### Reporting Criteria

**Geography**  
North Carolina

**Reporting Start Date**  
01/01/2009

**Reporting End Date**  
12/31/2009

**Report Name**  
22_Care_Gaps

### Measures

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Antidepressant Medication Management (AMM3)** | The percentage of members 18 years of age and older who were diagnosed with a new episode of major depression, treated with antidepressant medication, and who remained on an antidepressant medication treatment. Two rates are reported.  
  • **Effective Continuation Phase Treatment.** The percentage of newly diagnosed and treated members who remained on an antidepressant medication for at least 180 days (6 months). |

<table>
<thead>
<tr>
<th>Denominator</th>
<th>Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intake Period:</strong> The 12-month window starting on May 1 of the year prior to the measurement year and ending on April 30 of the measurement year.</td>
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</tr>
<tr>
<td><strong>IESD:</strong> Index Episode Start Date. The earliest encounter during the Intake Period with any diagnosis of major depression (Table AMM-A) that meets the following criteria.</td>
<td></td>
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<tr>
<td>• A 120-day Negative Diagnosis History</td>
<td></td>
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<tr>
<td>• A 90-day Negative Medication History</td>
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<tr>
<td>For an inpatient (acute or nonacute) claim/encounter, the IESD is the date of discharge.</td>
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<tr>
<td>For a direct transfer, the IESD is the discharge date from the facility to which the member was transferred</td>
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<tr>
<td><strong>Negative Diagnosis History:</strong> A period of 120 days (4 months) prior to the IESD, during which time the member had no claims/encounters with any diagnosis of major depression (Table AMM-A) or prior episodes of depression (Table AMM-C).</td>
<td></td>
</tr>
<tr>
<td>For an inpatient (acute or nonacute) claim/encounter, use the date of admission to determine Negative Diagnosis History.</td>
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<tr>
<td>For direct transfers, use the first admission to determine Negative Diagnosis History.</td>
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<tr>
<td><strong>IPSD:</strong> Index Prescription Start Date. The earliest prescription dispensing date for an antidepressant medication during the period of 30 days prior to the IESD (inclusive) through 14 days after the IESD (inclusive).</td>
<td></td>
</tr>
<tr>
<td><strong>Negative Medication History:</strong> A period of 90 days (3 months) prior to the IPSD, during which time the member had no pharmacy claims for either new or refill prescriptions for an antidepressant medication (Table AMM-D).</td>
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</tr>
<tr>
<td><strong>Treatment days:</strong> The actual number of calendar days covered with prescriptions within the specified 180-day measurement interval. For Effective Continuation Phase Treatment, a prescription of 90 days supply dispensed on the 151st day will have 80 days counted in the 231-day interval</td>
<td></td>
</tr>
</tbody>
</table>

Eligible Population
Measures

Denominator

Product lines: Commercial, Medicaid, Medicare (report each product line separately).

Ages: 18 years and older as of April 30 of the measurement year.

Continuous enrollment: 120 days prior to the IESD through 245 days after the IESD.

Allowable gap: One gap in enrollment of up to 45 days. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).

Anchor date: IESD.

Benefits: Medical, pharmacy and mental health (inpatient and outpatient).

Event/diagnosis: The organization should follow the steps below to identify the eligible population, which should be used for both rates.

Step 1: Identify all members who met at least one of the following criteria during the Intake Period.

• At least one principal diagnosis of major depression (Table AMM-A) in an outpatient, ED, intensive outpatient or partial hospitalization setting (Table AMM-B), or
• At least two visits in an outpatient, ED, intensive outpatient or partial hospitalization setting (Table AMM-B) on different dates of service with any diagnosis of major depression (Table AMM-A), or
• At least one inpatient (acute or nonacute) claim/encounter with any diagnosis of major depression (Table AMM-A)

Step 2: Determine the IESD. For each member identified in step 1, identify the date of the earliest encounter during the Intake Period with any diagnosis of major depression. If the member had more than one encounter during the Intake Period, include only the first encounter.

Step 3: Test for Negative Diagnosis History. Exclude members who had a claim/encounter for any diagnosis of major depression (Table AMM-A) or prior episodes of depression (Table AMM-C) during the 120 days prior to the IESD.

Step 4: Identify the IPSD. The IPSD is the date of the earliest dispensing event for an antidepressant medication (Table AMM-D) during the period of 30 days prior to the IESD (inclusive) through 14 days after the IESD (inclusive). Exclude members who did not fill a prescription for an antidepressant medication during this period.

Step 5: Test for Negative Medication History. Exclude members who filled a prescription for an antidepressant medication 90 days (3 months) prior to the IPSD.

Step 6: Calculate continuous enrollment. Members must be continuously enrolled for 120 days prior to the IESD to 245 days after the IESD.

Numerator

At least 180 days (6 months) of continuous treatment with antidepressant medication (Table AMM-D) during the 231-day period following the IPSD (inclusive). The continuous treatment allows gaps in medication treatment up to a total of 51 days during the 231-day period.

Allowable medication changes or gaps include the following.

• Washout period gaps to change medication

• Treatment gaps to refill the same medication

Regardless of the number of gaps, gap days may total no more than 51. The organization may count any combination of gaps (e.g., two washout gaps, each 25 days or two washout gaps of 10 days each and one treatment gap of 10 days).
This two-part measure looks at:
• The percentage of members with major depression who were initiated on an antidepressant drug and who received an adequate acute-phase trial of medications (three months).
• The percentage of members with major depression who were initiated on an antidepressant drug and who completed a period of continuous medication treatment (six months).

In a given year, an estimated 20.9 million American adults suffer from a depressive disorder or depression.113 Without treatment, symptoms associated with these disorders can last for years, or can eventually lead to death by suicide or other causes. Fortunately, many people can improve through treatment with appropriate medications.

According to the American Psychiatric Association,114 successful treatment of patients with major depressive disorder is promoted by a thorough assessment of the patient and close adherence to treatment plans. Treatment consists of an acute phase, during which remission is induced; a continuation phase, during which remission is preserved; and a maintenance phase, during which the susceptible patient is protected against the recurrence of a subsequent major depressive episode.

When pharmacotherapy is part of the treatment plan, it must be integrated with the psychiatric management and any other treatments that are being provided. Patients who have started taking an antidepressant medication should be carefully monitored to assess their response to pharmacotherapy as well as the emergence of side effects, clinical condition and safety. Factors to consider when determining the frequency of patient monitoring include the severity of illness, the patient’s cooperation with treatment, the availability of social supports and the presence of comorbid general medical problems. In practice, the frequency of monitoring during the acute phase of pharmacotherapy can vary from once a week in routine cases to multiple times per week in more complex cases.

Patients who have been treated with antidepressant medications in the acute phase should be maintained on these agents to prevent relapse.114 Organizations and providers have an opportunity to track antidepressant use in patients and provide appropriate follow-up care to monitor clinical worsening and suicide risk. Monitoring should include continuing appropriate use of antidepressants in patients progressing toward remission. In addition, organizations can foster programs and system changes that would help primary care physicians and other providers ensure success in the identification and ongoing care of patients with depression. Organizations can address the lack of member knowledge and understanding of depression and the use of antidepressant medication by developing and distributing patient educational materials.

Measures

**Denominator**
- Anchor date: December 31 of the measurement year.
- Benefit: Medical.
- Event/diagnosis: None.

**Numerator**
- One or more Pap tests during the measurement year or the two years prior to the measurement year. A woman had a Pap test if a submitted claim/encounter contains any code in Table CCS-A.

**Exclusions**
- Women who had a hysterectomy with no residual cervix. Look as far back as possible in the member's history for evidence of hysterectomy through December 31 of the measurement year. Refer to Table CCS-B for codes to identify hysterectomy.

**Clinical Rationale**
This measure assesses the percentage of women 21–64 years of age who had at least one Pap test during the past three years.

Cervical cancer can be detected in its early stages by regular screening using a Pap test. A number of organizations, including the American College of Obstetricians and Gynecologists (ACOG), the American Medical Association (AMA) and the American Cancer Society (ACS), recommend Pap testing every one to three years for all women who have been sexually active or who are over 21.

Efforts to improve care tend to build on past efforts. For example, after moderately successful efforts to improve cervical cancer screening rates by educating patients, reducing barriers to care and revising practice guidelines, a subsequent effort to develop a reminder system might prove especially effective, but only because of the groundwork laid by previous efforts. The same reminder system established prior to the other efforts might not be as effective.

Organizations need to educate women about the importance of Pap tests, provide information and counseling on the procedure to reduce anxiety and fear and make the tests convenient and accessible. Many organizations encourage women to have a Pap test during their gynecologic visit by providing them with notification cards that are filled out during the visit and mailed back to them with the test results. Other organizations send reminder “thinking of you” cards encouraging women to receive recommended Pap tests. Allowing an annual well-women visit without a referral also removes one potential barrier to cervical cancer screening, and may help boost screening rates.


http://caonline.amcancersoc.org/cgi/content/full/52/6/342

**Citations**

**Name**
- Colorectal Cancer Screening (COL)

**Description**
The percentage of members 50–75 years of age who had appropriate screening for colorectal cancer.

**Eligible Population**
- Product lines: Commercial, Medicare (report each product line separately).
- Ages: 51–75 years as of December 31 of the measurement year.
- Continuous enrollment: The measurement year and the year prior to the measurement year.
- Allowable gap: No more than one gap in continuous enrollment of up to 45 days during each year of continuous enrollment.
- Anchor date: December 31 of the measurement year.
- Benefit: Medical.
- Event/diagnosis: None.
Measures

Denominator

One or more screenings for colorectal cancer. Appropriate screenings are defined by any one of the following criteria.

- Fecal occult blood test (FOBT) during the measurement year. Regardless of FOBT type, guaiac (gFOBT) or immunochemical (iFOBT), assume that the required number of samples was returned.

- Flexible sigmoidoscopy during the measurement year or the four years prior to the measurement year

- Colonoscopy during the measurement year or the nine years prior to the measurement year

A member had an appropriate screening if a submitted claim/encounter contains any code in Table COL-A.

Exclusions

Members with a diagnosis of colorectal cancer or total colectomy. Look for evidence of colorectal cancer or total colectomy as far back as possible in the member’s history. Refer to Table COL-B for codes to identify exclusions.

Clinical Rationale

This measure is based on several organizations’ clinical guidelines—USPSTF,30 ACS31 and AHRQ/American Gastroenterological Association.32 It assesses whether adults 50–75 years of age have had appropriate screening for CRC. “Appropriate screening” is defined by meeting any one of the screening methods below.

- Fecal occult blood test (FOBT) during the measurement year
- Flexible sigmoidoscopy during the measurement year or the four years prior to the measurement year
- Colonoscopy during the measurement year or the nine years prior to the measurement year

Colorectal cancer (CRC) is the second leading cause of cancer-related deaths in the U.S.23 It places significant economic burden on society: treatment costs over $6.5 billion per year. Unlike other screening tests that only detect disease, some methods of CRC screening can detect premalignant polyps and guide their removal, which in theory can prevent the cancer from developing. Organizations are particularly well positioned to measure and influence the use of preventive services like CRC screening.33,34 Some have made special efforts to improve screening rates among enrolled populations and have demonstrated that CRC detected during screening is associated with being diagnosed with early-stage disease.35 Compelling evidence gathered during the past decade shows that systematic screening can reduce mortality from CRC. Colorectal screening may also lower mortality by allowing detection of cancer at earlier stages, when treatment is more effective.36


Citations


Name

Chlamydia Screening in Women (CHL1)

Description

The percentage of women 16–20 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.

