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| **#0013: Blood pressure measurement**  
| American Medical Association - Physician Consortium for Performance Improvement |
| **Description:** Percentage of patient visits with blood pressure measurement recorded among all patient visits for patients aged > 18 years with diagnosed hypertension. |
| **Setting:** Ambulatory Care: Clinic  
| **Level of Analysis:** Clinicians: Individual |
| **Data Source:** Electronic administrative data/claims |
| **Target Outcome (unadjusted numerator):** Patient visits with blood pressure measurement recorded. |
| **Target Population (denominator):** All visits for patients > 18 years of age with diagnosed hypertension.  
| Patient Selection:  
| ICD-9-CM codes for Hypertension: 401.0, 401.1, 401.9, 402.xx, 403.xx, 404.xx  
| And  
| CPT office or other outpatient service codes: 99201-99205, 99212-99215, 99241-99245, 99341-99350, 99354-99355, 99385-99387, 99395-99397, 99401-99404, 99411-99412, 99420-99429  
| And  
| Patient's age is > 18 years. |
| **Target Population (denominator) Exclusions:** |
| **Methods/ Risk Adjustment:** |
| **Target Population (denominator) Details:** |
| **Target Population (denominator) Exclusion Details:** |
#0017: Hypertension Plan of Care  
(American Medical Association - Physician Consortium for Performance Improvement | 7861 East Quaker Road | Orchard Park | New York | 14127)

**Description:** Percentage of patient visits during which either systolic blood pressure \( \geq 140 \) mm Hg or diastolic blood pressure \( \geq 90 \) mm Hg, with documented plan of care for hypertension.

**Setting:** Ambulatory Care: Clinic  
**Level of Analysis:** Clinicians: Individual

**Data Source:** Electronic administrative data/claims

**Target Outcome (unadjusted numerator):** Patient visits with a documented plan of care for hypertension. Plan of care should include one or more of the following: recheck blood pressure at specified future date, initiate or alter antihypertensive pharmacological therapy, and/or initiate or alter non-pharmacologic therapy. Non pharmacological therapy may include weight reduction, decreased sodium and alcohol intake, and exercise.

**Target Population (denominator):** All visits for patients > 18 years of age with diagnosed hypertension during which either systolic blood pressure > 140 mm Hg or diastolic blood pressure > 90 mm Hg.

**Patient Selection:**  
ICD-9-CM codes for Hypertension: 401.0, 401.1, 401.9, 402.xx, 403.xx, 404.xx  
And  
CPT office or other outpatient service codes: 99201-99205, 99212-99215, 99241-99245, 99354, 99355, 99385-99387, 99395-99397, 99401-99404  
And  
Additional individual medical record review must be completed to identify patient visits with a systolic blood pressure = 140 mm Hg or a diastolic blood pressure = 90 mm Hg  
And  
Patient’s age is > 18 years.

**Target Population (denominator) Exclusions:**

**Methods/ Risk Adjustment:**

**Target Population (denominator) Details:**

**Target Population (denominator) Exclusion Details:**
**#0018: Controlling High Blood Pressure**
(National Committee for Quality Assurance | 1100 13th Street NW, Suite 1000 | Washington | District Of Columbia | 20005)

**Description:** The percentage of members 18–85 years of age who had a diagnosis of hypertension (HTN) and whose blood pressure (BP) was adequately controlled (<140/90) during the measurement year. Use the Hybrid Method for this measure.

**Setting:** Ambulatory Care: Amb Surgery Center; Ambulatory Care: Office; Ambulatory Care: Clinic; Ambulatory Care: Emergency Dept; Ambulatory Care: Hospital Outpatient; All settings

**Level of Analysis:** Clinicians: Individual; Clinicians: Group

**Data Source:** Paper medical record/flow-sheet; Electronic administrative data/claims; Electronic clinical data; Electronic Health/Medical Record

**Target Outcome (unadjusted numerator):** The number of members in the denominator whose most recent BP is adequately controlled during the measurement year. For a member’s BP to be controlled, both the systolic and diastolic BP must be <140/90 (adequate control). To determine if a member’s BP is adequately controlled, the organization must identify the representative BP.

**Target Population (denominator):** Event/Diagnosis: Hypertensive. A member is considered hypertensive if there is at least one outpatient encounter (Table CBP-B) with a diagnosis of HTN (Table CBP-A) during the first six months of the measurement year.

