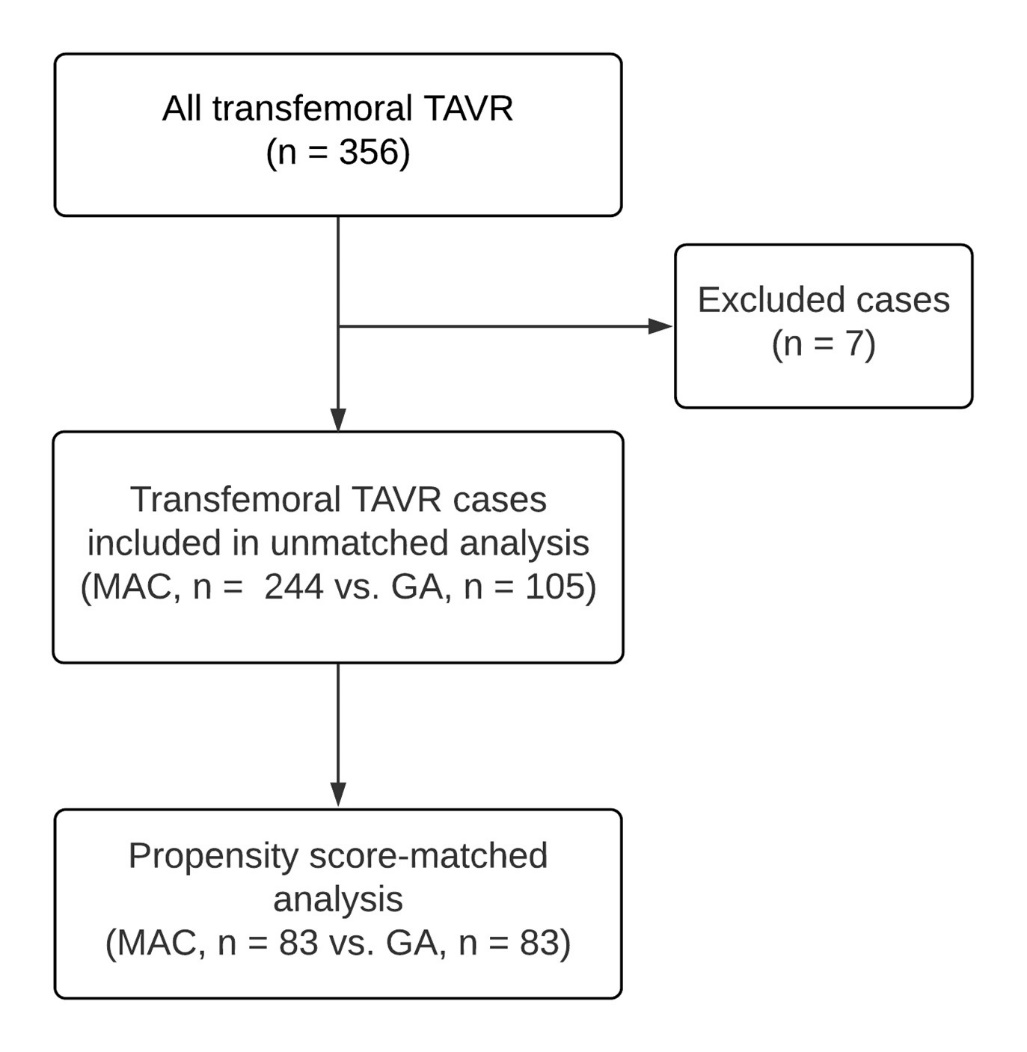
|  |  |  |  |
| --- | --- | --- | --- |
|  | Monitored Anesthesia Care  (n = 83) | General Anesthesia  (n = 83) | *P*-value |
| Age | 77.6 | 77.0 | .831 |
| Male | 81 (97.6) | 81 (97.6) | 1 |
| No History of Tobacco Use | 20 (24.1) | 32 (38.6) | .065 |
| Prior Tobacco Use, But Not in Past 12 Months | 51 (61.4) | 43 (51.8) | .273 |
| Tobacco Use Within Past 12 months | 12 (14.5) | 8 (9.6) | .475 |
| Body Mass Index (kg/m2) | 29.4 | 29.3 | .587 |
| Creatinine | 1.4 | 1.2 | .913 |
| Preoperative Hemoglobin (g/dL) | 12.3 | 12.3 | .791 |
| Preoperative Hemoglobin A1c (%) | 6.1 | 6.1 | .866 |
| VASQIP Estimated Mortality (%) | 2.7 | 3.1 | .200 |

**Table 3.** Demographics and patient characteristics compared between propensity-matched groups of patients undergoing transcatheter aortic valve replacement with monitored anesthesia care vs. general anesthesia. Percentages shown in parentheses. VASQIP, Veterans Affairs Surgical Quality Improvement Program.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Monitored Anesthesia Care (n = 83) | General Anesthesia (n = 83) | *P*-value (from logistic or linear model, or McNemar test) |
| Postoperative Myocardial Infarction | 0 (0) | 2 (2.4) | .480 (McNemar) |
| Renal Failure Requiring RRT | 0 (0) | 0 (0) | - |
| Intraoperative Cardiac Arrest | 1 (1.2) | 1 (1.2) | 1 (McNemar) |
| Postoperative Cardiac Arrest | 0 (0) | 0 (0) | - |
| New-Onset Atrial Fibrillation | 1 (1.2) | 3 (3.6) | .335 |
| Cerebrovascular Accident | 0 (0) | 1 (1.2) | 1 (McNemar) |
| Discharged Elsewhere Besides Home | 3 (3.6) | 1 (2.6) | .780 |
| 30-Day Mortality | 0 (0) | 3 (3.6) | .248 |
| 180-Day Mortality | 2 (2.4) | 10 (12.0) | **.030** |
| OR time (minutes) | 147 | 196 | **< .001** |
| ICU LOS | 1.2 | 1.7 | **.006** |
| Total Hospital LOS | 3.5 | 5.1 | **.001** |
| Total Hospital Cost (in $1000) | 49.7 | 50.4 | .709 |
| Overall Cost (in $1000) | 82.1 | 83.1 | .936 |

**Table 4.** Complications, lengths of stay, and costs compared for propensity-matched patients undergoing transcatheter aortic valve replacement with either monitored anesthesia care or general anesthesia. Percentages shown in parentheses. ICU, intensive care unit; LOS, length of stay; OR, operating room; RRT, renal replacement therapy.

**FIGURES**



**Figure 1**. North Florida / South Georgia Veterans Affairs Medical Center Transcatheter Aortic Valve Replacement Cohort. Three hundred and fifty-six patients underwent transfemoral TAVR during the study period, 7 were excluded due to being valve-in-valve procedures or for missing cost data. This resulted in 244 TAVR cases performed under monitored anesthesia care, and 105 cases performed under general anesthesia. Of these patients, 83 suitable pairs were found for propensity-matched analysis. MAC, Monitored Anesthesia Care; TAVR, Transcatheter Aortic Valve Replacement.

**Chart, bar chart, waterfall chart

Description automatically generatedFigure 2**. Annual Transcatheter Aortic Valve Replacement Volume by Anesthesia Modality. Over time, general anesthesia was used with decreased frequency as the use of monitored anesthesia care increased steadily. GA, general anesthesia; MAC, monitored anesthesia care.