

# Physician Consortium for Performance Improvement®

## Prenatal Care *Physician Performance Measurement Set*

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Physician Performance Measures (Measures) and related data specifications, developed by the Physician Consortium for Performance Improvement™ (the Consortium), are intended to facilitate quality improvement activities by physicians.

These Measures are intended to assist physicians in enhancing quality of care. Measures are designed for use by any physician who manages the care of a patient for a specific condition or for prevention. These performance Measures are not clinical guidelines and do not establish a standard of medical care. The Consortium has not tested its Measures for all potential applications. The Consortium encourages the testing and evaluation of its Measures.

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**Purpose of Measures:**

These clinical performance improvement measures, developed by the American College of Obstetricians and Gynecologists and the Physician Consortium for Performance Improvement® (Consortium), are designed for individual quality improvement. Unless otherwise indicated, the measures are also appropriate for accountability if appropriate methodological, statistical, and implementation rules are achieved.

**Accountability Measures:**

Measure #1: Anti-D Immune Globulin

Measure #2: Screening for Human Immunodeficiency Virus (HIV)

**Intended Audience and Patient Population:**

These measures are designed for use by physicians and for calculating performance measurement at the individual physician level. When existing hospital-level or plan-level measures exist for the same measurement topics, the Consortium attempts to harmonize the measures to the extent feasible.

These measures are designed for any physician who manages prenatal care of patients in the outpatient office setting. Female patients of all ages seen for prenatal care are included.

The Consortium also encourages the use of these measures by health care professionals in addition to physicians, where appropriate.

**Measure Specifications:**

The Consortium seeks to specify measures for implementation using multiple data sources, including paper medical record, administrative (claims) data, and particular emphasis on Electronic Health Record Systems (EHRS). Draft specifications to report on these measures for Prenatal Care are included in this document. We have identified codes for these measures, including ICD-9 and CPT (Evaluation & Management Codes, Category I and where Category II would apply). Specifications for additional data sources, including EHRS, will be fully developed at a later date. We welcome comments on the draft specifications included in addition to the measure language.

**Measure Exclusions:**

For process measures, the Consortium provides three categories of reasons for which a patient may be excluded from the denominator of an individual measure:

- **Medical reasons**  
Includes:
  - not indicated (already received/performed, other)
  - contraindicated (patient allergic history, potential adverse drug interaction, other)
  
- **Patient reasons**  
Includes:
  - patient declined
  - economic, social, or religious reasons
  - other patient reasons
  
- **System reasons**  
Includes:
  - resources to perform the services not available
  - insurance coverage/payor-related limitations
  - other reasons attributable to health care delivery system

These measure exclusion categories are not available uniformly across all measures; for each measure, there must be a clear rationale to permit an exclusion for a medical, patient, or system reason. The exclusion of a patient may be reported by appending the appropriate modifier to the CPT Category II code designated for the measure:

- **Medical reasons**: modifier 1P
- **Patient reasons**: modifier 2P
- **System reasons**: modifier 3P

Although this methodology does not require the external reporting of more detailed exclusion data, the Consortium recommends that physicians document the *specific* reasons for exclusion in patients' medical records for purposes of optimal patient management and audit-readiness. The Consortium also advocates the systematic review and analysis of each physician's exclusions data to identify practice patterns and opportunities for quality improvement. For example, it is possible for implementers to calculate the percentage of patients that physicians have identified as meeting the criteria for exclusion.

Please refer to documentation for each individual measure for information on the acceptable exclusion categories and the codes and modifiers to be used for reporting.

Measures #1-2 in the Prenatal Care measurement set are process measures.

For **outcome measures**, the Consortium specifically identifies all acceptable reasons for which a patient may be excluded from the denominator. Each specified reason is reportable with a CPT Category II code designated for that purpose.

There are no outcome measures in the Prenatal Care measurement set.

The Consortium continues to evaluate and likely will evolve its methodology for handling exclusions as it gains experience in the use of the measures. The Consortium welcomes comments on its exclusions methodology.

### **Data Capture and Measure Calculation**

The Consortium intends for physicians to collect data on each patient eligible for a measure. Feedback on measures should be available to physicians by patient to facilitate patient management and in aggregate to identify opportunities for improvement across a physician's patient population.

The method of calculation for **performance** follows these steps: first, identify the patients who meet the eligibility criteria for the denominator (PD); second, identify which of those patients meet the numerator criteria (A); and third, for those patients who do not meet the numerator criteria, determine whether an appropriate exclusion applies and subtract those patients from the denominator (C). (see examples below)

The methodology also enables implementers to calculate the rates of patient exclusions and to further analyze both low and high rates, as appropriate (see examples below).