**Target Population (denominator) Exclusions:** • Exclude from the eligible population all members with evidence of end-stage renal disease (ESRD) (Table CBP-C) on or prior to December 31 of the measurement year. Documentation in the medical record must include a dated note indicating evidence of ESRD. Documentation of dialysis or renal transplant also meets the criteria for evidence of ESRD.
• Exclude from the eligible population all members with a diagnosis of pregnancy (Table CBP-C) during the measurement year.
• Exclude from the eligible population all members who had an admission to a nonacute inpatient setting any time during the measurement year. Refer to Table FUH-B for codes to identify nonacute care.

**Methods/ Risk Adjustment:** no risk adjustment necessary

None.

**Target Population (denominator) Details:** Table CBP-A: Codes to Identify Hypertension
Description ICD-9-CM Diagnosis
Hypertension 401
Table CBP-B: Codes to Identify Outpatient Visits
Description CPT
Outpatient visits: 99201-99205, 99211-99215, 99241-99245, 99384-99387, 99394-99397

**Target Population (denominator) Exclusion Details:** Table CBP-C: Codes to Identify Exclusions
Description: CPT HCPSC ICD-9-CM ICD-9-CM UB UB POS
Diagnosis Procedure Revenue type of Bill
Evidence 36145, 36800, G0257 585.5, 38.95 0367 72X 65
of ESRD 36810, 36815, G0308-G0313 585.6, 39.27 080x
36818, 36819, G0314-G0319 V42.0, 39.42 082x
36820, 36821, G0322 V45.1 39.43 085x
36831-36833, G0323 V56 39.53 088x
50300, 50320, G0326 39.93-39.95
50340, 50360, G0392 54.98
50380, 90920, G0393 55.6
50390, 90993, 90997, S9339
Cardiovascular Consensus Standards Endorsement and Maintenance
NQF-endorsed® Cardiovascular Maintenance Standards, Phase-II

90999, 99512
#0077: Heart Failure (HF): Assessment of Activity Level
American Medical Association - Physician Consortium for Performance Improvement

**Description:** Percentage of patient visits or patients with HF with assessment of activity level.

**Setting:** Ambulatory Care: Clinic

**Level of Analysis:** Clinicians: Individual

**Data Source:** Electronic administrative data/claims

**Target Outcome (unadjusted numerator):** Patient visits with assessment of current level of activity OR documentation of standardized scale or completion of assessment tool*

Medical record must include:
- Documentation of the current level of activity
- Or
- Documentation that a standardized scale or assessment tool was used
- Or
- CPT-II code: 1003F Level of activity assessed

*Standardized scale or assessment tools may include the New York Heart Association Functional Classification of Congestive Heart Failure (level of activity only); Kansas City Cardiomyopathy Questionnaire; Minnesota Living with Heart Failure™ Questionnaire; or Chronic Heart Failure Questionnaire (Guyatt).

**Target Population (denominator):** All patient visits for patients aged ≥18 years with HF

Patient Selection:
- ICD-9-CM codes for HF: 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20-428.23, 428.30-428.33, 428.40-428.43, 428.9
- And
- CPT codes for patient visit: 99201-99205, 99212-99215, 99241-99245, 99354-99355, 99385-99387, 99395-99397, 99401-99404
- And
- Patient age is > 18 years

**Target Population (denominator) Exclusions:**

**Methods/ Risk Adjustment:**

**Target Population (denominator) Details:**

**Target Population (denominator) Exclusion Details:**
#0078: Heart Failure (HF) : Assessment of Clinical Symptoms of Volume Overload (Excess)
American Medical Association - Physician Consortium for Performance Improvement

**Description:** Percentage of patient visits or patients with HF with assessment of clinical symptoms of volume overload (excess).

**Setting:** Ambulatory Care: Clinic

**Level of Analysis:** Clinicians: Individual

**Data Source:** Electronic administrative data/claims

**Target Outcome (unadjusted numerator):** Patient visits with assessment of clinical symptoms of volume overload (excess) or documentation of standardized scale or completion of assessment tool*

Medical record must include:
- Assessment for the absence or presence of symptoms of volume overload – Dyspnea or orthopnea;
- or
- Documentation of standardized scale or completion of assessment tool
- or
- CPT-II code: 1004F Clinical symptoms of volume overload (excess) assessed

*Standardized scale or assessment tools may include the New York Heart Association Functional Classification of Congestive Heart Failure (level of activity only); Kansas City Cardiomyopathy Questionnaire; Minnesota Living with Heart Failure™ Questionnaire; or Chronic Heart Failure Questionnaire (Guyatt)

