



**Consumer Reports' Avoiding Overuse Designation:  
Technical Specifications**  
*(Last Revised: September 2014)*

## **INTRODUCTION**

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Health plans should provide high overall quality and help members avoid unnecessary medical care. This can help cut healthcare costs and reduce the risks that come with all medical tests and treatments. CR's aim was to help consumers identify such plans. CR's Avoiding Overuse designation (indicated by a checkmark) uses a quality threshold (plans must score above the mean in NCQA's Health Plan Rankings Overall Score) and then assesses plans on a composite of their performance in five areas of utilization: antibiotics, imaging for low back pain, readmissions, emergency department use, invasive cardiac procedures.

This document provides the technical specifications for Consumer Reports' Avoiding Overuse designation published in the November 2014 *Consumer Reports* (CR) magazine and on ConsumerReports.org .

### **Measures included in the Avoiding Overuse Designation**

See the Appendix (page 11) for a brief summary of all of the measures included in the Avoiding Overuse designation.

This measure was developed using 13 [Healthcare Effectiveness Data and Information Set \(HEDIS\) measures](#) and the Health Plan Rankings overall quality score from the National Committee on Quality Assurance (NCQA), a nonprofit quality measurement and accreditation organization.

The following five domains and the measures within each are used to create the Avoiding Overuse designation, together with NCQA's quality rankings.

1. Avoiding inappropriate use of antibiotics
  - 1.1. Appropriate testing for Children with Pharyngitis (CWP)
  - 1.2. Appropriate treatment for Children with Upper Respiratory Infection (URI)
  - 1.3. Avoidance of antibiotic treatment in Adults with Acute Bronchitis (AAB)
  - 1.4. Antibiotics (ABX): Antibiotics of concern
2. Limiting Imaging tests for low back pain -- Imaging tests for low back pain (LBP)
3. Reducing hospital readmissions -- Plan all-cause readmissions (PCR)
4. Avoiding overuse of emergency rooms -- RRU: Asthma (RAS): Emergency department use

## 5. Reducing invasive heart procedures

- 5.1. RRU: Diabetes (RDI): CABG
- 5.2. RRU: Diabetes (RDI): angioplasty / PCI
- 5.3. RRU: Diabetes (RDI): cardiac catheterization
- 5.4. RRU: Cardiovascular Conditions (RCA): CABG
- 5.5. RRU: Cardiovascular Conditions (RCA): angioplasty / PCI
- 5.6. RRU: Cardiovascular Conditions (RCA): cardiac catheterization

## Population

The data employed are based on, and reflect, commercial health plan members' 2013 data.

## Percentiles

Throughout this document:

- a) Higher percentiles indicate better performance.
- b) Percentiles were used when they were available from NCQA. The percentiles selected were national for all lines of business (LOB).
- c) Where percentiles were not available, percentiles were computed from commercial plans that had results.

**Creating the composite:** Plans received an Avoiding Overuse check mark if it had a quality score (NCQA's Health Plan Rankings overall score) above the 50<sup>th</sup> percentile and met the utilization threshold in three out of the five areas: antibiotics, imaging for low back pain, readmissions, emergency department use, invasive cardiac procedures.

# 1 AVOIDING INAPPROPRIATE USE OF ANTIBIOTICS

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To assess antibiotic use, CR created a sub-composite of four measures:

- [1] Appropriate Testing for Children with Pharyngitis (CWP);
- [2] Appropriate Treatment for Children with Upper Respiratory Infection (URI)
- [3] Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis (AAB)
- [4] Antibiotics (ABX): Antibiotics of Concern.

Plans meet the threshold for this domain if they are in the best decile (top 10%) in one or more of these measures *and* avoid the worst decile (worst 10%) in all four measures. A plan must have valid data for all four measures in order meet the threshold in this domain.

## 1.1 Appropriate Testing for Children with Pharyngitis (CWP)

[Read Consumer Reports' article on this topic.](#)

From the National Quality Measures Clearinghouse:

*Measure Description:* This measure is used to assess the percentage of children 2 to 18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic, and received a group A streptococcus (strep) test for the episode.