Eligible Population

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Measures

Denominator

- 16–20 years
- 21–24 years
- Total

The total rate is the sum of the two numerators divided by the sum of the two denominators.

Continuous enrollment: The measurement year.

Allowable gap: No more than one gap in enrollment of up to 45 days during the measurement year. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).

Anchor date: December 31 of the measurement year.

Benefit: Medical.

Event/diagnosis:

- Sexually active. Two methods identify sexually active women: pharmacy data and claim/encounter data. The organization must use both methods to identify the eligible population; however, a member only needs to be identified in one method to be eligible for the measure.
- Pharmacy data. Members who were dispensed prescription contraceptives during the measurement year (Table CHL-A).
- Claim/encounter data. Members who had at least one encounter during the measurement year with any code listed in Table CHL-B.

Numerator

At least one chlamydia test during the measurement year as documented through administrative data. A woman is counted as having had a test if she had a claim/encounter with a service date during the measurement year with one or more of the codes in Table CHL-C.

Exclusions

Members who had a pregnancy test during the measurement year, followed within seven days (inclusive) by either a prescription for isotretinoin (Accutane) or an x-ray. This exclusion does not apply to members who qualify for the denominator based on services other than the pregnancy test alone. Refer to Table CHL-D for codes to identify exclusions.

Clinical Rationale

This measure assesses the percentage of sexually active women 15–24 years of age who were screened for chlamydia. Screening is essential because the majority of women who have the condition do not experience symptoms. The main objective of chlamydia screening is to prevent pelvic inflammatory disease (PID), infertility and ectopic pregnancy, all of which have very high rates of occurrence among women with untreated chlamydia infection. The specifications for this measure are consistent with current clinical guidelines, such as those of the USPSTF. Chlamydia trachomatis is the most common sexually transmitted disease (STD) in the U.S. The CDC estimates that approximately three million people are infected with chlamydia each year. Risk factors associated with becoming infected with chlamydia are the same as risks for contracting other STDs (e.g., multiple sex partners). Chlamydia is more prevalent among adolescent (15–19) and young adult (20–24) women.

Organizations continue to register weak performance in chlamydia screening, with commercial rates remaining below 35 percent. Even the best-performing commercial plans screen only a third of eligible women—a significant missed opportunity for early diagnosis and treatment.

Both practitioner and patient may be unaware of the extent to which annual screenings prevent the spread of this disease. The organization should educate practitioners about the value and cost effectiveness of chlamydia screening, and provide incentives to encourage screening and clinical practice guidelines and other decision support tools that help practitioners identify members at risk.


Citations


Name

Chlamydia Screening in Women (CHL2)

Description

The percentage of women 21–24 years of age who were identified as sexually active and who had at least one test for chlamydia during the measurement year.

Denominator

Eligible Population

=====================================  
Product lines: Commercial, Medicaid (report each product line separately).
Measures

**Denominator**

Ages: Women 16–24 years as of December 31 of the measurement year. Report two age stratifications and a total rate.

- 21–24 years

Continuous enrollment: The measurement year.

Allowable gap: No more than one gap in enrollment of up to 45 days during the measurement year. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).

Anchor date: December 31 of the measurement year.

Benefit: Medical.

Event/diagnosis:

Sexually active. Two methods identify sexually active women: pharmacy data and claim/encounter data. The organization must use both methods to identify the eligible population; however, a member only needs to be identified in one method to be eligible for the measure.

Pharmacy data. Members who were dispensed prescription contraceptives during the measurement year (Table CHL-A).

Claim/encounter data. Members who had at least one encounter during the measurement year with any code listed in Table CHL-B.

**Numerator**

At least one chlamydia test during the measurement year as documented through administrative data. A woman is counted as having had a test if she had a claim/encounter with a service date during the measurement year with one or more of the codes in Table CHL-C.

**Exclusions**

Members who had a pregnancy test during the measurement year, followed within seven days (inclusive) by either a prescription for isotretinoin (Accutane) or an x-ray. This exclusion does not apply to members who qualify for the denominator based on services other than the pregnancy test alone. Refer to Table CHL-D for codes to identify exclusions.

**Clinical Rationale**

This measure assesses the percentage of sexually active women 15–24 years of age who were screened for chlamydia. Screening is essential because the majority of women who have the condition do not experience symptoms. The main objective of chlamydia screening is to prevent pelvic inflammatory disease (PID), infertility and ectopic pregnancy, all of which have very high rates of occurrence among women with untreated chlamydia infection. The specifications for this measure are consistent with current clinical guidelines, such as those of the USPSTF.37

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Organizations continue to register weak performance in chlamydia screening, with commercial rates remaining below 35 percent. Even the best-performing commercial plans screen only a third of eligible women—a significant missed opportunity for early diagnosis and treatment.

Both practitioner and patient may be unaware of the extent to which annual screenings prevent the spread of this disease. The organization should educate practitioners about the value and cost effectiveness of chlamydia screening, and provide incentives to encourage screening and clinical practice guidelines and other decision support tools that help practitioners identify members at risk.


**Citations**


Measures

Episode: The date of service for any outpatient or ED visit (Table AAB-B) during the Intake Period with any diagnosis of acute bronchitis (Table AAB-A).

IESD: Index Episode Start Date. The earliest Episode Date during the Intake Period that meets all of the following criteria.

- A 30-day Negative Medication History prior to the Episode Date (Table AAB-D)
- A 12-month Negative Comorbid Condition History prior to and including the Episode Date (Table AAB-C)
- A Negative Competing Diagnosis during the 30 days prior to the Episode Date through 7 days after the Episode Date (inclusive) (Table URI-C)
- The member was continuously enrolled one year prior to the Episode Date through seven days after the Episode Date.

Negative Medication History: To qualify for Negative Medication History, the following criteria must be met.

- A period of 30 days prior to the Episode Date, during which time the member had no pharmacy claims for either new or refill prescriptions for a listed antibiotic drug
- No prescriptions filled more than 30 days prior to the Episode Date and are active on the Episode Date (Table AAB-D).

A prescription is considered active if the days supply indicated on the date the member filled the prescription is the number of days or more between that date and the relevant service date. The 30-day look-back period for pharmacy data includes the 30 days prior to the Intake Period.

Negative Comorbid Condition History: A period of 12 months prior to and including the Episode Date, during which time the member had no claims/encounters containing either a principal or secondary diagnosis for a comorbid condition (Table AAB-C).

Negative Competing Diagnosis: A period of 30 days prior to the Episode Date through 7 days after the Episode Date (inclusive), during which time the member had no claims/encounters with any competing diagnosis (Table URI-C).

Eligible Population

- Product lines: Commercial, Medicaid (report each product line separately).
- Ages: Adults 18 years as of January 1 of the year prior to the measurement year to 64 years as of December 31 of the measurement year.
- Continuous enrollment: One year prior to the Episode Date through seven days after the Episode Date (inclusive).
- Allowable gap: No more than one gap of 45 days is permitted from 365 days prior to through 7 days after the Episode Date. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not continuously enrolled). Anchor date: Episode Date.
- Benefits: Medical and pharmacy.

Event/diagnosis: Outpatient or ED visit with any diagnosis of acute bronchitis during the Intake Period.

Follow the steps below to identify the eligible population:

Step 1: Identify all members in the specified age range who during the Intake Period had an outpatient or ED visit (Table AAB-B) with any diagnosis of acute bronchitis (Table AAB-A).

Step 2: Determine all acute bronchitis Episode Dates. For each member identified in step 1, determine all outpatient or ED claims/encounters with a diagnosis of acute bronchitis.

Step 3: Test for Negative Comorbid Condition History. Exclude Episode Dates for which the member had a claim/encounter with a diagnosis for a comorbid condition during the 12 months prior to or on the Episode Date (Table AAB-C).

Step 4: Test for Negative Medication History. Exclude Episode Dates where a new or refill prescription for an antibiotic medication was filled 30 days prior to the Episode Date or was active on the Episode Date (Table AAB-D).

Step 5: Test for Negative Competing Diagnosis. Exclude Episode Dates where during the period 30 days prior to the Episode Date through 7 days after the Episode Date (inclusive) the member had a
### Measures

**Denominator**

Claim/encounter with any competing diagnosis (Table URI-C).

**Step 6:** Calculate continuous enrollment. The member must be continuously enrolled with no more than one gap in coverage from 365 days prior to the Episode Date through 7 days after the Episode Date.

**Step 7:** Select the IESD. This measure examines the earliest eligible episode per member.

**Numerator**

Dispensed prescription for antibiotic medication (Table AAB-D) on or three days after the IESD.

**Exclusions**

Antibiotics are most often inappropriately prescribed for adults with acute bronchitis. This measure assesses whether antibiotics were inappropriately prescribed for healthy adults 18–64 years of age with bronchitis and builds on an existing HEDIS measure that targets inappropriate antibiotic prescribing for children with URI.

Antibiotics are not indicated in clinical guidelines for treating adults with acute bronchitis who do not have a comorbidity or other infection for which antibiotics may be appropriate. Inappropriate antibiotic treatment of adults with acute bronchitis is of clinical concern, especially since misuse and overuse of antibiotics lead to antibiotic drug resistance. Acute bronchitis consistently ranks among the 10 conditions that account for most ambulatory office visits to U.S. physicians; furthermore, despite that the vast majority of acute bronchitis cases (more than 90 percent) have a nonbacterial cause, antibiotics are prescribed 65 percent–80 percent of the time. A lower rate indicates better performance.

For all three inappropriate antibiotic use measures, the organization can influence physicians’ antibiotic prescribing behavior through interventions such as reminders of guideline recommendations, contracting and reimbursement based on physician profiles and claims payment. It can change clinical practice by monitoring and providing feedback to physicians about their prescribing behaviors. In addition, the organization can develop patient education interventions to discourage seeking antibiotics for viral conditions (such as the common cold), or without confirmatory tests such as group A strep test for pharyngitis, and to educate members about the importance of appropriate antibiotic use.

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**Clinical Rationale**


**Citations**


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**Name**

Use of Appropriate Medications for People With Asthma (ASM1)

**Description**

The percentage of members 5–11 years of age during the measurement year who were identified as having persistent asthma and who were appropriately prescribed medication during the measurement year.

**Denominator**

**Definitions**

Oral medication dispensing event: One prescription of an amount lasting 30 days or less. To calculate dispensing events for prescriptions longer than 30 days, divide the days supply by 30 and round down to convert. For example, a 100-day prescription is equal to three dispensing events (100/30 = 3.33, rounded down to 3). The organization should allocate the dispensing events to the appropriate year based on the date on which the prescription is filled.