**Target Population (denominator):** All patient visits for patients aged > 18 years with HF

**Patient Selection:**
- ICD-9-CM codes for HF: 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20-428.23, 428.30-428.33, 428.40-428.43, 428.9
- And
- CPT codes for patient visit: 99201-99205, 99212-99215, 99241-99245, 99354, 99355, 99385-99387, 99395-99397, 99401-99404
- And
- Patient’s age is > 18 years

**Target Population (denominator) Exclusions:**

**Methods/ Risk Adjustment:**

**Target Population (denominator) Details:**

**Target Population (denominator) Exclusion Details:**
| **#0079: Heart Failure (HF) : Left Ventricular Function Assessment**  
American Medical Association - Physician Consortium for Performance Improvement |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Description:</strong> Percentage of patients with HF with quantitative or qualitative results of left ventricular function (LVF) assessment recorded.</td>
</tr>
</tbody>
</table>
| **Setting:** Ambulatory Care: Clinic  
**Level of Analysis:** Clinicians: Individual |
| **Data Source:** Electronic administrative data/claims |
| **Target Outcome (unadjusted numerator):** Patients with quantitative or qualitative results of LVF assessment recorded  
[CPT codes: 78414, 78468, 78472, 78473, 78480, 78481, 78483, 78494, 93303, 93304, 93307, 93308, 93312, 93314, 93315, 93317, 93350, 93543,  
And  
Medical record must include documentation of quantitative or qualitative results of LVF assessment]  
Or  
CPT-II code: 3020F Left ventricular function (LVF) assessment (e.g., echocardiography, nuclear test, or ventriculography) documented in the medical record |
| **Target Population (denominator):** All patients with heart failure > 18 years of age  
Patient Selection:  
ICD-9-CM codes for HF: 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20-428.23, 428.30-428.33, 428.40-428.43, 428.9  
And  
Patient’s age is > 18 years |
| **Target Population (denominator) Exclusions:** |
| **Methods/ Risk Adjustment:** |
| **Target Population (denominator) Details:** |
| **Target Population (denominator) Exclusion Details:** |
### #0081: Heart Failure (HF) : ACEI/ARB Therapy
**American Medical Association - Physician Consortium for Performance Improvement**

**Description:** Percentage of patients with HF who also have left ventricular systolic dysfunction (LVSD) who were prescribed ACE inhibitor or ARB therapy.

**Setting:** Ambulatory Care: Clinic  
**Level of Analysis:** Clinicians: Individual

**Data Source:** Electronic administrative data/claims

**Target Outcome (unadjusted numerator):** Patients who were prescribed ACEI or ARB therapy  
(drug list available at www.ama-assn.org/ama/pub/category/4837.html)  
Or  
CPT-II code: 4009F Angiotensin Converting Enzyme (ACE) inhibitor or Angiotensin Receptor Blocker therapy prescribed

**Target Population (denominator):** All HF patients > 18 years of age with LVEF < 40% or with moderately or severely depressed left ventricular systolic function

**Patient Selection:**  
ICD-9-CM codes for HF: 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20-428.23, 428.30-428.33, 428.40-428.43, 428.9  
And  
CPT procedure codes for LVF assessment testing: 78414, 78468, 78472, 78473, 78480, 78481, 78483, 78494, 93303, 93304, 93307, 93308, 93312, 93314, 93315, 93317, 93350, 93543  
And  
Additional individual medical record review must be completed to identify for those patients who were tested had documentation of an ejection fraction < 40% (use most recent value) or moderately or severely depressed left ventricular systolic function  
Or  
[CPT-II codes: 3021F Left ventricular ejection fraction (LVEF) < 40% or documentation of moderately or severely depressed left ventricular systolic function; 3022F Left ventricular ejection fraction (LVEF) = 40% or documentation as normal or mildly depressed left ventricular systolic function]  
And  
Patient’s age is > 18 years

