
Performance Measurement

# Interventional Cardiology: Review of the Performance Measures by the Performance Measurement Committee of the American College of Physicians

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**Recommendation**
ACP supports NQF 0694: **"**Hospital Risk-Standardized Complication Rate Following Implantation of Implantable Cardioverter Defibrillator**."**

**Rationale**
ACP supports this measure because the risk-adjustment is validated and extensive.

**Measure Specifications**

| **NQF 0694: Hospital Risk-Standardized Complication Rate Following Implantation of ICD** | |
|---|---|
| **Status:** | NQF Endorsed, Last Updated Jan 29, 2015 **(MSSP Measure)** |
| **Measure Steward:** | American College of Cardiology |
| **Description:** | This measure provides hospital specific risk-standardized rates of procedural complications following the implantation of an ICD in patients at least 65 years of age. At present, the measure uses clinical data available in the National Cardiovascular Data Registry (NCDR) ICD Registry for risk adjustment that has been linked with administrative claims data using direct and indirect patient identifiers to identify procedural complications. |
| **Numerator Statement:** | The outcome for this measure is one or more complications within 30 or 90 days (depending on the complication) following initial ICD implantation. The measure treats complications as a dichotomous (yes/no) variable; we are interested in whether or not a complication has occurred and not how many complications occurred. |
| **Denominator Statement:** | The target population for this measure includes inpatient and outpatient hospital stays with ICD implants for patients at least 65 years of age who have matching information in the National Cardiovascular Disease Registry (NCDR) ICD Registry. The time window can be specified from one to three years. This measure was developed with Medicare claims and CathPCI Registry data from one calendar year (2007). |
| **Exclusions:** | (1) Previous ICD placement. Hospital stays in which the patient had an ICD implanted prior to the index hospital stay are excluded. Rationale: Ideally, the measure would include patients with a prior ICD, as this is a population known to be at high risk of adverse outcomes. However, for these patients it is difficult to distinguish in the administrative data whether adverse events such as infection were present on admission or complications of the second ICD placement. In order to avoid misclassification, we exclude these patients from the measure.<br>(2) Not Medicare FFS patient on admission. Patient admissions in which the patient is not enrolled in Medicare FFS at the time of the ICD procedure. |

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|---|---|
| | Rationale: Outcome data are being derived only for Medicare fee-for-service patients.<br>(3) Previous pacemaker placement, Hospital stays in which the patient had a previous pacemaker placement prior to the index hospital stay are excluded.<br>Rationale: Some complications (infection or mechanical complication) may be related to a pacemaker that was removed prior to placement of an ICD. Ideally, the measure would include patients with a prior pacemaker, as this is a population known to be at higher risk of adverse outcomes. However, for these patients it is difficult to distinguish in the administrative data whether adverse events such as infection were present on admission or complications of the ICD placement. In order to avoid misclassification, we exclude these patients from the measure.<br>(4) Lack 90-day follow-up in Medicare FFS post-discharge. Patients who cannot be tracked for 90 days following discharge are excluded.<br>Rationale: There will not be adequate follow-up data to assess complications<br>(5) Not the first claim in the same claim bundle. There are cases when several claims in the same hospital representing a single episode of care exist in the data together. These claims are bundled together and any claim other than the first is excluded.<br>Rationale: Inclusion of additional claims could lead to double counting of an index ICD procedure. |
| **Type of Measure:** | Composite |
| **Level of Analysis:** | Facility, Population: National |
| **Care Setting:** | Ambulatory Care: Urgent Care, Hospital/Acute Care Facility |
| **Data Source:** | Administrative claims, Electronic Clinical Data: Registry |

**Recommendation**
ACP supports NQF 0964: "Therapy with Aspirin, P2Y12 inhibitor, and Statin at Discharge Following Percutaneous Coronary Intervention in Eligible Patients."

**Rationale**
ACP supports this measure because it considers pre-existing medications, includes appropriate exclusion criteria for patients without stents, and its use of electronic medical records reduces provider burden.