*Measure Rationale:* Pharyngitis is the only condition among upper respiratory infections (URIs) where diagnosis is validated easily and objectively 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. Pediatric clinical practice guidelines 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. [Visit the National Quality Measures Clearinghouse for evidence citations and more on this measure.](#)

## 1.2 Appropriate Treatment for Children with Upper Respiratory Infection (URI)

[Read Consumer Reports' article on this topic.](#)

From the National Quality Measures Clearinghouse:

*Measure Description:* This measure is used to assess the percentage of children 3 months to 18 years of age who were given a diagnosis of upper respiratory infection (URI) and were not dispensed an antibiotic prescription on or three days after the Index Episode Start Date (IESD).

This measure is reported as an inverted rate (1 - [numerator/eligible population]). A higher rate indicates appropriate treatment of children with URI (i.e., proportion for whom antibiotics were not prescribed).

*Measure Rationale:* The common cold (or upper respiratory infection [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. [Visit the National Quality Measures Clearinghouse for evidence citations and more on this measure.](#)

### **1.3 Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis (AAB)**

[Read Consumer Reports' article on this topic.](#)

From the National Quality Measures Clearinghouse:

*Measure Description:* This measure is used to assess the percentage of adults 18 to 64 years of age with a diagnosis of acute bronchitis who were not dispensed an antibiotic prescription on or three days after the Index Episode Start Date (IESD). This measure is reported as an inverted rate (1 - [numerator/eligible population]). A higher rate indicates appropriate treatment of adults with acute bronchitis (i.e., proportion for whom antibiotics were not prescribed).

*Measure Rationale:* Antibiotics are most often inappropriately prescribed for adults with acute bronchitis. 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 the most ambulatory office visits to United States (U.S.) physicians; furthermore, while the vast majority of acute bronchitis cases (more than 90 percent) have a nonbacterial cause, antibiotics are inappropriately prescribed 65 to 80 percent of the time. [Visit the National Quality Measures Clearinghouse for evidence citations and more on this measure.](#)

### **1.4 Antibiotic Utilization (ABX): Antibiotics of Concern**

*Description of Measure:* This measure calculates the average number of antibiotic prescriptions per member per year (PMPY) for selected "antibiotics of concern" (see chart below).

*Measure Rationale:* This measure alerts plans to their use of particular antibiotics, which is important because misuse and overuse of antibiotics lead to antibiotic drug resistance. This measure sheds light on potential inappropriate/overprescribing of antibiotics in clinical practice and raises awareness of the importance of reducing inappropriate antibiotic use to combat antibiotic resistance in the community. [Visit the National Quality Measures Clearinghouse for evidence citations and more on this measure.](#)

The following antibiotics are included in this measure:

**Table ABX-B: Antibiotics of Concern by NCQA Drug Class**

Description	Prescription		
Quinolone	<ul style="list-style-type: none"> <li>• ciprofloxacin</li> <li>• gatifloxacin</li> <li>• gemifloxacin</li> </ul>	<ul style="list-style-type: none"> <li>• levofloxacin</li> <li>• lomefloxacin</li> <li>• moxifloxacin</li> </ul>	<ul style="list-style-type: none"> <li>• norfloxacin</li> <li>• ofloxacin</li> <li>• sparfloxacin</li> </ul>
Azithromycin and clarithromycin	<ul style="list-style-type: none"> <li>• azithromycin</li> <li>• clarithromycin</li> </ul>		
Cephalosporin (second, third, fourth generation)	<ul style="list-style-type: none"> <li>• cefaclor</li> <li>• cefdinir</li> <li>• cefditoren</li> <li>• cefepime</li> <li>• cefixime</li> <li>• cefotaxime</li> </ul>	<ul style="list-style-type: none"> <li>• cefotetan</li> <li>• ceftioxin</li> <li>• cefpodoxime</li> <li>• cefprozil</li> <li>• ceftazidime</li> <li>• ceftibuten</li> </ul>	<ul style="list-style-type: none"> <li>• ceftriaxone</li> <li>• cefuroxime</li> <li>• loracarbef</li> </ul>
Amoxicillin/clavulanate	<ul style="list-style-type: none"> <li>• amoxicillin-clavulanate</li> </ul>		
Ketolide	<ul style="list-style-type: none"> <li>• telithromycin</li> </ul>		
Clindamycin	<ul style="list-style-type: none"> <li>• clindamycin</li> </ul>		
Miscellaneous antibiotics of concern	<ul style="list-style-type: none"> <li>• aztreonam</li> <li>• chloramphenicol</li> </ul>	<ul style="list-style-type: none"> <li>• dalfopristin-quinupristin</li> <li>• linezolid</li> </ul>	<ul style="list-style-type: none"> <li>• telavancin</li> <li>• vancomycin</li> </ul>