**Target Population (denominator) Exclusions:** Documentation of medical reason(s) for not prescribing ACE inhibitor or ARB therapy:  
• Allergy or intolerance to ACE inhibitor or ARB;  
Or  
• ACE inhibitor contraindications including angioedema, anuric renal failure, moderate or severe aortic stenosis or pregnancy  
ICD-9-CM exclusion codes: 440.1, V56.0, V56.8, 39.95, 54.98, 788.5, 586, 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 584.5-584.9, 585.5-585.6, 585.9, 395.0, 395.2, 396.0, 396.2, 396.8, 425.1, 747.22, V22.0-V23.9, 277.6;  
Or  
• Other medical reason documented by the practitioner for not prescribing ACE inhibitor or ARB therapy;  
Or  
• CPT-II code w/modifier: 4009F 1P  
Patient reason (e.g., economic, social, religious)  
Or  
CPT-II code w/modifier: 4009F 2P  
Documentation of system reason(s) for not prescribing ACE inhibitor or ARB therapy  
Or  
CPT II code 4009F 3P

**Methods/ Risk Adjustment:**

**Target Population (denominator) Details:**

**Target Population (denominator) Exclusion Details:**
<table>
<thead>
<tr>
<th>#0082: Heart Failure (HF) : Patient Education</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>American Medical Association - Physician Consortium for Performance Improvement</strong></td>
</tr>
</tbody>
</table>

**Description:** Percentage of patients who were provided with patient education on disease management and health behavior changes during one or more visit(s).

**Setting:** Ambulatory Care: Clinic

**Level of Analysis:** Clinicians: Individual

**Data Source:** Electronic administrative data/claims

**Target Outcome (unadjusted numerator):** Patients provided with patient education during one or more visit(s).

Patient education should include one or more of the following: weight monitoring; diet (sodium restriction); symptom management; physical activity; smoking cessation; medication instruction; minimizing or avoiding use of NSAIDS; referral for visiting nurse or specific educational or management programs; or prognosis/end-of-life issues.

CPT-II code: 4003F Patient education, written/oral, appropriate for patients with heart failure performed

**Target Population (denominator):** All patient visits for patients aged >18 years with HF

Patient Selection:
- ICD-9-CM codes for HF: 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20-428.23, 428.30-428.33, 428.40-428.43, 428.9
- And
- CPT codes for patient visit: 99201-99205, 99212-99215, 99241-99245, 99354-99355, 99385-99387, 99395-99397, 99401-99404
- And
- Patient age is > 18 years

**Target Population (denominator) Exclusions:**

**Methods/ Risk Adjustment:**

**Target Population (denominator) Details:**

**Target Population (denominator) Exclusion Details:**
### #0083: Heart Failure (HF) : Beta-blocker therapy
**American Medical Association - Physician Consortium for Performance Improvement**

**Description:** Percentage of patients with HF who also have LVSD who were prescribed beta-blocker therapy.

**Setting:** Ambulatory Care: Clinic  
**Level of Analysis:** Clinicians: Individual

**Data Source:** Electronic administrative data/claims

**Target Outcome (unadjusted numerator):** Patients who were prescribed beta blocker therapy  
(drug list available at www.ama-assn.org/ama/pub/category/4837.html) Or  
CPT-II code: 4006F Beta-blocker therapy prescribed.

**Target Population (denominator):** All HF patients > 18 years of age with LVEF < 40% or with moderately or severely depressed left ventricular systolic function  
**Patient Selection:**  
ICD-9-CM codes for HF: 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20-428.23, 428.30-428.33, 428.40-428.43, 428.9  
And  
[CPT procedure codes for LVF assessment testing: 78414, 78468, 78472, 78473, 78480, 78481, 78483, 78494, 93303, 93304, 93307, 93308, 93312, 93314, 93315, 93317, 93350, 93543]  
And  
Additional individual medical record review must be completed to identify patients who had documentation of an ejection fraction < 40% (use most recent value) or moderately or severely depressed left ventricular systolic function]  
Or  
[CPT-II codes: 3021F Left ventricular ejection fraction (LVEF) < 40% or documentation of moderately or severely depressed left ventricular systolic function; 3022F Left ventricular ejection fraction (LVEF) = 40% or documentation as normal or mildly depressed left ventricular systolic function]  
And  
Patient’s age is > 18 years of age

**Target Population (denominator) Exclusions:** Documentation of medical reason(s) for not prescribing beta-blocker therapy:  
• Documentation of bradycardia < 50 bpm (without beta-blocker therapy) on two consecutive readings, history of Class IV (congestive) heart failure, history of second- or third-degree atrioventricular (AV) block without permanent pacemaker  
ICD-9-CM exclusion codes: 493.00-493.92, 458.0, 458.1, 458.21, 458.29, 458.8-458.9, 426.0 without V45.01, 426.12 without V45.01, 426.13 without V45.01, 426.81, 427.89  
Or  
• Other medical reason(s) documented by the practitioner for not prescribing beta blocker therapy;  
Or  
• CPT-II code w/modifier: 4006F 1P  
Documentation of patient reason(s) (e.g., economic, social, religious)  
Or  
• CPT-II code w/modifier: 4006F 2P  
Documentation of system reason(s) for not prescribing beta blocker therapy  
OR  
CPT II code w/modifier 4006F 3P