Examples of calculations for performance are provided for each measure.

### **Calculation for Performance**

For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Denominator Exclusions.

#### **Numerator (A) Includes:**

Number of patients meeting numerator criteria

#### **Performance Denominator (PD) Includes:**

Number of patients meeting criteria for denominator inclusion

#### **Denominator Exclusions (C) Include:**

Number of patients with valid medical, patient or system exclusions (where applicable; will differ by measure)

### Performance Calculation

$$\frac{A \text{ (# of patients meeting numerator criteria)}}{PD \text{ (# patients in denominator)} - C \text{ (# patients with valid denominator exclusions)}}$$

It is also possible to calculate the percentage of patients excluded overall, or excluded by medical, patient, or system reason where applicable:

### Overall Exclusion Calculation

$$\frac{C \text{ (# of patients with any valid exclusion)}}{PD \text{ (# patients in denominator)}}$$

OR

### Exclusion Calculation by Type

$$\frac{C_1 \text{ (# patients with medical reason)}}{PD \text{ (# patients in denominator)}}$$

$$\frac{C_2 \text{ (# patients with patient reason)}}{PD \text{ (# patients in denominator)}}$$

$$\frac{C_3 \text{ (# patients with system reason)}}{PD \text{ (# patients in denominator)}}$$

### Calculation for Reporting

For reporting purposes, this measure is calculated by creating a fraction with the following components: Reporting Numerator and Reporting Denominator

Reporting Numerator includes each of the following components, where applicable. (There may be instances where there are no patients to include in A, C, D, or E).

- A. Number of patients meeting additional denominator criteria (for measures where true denominator cannot be determined through ICD-9 and CPT Category I coding alone) AND numerator criteria
- C. Number of patients with valid medical, patient or system exclusions (where applicable; will differ by measure)
- D. Number of patients not meeting numerator criteria and without a valid exclusion
- E. All other patients not meeting additional denominator criteria (for measures where true denominator cannot be determined through ICD-9 and CPT Category I coding alone)

### Reporting Denominator (RD) Includes:

RD. Denominator criteria (identifiable through ICD-9 and CPT Category I coding)

### Reporting Calculation

$$\frac{A \text{ (# of patients meeting additional denominator criteria AND meeting numerator criteria)} + C \text{ (# of patients with valid exclusions)} + D \text{ (# of patients meeting additional denominator criteria NOT meeting numerator criteria)} + E \text{ (# of patients not meeting additional denominator criteria)}}{RD \text{ (# of patients in denominator)}}$$

**Prenatal Care  
Measure #1: Anti-D Immune Globulin**

This measure may be used as an Accountability measure.

**Clinical Performance Measure**

**Numerator:** Patients who received anti-D immune globulin at 26-30 weeks gestation

**Denominator:** All patients, regardless of age, who are D (Rh) negative and unsensitized who gave birth during a 12-month period, seen for continuing prenatal care.

**Denominator Exclusions:**

Documentation of medical reason(s) for patient not receiving anti-D immune globulin at 26-30 weeks gestation.

Documentation of patient reason(s) for patient not receiving anti-D immune globulin at 26-30 weeks gestation.

Documentation of system reason(s) for patient not receiving anti-D immune globulin at 26-30 weeks gestation.

**Measure:** Percentage of D (Rh) negative, unsensitized patients, regardless of age, who gave birth during a 12-month period who received anti-D immune globulin at 26-30 weeks gestation.

**The following clinical recommendation statements are quoted verbatim from the referenced clinical guidelines and represent the evidence base for the measure:**

Antibody tests can be repeated in an unsensitized, D-negative patient at 26-28 weeks gestation. She should also receive anti-D immune globulin prophylactically at that time. In addition, any unsensitized, D-negative patient should receive anti-D immune globulin if she has one of the following conditions or procedures:

- Ectopic gestation
- Abortion (either threatened, spontaneous, or induced)
- Procedure associated with possible fetal-to-maternal bleeding, such as chorionic villus sampling (CVS) or amniocentesis
- Condition associated with fetal-maternal hemorrhage (eg, abdominal trauma, abruptio placentae)
- Delivery of a D-positive newborn (AAP/ACOG) (Level A)

The USPSTF recommends the repeated Rh (D) antibody testing for all unsensitized Rh (D)-negative women at 24-28 weeks gestation, unless the biological father is known to be Rh (D)-negative. (USPSTF) (B Recommendation)

**Rationale for the measure:**

Rh sensitization is a serious complication of pregnancy that places the lives of both mother and child at risk. This complication can be avoided through the prophylactic administration of anti-D immune globulin.