Multiple prescriptions dispensed on the same day: Multiple prescriptions for different medications dispensed on the same day should be assessed separately. If multiple prescriptions for the same medication are dispensed on the same day, the organization should sum the days supply and divide by 30. Use the Drug ID to determine if the prescriptions are the same or different.

- Two prescriptions for different medications dispensed on the same day, each with a 60-day supply, equals four dispensing events (two prescriptions with two dispensing events each)
- Two prescriptions for different medications dispensed on the same day, each with a 15-day supply, equals two dispensing events (two prescriptions with one dispensing event each)
- Two prescriptions for the same medication dispensed on the same day, each with a 15-day supply, equals one dispensing event (sum the days supply for a total of 30 days)
- Two prescriptions for the same medication dispensed on the same day, each with a 60-day supply, equals four dispensing events (sum the days supply for a total of 120 days)
Measures

Denominator

Inhaler/Injection dispensing event: Inhalers and injections count as one dispensing event. For example, an inhaler with a 90-days supply is considered one dispensing event. In addition, multiple inhalers or injections of the same medication (as identified by Drug ID in the NDC list) filled on the same date of service should be counted as one dispensing event. For example, a member may obtain two inhalers on the same day (one for home and one for work), but intend to use both during the same 30-day period. The organization should allocate the dispensing events to the appropriate year based on the date on which the prescription is filled.

Eligible Population

Restaurant: Commercial, Medicaid (report each product line separately).

Ages: 5–50 years by December 31 of the measurement year. Report two age stratifications and a total rate.

- 5–11 years
- 12–50 years
- Total The total is the sum of the two numerators divided by the sum of the two denominators.

Continuous enrollment: The measurement year and the year prior to the measurement year.

Allowable gap: No more than one gap in enrollment of up to 45 days during each year of continuous enrollment.

To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage. The member may not have more than a 1-month gap in coverage during each year of continuous enrollment.

Anchor date: December 31 of the measurement year.

Benefits: Medical. Pharmacy during the measurement year.

Event/ Diagnosis: Follow the steps below to identify the eligible population for the measure.

Step 1: Identify members as having persistent asthma who met at least one of the following criteria during both the measurement year and the year prior to the measurement year. Criteria need not be the same across both years.

- At least one ED visit (Table ASM-B) with asthma as the principal diagnosis (Table ASM-A)
- At least one acute inpatient claim/encounter (Table ASM-B) with asthma as the principal diagnosis (Table ASM-A)
- At least four outpatient asthma visits (Table ASM-B) with asthma as one of the listed diagnoses (Table ASM-A) and at least two asthma medication dispensing events (Table ASM-C)
- At least four asthma medication dispensing events (Table ASM-C)

Step 2: A member identified as having persistent asthma because of at least four asthma medication dispensing events, where leukotriene modifiers were the sole asthma medication dispensed in that year, must also have at least one diagnosis of asthma (Table ASM-A), in any setting, in the same year as the leukotriene modifier (i.e., measurement year or year prior to the measurement year).

Numerator

Dispensed at least one prescription for a preferred therapy during the measurement year (Table ASM-D).

Exclusions

Members diagnosed with emphysema, COPD, cystic fibrosis or acute respiratory failure (Table ASM-E) any time on or prior to December 31 of the measurement year.

Clinical Rationale

This process measure evaluates whether members 5–50 years of age with persistent asthma are being prescribed medications acceptable as primary therapy for long-term asthma control. The list of acceptable medications are derived from the National Heart, Lung and Blood Institute’s National Asthma Education and Prevention Program (NAEPP) guidelines. Converting practice guidelines into performance measures is never a simple task, because guidelines are designed to provide “guidance,” whereas performance measures, used for accountability, have no flexibility. Therefore, the NAEPP working group recommended a broad measure that should be recognized as a minimum threshold: one dispensed prescription for long-term asthma control. Asthma is the most common chronic childhood disease, affecting an estimated 5 million children. Overall, approximately 20 million people in the U.S. have asthma. Collectively, people with asthma have more than 100 million days of restricted activity and 5,000 deaths annually. Much of the death and morbidity associated with asthma is avoidable. Successful management of asthma can be achieved for most asthmatics if they take medications that provide long-term control. Asthma-related suffering, cost and death can be greatly reduced through effective treatment with long-term controller medications. In addition, patient education regarding medication use, symptom management and avoidance of asthma attack triggers can greatly reduce the impact of the disease. Organizations must continue to focus efforts on this condition to ensure that treatment is available to all who might benefit from improved medication management. 87 National Asthma Education and Prevention Program Expert Panel. Report 2: Guidelines for the Diagnosis and Management of Asthma. NIH Publication No. 97-4051. http://www.nhbi.nih.gov/guidelines/asthma/asthgdln.htm 88 National Institutes of Health: National Heart, Lung...
### Appropriate Testing for Children With Pharyngitis (CWP)

**Name**
Appropriate Testing for Children With Pharyngitis (CWP)

**Description**
The percentage of children 2–18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode. A higher rate represents better performance (i.e., appropriate testing).

**Denominator Definitions**

- **Intake Period:** A 12-month window that begins on July 1 of the year prior to the measurement year and ends on June 30 of the measurement year. The Intake Period captures eligible episodes of treatment.

- **Episode Date:** The date of service for any outpatient or ED visit (Table CWP-B) during the Intake Period with only a diagnosis of pharyngitis (Table CWP-A). Exclude claims/encounters with more than one diagnosis.

- **IESD:** Index Episode Start Date. The earliest Episode Date during the Intake Period that meets all of the following criteria.
  - Linked to a dispensed antibiotic prescription on or during the three days after the Episode Date
  - A 30-day Negative Medication History prior to the Episode Date
  - The member was continuously enrolled during the 30 days prior to the Episode Date through 3 days after the Episode Date.

  **Negative Medication History:** To qualify for Negative Medication History, the following criteria must be met.
  - A period of 30 days prior to the Episode Date, during which time the member had no pharmacy claims for either new or refill prescriptions for a listed antibiotic drug
  - No prescriptions filled more than 30 days prior to the Episode Date that are active on the Episode Date (Table CWP-C).
  A prescription is considered active if the “days supply” indicated on the date the member filled the prescription is the number of days or more between that date and the relevant service date. The 30-day look-back period for pharmacy data includes the 30 days prior to the Intake Period.

**Eligible Population**

- **Product lines:** Commercial, Medicaid (report each product line separately).

- **Ages:** Children 2 years as of July 1 of the year prior to the measurement year to 18 years as of June 30 of the measurement year.

- **Continuous enrollment:** 30 days prior to the Episode Date through 3 days after the Episode Date (inclusive).

- **Allowable gap:** No gaps in enrollment during the continuous enrollment period.

- **Anchor date:** Episode Date.

- **Benefits:** Medical and pharmacy.

- **Event/diagnosis:** Outpatient or ED visit with only a diagnosis of pharyngitis and a dispensed antibiotic for that episode of care during the Intake Period. Follow the steps below to identify the eligible population.

  **Step 1:** Identify all members who had an outpatient or ED visit (Table CWP-B) with only a diagnosis of pharyngitis (Table CWP-A) during the Intake Period. Exclude claims/encounters with more than one diagnosis.

  **Step 2:** Determine all pharyngitis Episode Dates. For each member identified in step 1, determine all outpatient or ED claims/encounters with only a diagnosis of pharyngitis.

  **Step 3:** Determine if antibiotics (Table CWP-C) were dispensed for any of the Episode Dates. For each Episode Date with a qualifying diagnosis, determine if antibiotics were dispensed on or up to
Measures

Denominator

Steps:
1. Exclude Episode Dates if the member did not receive antibiotics on or three days after the Episode Date.
2. Test for Negative Medication History. Exclude Episode Dates where a new or refill prescription for an antibiotic medication was filled 30 days prior to the Episode Date or where a prescription filled more than 30 days prior to the Episode Date was active on the Episode Date.
3. Calculate continuous enrollment. The member must be continuously enrolled without any gaps in coverage from 30 days prior to the Episode Date through 3 days after the Episode Date.
4. Select the IESD. This measure examines the earliest eligible episode per member.

Exclusions

This measure reports the percentage of children between 2 and 18 years of age who were diagnosed with pharyngitis, prescribed an antibiotic at an outpatient visit and received a group A strep test. A higher rate indicates better performance.

Clinical Rationale

Pharyngitis is the only condition among upper respiratory infections (URI) where diagnosis is easily and objectively validated through administrative and laboratory data, and it can serve as an important indicator of appropriate antibiotic use among all respiratory tract infections. Overuse of antibiotics has been directly linked to the prevalence of antibiotic resistance; promoting judicious use of antibiotics is important to reducing levels of antibiotic resistance.66 Pediatric clinical practice guidelines67 recommend that only children diagnosed with group A streptococcus (strep) pharyngitis, based on appropriate lab tests, be treated with antibiotics. A strep test (rapid assay or throat culture) is the definitive test of group A strep pharyngitis. Excess use of antibiotics is highly prevalent for pharyngitis: about 35 percent of the total 9 million antibiotics prescribed for pharyngitis in 1998 were estimated to be in excess.68 Organizations have shown effective ways of targeting physicians and patients to reduce inappropriate antibiotic prescribing at past HEDIS conferences. Organizations can also work with national and state public health agencies—such as the CDC—to educate and raise awareness with patients and physicians on inappropriate antibiotic use. In 1995, the CDC initiated a national health campaign in 1995 to reduce antibiotic resistance by promoting judicious use of antibiotics for infectious respiratory diseases through media outreach, guideline dissemination to physicians, cold prescription pads and patient education materials.


Numerator

A group A streptococcus test (Table CWP-D) in the seven-day period from three days prior to the IESD through three days after the IESD.

Clinical Rationale


Citations


Name

Use of Spirometry Testing in the Assessment and Diagnosis of COPD (SPR)

Description

The percentage of members 40 years of age and older with a new diagnosis or newly active COPD who received appropriate spirometry testing to confirm the diagnosis.

Definitions

Intake Period: A 12-month window that begins on July 1 of the year prior to the measurement year and ends on June 30 of the measurement year. The Intake Period captures the first COPD diagnosis.

IESD: Index Episode Start Date. The earliest date of service for any encounter during the Intake Period with any diagnosis of COPD (Table SPR-A).

For an outpatient claim/encounter, the IESD is the date of service.

For an inpatient (acute or nonacute) claim, the IESD is the date of discharge.

For a transfer or readmission, the IESD is the discharge date of original admission.
# Measures

## Denominator

Negative Diagnosis History: A period of 730 days (2 years) prior to the IESD (inclusive), during which the member had no claims/encounters containing any diagnosis of COPD (Table SPR-A). For an inpatient claim/encounter, use the date of admission to determine the Negative Diagnosis History.

## Eligible Population

- **Product lines:** Commercial, Medicaid, Medicare (report each product line separately).
- **Ages:** 42 years or older as of December 31 of the measurement year.
- **Continuous enrollment:** 730 days (2 years) prior to the IESD through 180 days after the IESD.
- **Allowable gap:** One gap in enrollment of up to 45 days is allowed in each of the 12-month periods prior to the IESD or in the 6-month period after the IESD, for a maximum of two gaps total. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).
- **Anchor date:** IESD.
- **Benefit:** Medical.
- **Event/diagnosis:** The first COPD diagnosis. Follow the steps below to identify the eligible population for the measure.