**Methods/ Risk Adjustment:**

**Target Population (denominator) Details:**

**Target Population (denominator) Exclusion Details:**
**#0084: Heart Failure (HF) : Warfarin Therapy Patients with Atrial Fibrillation**

American Medical Association - Physician Consortium for Performance Improvement

**Description:** Percentage of patients with HF who also have paroxysmal or chronic atrial fibrillation who were prescribed warfarin therapy.

**Setting:** Ambulatory Care: Clinic

**Level of Analysis:** Clinicians: Individual

**Data Source:** Electronic administrative data/claims

**Target Outcome (unadjusted numerator):** Patients who were prescribed warfarin therapy

(drug list available at www.ama-assn.org/ama/pub/category/4837.html) Or

CPT-II code: 4012F Warfarin therapy prescribed.

**Target Population (denominator):** All HF patients > 18 years of age with paroxysmal or chronic atrial fibrillation

Patient Selection:

ICD-9-CM codes for HF: 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.91, 404.93, 428.0, 428.1, 428.20-428.23, 428.30-428.33, 428.40-428.43, 428.9

And

ICD-9-CM code for Atrial Fibrillation: 427.31

And

Patient's age is > 18 years of age

**Target Population (denominator) Exclusions:** Documentation of medical reason(s) for not prescribing warfarin therapy:

- Allergy/intolerance
  995.0 and E934.2, 995.1 and E934.2, 995.2 and E934.2; Or
- Risk of bleeding or bleeding disorder
  ICD-9-CM exclusion codes: 203.00-208.91, 280.0, 280.9, 285.1, 286.0-286.7, 286.9, 287.30, 287.31, 287.32, 287.33, 287.39, 287.4, 287.5, 430, 431, 432.0, 432.1, 432.9, 437.3, 459.0, 530.7, 531.00-531.01, 531.20-531.21, 531.40-531.41, 531.60-531.61, 532.00-532.01, 532.20-532.21, 532.40-532.41, 532.60-532.61, 533.00-533.01, 533.20-533.21, 533.40-533.41, 533.60-533.61, 534.00-534.01, 534.20-534.21, 534.40-534.41, 534.60-534.61, 569.3, 570, 571.2, 571.5, 578.0, 578.1, 578.9, 599.7, 786.3; Or
- Other medical reason(s) documented by the practitioner for not prescribing warfarin therapy; Or
- CPT-II code w/modifier: 4012F 1P
  Documentation of patient reason(s) (e.g., economic, social, religious)
  Or
  CPT-II code w/modifier: 4012F 2P
  Documentation of system reason(s) for not prescribing warfarin therapy
  OR
  CPT II code 4012F 3P

**Methods/ Risk Adjustment:**

**Target Population (denominator) Details:**

**Target Population (denominator) Exclusion Details:**
<table>
<thead>
<tr>
<th>#0085: Heart Failure (HF) : Weight Measurement</th>
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<tbody>
<tr>
<td>American Medical Association - Physician Consortium for Performance Improvement</td>
</tr>
</tbody>
</table>

**Description:** Percentage of patient visits for patients with HF with weight measurement recorded.

**Setting:** Ambulatory Care: Clinic  
**Level of Analysis:** Clinicians: Individual

**Data Source:** Electronic administrative data/claims

**Target Outcome (unadjusted numerator):** Patient visits with weight measurement recorded  
Or  
CPT-II code: 2001F Weight recorded

**Target Population (denominator):** All visits for patients with HF > 18 years of age  
Patient Selection:  
ICD-9-CM codes for HF: 402.01, 402.11, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20-428.23, 428.30-428.33, 428.40-428.43, 428.9  
And  
CPT codes for patient visit: 99201-99205, 99212-99215, 99241-99245, 99354-99355, 99385-99387, 99395-99397, 99401-99404  
And  
Patient's age is > 18 years

**Target Population (denominator) Exclusions:** Patient visits in which practitioner was unable to weigh patient  
CPT-II code w/modifier: 2001F 1P

**Methods/ Risk Adjustment:**

**Target Population (denominator) Details:**

**Target Population (denominator) Exclusion Details:**
**#0135: Evaluation of Left ventricular systolic function (LVS)**
Centers for Medicare & Medicaid Services

**Description:** Percentage of heart failure patients with documentation in the hospital record that left ventricular systolic (LVS) function was evaluated before arrival, during hospitalization, or is planned for after discharge.