Data elements required for the measure can be captured and the measure is actionable by the physician.

**Data capture and calculations:**

**Calculation for Performance**

For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Denominator Exclusions.

**Numerator (A) Includes:**

- Patients with documentation that they received anti-D immune globulin at 26-30 weeks gestation

**Denominator (PD) Includes:**

- All patients, regardless of age, who are D (Rh) negative and unsensitized who gave birth during a 12-month period, seen for continuing prenatal care

**Denominator Exclusions (C) Include:**

- Documentation of medical reason(s) for not receiving anti-D immune globulin at 26-30 weeks gestation
- Documentation of patient reason(s) for not receiving anti-D immune globulin at 26-30 weeks gestation
- Documentation of system reason(s) for not receiving anti-D immune globulin at 26-30 weeks gestation

**Performance Calculation**

$$\frac{\text{A (\# of patients meeting measure criteria)}}{\text{PD (\# of patients in denominator) - C (\# of patients with valid denominator exclusions)}}$$

Components for this measure are defined as:

A	# of patients with documentation that they received anti-D immune globulin at 26-30 weeks gestation
PD	# of patients, regardless of age, who are D (Rh) negative and unsensitized who gave birth during a 12-month period, seen for prenatal care
C	# of patients with documented medical reason(s), patient reason(s), or system reason(s) for not receiving anti-D immune globulin at 26-30 weeks gestation

**Calculation for Reporting**

For reporting purposes, this measure is calculated by creating a fraction with the following components: Reporting Numerator and Reporting Denominator

**Reporting Numerator** includes each of the following instances:

- A. Patients with documentation that they received anti-D immune globulin at 26-30 weeks gestation
- C. Documentation of medical reason(s) for not receiving anti-D immune globulin at 26-30 weeks gestation or documentation of patient reason(s) for not receiving anti-D immune globulin at 26-30 weeks gestation or documentation of system reason(s) for not receiving anti-D immune globulin at 26-30 weeks gestation
- D. Patients who are D (Rh) negative and unsensitized who did not receive anti-D immune globulin at 26-30 weeks gestation and there is no documented reason for not doing so
- E. Patients who are D (Rh)-positive or sensitized

**Reporting Denominator (RD) Includes:**

- All patients, regardless of age, who gave birth during a 12-month period, seen for continuing prenatal care

### Reporting Calculation

$$\frac{A(\text{\# of patients meeting additional denominator criteria AND meeting numerator criteria}) + C(\text{\# of patients with valid exclusions}) + D(\text{\# of patients meeting additional denominator criteria NOT meeting numerator criteria}) + E(\text{\# of patient visits not meeting additional denominator criteria})}{RD(\text{\# of patients in denominator})}$$

RD (# of patients in denominator)

Components for this measure are defined as:

<b>A</b>	# patients who are D (Rh) negative and unsensitized with documentation that they received anti-D immune globulin at 26-30 weeks gestation
<b>C</b>	# of patients who are D (Rh) negative and unsensitized with documentation that they did not receive anti-D immune globulin at 26-30 weeks gestation and there is a documented medical reason or a documented patient reason or a documented system reason for not doing so
<b>D</b>	# of patients who are D (Rh) negative and unsensitized with documentation that they did not receive anti-D immune globulin at 26-30 weeks gestation and there is <u>no</u> documented reason for not doing so
<b>E</b>	# of patients who are D (Rh)-positive or sensitized
<b>RD</b>	# of patients, regardless of age, who gave birth during a 12-month period, seen for continuing prenatal care

**Measure Specifications – Measure #1: Anti-D Immune Globulin**

Measure specifications will be provided for multiple data sources.

**A. Administrative claims data**

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

(Note: The specifications listed below are those needed for performance calculation.)

Denominator (Eligible Population): All patients, regardless of age, who are D (Rh)-negative and unsensitized who gave birth during a 12 month period, seen for prenatal care.