**Measure Specifications**

| **NQF 0964: Therapy with ASA, P2Y12 Inhibitor, and Statin at Discharge Following PCI in Eligible Patients** | |
|---|---|
| **Status:** | NQF Endorsed, Last Updated Sep 08, 2014 **(Public Reporting, Quality Improvement)** |
| **Measure Steward:** | American College of Cardiology |
| **Description:** | Patients undergoing PCI who receive prescriptions for all medications (aspirin, P2Y12 and statins) for which they are eligible for at discharge |
| **Numerator Statement:** | Patients who receive all medications for which they are eligible.<br>1. Aspirin prescribed at discharge (if eligible for aspirin as described in denominator)<br>AND<br>2. P2Y12 agent (clopidogrel, prasurgel, or ticlopidine) prescribed at discharge (if eligible for P2Y12 as described in denominator)<br>AND<br>3. Statin prescribed at discharge (if eligible for statin as described in denominator) |
| **Denominator Statement:** | Patients surviving hospitalization who are eligible to receive any of the three medication classes:<br>1) Eligibile for aspirin (ASA): Patients undergoing PCI who do not have a contraindication to aspirin documented<br>AND<br>2) Eligible for P2Y12 agent (clopidogrel, prasugrel, or ticlopidine): Patients undergoing PCI with stenting who do not have a contraindication to P2Y12 agent documented<br>AND<br>3) Eligible for statin therapy: Patients undergoing PCI who do not have a contraindication to statin therapy. |
| **Exclusions:** | Discharge status of expired; patients who left against medical advice, patients discharged to hospice or for whom comfort care measures only is documented; patients discharged to other acute hospital |
| **Type of** | Composite |

| Measure: | |
|---|---|
| **Level of Analysis:** | Facility |
| **Care Setting:** | Hospital/Acute Care Facility |
| **Data Source:** | Electronic Clinical Data: Registry |

**Recommendation**

ACP supports NQF 2459: "In-Hospital Risk Adjusted Rate of Bleeding Events for Patients Undergoing Percutaneous Coronary Intervention."

**Rationale**

ACP supports this measure because it may serve as a deterrent for smaller providers or sites that have higher rates of complication and it will reward providers and sites that offer efficiency and experience.

**Measure Specifications**

| **NQF 2459: In-Hospital Risk Adjusted Rate of Bleeding Events for Patients Undergoing PCI** | |
|---|---|
| **Status:** | NQF Endorsed, Last Updated Dec 11, 2015 **(Public Reporting/Quality Improvement Measure)** |
| **Measure Steward:** | American College of Cardiology |
| **Description:** | Risk adjusted rate of intra and post procedure bleeding for all patients age 18 and over undergoing PCI . |
| **Numerator Statement:** | Patients 18 years of age and older with a post-PCI bleeding event as defined below:<br>Post-PCI bleeding defined as any ONE of the following:<br>1. Bleeding event w/in 72 hours ; OR<br>2. Hemorrhagic stroke; OR<br>3. Tamponade ; OR<br>4. Post-PCI transfusion for patients with a pre-procedure hgb >8 g/dL and pre-procedure hgb not missing; OR<br>5. Absolute hgb decrease from pre-PCI to post-PCI of >= 3 g/dl AND pre-procedure hgb =<16 g/dL AND pre-procedure hgb not missing. |
| **Denominator Statement:** | Patients 18 years of age and older with a PCI procedure performed during admission |
| **Exclusions:** | 1. NCDR Registry patients who did not have a PCI (Patient admissions with a diagnostic cath only during that admission)<br>2. Patients who died on the same day of the procedure<br>3. Patients who had CABG during the admission<br>4. Patients with pre procedure hemoglobin <8 g/dL (severely anemic) |
| **Type of** | Outcome |

| | |
|---|---|
| **Measure:** | |
| **Level of Analysis:** | Facility |
| **Care Setting:** | Hospital/Acute Care Facility |
| **Data Source:** | Electronic Clinical Data: Registry |

**Recommendation**

ACP supports NQF 2474: "Cardiac Tamponade and/or Pericardiocentesis Following Atrial Fibrillation Ablation."

**Rationale**

ACP supports this measure because it may serve as a deterrent for smaller providers or sites that have higher rates of complication and it will reward providers and sites that offer efficiency and experience.

**Measure Specifications**

| **NQF 2474: Cardiac Tamponade and/or Pericardiocentesis Following Atrial Fibrillation Ablation** | |
|---|---|
| **Status:** | NQF Endorsed, Last Updated Jun 29, 2015 **(Payment Program, Public Reporting)** |
| **Measure Steward:** | Heart Rhythm Society |
| **Description:** | Rate of cardiac tamponade and/or pericardiocentesis following atrial fibrillation (AF) ablation. |
| **Numerator Statement:** | The number of patients from the denominator with cardiac tamponade and/or pericardiocentesis occurring within 30 days following atrial fibrillation ablation. |
| **Denominator Statement:** | All patients aged 18 years and older with atrial fibrillation ablation performed during the reporting period. |
| **Exclusions:** | No exclusions |
| **Type of Measure:** | Outcome |
| **Level of Analysis:** | Clinician: Individual, Facility |
| **Care Setting:** | Ambulatory Care: Clinician Office/Clinic, Hospital/Acute Care Facility |
| **Data Source:** | Administrative Claims |

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