### Step 1: Identify all members who had any diagnosis of COPD (Table SPR-A) during the Intake Period. If the member had more than one diagnosis of COPD, include only the first one.

### Step 2: Test for Negative Diagnosis History. Exclude members who had a claim/encounter with a COPD diagnosis during the 730 days (2 years) prior to the IESD. For an inpatient (acute or nonacute) claim/encounter, use the date of admission to determine the Negative Diagnosis History.

### Step 3: Calculate continuous enrollment. Members must be continuously enrolled in the organization 730 days (2 years) prior to the IESD through 180 days after the IESD.

## Numerator

- At least one claim/encounter with any code listed in Table SPR-B for spirometry in the 730 days (2 years) before the IESD to 180 days after the IESD.

## Exclusions

This measure looks at the percentage of members 40 years of age and older during the measurement year with a new diagnosis of chronic obstructive pulmonary disease (COPD) who received spirometry testing to confirm the diagnosis within a reasonable period of time.

COPD is a major cause of chronic morbidity and mortality throughout the world and in the U.S. COPD defines a group of diseases characterized by airflow obstruction, and includes chronic bronchitis and emphysema. Symptoms of COPD range from chronic cough and sputum production to severe, disabling shortness of breath, leading to significant impairment of quality of life. COPD affects nearly 16 million adults in the U.S. COPD is the fourth leading cause of death in the U.S., and is projected to move to third place by 2020.75,76

Spirometry is a simple test that measures the amount of air a person can breathe out and the amount of time it takes to do so. Both symptomatic and asymptomatic patients suspected of COPD should have spirometry performed to establish airway limitation and severity.77 Though several scientific guidelines and specialty societies recommend use of spirometry testing to confirm COPD diagnosis and determine severity of airflow limitation, spirometry tests are largely underutilized. Because of the significant number of Medicare recipients enrolled in managed care plans, these organizations will garner long-term benefits from accurate disease diagnosis through use of diagnostic testing (such as spirometry). Proper diagnosis is needed to ensure that members receive appropriate short- and long-term treatment. Organizations can educate their providers about spirometry testing and provide access to spirometers to facilitate comprehensive disease assessment and diagnosis.

### Name
Breast Cancer Screening (BCS)

### Description
The percentage of women 40–69 years of age who had a mammogram to screen for breast cancer.

### Denominator
Eligible Population

- Product lines: Commercial, Medicaid, Medicare (report each product line separately).
- Ages: Women 42–69 years as of December 31 of the measurement year.
- Continuous enrollment: The measurement year and the year prior to the measurement year.
- Allowable gap: No more than one gap in enrollment of up to 45 days during each year of continuous enrollment. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage during each year of continuous enrollment.
- Anchor date: December 31 of the measurement year.
- Benefit: Medical.
- Event/diagnosis: None.

### Numerator
One or more mammograms during the measurement year or the year prior to the measurement year. A woman had a mammogram if a submitted claim/encounter contains any code in Table BCS-A.

### Exclusions
Women who had a bilateral mastectomy. Look for evidence of a bilateral mastectomy as far back as possible in the member's history through December 31 of the measurement year. Exclude members for whom there is evidence of two unilateral mastectomies. Refer to Table BCS-B for codes to identify exclusions.

### Clinical Rationale
This measure looks at whether female members are being screened for breast cancer. It measures the percentage of women between 40 and 69 years of age who had at least one mammogram during the past two years.

Breast cancer is the second most common type of cancer among American women, with approximately 178,000 new cases reported each year.23 It is most common in women over 50. Women whose breast cancer is detected early have more treatment choices and better chances for survival. Mammography screening has been shown to reduce mortality by 20 percent–30 percent among women 40 and older. A mammogram can reveal tumors too small to be felt by hand; it can also show other changes in the breast that may suggest cancer.

The USPSTF, the American Academy of Family Physicians and the American College of Preventive Medicine recommend mammograms as the most effective method for detecting breast cancer when it is most treatable.24-26 When high-quality equipment is used and well-trained radiologists read the x-rays, 85 percent–90 percent of cancers are detectable.

Some women fear mammograms; others do not understand why they are important; still others may simply need a reminder when they are due for a mammogram. Organizations should work to educate women about the importance of regular mammograms and make mammograms more convenient. Some organizations regularly provide their practitioners with lists of members who have not received recommended mammograms and allow practitioners to deliver targeted reminders during office visits. Organizations can also consider sending mirrors or shower cards to female members that instruct them on breast self-examination techniques and mammography guidelines.

Mammography rates can be improved by increasing patient awareness, but provider awareness is also important. Trained x-ray technicians can help reduce the discomfort associated with...
### Clinical Rationale

Mammograms. Expanded hours, better geographic distribution of mammography sites, mobile mammography and streamlining or eliminating the referral process have all been recommended to remove obstacles.


### Citations


### Name

Cholesterol Management for Patients With Cardiovascular Conditions (CMC1)

### Description

The percentage of members 18–75 years of age who were discharged alive for AMI, coronary artery bypass graft (CABG) or percutaneous transluminal coronary angioplasty (PTCA) from January 1–November 1 of the year prior to the measurement year, or who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to measurement year, who had each of the following during the measurement year. • LDL-C screening

### Denominator

Eligible Population

Product lines: Commercial, Medicaid, Medicare (report each product line separately).

Ages: 18–75 years as of December 31 of the measurement year.

Continuous enrollment: The measurement year and the year prior to the measurement year.

Allowable gap: No more than one gap in enrollment of up to 45 days during each year of continuous enrollment. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).

Anchor date: December 31 of the measurement year.

Benefit: Medical.

Event/ diagnosis: Members are identified for the eligible population in two ways: event or diagnosis. The organization must use both to identify the eligible population, but a member only needs to be identified in one to be included in the measure.

**Event.** Discharged alive for AMI, CABG or PTCA on or between January 1 and November 1 of the year prior to the measurement year. Refer to Table CMC-A for codes to identify AMI, PTCA and CABG. The organization should include AMI and CABG from inpatient claims/encounters only. All cases of PTCA should be included, regardless of setting (e.g., inpatient, outpatient, ED).

**Diagnosis.** Identify members as having IVD who met at least one of the following criteria during both the measurement year and the year prior to the measurement year. Criteria need not be the same across both years.

- At least one outpatient visit (Table CMC-C) with any IVD diagnosis (Table CMC-B), or
- At least one acute inpatient claim/encounter (Table CMC-C) with any IVD diagnosis (Table CMC-B)

### Numerator

An LDL-C test performed any time during the measurement year, as identified by claim/ encounter or automated laboratory data. Use any code listed in Table CMC-D.
The organization may use a calculated or direct LDL for LDL-C screening and control indicators.

This measure assesses multiple components of cholesterol management for people 18–75 years of age who are known to have heart disease by virtue of having had an acute cardiovascular event or diagnosis of ischemic vascular disease: the percentage of members who have an LDL-C screening and the percentage of members who have a documented LDL-C level <100 mg/dL. Total blood cholesterol is directly related to the development of coronary artery disease (CAD) and CHD, with most of the risk associated with LDL cholesterol. When LDL-C levels are high, cholesterol can build up within the walls of the arteries and cause atherosclerosis, a build-up of plaque. Hemorrhaging or clot formation can occur at the site of plaque build-up, blocking arteries and causing heart attack and stroke.

Reducing cholesterol in patients with known heart disease is critically important, as treatment can reduce morbidity (heart attack and stroke) and mortality by as much as 40 percent. The National Cholesterol Education Program (NCEP) has established guidelines for managing cholesterol levels in patients with heart disease. The guidelines established the need for close monitoring of LDL cholesterol in patients with CHD and set a target for LDL-C of ≤100 mg/dL for such patients.9 The NCEP guidelines—as well as other materials that may help health plans improve the management of patients with high cholesterol—can be obtained from the National Heart, Lung, and Blood Institute Health Information Network: P.O. Box 30105, Bethesda, MD 20824-0105. Phone 301-592-8573; fax 301-592-8563; e-mail nhlbiinfo@rover.nhlbi.nih.gov.

Persistence of Beta-Blocker Treatment After a Heart Attack (PBH)

The percentage of members 18 years of age and older during the measurement year who were hospitalized and discharged alive from July 1 of the year prior to the measurement year to June 30 of the measurement year with a diagnosis of AMI and who received persistent beta-blocker treatment for six months after discharge.

Treatment days (covered days): The actual number of calendar days covered with prescriptions within the specified 180-day measurement interval (i.e., a prescription of 90 days supply dispensed on the 100th day will have 80 days counted in the 180-day interval).

Eligible Population

Product lines: Commercial, Medicaid, Medicare (report each product line separately).

Ages: 18 years and older as of December 31 of the measurement year.

Continuous enrollment: Discharge date through 180 days after discharge.

Allowable gap: No more than one gap in enrollment of up to 45 days within the 180 days of the event. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not continuously enrolled).

Anchor date: Discharge date.

Benefit: Medical and pharmacy.
Measures

Denominator

Event/diagnosis: Discharged alive from an acute inpatient setting with an AMI (Table PBH-A) from July 1 of the year prior to the measurement year through June 30 of the measurement year. If a member has more than one episode of AMI from July 1 of the year prior to the measurement year through June 30 of the measurement year, the organization should only include the first discharge.

Transfers to acute facilities. Include hospitalizations in which the member was transferred directly to another acute inpatient facility for any diagnosis. Count the discharge from the subsequent acute inpatient facility, not the initial discharge. The discharge date from the facility to which the member was transferred must occur on or before June 30 of the measurement year.

Transfers to nonacute facilities. Exclude from the denominator hospitalizations in which the member was transferred directly to a nonacute care facility for any diagnosis.

Readmissions. If the member was readmitted to an acute or nonacute care facility for any diagnosis, include the member in the denominator and use the discharge date from the original hospitalization.

Numerator

A 180-day course of treatment with beta-blockers.

Identify all members in the denominator population whose dispensed days supply is =135 days in the 180 days following discharge. Persistence of treatment for this measure is defined as at least 75 percent of the days supply filled.

To determine continuity of treatment during the 180-day period, sum the number of allowed gap days to the number of treatment days for a maximum of 180 days (i.e., 135 treatment days + 45 gap days = 180 days); identify all prescriptions filled within 180 days of the Discharge Date.

To account for members who are on beta-blockers prior to admission, the organization should factor those prescriptions into adherence rates if the actual treatment days fall within the 180 days following discharge.

Exclusions

Use administrative data to look as far back as possible in the member’s history through the end of the continuous enrollment period for evidence of a contraindication to beta-blocker therapy. Refer to Table PBH-C and Table PBH-D for codes and medications representing contraindications to beta-blocker therapy.

Clinical Rationale


Name

Comprehensive Diabetes Care (CDC1)

Description

The percentage of members 18–75 years of age with diabetes (type 1 and type 2) who had the following: • Hemoglobin A1c (HbA1c) testing

Denominator

Eligible Population

Product lines: Commercial, Medicaid, Medicare (report each product line separately).