ICD-9 diagnosis codes: 641.0-641.3, 641.8-641.9 (anteartum hemorrhage, abruptio placentae, placenta previa), 642.0-642.7, 642.9 (hypertension complicating pregnancy), 643.2, 643.8 (excessive vomiting during pregnancy), 644.2 (early threatened labor), 645.1-645.2 (late pregnancy), 646.0-646.4, 646.7-646.9 (other complications of pregnancy), 647.0-647.9 (infections and parasitic conditions in the mother), 648.0-648.9 (other conditions in the mother), 649.0-649.6 (other conditions or status of the mother), 650.0-659.9 (normal delivery), 660.0-669.0 (complications in course of labor and delivery) (codes must have a 1 or a 2 as the 5<sup>th</sup> digit)

**AND**

CPT service codes: 59400, 59409, 59410, 59425, 59426 (vaginal delivery, antepartum and postpartum care), 59510, 59514, 59515 (cesarean), 59610, 59612, 59614, 59618, 59620, 59622 (delivery after previous cesarean)

**AND**

CPT Category II Code: 3290F– Patient is D (Rh)-negative and unsensitized

Numerator: Patients who received anti-D immune globulin at 26-30 weeks gestation

- Report the **CPT Category I Codes**: 90384, 90385, or 90386 (codes for anti-D immune globulin)

**OR**

- Report the **CPT II Category II Code**: 4178F – Anti-D immune globulin administered between 26 and 30 weeks gestation

Denominator Exclusion: Documentation of medical reason(s) for patient not receiving anti-D immune globulin at 26-30 weeks gestation

- Append modifier to CPT Category II code: 4178F-1P

Documentation of patient reason(s) for patient not receiving anti-D immune globulin at 26-30 weeks gestation.

- Append modifier to CPT Category II code: 4178F-2P

Documentation of system reason(s) for patient not receiving anti-D immune globulin at 26-30 weeks gestation

- Append modifier to CPT Category II code: 4178F-3P

**B. Electronic Health Record System *(in development)***

**C. Paper Medical Record *(in development)***

**Prenatal Care**  
**Measure #2: Screening for Human Immunodeficiency Virus (HIV)**

This measure may be used as an Accountability measure.

<b>Clinical Performance Measure</b>
<p><b>Numerator:</b> Patients who were screened for HIV infection during the first or second prenatal visit</p> <p><b>Denominator:</b> All patients, regardless of age, who gave birth during a 12-month period, seen for continuing prenatal care</p> <p><b>Denominator Exclusions:</b>            Documentation of medical reason(s) for not screening for HIV during the first or second prenatal visit (eg, patient has known HIV)</p> <p>Documentation of patient reason(s) for not screening for HIV during the first or second prenatal visit</p> <p><b>Measure:</b> Percentage of patients, regardless of age, who gave birth during a 12-month period who were screened for HIV infection during the first or second prenatal visit</p>
<p><b>The following clinical recommendation statements are quoted <u>verbatim</u> from the referenced clinical guidelines and represent the evidence base for the measure:</b></p> <p>Universal HIV testing with patient notification should be a routine component of prenatal care; however, this must be in accordance with current state laws. (ACOG/AAP)</p> <p>PHS recommends that all pregnant women in the United States be tested for HIV infection. All health-care providers should recommend HIV testing to all of their pregnant patients, pointing out the substantial benefit of knowledge of HIV status for the health of women and their infants. HIV screening should be a routine part of prenatal care for all women. (CDC)</p> <p>Clinicians should screen all pregnant women for HIV. There is good evidence that both standard and FDA-approved rapid screening tests accurately detect HIV infection in pregnant women and fair evidence that introduction of universal prenatal counseling and voluntary testing increases the proportion of HIV-infected women who are diagnosed and are treated before delivery. (USPSTF) (A Recommendation)</p>
<p><b>Rationale for the measure:</b></p> <p>While the number of perinatally transmitted cases of HIV has decreased, perinatal transmission still accounts for the majority of new cases of HIV in children. Benefits of knowing a woman's HIV status early on in pregnancy have been well documented and allow the health care provider to initiate treatment early on in the pregnancy, thereby decreasing the risk of transmission of HIV to the child.</p> <p>Data elements required for the measure can be captured and the measure is actionable by the physician.</p>
<p><b>Data capture and calculations:</b></p> <p><u><b>Calculation for Performance</b></u>            For performance purposes, this measure is calculated by creating a fraction with the following components: Numerator, Denominator, and Denominator Exclusions.</p> <p><b>Numerator (A) Includes:</b></p> <ul style="list-style-type: none"> <li>• Patients with documentation that they were screened for HIV infection during the first or second prenatal visit</li> </ul> <p><b>Denominator (PD) Includes:</b></p> <ul style="list-style-type: none"> <li>• All patients, regardless of age, who gave birth seen for continuing prenatal care</li> </ul>

**Denominator Exclusions (C) Include:**

- Documentation of medical reason(s) for not screening for HIV during the first or second prenatal visit
- Documentation of patient reason(s) for not screening for HIV during the first or second prenatal visit

**Performance Calculation**

$$\frac{A \text{ (# of patients meeting measure criteria)}}{PD \text{ (# of patients in denominator)} - C \text{ (# of patients with valid denominator exclusions)}}$$