**Setting:** Hospital

**Level of Analysis:** Facility/Agency

**Data Source:** Paper medical record/flow-sheet; Electronic administrative data/claims

**Target Outcome (unadjusted numerator):** HF patients with documentation in the hospital record that LVS function was evaluated before arrival, during hospitalization, or is planned for after discharge

**Target Population (denominator):** HF patients (ICD-9-CM principal diagnosis of HF: 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9)

**Target Population (denominator) Exclusions: Exclusions:**
- **<18 years of age**
- Transferred to another acute care hospital or federal hospital
- Expired
- Left against medical advice
- Discharged to hospice
- Patients with comfort measures only documented by a physician, nurse practitioner, or physician assistant
- Reasons for no LVS function evaluation documented by a physician, nurse practitioner, or physician assistant
- Patients who had a left ventricular assistive device (LVAD) or heart transplant procedure during hospital stay (ICD-9-CM principal diagnosis of LVAD or Heart Transplant: 33.6, 37.51, 37.52, 37.53, 37.54, 37.62, 37.63, 37.64, 37.65, 37.66, 37.68)

**Methods/ Risk Adjustment:**

**Target Population (denominator) Details:**

**Target Population (denominator) Exclusion Details:**
| #0136: Heart Failure (HF): Detailed discharge instructions  
Centers for Medicare & Medicaid Services |
<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Description:</strong></td>
</tr>
</tbody>
</table>
| **Setting:** Hospital  
**Level of Analysis:** Facility/Agency |
| **Data Source:** Paper medical record/flow-sheet; Electronic administrative data/claims |
| **Target Outcome (unadjusted numerator):** HF patients with documentation that they or their caregivers were given written discharge instructions or other educational material addressing all of the following:  
1. activity level  
2. diet  
3. discharge medications  
4. follow-up appointment  
5. weight monitoring  
6. what to do if symptoms worsen |
| **Target Population (denominator):** HF patients discharged home (ICD-9-CM principal diagnosis of HF: 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9); and a discharge to home or home care |
| **Target Population (denominator) Exclusions:** Exclusions:  
• <18 years of age  
• Patients with comfort measures only documented by a physician, nurse practitioner, or physician assistant  
• Patients who had a left ventricular assistive device (LVAD) or heart transplant procedure during hospital stay (ICD-9-CM principal diagnosis of LVAD and Heart Transplant: 33.6, 37.51, 37.52, 37.53, 37.54, 37.62, 37.63, 37.64, 37.65, 37.66, 37.68) |
<p>| <strong>Methods/ Risk Adjustment:</strong> |
| <strong>Target Population (denominator) Details:</strong> |
| <strong>Target Population (denominator) Exclusion Details:</strong> |</p>
<table>
<thead>
<tr>
<th>#0162: Heart Failure: Angiotensin converting enzyme inhibitor (ACEI) for left ventricular systolic dysfunction (LVSD) Centers for Medicare &amp; Medicaid Services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> Percentage of AMI patients with LVSD and without ACEI contraindications who were prescribed an angiotensin converting enzyme inhibitor (ACEI) for left ventricular systolic dysfunction (LVSD)</td>
</tr>
<tr>
<td><strong>Setting:</strong> Hospital</td>
</tr>
<tr>
<td><strong>Level of Analysis:</strong> Facility/Agency</td>
</tr>
<tr>
<td><strong>Data Source:</strong> Paper medical record/flow-sheet; Electronic administrative data/claims</td>
</tr>
<tr>
<td><strong>Target Outcome (unadjusted numerator):</strong> Patients who are prescribed an ACEI at hospital discharge</td>
</tr>
<tr>
<td><strong>Target Population (denominator):</strong> AMI patients with LVSD and without ACEI contraindications (ICD-9-CM principal diagnosis code of AMI: 410.01, 410.11, 410.21, 410.31, 410.41, 410.51, 410.61, 410.71, 410.81, 410.91; and chart documentation of a left ventricular ejection fraction (LVEF) &lt; 40% or a narrative description of left ventricular function (LVF) consistent with moderate or severe systolic dysfunction)</td>
</tr>
<tr>
<td><strong>Target Population (denominator) Exclusions:</strong> Exclusions:</td>
</tr>
<tr>
<td>&lt;18 years of age</td>
</tr>
<tr>
<td>Transferred to another acute care hospital</td>
</tr>
<tr>
<td>Expired</td>
</tr>
<tr>
<td>Left against medical advice</td>
</tr>
<tr>
<td>Discharged to hospice</td>
</tr>
<tr>
<td>Chart documentation of participation in a clinical trial testing alternatives to ACEIs as first-line HF therapy</td>
</tr>
<tr>
<td>One or more of the following ACEI contraindications/reasons for not prescribing ACEI documented in the medical record:</td>
</tr>
<tr>
<td>ACEI allergy;</td>
</tr>
<tr>
<td>Moderate or severe aortic stenosis; or</td>
</tr>
<tr>
<td>Other reasons documented by a physician, nurse practitioner, or physician assistant for not prescribing ACEI at discharge</td>
</tr>
<tr>
<td><strong>Methods/ Risk Adjustment:</strong></td>
</tr>
<tr>
<td><strong>Target Population (denominator) Details:</strong></td>
</tr>
<tr>
<td><strong>Target Population (denominator) Exclusion Details:</strong></td>
</tr>
</tbody>
</table>
#0229: Heart Failure 30-day Mortality
Centers for Medicare & Medicaid Services