Ages: 18–75 years as of December 31 of the measurement year.

Continuous enrollment: The measurement year.
### Measures

| Denominator | Allowable gap: No more than one gap in enrollment of up to 45 days during the measurement year. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).
| Anchor date: December 31 of the measurement year.
| Benefit: Medical.
| Event/diagnosis: Two methods identify members with diabetes: pharmacy data and claim/encounter data. The organization must use both to identify the eligible population, but a member only needs to be identified in one to be included in the measure. Members may be identified as having diabetes during the measurement year or the year prior to the measurement year.
| Pharmacy data. Members who were dispensed insulin or oral hypoglycemics/antihyperglycemics during the measurement year or year prior to the measurement year on an ambulatory basis (Table CDC-A).
| Claim/encounter data. Members who had two face-to-face encounters with a diagnosis of diabetes (Table CDC-B) on different dates of service in an outpatient setting or nonacute inpatient setting, or one face-to-face encounter in an acute inpatient or ED setting during the measurement year or the year prior to the measurement year. The organization may count services that occur over both years. Refer to Table CDC-C for codes to identify visit type.

| Numerator | HbA1c testing: An HbA1c test performed during the measurement year, as identified by claim/encounter or automated laboratory data. Use any code listed in Table CDC-D.

| Exclusions | • Members with a diagnosis of polycystic ovaries (Table CDC-O) who did not have any face-to-face encounters with a diagnosis of diabetes (CDC-B), in any setting, during the measurement year or the year prior to the measurement year. Diagnosis can occur at any time in the member's history, but must have occurred by December 31 of the measurement year.
| • Members with gestational or steroid-induced diabetes (CDC-O) who did not have any face-to-face encounters with a diagnosis of diabetes (CDC-B), in any setting, during the measurement year or the year prior to the measurement year. Diagnosis can occur during the measurement year or the year prior to the measurement year, but must have occurred by December 31 of the measurement year.

### Clinical Rationale

This composite measure, with 10 different rates, looks at how well an organization cares for the common and serious chronic disease of diabetes. It uses a single sample of diabetic members 18–75 years of age to evaluate organization performance on aspects of diabetes care. As a set, the rates provide a comprehensive picture of the clinical management of patients with diabetes. This measure looks at the percentage of individuals with diabetes who meet the following criteria.

- Had a hemoglobin (HbA1c) blood test
- Have poorly controlled diabetes (HbA1c >9.0%)
- Have controlled diabetes (HbA1c <8.0%)
- Have controlled diabetes (HbA1c <7.0%)*
- Had a retinal eye examination
- Had an LDL-C screening
- Had a controlled LDL-C level (LDL-C <100 mg/dL)
- Have been monitored for kidney disease
- Have blood pressure <140/90
- Have blood pressure <130/80

Diabetes is one of the most costly and highly prevalent chronic diseases in the U.S. Approximately 20.8 million Americans have diabetes, and half these cases are undiagnosed.99 Complications from the disease cost the country nearly $100 billion annually. In addition, diabetes accounts for nearly 20 percent of all deaths in people over 25. Many complications, such as amputation, blindness and kidney failure, can be prevented if detected and addressed in the early stages.

Many organizations have developed comprehensive diabetes management programs that help members with diabetes maintain control over their blood sugar and minimize the risk of complications. These programs can benefit quality of life and be cost-effective in the long run. The challenge faced by organizations is to bring more members with diabetes into these programs and help them incorporate healthy behaviors and monitoring practices into their lifestyle. Organizations can learn from higher-performing organizations and develop integrated approaches to treating members with diabetes.

*This criterion refers to a subset of the diabetic population. Because of concerns about patient safety related to aggressive HbA1c management, NCQA refined the indicator for HbA1c <7.0% by adding exclusions for members within a specific age cohort and with certain comorbid conditions. Therefore, the denominator for the HbA1c <7.0% indicator is different from the other indicators.
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### Name
Appropriate Treatment for Children With Upper Respiratory Infection (URI)

### Description
The percentage of children 3 months–18 years of age who were given a diagnosis of upper respiratory infection (URI) and were not dispensed an antibiotic prescription.

### Definitions
**Intake Period:** A 12-month window that begins on July 1 of the year prior to the measurement year and ends on June 30 of the measurement year. The Intake Period captures eligible episodes of treatment.

**Episode Date:** The date of service for any outpatient or ED visit (Table URI-B) during the Intake Period with only a diagnosis of URI (Table URI-A). Exclude claims/encounters with more than one diagnosis.

**IESD:** Index Episode Start Date. The earliest Episode Date during the Intake Period that meets all of the following criteria.

- A 30-day Negative Medication History prior to the Episode Date
- A Negative Competing Diagnosis on or 3 days after the Episode Date
- The member was continuously enrolled 30 days prior to the Episode Date through 3 days after the Episode Date

**Negative Medication History:** To qualify for Negative Medication History, the following criteria must be met.

- A period of 30 days prior to the Episode Date during which time the member had no pharmacy claims for either new or refill prescriptions for a listed antibiotic drug
- No prescriptions filled more than 30 days prior to the Episode Date that are active on the Episode Date (Table CWP-C)

A prescription is considered active if the “days supply” indicated on the date when the member filled the prescription is the number of days or more between that date and the relevant service date. The 30-day look-back period for pharmacy data includes the 30 days prior to the Intake Period.

**Negative Competing Diagnosis:** The Episode Date and three days following the Episode Date during which the member had no claims/encounters with any competing diagnosis (Table URI-C).

### Eligible Population
**Product lines:** Commercial, Medicaid (report each product line separately).

**Ages:** Children 3 months as of July 1 of the year prior to the measurement year to 18 years as of June 30 of the measurement year.

**Continuous enrollment:** 30 days prior to the Episode Date through 3 days after the Episode Date (inclusive).

**Allowable gap:** No gaps in enrollment during the continuous enrollment period.

**Anchor date:** Episode Date.
Measures

Denominator

Benefits: Medical and pharmacy.

Event/diagnosis: Outpatient or ED visit with only a diagnosis of URI during the Intake Period.

Follow the steps below to identify the eligible population:

Step 1: Identify all members who had an outpatient or ED visit (Table URI-B) with only a diagnosis of URI (Table URI-A) during the Intake Period. Exclude claims/encounters with more than one diagnosis.

Step 2: Determine all URI Episode Dates. For each member identified in step 1, determine all outpatient or ED claims/encounters with a URI diagnosis.

Step 3: Test for Negative Medication History. Exclude Episode Dates where a new or refill prescription for an antibiotic medication was filled 30 days prior to the Episode Date or was active on the Episode Date (Table CWP-C).

Step 4: Test for Negative Competing Diagnosis. Exclude Episode Dates where the member had a claim/encounter with a competing diagnosis (Table URI-C) on or three days after the Episode Date.

Step 5: Calculate continuous enrollment. The member must be continuously enrolled without any gaps in coverage from 30 days prior to the Episode Date through 3 days after the Episode Date.

Step 6: Select the IESD. This measure examines the earliest eligible episode per member.

Numerator

Dispensed prescription for antibiotic medication (Table CWP-C) on or three days after the IESD.

Exclusions

This measure calculates the rate of antibiotic prescribing in children with URI. It examines the proportion of children between 3 months and 18 years of age who were given a single diagnosis of URI at an outpatient visit and who did not receive an antibiotic prescription for that episode of care within three days of the visit. Only the first eligible episode of URI for each child during the measurement year will be counted. A higher rate indicates better performance.

The common cold (or URI) is a frequent reason for children visiting the doctor’s office. Though existing clinical guidelines do not support the use of antibiotics for the common cold, physicians often prescribe them for this ailment. Pediatric clinical practice guidelines do not recommend antibiotics for a majority of upper respiratory tract infections because of the viral etiology of these infections, including the common cold. A performance measure of antibiotic use for URI sheds light on the prevalence of inappropriate antibiotic prescribing in clinical practice and raises awareness of the importance of reducing inappropriate antibiotic use to combat antibiotic resistance in the community.


Citations


Name

Beta Blocker for Heart Failure Patients with Depressed Left Ventricular Systolic Function

Description

Proportion of patients 18 years or older with at least two diagnoses of heart failure (HF) who also have left ventricular systolic dysfunction (LVSD), and were prescribed beta blocker therapy within the last 3 months of the measurement year.

Denominator

Patients 18 years or older with at least two diagnoses of HF separated by at least 60 days and moderately to severely depressed left ventricular systolic function anytime prior to the end of the measurement year, and at least one qualifying HF Dx during the measurement year, and with at least 12 months continuous enrollment (pharmacy) during the measurement year with 1 gap allowed of 45 days.
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### Measures

#### Denominator

| AND >= 1 of the HF criteria (Dx, CPT II, G code) during the measurement year |
| AND at least 12 months continuous enrollment (medical) during the measurement year with 1 gap allowed of 45 days (anchor date: end of enrollment window) |

(Note: When looking for an event separated by 60 days, return the later date in the set.)

#### Numerator

Patients with quantitative or qualitative results of LVF assessment recorded as far back as possible in the member’s history through the end of the measurement year.

(>= 1 LVF assessment  
OR CPT II or G code notation for LVF assessment recorded  
AND look back as far as possible in the member's history through the end of the measurement year)

#### Exclusions

Patients discharged dead anytime prior to the end of the measurement year, or with first qualifying event in Denominator anytime after the 10th month of the measurement year.  

[Patients discharged dead  
AND look back as far as possible in the member's history through the end of the measurement year]  
OR [patients with first qualifying event in the Denominator  
AND anytime after the 10th month of the measurement year]

[Do not exclude if in Numerator]

#### Clinical Rationale

1. Assessment should be made at each visit of the ability of a patient with HF to perform routine and desired activities of daily living. (Level of Evidence: C)
2. Assessment should be made at each visit of the volume status and weight of a patient with HF. (Level of Evidence: C) It is critically important for healthcare providers to evaluate the fluid or volume status of patients with HF during the initial visit and each follow-up examination. This assessment plays a pivotal role in determining the need for diuretic therapy and in detecting sodium excesses or deficiencies that may limit efficacy and decrease the tolerability of drugs used to treat HF. The physical examination is the primary step in evaluating the presence and severity of fluid retention in patients with HF. At each visit, healthcare providers should record the patient's body weight and sitting and standing blood pressures and determine the degree of jugular venous distension and its response to abdominal pressure, the presence and severity of organ congestion (pulmonary rales and hepatomegaly), and the magnitude of peripheral edema in the legs, abdomen, presacral area, and scrotum, as well as ascites in the abdomen.
3. Careful history of current use of alcohol, tobacco, illicit drugs, "alternative therapies," and chemotherapy drugs, as well as diet and sodium intake, should be obtained at each visit of a patient with HF. (Level of Evidence: C)
4. Repeat measurement of ejection fraction (EF) and the severity of structural remodeling can provide useful information in patients with HF who have had a change in clinical status or who have experienced or recovered from a clinical event or received treatment that might have had a significant effect on cardiac function. (Level of Evidence: C)

#### Citations


### Name

Antidepressant Medication Management (AMM2)

### Description

The percentage of members 18 years of age and older who were diagnosed with a new episode of major depression, treated with antidepressant medication, and who remained on an antidepressant medication treatment. Two rates are reported  
• Effective Acute Phase Treatment. The percentage of newly diagnosed and treated members who remained on an antidepressant medication for at least 84 days (12 weeks).