## 2 LIMITING IMAGING TESTS FOR LOWER BACK PAIN

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[Read Consumer Reports' article on this topic.](#)

### Use of imaging studies for low back pain (LBP)

*Consumer Reports Avoiding Overuse Designation:* Plans meet the threshold for this domain if they are above the 75<sup>th</sup> percentile.

From the National Quality Measures Clearinghouse:

*Measure Description:* This measure is used to assess the percentage of members with a primary diagnosis of low back pain who did not have an imaging study (plain x-ray, magnetic resonance imaging [MRI], computed tomography [CT] scan) within 28 days of the diagnosis.

The measure is reported as an inverted rate (1 - [numerator/denominator]). A higher score indicates appropriate treatment of low back pain (i.e., the proportion for whom imaging studies did not occur).

*Measure Rationale:* 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 United States (U.S). Back problems are second only to cough among symptoms of people who seek medical care at physician offices, outpatient departments and emergency rooms.

Back pain is among the most common musculoskeletal conditions, 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 to 6 months occurs in only 5 to 10 percent of patients with low back pain. 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.

[Visit the National Quality Measures Clearinghouse for evidence citations and more on this measure.](#)

### 3 REDUCING HOSPITAL READMISSIONS

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*Consumer Reports Avoiding Overuse Designation:* Plans meet the threshold for this domain if they are above the 75<sup>th</sup> percentile.

#### **Plan All-Cause Readmissions (PCR)**

From the National Quality Measures Clearinghouse:

*Measure Description:* This measure is used to assess the number of acute inpatient stays during the measurement year that were followed by an acute readmission for any diagnosis within 30 days and the predicted probability of an acute readmission, for members 18 years of age and older.

*Measure Rationale:* Discharge from a hospital is a critical transition point in a patient's care. Poor care coordination at discharge can lead to adverse events for patients and avoidable rehospitalization. Hospitalization readmissions may indicate poor care or missed opportunities to coordinate care better. Research shows that specific hospital-based initiatives to improve communication with beneficiaries and their caregivers, coordinate care after discharge and improve the quality of care during the initial admission can avert many readmissions.

There is extensive evidence about adverse events in patients, and this measure aims to distinguish readmissions from complications of care and pre-existing comorbidities.

Potentially preventable readmissions are defined as readmissions that are directly tied to conditions that could have been avoided in the inpatient setting. While not all preventable readmissions can be avoided, most potentially preventable readmissions can be prevented if the best quality of care is rendered and clinicians are using current standards of care.

[Visit the National Quality Measures Clearinghouse for evidence citations and more on this measure.](#)

## 4 AVOIDING OVERUSE OF EMERGENCY ROOMS

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*Consumer Reports Avoiding Overuse Designation:* Plans meet the threshold for this domain if they are above the 10<sup>th</sup> percentile in the following measure.

### **Relative Resource Use for People with Asthma (RAS): Emergency Department Use**

*Measure Description:* This measure is used to assess the relative resource use by members with persistent asthma by reporting service frequency for all services for which the organization has paid or expects to pay during the measurement year. It also serves as a proxy for patient access to adequate primary care.

*Measure Rationale:* There is a great demand for information to help purchasers and consumers determine which organizations offer the highest quality services, along with effective management of those services and low premium or out-of-pocket costs. Good plans help patients stay out of the ER, in part by controlling chronic illnesses such as asthma. The need for emergency medical care related to such conditions can typically be avoided through adequate patient monitoring and follow-up. As such, these unnecessary trips to the ER can be indicative of inadequate primary care, or of poor access to it.