**Description:**

**Setting:** Hospital  
**Level of Analysis:** Facility/Agency

**Data Source:** Electronic administrative data/claims

**Target Outcome (unadjusted numerator):** Patients who died of any cause within 30 days of index admission

**Target Population (denominator):** Patients with AMI age 65 years and older (ICD-9-CM codes 402.01, 402.11, 402.91, 404.01, 404.03, 404.11, 404.13, 404.91, 404.93, or 428.xx). Patients who are transferred from one acute care facility to another must have a principal discharge diagnosis of heart failure at both hospitals. The initial hospital for a transferred patient is designated as the responsible institution for the episode. For patients with multiple hospitalizations for HF during the designated time frame, only one admission is randomly selected for inclusion.

**Target Population (denominator) Exclusions:**  
- Patients who have a total length of stay less than or equal to one day and were discharged alive and not against medical advice are excluded from the measure;  
- Patients without a minimum one year of history in Medicare Fee-for-Service or with incomplete information are excluded;  
- Patients with one or more Medicare hospice claims at any time during the 12 months prior to the index hospitalization are excluded.

**Methods/ Risk Adjustment:** risk-adjustment: hierarchical logistic regression  
Risk-adjustment: Hierarchical logistic regression

**Target Population (denominator) Details:**

**Target Population (denominator) Exclusion Details:**
#0330: 30-Day All-Cause Risk Standardized Readmission Rate Following Heart Failure Hospitalization (risk adjusted)

**Centers for Medicare & Medicaid Services**

**Description:** Hospital-specific, risk-standardized, 30-day all-cause readmission rates for Medicare fee-for-service patients discharged from the hospital with a principal diagnosis of heart failure (HF).

**Setting:** Hospital  
**Level of Analysis:** Facility/Agency

**Data Source:** Electronic administrative data/claims

**Target Outcome (unadjusted numerator):** Measured outcome: 30-day all-cause readmissions for patients discharged from the hospital with a principal diagnosis of HF, as measured from the date of discharge of the index HF admission

**Target Population (denominator):** Included population: Index admissions for Medicare fee-for-service beneficiaries age 65 or over admitted to the hospital with a principal ICD-9-CM discharge diagnosis of heart failure and discharged alive

**Target Population (denominator) Exclusions:** Age <65  
In-hospital deaths  
Incomplete data (without FFS Part A, without 12 mo enrollment prior to discharge, without 1 month enrollment post discharge)  
Transfers out  
Additional HF admissions within 30 days

**Methods/ Risk Adjustment:**

**Target Population (denominator) Details:**

**Target Population (denominator) Exclusion Details:** The following hospitalizations are excluded as index admissions  
Age <65  
In-hospital deaths  
Incomplete data - the measure excludes HF admissions for:  
a. Beneficiaries without FFS Medicare Part A at the time of the index admission;  
b. Beneficiaries without 12 full months of enrollment in parts A and B FFS prior to the index admission;  
c. Beneficiaries without one full month of enrollment in Parts A and B FFS post discharge.  
Transfers-out. Admissions for patients having a principal diagnosis during the index hospitalization and subsequently transferred to an acute care setting.  
Additional HF admissions within 30 days. If a patient has one or more additional HF admissions within 30 days of discharge from an index HF admission, we do not consider the additional HF admissions as index admissions (they are considered as potential readmissions). Thus, any HF admission is either an index admission or a readmission, but not both.
#0276: Hypertension (PQI 7)
Agency for Healthcare Research and Quality

**Description:** This measure is used to assess the number of admissions for hypertension per 100,000 population. See Notes.