### Denominator

**Definitions**

Intake Period: The 12-month window starting on May 1 of the year prior to the measurement year and ending on April 30 of the measurement year.

IESD: Index Episode Start Date. The earliest encounter during the Intake Period with any diagnosis of major depression (Table AMM-A) that meets the following criteria.

• A 120-day Negative Diagnosis History
• A 90-day Negative Medication History

For an inpatient (acute or nonacute) claim/encounter, the IESD is the date of discharge.
For a direct transfer, the IESD is the discharge date from the facility to which the member was transferred.

Negative Diagnosis History: A period of 120 days (4 months) prior to the IESD, during which time the member had no claims/encounters with any diagnosis of major depression (Table AMM-A) or prior episodes of depression (Table AMM-C).

For an inpatient (acute or nonacute) claim/encounter, use the date of admission to determine Negative Diagnosis History.

For direct transfers, use the first admission to determine Negative Diagnosis History.

IPSD: Index Prescription Start Date. The earliest prescription dispensing date for an antidepressant medication during the period of 30 days prior to the IESD (inclusive) through 14 days after the IESD (inclusive).

Negative Medication History: A period of 90 days (3 months) prior to the IPSD, during which time the member had no pharmacy claims for either new or refill prescriptions for an antidepressant medication (Table AMM-D).

Treatment days: The actual number of calendar days covered with prescriptions within the specified 180-day measurement interval. For Effective Continuation Phase Treatment, a prescription of 90 days supply dispensed on the 151st day will have 80 days counted in the 231-day interval.

Eligible Population
=====================================  
Product lines: Commercial, Medicaid, Medicare (report each product line separately).

Ages: 18 years and older as of April 30 of the measurement year.

Continuous enrollment: 120 days prior to the IESD through 245 days after the IESD.

Allowable gap: One gap in enrollment of up to 45 days. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).

Anchor date: IESD.

Benefits: Medical, pharmacy and mental health (inpatient and outpatient).

Event/diagnosis: The organization should follow the steps below to identify the eligible population, which should be used for both rates.

Step 1: Identify all members who met at least one of the following criteria during the Intake Period.

• At least one principal diagnosis of major depression (Table AMM-A) in an outpatient, ED, intensive outpatient or partial hospitalization setting (Table AMM-B), or

• At least two visits in an outpatient, ED, intensive outpatient or partial hospitalization setting (Table AMM-B) on different dates of service with any diagnosis of major depression (Table AMM-A), or

• At least one inpatient (acute or nonacute) claim/encounter with any diagnosis of major depression (Table AMM-A)

Step 2: Determine the IESD. For each member identified in step 1, identify the date of the earliest encounter during the Intake Period with any diagnosis of major depression. If the member had more than one encounter during the Intake Period, include only the first encounter.
### Measures

**Denominator**

Step 3: Test for Negative Diagnosis History. Exclude members who had a claim/encounter for any diagnosis of major depression (Table AMM-A) or prior episodes of depression (Table AMM-C) during the 120 days prior to the IESD.

Step 4: Identify the IPSD. The IPSD is the date of the earliest dispensing event for an antidepressant medication (Table AMM-D) during the period of 30 days prior to the IESD (inclusive) through 14 days after the IESD (inclusive). Exclude members who did not fill a prescription for an antidepressant medication during this period.

Step 5: Test for Negative Medication History. Exclude members who filled a prescription for an antidepressant medication 90 days (3 months) prior to the IPSD.

Step 6: Calculate continuous enrollment. Members must be continuously enrolled for 120 days prior to the IESD to 245 days after the IESD.

**Numerator**

At least 84 days (12-weeks) of continuous treatment with antidepressant medication (Table AMM-D) during the 114-day period following the IPSD (inclusive). The continuous treatment allows gaps in medication treatment up to a total of 30 days during the 114-day period.

Allowable medication changes or gaps include

- Washout period gaps to change medication
- Treatment gaps to refill the same medication

Regardless of the number of gaps, there may be no more than 30 gap days. The organization may count any combination of gaps (e.g., two washout gaps, each 15 days, or two washout gaps of 10 days each and one treatment gap of 10 days).

**Exclusions**

This two-part measure looks at:

- The percentage of members with major depression who were initiated on an antidepressant drug and who received an adequate acute-phase trial of medications (three months)
- The percentage of members with major depression who were initiated on an antidepressant drug and who completed a period of continuous medication treatment (six months).

In a given year, an estimated 20.9 million American adults suffer from a depressive disorder or depression. Without treatment, symptoms associated with these disorders can last for years, or can eventually lead to death by suicide or other causes. Fortunately, many people can improve through treatment with appropriate medications. According to the American Psychiatric Association, successful treatment of patients with major depressive disorder is promoted by a thorough assessment of the patient and close adherence to treatment plans. Treatment consists of an acute phase, during which remission is induced; a continuation phase, during which remission is preserved; and a maintenance phase, during which the susceptible patient is protected against the recurrence of a subsequent major depressive episode.

When pharmacotherapy is part of the treatment plan, it must be integrated with the psychiatric management and any other treatments that are being provided. Patients who have started taking an antidepressant medication should be carefully monitored to assess their response to pharmacotherapy as well as the emergence of side effects, clinical condition and safety. Factors to consider when determining the frequency of patient monitoring include the severity of illness, the patient’s cooperation with treatment, the availability of social supports and the presence of comorbid general medical problems. In practice, the frequency of monitoring during the acute phase of pharmacotherapy can vary from once a week in routine cases to multiple times per week in more complex cases. Patients who have been treated with antidepressant medications in the acute phase should be maintained on these agents to prevent relapse. Organizations and providers have an opportunity to track antidepressant use in patients and provide appropriate follow-up care to monitor clinical worsening and suicide risk. Monitoring should include continuing appropriate use of antidepressants in patients progressing toward remission. In addition, organizations can foster programs and system changes that would help primary care physicians and other providers ensure success in the identification and ongoing care of patients with depression. Organizations can address the lack of member knowledge and understanding of depression and the use of antidepressant medication by developing and distributing patient educational materials.


### Citations

<table>
<thead>
<tr>
<th><strong>Name</strong></th>
<th><strong>Use of Imaging Studies for Low Back Pain (LBP)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>The percentage of members with a primary diagnosis of low back pain who did not have an imaging study (plain X-ray, MRI, CT scan) within 28 days of the diagnosis.</td>
</tr>
<tr>
<td><strong>Denominator</strong></td>
<td>Definitions</td>
</tr>
<tr>
<td><strong>Intake Period:</strong></td>
<td>January 1–December 3 of the measurement year. The Intake Period is used to identify the first outpatient or ED encounter with a primary diagnosis of low back pain.</td>
</tr>
<tr>
<td><strong>IESD:</strong></td>
<td>Index Episode Start Date. The earliest date of service for any outpatient or ED encounter (Table LBP-B) during the Intake Period with a primary diagnosis of low back pain (Table LBP-A).</td>
</tr>
<tr>
<td><strong>Negative Diagnosis History:</strong></td>
<td>A period of 180 days (6 months) prior to the IESD, during which time the member had no claims/encounters with any diagnosis of low back pain (Tables LBP-A).</td>
</tr>
<tr>
<td><strong>Eligible Population</strong></td>
<td>Product line: Commercial, Medicaid (report each product line separately).</td>
</tr>
<tr>
<td></td>
<td>Ages: 18 years as of January 1 of the measurement year to 50 years as of December 31 of the measurement year.</td>
</tr>
<tr>
<td></td>
<td>Continuous enrollment: 180 days prior to the IESD through 28 days after the IESD.</td>
</tr>
<tr>
<td></td>
<td>Allowable gap: No gaps in enrollment during the continuous enrollment period.</td>
</tr>
<tr>
<td></td>
<td>Anchor date: IESD.</td>
</tr>
<tr>
<td></td>
<td>Benefit: Medical.</td>
</tr>
<tr>
<td></td>
<td>Event/diagnosis: Outpatient or ED visit with a primary diagnosis of low back pain.</td>
</tr>
<tr>
<td><strong>Numerator</strong></td>
<td>Follow the steps below to identify the eligible population.</td>
</tr>
<tr>
<td>Step 1: Identify all members in the specified age range who had an outpatient or ED encounter (Table LBP-B) with a primary diagnosis of low back pain (Table LBP-A) during the Intake Period.</td>
<td></td>
</tr>
<tr>
<td>Step 2: Determine the IESD. For each member identified in step 1, determine the earliest episode of low back pain. If the member had more than one encounter, include only the first encounter.</td>
<td></td>
</tr>
<tr>
<td>Step 3: Test for Negative Diagnosis History. Exclude members with any low back pain diagnosis during the 180 days (6 months) prior to the IESD.</td>
<td></td>
</tr>
<tr>
<td>Step 4: Test for clinically appropriate imaging studies. Refer to Table LBP-C to identify members who have a diagnosis for which an imaging study in the presence of low back pain is clinically indicated.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Cancer. Exclude members who have a diagnosis of cancer. Look as far back as possible in the member’s history through the end of the continuous enrollment period.</td>
</tr>
<tr>
<td></td>
<td>• Recent trauma, intravenous drug abuse, neurological impairment. Exclude members who have any of these diagnoses in the 12 months prior to the IESD through the end of the continuous enrollment period.</td>
</tr>
<tr>
<td>Step 5: Calculate continuous enrollment. Members must be continuously enrolled for 180 days prior to the IESD through 28 days after the IESD.</td>
<td></td>
</tr>
<tr>
<td><strong>Numerator</strong></td>
<td>An imaging study conducted on the IESD or in the 28 days following the IESD. Refer to Table LBP-D in order to identify imaging studies.</td>
</tr>
<tr>
<td></td>
<td>A diagnosis code from Table LBP-A must be in conjunction with an imaging study code in Table LBP-D.</td>
</tr>
<tr>
<td></td>
<td>Note: The measure is reported as an inverted rate ([1 − (\text{numerator/eligible population})]). A higher score indicates appropriate treatment of low back pain (i.e., the proportion for whom imaging studies did not occur).</td>
</tr>
</tbody>
</table>
Measures

Exclusions

This measure assesses whether imaging studies (plain x-ray, MRI, CT scan) are overused to evaluate patients with acute low back pain.

Low back pain is a pervasive problem that affects two thirds of adults at some time in their lives. It ranks among the top 10 reasons for patient visits to internists and is the most common and expensive reason for work disability in the U.S. Back problems are second only to cough among symptoms of people who seek medical care at physician offices, outpatient departments or emergency rooms.110

Back pain is the most common musculoskeletal condition, afflicting approximately 31 million Americans, and is the number one cause of activity limitation in young adults. For most individuals, back pain quickly improves. Nevertheless, approximately 15 percent of the U.S. population reports having frequent low back pain that lasted for at least two weeks during the previous year. Persistent pain that lasts beyond 3–6 months occurs in only 5 percent–10 percent of patients with low back pain.111 According to the American College of Radiology, uncomplicated low back pain is a benign, self-limited condition that does not warrant any imaging studies. The majority of these patients are back to their usual activities in 30 days.