This measure provides a standardized approach to measuring resource use. When evaluated with the corresponding Quality of Care measures, they provide more information about the efficiency or value of services rendered by an organization.

[Visit the National Quality Measures Clearinghouse for evidence citations and more on this measure.](#)



## 5 REDUCING INVASIVE HEART PROCEDURES

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This six-item composite consists of three cardiac procedures (heart bypass surgery, angioplasty/PCI, and cardiac catheterization) for people with diabetes and the same three for people with cardiovascular conditions. A plan meets the threshold in this domain if they avoid the lowest decile (highest observed/expected figures) in at least four of this domain's six measures.

### **Relative Resource Use for People with Diabetes (RDI): Heart bypass surgery, Angioplasty/PCI, and Cardiac Catheterization**

*Measure Description:* These three submeasures measures are used to assess the relative resource use by members with diabetes by reporting service frequency for three procedures (heart bypass surgery, angioplasty/PCI, cardiac catheterization) which the health plan has paid or expects to pay during the measurement year.

### **Relative Resource Use for People with Cardiovascular Conditions (RCA): Heart bypass surgery, Angioplasty/PCI, and Cardiac Catheterization**

*Measure Description:* These three submeasures measures are used to assess the relative resource use by members with cardiovascular conditions by reporting total standard cost and service frequency for three procedures (heart bypass surgery, angioplasty/PCI, cardiac catheterization) which the health plan has paid or expects to pay during the measurement year.

*Rationale for RRU Measures:* Diabetes and cardiovascular disease are 2 of the five chronic conditions that account for a major portion of all health spending (<http://www.cdc.gov/chronicdisease/overview>). Studies have shown that in many cases medical management of cardiovascular conditions can be as effective and less costly than invasive procedures (<http://www.ncbi.nlm.nih.gov/pubmed/22965975>).

Relative Resource Use (RRU) measures indicate how health plans use health care resources (e.g., doctor visits, hospital stays, surgical procedures and medications), compared with other plans (at both the national and regional levels) and adjusted for the population of patients served. To allow fair comparison of plans, RRU measures feature risk adjustment and price standardization of services. The goal of risk adjustment is to eliminate sources of variation that neither health plans nor providers can control. Factors used in risk adjustment include age, gender and the presence of serious health conditions. Standardized prices are assigned to each unit of service delivered to patients covered by health plans and reported by service category (i.e., inpatient hospital care, evaluation and management, surgery and other procedures, diagnostic lab and imaging, prescription drugs).

## AVOIDING OVERUSE DESIGNATION

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Plans that meet both of the following standards receive an Avoiding Overuse designation (displayed as a checkmark):

- A) Quality: Plan was in the upper 50<sup>th</sup> percentile for NCQA's Health Plan Rankings Overall Score **AND**
- B) Plan meet the stated threshold in three of the five domains

[NCQA's 100-point overall score](#) which includes the following factors:

- (1) Clinical Measures (prevention and treatment) (60 points);
- (2) Consumer Satisfaction (25 points);
- (3) NCQA Accreditation Status (15 points)

A plan may not meet the Avoiding Overuse criteria for several reasons.

- Plans may publicly report data, but not have enough data for a calculation.
- Plans may choose not to publicly report their data through NCQA.
- Plans may have sufficient data but do not meet the criteria for the Avoiding Overuse designation.

## LIMITATIONS

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The health plan data is not collected by Consumer Reports; the data are self-reported by plans to the NCQA. The data are, however, audited and subject to NCQA's quality standards.

Healthcare delivery is multidimensional and is affected by factors that are at play at different levels, such as the level of the patient, the physician, the hospital, and the health plan. While measures are risk adjusted where possible, risk adjustment cannot account for all variation between plans with big differences in their member population.