Components for this measure are defined as:

<b>A</b>	# of patients with documentation that they received HIV screening during the first or second prenatal visit
<b>PD</b>	# of patients, regardless of age, who gave birth, seen for continuing prenatal care
<b>C</b>	# of patients with documented medical reason(s) or patient reason(s) for not receiving HIV screening during the first or second prenatal visit

**Calculation for Reporting**

For reporting purposes, this measure is calculated by creating a fraction with the following components: Reporting Numerator and Reporting Denominator

Reporting Numerator includes each of the following instances:

- A. Patients with documentation that they were screened for HIV infection during the first or second prenatal visit
- C. Documentation of medical reason(s) for not screening for HIV during the first or second prenatal visit (eg, patient has known HIV) or documented patient reason(s) for not screening for HIV during the first or second prenatal visit
- D. Patients who were not screened for HIV infection during the first or second prenatal visit and there is no documented reason for not doing so

Reporting Denominator (RD) Includes:

- All patients, regardless of age, who gave birth during a 12-month period, seen for continuing prenatal care

**Reporting Calculation**

$$\frac{A \text{ (# of patients meeting numerator criteria)} + C \text{ (# of patients with valid exclusions)} + D \text{ (# of patients NOT meeting numerator criteria)}}{RD \text{ (# of patients in denominator)}}$$

Components for this measure are defined

<b>A</b>	# of patients with documentation that they were screened for HIV infection during the first or second prenatal visit
<b>C</b>	# of patients with documentation of medical reason(s) for not screening for HIV during the first or second prenatal visit (eg, patient has known HIV) or documented patient reason(s) for not screening for HIV during the first or second prenatal visit
<b>D</b>	# of patients who were not screened for HIV infection during the first or second prenatal visit and there is <u>no</u> documented reason for not doing so
<b>RD</b>	# of patients, regardless of age, who gave birth during a 12-month period, seen for continuing

**Measure Specifications – Measure #2: Screening for Human Immuno Deficiency Virus (HIV)**

Measure specifications will be provided for multiple data sources.

**A. Administrative claims data**

Administrative claims data collection requires users to identify the eligible population (denominator) and numerator using codes recorded on claims or billing forms (electronic or paper). Users report a rate based on all patients in a given practice for whom data are available and who meet the eligible population/denominator criteria.

(Note: The specifications listed below are those needed for performance calculation.)

Denominator (Eligible Population): All patients, regardless of age, who gave birth in a 12-month period, seen for continuing prenatal care

**ICD-9 diagnosis codes:** 641.0-641.3, 641.8-641.9 (anteartum hemorrhage, abruptio placentae, placenta previa), 642.0-642.7, 642.9 (hypertension complicating pregnancy), 643.2, 643.8 (excessive vomiting during pregnancy), 644.2 (early threatened labor), 645.1-645.2 (late pregnancy), 646.0-646.4, 646.7-646.9 (other complications of pregnancy), 647.0-647.9 (infections and parasitic conditions in the mother), 648.0-648.9 (other conditions in the mother), 649.0-649.6 (other conditions or status of the mother), 650.0-659.9 (normal delivery), 660.0-669.0 (complications in course of labor and delivery) (codes must have a 1 or a 2 as the 5<sup>th</sup> digit)

**AND**

**CPT service codes:** 59400, 59409, 59410, 59425, 59426 (vaginal delivery, antepartum and postpartum care), 59510, 59514, 59515 (cesarean), 59610, 59612, 59614, 59618, 59620, 59622 (delivery after previous cesarean)

Numerator: Patients who received HIV screening during the first or second prenatal visit

- **Report the CPT Category I Codes:** 87390, 87391, 87534-87539 (codes for HIV testing)

**OR**

- **Report the CPT Category II Code:** 3292F – HIV testing ordered or documented and reviewed during the first or second prenatal visit

Denominator Exclusion: Documentation of medical reason(s) for patient not receiving HIV screening during the first or second prenatal visit

- **Append modifier to CPT Category II code:** 3292F-1P

Documentation of patient reason(s) for patient not receiving HIV screening during the first or second prenatal visit

- **Append modifier to CPT Category II code:** 3292F-2P

**B. Electronic Health Record System (*in development*)**

**C. Paper Medical Record (*in development*)**

#### References for Clinical Recommendations for Prenatal Care

1. American Academy of Pediatrics and American College of Obstetricians and Gynecologists. *Guidelines for Prenatal Care, 5<sup>th</sup> Edition*. Elk Grove Village, IL, AAP/ACOG, 2002.
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