There is no compelling evidence to justify substantial deviation from the diagnostic strategy published in clinical guidelines, which indicate that for most patients with acute low back pain, diagnostic imaging is usually unnecessary. Although patients may have a perceived need for imaging studies, efforts to educate patients on appropriate indications for imaging are within a provider's capacity. Organizations can provide information, best-care practice models and other support to providers, imaging centers and members to increase knowledge and ensure that imaging studies are used appropriately for evaluation of lower back pain patients, based on the duration of symptoms and the presence of red flags.


Citations

### Measures

**Denominator**

ARBs.

Note: Members may switch therapy with any medication listed in Table CDC-L during the measurement year and have the days supply for those medications count toward the total 180 treatment days (i.e., a member who received 90 days of ACE inhibitors and 90 days of ARBs meets the denominator definition for rate 1).

**Numerator**

At least one serum potassium and either a serum creatinine or a blood urea nitrogen therapeutic monitoring test in the measurement year (Table MPM-A). The member must meet one of the following criteria to be compliant.

- A code for a lab panel test during the measurement year
- A code for a serum potassium and a code for serum creatinine during the measurement year
- A code for serum potassium and a code for blood urea nitrogen during the measurement year

Note: The tests do not need to occur on the same service date, only within the measurement year.

**Exclusions**

Members from each eligible population rate who had an inpatient (acute or nonacute) claim/encounter during the measurement year.

**Clinical Rationale**

This measure looks at the percentage of members 18 years and older on persistent medications who received annual monitoring for the drugs of interest, reported as a combined rate and five separate rates.

Patient safety is highly important, especially for patients at increased risk of adverse drug events from long-term medication use. Persistent use of these drugs warrants monitoring and follow-up by the prescribing physician to assess for side-effects and adjust drug dosage/therapeutic decisions accordingly. The drugs included in this measure have deleterious effects in the elderly. The costs of annual monitoring are offset by the reduction in health care costs associated with complications arising from lack of monitoring and follow-up of patients on long-term medications. The total costs of drug-related problems due to misuse of drugs in the ambulatory setting has been estimated to exceed $76 billion annually.118

Appropriate monitoring of drug therapy remains a significant issue to guide therapeutic decision making and provides largely unmet opportunities for improvement in care for patients on persistent medications.119 Although there are no specific clinical guideline recommendations on the frequency of monitoring for the drugs identified in the measure, annual monitoring represents a conservative standard of care and is supported by FDA drug labeling recommendations for each drug. Organization interventions, such as reminder systems, can help improve monitoring of patients on persistent medications and educating clinicians and patients can be cost-effective due to the high costs associated with adverse drug events.120


**Citations**


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**Name**

Beta Blockers and ACEI/ARBs for Patients Following Discharge for AMI

**Description**

Proportion of patients 18 years or older with a live hospital discharge for AMI, and diabetes or CHF, who were prescribed beta blockers and (ACEI or ARBs) after their most recent MI and have an active prescription within the last 3 months of the measurement year.

**Denominator**

Patients 18 years or older with a live hospital discharge for AMI, who also have at least two diagnoses of diabetes or at least two diagnoses of CHF where the diagnoses for the named conditions are separated by at least 60 days, look back as far as possible in the patients' history, and diabetes or CHF diagnosis occurring around the most recent AMI, and who were continuously enrolled (pharmacy) around the time of the AMI.

- Age >= 18 years during the measurement year
- AND discharge with AMI Dx, select most recent event
- AND [(>= 2 diabetes Dx (exclude lab, radiology, ER) separated by at least 60 days
- OR >= 2 CHF Dx (exclude lab, radiology, ER) separated by at least 60 days)]
- AND look back as far as possible in the member's history through the end of the measurement year]
### Measures

<table>
<thead>
<tr>
<th>Denominator</th>
<th>Eligible patients with active prescriptions for beta blockers and (ACEI or ARB therapy) within the last 3 months of the measurement year.</th>
</tr>
</thead>
</table>
|             | >= 1 active Rx for beta blocker  
|             | AND >= 1 active Rx for (ACEI or ARB therapy)  
|             | AND within the last 3 months of the measurement year  

<table>
<thead>
<tr>
<th>Exclusions</th>
<th>Patients with related Dxes that are contraindicated for beta blockers or ACEI or ARB prescriptions, or first qualifying event in the Denominator anytime after the 8th month of the measurement year.</th>
</tr>
</thead>
</table>
|            | ([Patients with hypotension Dx  
|            | OR heart block/sinus bradycardia Dx  
|            | OR renal artery stenosis Dx  
|            | OR renal vascular hypertension Dx  
|            | OR acute or chronic renal failure Dx  
|            | OR G code for not eligible for Numerator Rx  
|            | OR discharged dead)  
|            | AND look back as far as possible in the member’s history through the end of the measurement year  
|            | OR ([pregnancy Dx  
|            | OR OB Delivery CPT/ICD9Px  
|            | OR COPD  
|            | OR patients with history of asthma with use of corticosteroid inhalers)  
|            | AND look back 6 months or look forward 3 months from most recent AMI discharge)  
|            | OR [patients with first qualifying event in Denominator  
|            | AND anytime after the 8th month of the measurement year]  

| Clinical Rationale | Patients that have had a myocardial infarction and that have either diabetes or congestive heart failure, have improved clinical outcomes when placed on both a beta blocker and an ACEI.  
|                   | 1. In patients with known CVD, ACE inhibitor, aspirin, and statin therapy (if not contraindicated) should be used to reduce the risk of cardiovascular events. (Evidence Level A)  
|                   | 2. In patients with a prior myocardial infarction, add beta-blockers (if not contraindicated) to reduce mortality. (Evidence level A)  
|                   | Per the ACC/AHA:  
|                   | 1. ACE inhibitors are recommended for all patients with current or prior symptoms of HF and reduced LVEF, unless contraindicated. (Level of Evidence: A)  
|                   | 2. Angiotensin II receptor blockers approved for the treatment of HF are recommended in patients with current or prior symptoms of HF and reduced LVEF who are ACE inhibitor-intolerant. (Level of Evidence: A)  
|                   | 3. Beta-blockers (using 1 of the 3 proven to reduce mortality, i.e., bisoprolol, carvedilol, and sustained release metoprolol succinate) are recommended for all stable patients with current or prior symptoms of HF and reduced LVEF, unless contraindicated. (Level of Evidence: A)  


| Name | Comprehensive Diabetes Care (CDC4)  
| Description | The percentage of members 18–75 years of age with diabetes (type 1 and type 2) who had the following:  
|            | • Eye exam (retinal) performed  
| Denominator | Eligible Population  

Last Printed 09/01/10
### Measures

**Denominator**

- Product lines: Commercial, Medicaid, Medicare (report each product line separately).
- Ages: 18–75 years as of December 31 of the measurement year.
- Continuous enrollment: The measurement year.
- Allowable gap: No more than one gap in enrollment of up to 45 days during the measurement year.
  - To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).
- Anchor date: December 31 of the measurement year.
- Benefit: Medical.
- Event/diagnosis: Two methods identify members with diabetes: pharmacy data and claim/encounter data.
  - The organization must use both to identify the eligible population, but a member only needs to be identified in one to be included in the measure.
  - Members may be identified as having diabetes during the measurement year or the year prior to the measurement year.
  - Pharmacy data. Members who were dispensed insulin or oral hypoglycemics/antihyperglycemics during the measurement year or year prior to the measurement year on an ambulatory basis (Table CDC-A).
  - Claim/encounter data. Members who had two face-to-face encounters with a diagnosis of diabetes (Table CDC-B) on different dates of service in an outpatient setting or nonacute inpatient setting, or one face-to-face encounter in an acute inpatient or ED setting during the measurement year or the year prior to the measurement year.
  - The organization may count services that occur over both years. Refer to Table CDC-C for codes to identify visit type.

**Numerator**

Eye exam: An eye screening for diabetic retinal disease as identified by administrative data.

This includes diabetics who had one of the following:

- A retinal or dilated eye exam by an eye care professional (optometrist or ophthalmologist) in the measurement year, or
- A negative retinal exam (no evidence of retinopathy) by an eye care professional in the year prior to the measurement year.

Refer to Table CDC-G for codes to identify eye exams.

**Exclusions**

- Members with a diagnosis of polycystic ovaries (Table CDC-O) who did not have any face-to-face encounters with a diagnosis of diabetes (CDC-B), in any setting, during the measurement year or the year prior to the measurement year.
  - Diagnosis can occur at any time in the member’s history, but must have occurred by December 31 of the measurement year.

- Members with gestational or steroid-induced diabetes (CDC-O) who did not have any face-to-face encounters with a diagnosis of diabetes (CDC-B), in any setting, during the measurement year or the year prior to the measurement year.
  - Diagnosis can occur during the measurement year or the year prior to the measurement year, but must have occurred by December 31 of the measurement year.

**Clinical Rationale**

This composite measure, with 10 different rates, looks at how well an organization cares for the common and serious chronic disease of diabetes. It uses a single sample of diabetic members 18–75 years of age to evaluate organization performance on aspects of diabetes care. As a set, the rates provide a comprehensive picture of the clinical management of patients with diabetes. This measure looks at the percentage of individuals with diabetes who meet the following criteria.

- Had a hemoglobin (HbA1c) blood test
- Have poorly controlled diabetes (HbA1c >9.0%)
- Have controlled diabetes (HbA1c <8.0%)
Measures

Clinical Rationale

- Have controlled diabetes (HbA1c <7.0%)*
- Had a retinal eye examination
- Had an LDL-C screening
- Had a controlled LDL-C level (LDL-C <100 mg/dL)
- Have been monitored for kidney disease
- Have blood pressure <140/90
- Have blood pressure <130/80

Diabetes is one of the most costly and highly prevalent chronic diseases in the U.S. Approximately 20.8 million Americans have diabetes, and half these cases are undiagnosed.99 Complications from the disease cost the country nearly $100 billion annually. In addition, diabetes accounts for nearly 20 percent of all deaths in people over 25. Many complications, such as amputation, blindness and kidney failure, can be prevented if detected and addressed in the early stages.

Many organizations have developed comprehensive diabetes management programs that help members with diabetes maintain control over their blood sugar and minimize the risk of complications. These programs can benefit quality of life and be cost-effective in the long run. The challenge faced by organizations is to bring more members with diabetes into these programs and help them incorporate healthy behaviors and monitoring practices into their lifestyle. Organizations can learn from higher-performing organizations and develop integrated approaches to treating members with diabetes.

*This criterion refers to a subset of the diabetic population. Because of concerns about patient safety related to aggressive HbA1c management, NCQA refined the indicator for HbA1c <7.0% by adding exclusions for members within a specific age cohort and with certain comorbid conditions. Therefore, the denominator for the HbA1c <7.0% indicator is different from the other indicators.