Each measure used in the Avoiding Overuse designation has its own limitations, including but not limited to the following:

- The asthma measure looks at only the most severe cases of asthma (those requiring emergency department use) but does not measure the burden of asthma in the member population.
- The asthma measure examines emergency department use only for asthma; plans may perform better or worse in other clinical categories.
- For the invasive cardiac procedures, overuse in one category may indicate underuse in another.

## APPENDIX: Brief Description of Measures

MEASURE	DESCRIPTION	DIRECTION OF RATE	CALCULATION
<b>CWP:</b> Appropriate Testing for Children with Pharyngitis	The percentage of children 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).	Higher is Better	<b>NUMERATOR:</b> A strep test (Table CWP-D) in the 7-day period from 3 days prior through 3 days after the IESD. <b>DENOMINATOR:</b> Outpatient or ED visit with only a diagnosis of pharyngitis and a dispensed antibiotic for that episode of care during the Intake Period.
<b>URI:</b> Appropriate Treatment for Children with Upper Respiratory Infection	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.	Higher is Better	<b>NUMERATOR:</b> Children 3 months–18 years of age who were given a URI diagnosis and were not dispensed an antibiotic prescription. <b>DENOMINATOR:</b> Children 3 months–18 years of age who were given a URI diagnosis.
<b>AAB:</b> Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis	The percentage of adults 18–64 years of age with a diagnosis of acute bronchitis who were not dispensed an antibiotic prescription	Higher is Better	<b>NUMERATOR:</b> Adults 18–64 years of age with a diagnosis of acute bronchitis who were not dispensed an antibiotic prescription. <b>DENOMINATOR:</b> Adults 18–64 years of age with a diagnosis of acute bronchitis.
<b>ABX:</b> Antibiotic Utilization: Antibiotics of Concern	<b>AU Scripts PMPY for Antibiotics of Concern MF Tot Avg:</b> Average number of antibiotic prescriptions Per Member Per Year (PMPY)[Total number of antibiotic prescriptions in the year/Member months for members with a pharmacy benefit] x 12 months	Lower is Better	<b>NUMERATOR:</b> Total number of antibiotics of concern prescriptions in the year <b>DENOMINATOR:</b> Member months for members with a pharmacy benefit
<b>LBP:</b> Use of Imaging Studies for Low Back Pain	The percentage of patients 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	Higher is Better	<b>NUMERATOR:</b> An imaging study (plain x-ray, MRI, CT scan) conducted on the IESD or in the 28 days following the IESD. <b>DENOMINATOR:</b> All patients aged 18-50 years as of December 31 of the measurement year with a new episode of low back pain.
<b>PCR:</b> Plan All-Cause Readmissions	Observed-to-Expected Ratio (Observed Readmission/Average Adjusted Probability)	Lower is Better	<b>NUMERATOR:</b> At least one acute readmission for any diagnosis within 30 days of the Index Discharge Date <b>DENOMINATOR:</b> Acute inpatient discharges for commercial members 18 to 64 years of age as of the Index Discharge Date who had one or more discharges
<b>RAS:</b> Relative Resource Use for People with Asthma	The relative resource use for members with persistent asthma during the measurement year	Lower is Better	Total ED Discharges (Indexed O/E Ratio)
<b>RCA:</b> Relative Resource Use for People with Cardiovascular Conditions	The relative resource use by members with cardiovascular conditions (CABG)	Lower is Better	CABG Observed-to-Expected Ratio among people with cardiovascular conditions
	The relative resource use by members with cardiovascular conditions (Catheterization)	Lower is Better	Catheterization Observed-to-Expected Ratio among people with cardiovascular conditions
	The relative resource use by members with cardiovascular conditions (PCI)	Lower is Better	PCI Observed-to-Expected Ratio among people with cardiovascular conditions
<b>RDI:</b> Relative Resource Use for People with Diabetes	The relative resource use by members with diabetes (CABG)	Lower is Better	CABG Observed-to-Expected Ratio among people with diabetes
	The relative resource use by members with diabetes (Catheterization)	Lower is Better	Catheterization Observed-to-Expected Ratio among people with diabetes
	The relative resource use by members with diabetes (PCI)	Lower is Better	PCI Observed-to-Expected Ratio among people with diabetes