**Setting:** Hospital  
**Level of Analysis:** Population: counties or cities

**Data Source:** Electronic administrative data/claims

**Target Outcome (unadjusted numerator):** All non-maternal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for hypertension (see below).

**Target Population (denominator):** Population in Metro Area or county, age 18 years and older.

**Target Population (denominator) Exclusions:** Exclude cases:  
- transferring from another institution (SID ASOURCE=2)  
- MDC 14 (pregnancy, childbirth, and puerperium)  
- MDC 15 (newborn and other neonates) with cardiac procedure codes in any field

**Methods/ Risk Adjustment:**

**Target Population (denominator) Details:**

**Target Population (denominator) Exclusion Details:**
<table>
<thead>
<tr>
<th><strong>#0277: Congestive heart failure (PQI 8)</strong></th>
<th>Agency for Healthcare Research and Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong> This measure is used to assess the number of admissions for congestive heart failure (CHF) per 100,000 population. See Notes.</td>
<td></td>
</tr>
<tr>
<td><strong>Setting:</strong> Hospital</td>
<td></td>
</tr>
<tr>
<td><strong>Level of Analysis:</strong> Population: counties or cities</td>
<td></td>
</tr>
<tr>
<td><strong>Data Source:</strong> Electronic administrative data/claims</td>
<td></td>
</tr>
<tr>
<td><strong>Target Outcome (unadjusted numerator):</strong> All non-maternal/non-neonatal discharges of age 18 years and older with ICD-9-CM principal diagnosis code for CHF.</td>
<td></td>
</tr>
<tr>
<td><strong>Target Population (denominator):</strong> Population in Metro Area or county, age 18 years and older.</td>
<td></td>
</tr>
<tr>
<td><strong>Target Population (denominator) Exclusions:</strong> Exclude cases:</td>
<td></td>
</tr>
<tr>
<td>•transferring from another institution (SID ASOURCE=2)</td>
<td></td>
</tr>
<tr>
<td>•MDC 14 (pregnancy, childbirth, and puerperium)</td>
<td></td>
</tr>
<tr>
<td>•MDC 15 (newborn and other neonates)</td>
<td></td>
</tr>
<tr>
<td>•with cardiac procedure codes in any field</td>
<td></td>
</tr>
<tr>
<td><strong>Methods/ Risk Adjustment:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Target Population (denominator) Details:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Target Population (denominator) Exclusion Details:</strong></td>
<td></td>
</tr>
</tbody>
</table>
**#0358: Congestive Heart Failure Mortality (IQI 16) (risk adjusted)**

<table>
<thead>
<tr>
<th>Agency for Healthcare Research and Quality</th>
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</thead>
<tbody>
<tr>
<td><strong>Description:</strong> Percent of in-hospital death for discharges, 18 years and older, with ICD-9-CM principle diagnosis code of CHF.</td>
</tr>
<tr>
<td><strong>Setting:</strong> Hospital</td>
</tr>
<tr>
<td><strong>Level of Analysis:</strong> Facility/Agency</td>
</tr>
<tr>
<td><strong>Data Source:</strong> Electronic administrative data/claims</td>
</tr>
<tr>
<td><strong>Target Outcome (unadjusted numerator):</strong> Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.</td>
</tr>
<tr>
<td><strong>Target Population (denominator):</strong> Discharges, 18 years and older, with ICD-9-CM principal diagnosis code of CHF.</td>
</tr>
</tbody>
</table>
| **Target Population (denominator) Exclusions:** • missing discharge disposition (DISP=missing)  
  • transferring to another short-term hospital (DISP=2)  
  • MDC 14 (pregnancy, childbirth, and puerperium)  
  • MDC 15 (newborns and other neonates) |
| **Methods/ Risk Adjustment:** |
| **Target Population (denominator) Details:** ICD-9-CM codes of 39891; 40201 through 40493; 4280 through 42483 |
| **Target Population (denominator) Exclusion Details:** |