Citations


Name

Comprehensive Diabetes Care (CDC5)

Description

The percentage of members 18–75 years of age with diabetes (type 1 and type 2) who had the following:

- LDL-C screening

Denominator

Eligible Population

Product lines: Commercial, Medicaid, Medicare (report each product line separately).

Ages: 18–75 years as of December 31 of the measurement year.

Continuous enrollment: The measurement year.

Allowable gap: No more than one gap in enrollment of up to 45 days during the measurement year.

To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).

Anchor date: December 31 of the measurement year.

Benefit: Medical.

Event/diagnosis: Two methods identify members with diabetes: pharmacy data and claim/encounter data.

The organization must use both to identify the eligible population, but a member only needs to be identified in one to be included in the measure. Members may be identified as having diabetes during the measurement year or the year prior to the measurement year.

Pharmacy data. Members who were dispensed insulin or oral hypoglycemics/antihyperglycemics during the measurement year or year prior to the measurement year on an ambulatory basis (Table
### Measures

**Denominator**

CDC-A).

Claim/encounter data. Members who had two face-to-face encounters with a diagnosis of diabetes (Table CDC-B) on different dates of service in an outpatient setting or nonacute inpatient setting, or one face-to-face encounter in an acute inpatient or ED setting during the measurement year or the year prior to the measurement year.

The organization may count services that occur over both years. Refer to Table CDC-C for codes to identify visit type.

**Numerator**

LDL-C screening: An LDL-C test performed during the measurement year, as identified by claim/encounter or automated laboratory data.

Use any code listed in table CDC-H.

Organizations may use a calculated LDL for LDL-C screening and control indicators.

**Exclusions**

- Members with a diagnosis of polycystic ovaries (Table CDC-O) who did not have any face-to-face encounters with a diagnosis of diabetes (CDC-B), in any setting, during the measurement year or the year prior to the measurement year.
  
  Diagnosis can occur at any time in the member's history, but must have occurred by December 31 of the measurement year.

- Members with gestational or steroid-induced diabetes (CDC-O) who did not have any face-to-face encounters with a diagnosis of diabetes (CDC-B), in any setting, during the measurement year or the year prior to the measurement year.
  
  Diagnosis can occur during the measurement year or the year prior to the measurement year, but must have occurred by December 31 of the measurement year.

**Clinical Rationale**

This composite measure, with 10 different rates, looks at how well an organization cares for the common and serious chronic disease of diabetes. It uses a single sample of diabetic members 18–75 years of age to evaluate organization performance on aspects of diabetes care. As a set, the rates provide a comprehensive picture of the clinical management of patients with diabetes. This measure looks at the percentage of individuals with diabetes who meet the following criteria.

- Had a hemoglobin (HbA1c) blood test
- Have poorly controlled diabetes (HbA1c >9.0%)
- Have controlled diabetes (HbA1c <8.0%)
- Have controlled diabetes (HbA1c <7.0%)*
- Had a retinal eye examination
- Had an LDL-C screening
- Had a controlled LDL-C level (LDL-C<100 mg/dL)
- Have been monitored for kidney disease
- Have blood pressure <140/90
- Have blood pressure <130/80

Diabetes is one of the most costly and highly prevalent chronic diseases in the U.S. Approximately 20.8 million Americans have diabetes, and half these cases are undiagnosed.99 Complications from the disease cost the country nearly $100 billion annually. In addition, diabetes accounts for nearly 20 percent of all deaths in people over 25. Many complications, such as amputation, blindness and kidney failure, can be prevented if detected and addressed in the early stages.

Many organizations have developed comprehensive diabetes management programs that help members with diabetes maintain control over their blood sugar and minimize the risk of complications. These programs can benefit quality of life and be cost-effective in the long run. The challenge faced by organizations is to bring more members with diabetes into these programs and help them incorporate healthy behaviors and monitoring practices into their lifestyle. Organizations can learn from higher-performing organizations and develop integrated approaches to treating members with diabetes.

*This criterion refers to a subset of the diabetic population. Because of concerns about patient safety related to aggressive HbA1c management, NCQA refined the indicator for HbA1c <7.0% by adding exclusions for members within a specific age cohort and with certain comorbid conditions. Therefore, the denominator for the HbA1c <7.0% indicator is different from the other indicators.


**Citations**


**Name**

Comprehensive Diabetes Care (CDC7)

**Description**

The percentage of members 18–75 years of age with diabetes (type 1 and type 2) who had the following: • Medical attention for nephropathy
Measures

Eligible Population

Product lines: Commercial, Medicaid, Medicare (report each product line separately).

Ages: 18–75 years as of December 31 of the measurement year.

Continuous enrollment: The measurement year.

Allowable gap: No more than one gap in enrollment of up to 45 days during the measurement year.

To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled).

Anchor date: December 31 of the measurement year.

Benefit: Medical.

Event/diagnosis: Two methods identify members with diabetes: pharmacy data and claim/encounter data.

Pharmacy data. Members who were dispensed insulin or oral hypoglycemics/antihyperglycemics during the measurement year or year prior to the measurement year on an ambulatory basis (Table CDC-A).

Claim/encounter data. Members who had two face-to-face encounters with a diagnosis of diabetes (Table CDC-B) on different dates of service in an outpatient setting or nonacute inpatient setting, or one face-to-face encounter in an acute inpatient or ED setting during the measurement year or the year prior to the measurement year.

The organization may count services that occur over both years. Refer to Table CDC-C for codes to identify visit type.

Denominator

Medical attention for nephropathy: A nephropathy screening test or evidence of nephropathy, as documented through administrative data.

Nephropathy screening test: A nephropathy screening test during the measurement year (Table CDC-J).

A claim/encounter with a code to indicate evidence of treatment for nephropathy (Table CDC-K) during the measurement year.

A nephrologist visit during the measurement year, as identified by the organization’s specialty provider codes (no restriction on the diagnosis or procedure code submitted).

A positive urine macroalbumin test in the measurement year, as documented by claim/encounter or automated laboratory data. Refer to Table CDC-K for codes to identify urine macroalbumin tests.

“Trace” urine macroalbumin test results are not considered numerator-compliant.

Evidence of ACE inhibitor/ARB therapy during the measurement year.

Members who had a claim indicating therapy (Table CDC-K) or received an ambulatory prescription or were dispensed an ambulatory prescription for ACE inhibitors or ARBs during the measurement year are compliant.

Table CDC-L lists the ACE inhibitors/ARBs included in this measure.

Numerator

Exclusions

Members with a diagnosis of polycystic ovaries (Table CDC-O) who did not have any face-to-face encounters with a diagnosis of diabetes (CDC-B), in any setting, during the measurement year or the year prior to the measurement year. Diagnosis can occur at any time in the member’s history, but must have occurred by December 31 of the measurement year.

Members with gestational or steroid-induced diabetes (CDC-O) who did not have any face-to-face encounters with a diagnosis of diabetes (CDC-B), in any setting, during the measurement year or the year prior to the measurement year. Diagnosis can occur during the measurement year or the year prior to the measurement year, but must have occurred by December 31 of the measurement year.
### Clinical Exclusions

<table>
<thead>
<tr>
<th>Denominator Description</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Measures</td>
<td></td>
</tr>
<tr>
<td>ACEI/ARB for Heart Failure Patients with Depressed Left Ventricular Systolic Function</td>
<td></td>
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<tr>
<td>Proportion of patients 18 years or older with diagnoses of HF who also have left ventricular systolic dysfunction (LVSD) and were prescribed ACEI or ARB therapy during the last 3 months of the measurement year.</td>
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<td>Patients 18 years or older with at least two diagnoses of HF separated by at least 60 days and moderately to severely depressed left ventricular systolic function anytime prior to the end of the measurement year, and at least one qualifying HF Dx during the measurement year, and with at least 12 months continuous enrollment (pharmacy) during the measurement year with 1 gap allowed of 45 days.</td>
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<td>Age &gt;=18 years during the measurement year AND [(&gt;= 2 HF Dxes (exclude lab, radiology, and ER) separated by at least 60 days AND (LVEF &lt; 40% or moderately or severely depressed left ventricular systolic function OR CPT II code for LVF assessment or ejection fraction &lt; 40%) OR &gt;= 1 G code for HF patient with LVSD on/or not on ACE or ARB) look back as far as possible in the member's history through the end of the measurement year) AND &gt;= 1 of the HF criteria (qualifying Dx, CPT II, G code) during the measurement year AND at least 12 months continuous enrollment (pharmacy) during the measurement year with 1 gap allowed of 45 days (anchor date: end of enrollment window).</td>
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<td>(Note: When looking for an event separated by 60 days, return the later date in the set.)</td>
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<td>Patients who were prescribed ACEI or ARB therapy during the last 3 months of the measurement year.</td>
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<td>Patients with medical reasons or system reasons for not prescribing Rx or discharged dead anytime prior to the end of the measurement year, or pregnancy during the measurement year, or patients with first qualifying event in Denominator after the 8th month of the measurement year.</td>
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<tr>
<td>[Patients with medical reasons OR system reasons for not prescribing Rx OR patient not eligible for ACEI or ARB therapy OR contraindications to ACEI or ARB therapy OR discharged dead) AND look back as far as possible in the member's history through the end of the measurement year] OR [(&gt;= 1 Dx of pregnancy OR OB Delivery CPT/ICD9Px) AND during the measurement year] OR [patients with first qualifying event in Denominator AND anytime after the 8th month of the measurement year].</td>
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<td>[Do not exclude if in Numerator]</td>
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</tbody>
</table>

### Clinical Rationale

1. ACE inhibitors are recommended for all patients with current or prior symptoms of HF and reduced LVEF, unless contraindicated (Level of Evidence: A). Because of their favorable effect on survival, treatment with an ACE inhibitor should not be delayed until the patient is found to be resistant to treatment with other drugs. ACE inhibitors are often preferred over the ARBs or direct-acting vasodilators because of the greater experience and weight of evidence supporting their effectiveness. Clinicians should attempt to use doses that have been shown to reduce the risk of
Measures

**Clinical Rationale**

Cardiovascular events in clinical trials. If these target doses of an ACE inhibitor cannot be used or are poorly tolerated, intermediate doses should be used with the expectation that there are likely to be only small differences in efficacy between low and high doses. More importantly, clinicians should not delay the institution of beta-blockers in patients because of a failure to reach target ACE inhibitor doses. Once the drug has been titrated to the appropriate dose, patients can generally be maintained on long-term therapy with an ACE inhibitor with little difficulty. Abrupt withdrawal of treatment with an ACE inhibitor can lead to clinical deterioration and should be avoided in the absence of life-threatening complications (e.g., angioedema). 2. Angiotensin II receptor blockers approved for the treatment of HF are recommended in patients with current or prior symptoms of HF and reduced LVEF who are ACE inhibitor-intolerant. (Level of Evidence: A). For patients unable to tolerate ACE inhibitors because of cough, the ARBs valsartan and candesartan have demonstrated benefit by reducing hospitalizations and mortality. The combination of an ACE inhibitor and ARB may produce more reduction of LV size than either agent alone.