

## NATIONAL QUALITY FORUM

### Measure Submission and Evaluation Worksheet 5.0

This form contains the information submitted by measure developers/stewards, organized according to NQF's measure evaluation criteria and process. The evaluation criteria, evaluation guidance documents, and a blank online submission form are available on the [submitting standards web page](#).

<b>NQF #:</b> 0652 <b>NQF Project:</b> Ambulatory Care - Additional Outpatient Measures 2010
(for Endorsement Maintenance Review) <b>Original Endorsement Date:</b> Jan 17, 2011 <b>Most Recent Endorsement Date:</b> Jan 17, 2011 <b>Last Updated Date:</b> Sep 22, 2011
<b>BRIEF MEASURE INFORMATION</b>
<b>De.1 Measure Title:</b> Rh immunoglobulin (Rhogam) for Rh negative pregnant women at risk of fetal blood exposure.
<b>Co.1.1 Measure Steward:</b> American College of Emergency Physicians
<b>De.2 Brief Description of Measure:</b> Percent of Rh negative pregnant women at risk of fetal blood exposure who receive Rhogam the ED.
<b>2a1.1 Numerator Statement:</b> Number of appropriate patients who receive Rhogam in the ED.
<b>2a1.4 Denominator Statement:</b> All women, confirmed pregnant, who are at significant risk of fetal blood exposure, including: 1. those diagnosed with an ectopic pregnancy 2. those in the second or third trimester: a: with a threatened abortion (threatened, partial, complete, or spontaneous) b. those who report or are found to have significant vaginal bleeding (not just spotting) c. those who have sustained blunt abdominal trauma 3. those who undergo an invasive obstetric procedure in the ED (genetic amniocentesis; chorion villus sampling; fetal blood sampling, D&C).
<b>2a1.8 Denominator Exclusions:</b> 1. Patient refusal 2. Patients who have received appropriate Rh immunoglobulin previously 3. OB/GYN consultation documenting Rh immunoglobulin not recommended
<b>1.1 Measure Type:</b> Process <b>2a1. 25-26 Data Source:</b> Claims, Electronic Health Records, Other, Paper Records <b>2a1.33 Level of Analysis:</b> Clinician : Group/Practice, Clinician : Individual  <b>1.2-1.4 Is this measure paired with another measure?</b> No  <b>De.3 If included in a composite, please identify the composite measure (title and NQF number if endorsed):</b>

<b>STAFF NOTES</b> (issues or questions regarding any criteria)
<b>Comments on Conditions for Consideration:</b>
<b>Is the measure untested?</b> Yes <input type="radio"/> No <input checked="" type="radio"/> If untested, explain how it meets criteria for consideration for time-limited endorsement:

**1a. Specific national health goal/priority identified by DHHS or NPP addressed by the measure (check De.5):**

**5. Similar/related [endorsed](#) or submitted measures (check 5.1):**

**Other Criteria:**

**Staff Reviewer Name(s):**

## 1. IMPACT, OPPORTUNITY, EVIDENCE - IMPORTANCE TO MEASURE AND REPORT

Importance to Measure and Report is a threshold criterion that must be met in order to recommend a measure for endorsement. All three subcriteria must be met to pass this criterion. See [guidance on evidence](#).

**Measures must be judged to be important to measure and report in order to be evaluated against the remaining criteria. ([evaluation criteria](#))**

**1a. High Impact:** **H ☒ M ☐ L ☐ I ☐**

(The measure directly addresses a specific national health goal/priority identified by DHHS or NPP, or some other high impact aspect of healthcare.)

**De.4 Subject/Topic Areas (Check all the areas that apply):** [Perinatal](#)

**De.5 Non-Condition Specific (Check all the areas that apply):**

**1a.1 Demonstrated High Impact Aspect of Healthcare:** [Patient/societal consequences of poor quality](#)

**1a.2 If "Other," please describe:**

**1a.3 Summary of Evidence of High Impact (Provide epidemiologic or resource use data):**

The potential for maternal exposure to fetal blood is a concern among pregnant patients presenting to the ED with a number of common complaints or diagnoses including abdominal pain, blunt abdominal trauma, vaginal bleeding, ectopic pregnancy, threatened or spontaneous abortion, or pelvic instrumentation. This concern increases after the first trimester as fetal RBC mass increases.

Exposure to less than 0.1 ml of fetal blood of a different rhesus (Rh) antigenicity among Rh negative has been shown to increase the risk of maternal alloimmunization. Alloimmunization can result in hemolytic disease of the fetus or newborn including spontaneous abortion, fetal hemolytic anemia, hydrops fetalis and severe neonatal jaundice in subsequent pregnancies.

Anti-D-immunoglobulin reduces the likelihood of alloimmunization. Routine administration of antenatal anti-D-immunoglobulin has been demonstrated as an effective prophylaxis and is recommended by the American College of Obstetricians and Gynecologists (ACOG). Guidelines (UK) recommend administration of anti-D-immunoglobulin after the first trimester for a number of sensitizing episodes including but not limited to uterine bleeding and for recurrent, painful or heavy uterine bleeding in the first trimester.

Routine use of anti-D prophylaxis is somewhat controversial as this done to prevent so-called silent sensitization occurring in the absence of a clear hemorrhage, but this is generally performed in the UK and the US. As anti-D-immunoglobulin does cross the placenta, there are some concerns that this could cause fetal anemia, however, this was felt to be a minor concern relative to the benefits of administration.

**1a.4 Citations for Evidence of High Impact cited in 1a.3:** 1. Royal College of Obstetricians and Gynaecologists (RCOG). The management of early pregnancy loss. London (UK): Royal College of Obstetricians and Gynaecologists (RCOG); 2006 Oct. 18 p. (Green-top guideline; no. 25). [75 references]  
2. Parker J, Wray J, Gooch A, Robson S, Qureshi H. Guidelines for the use of prophylactic anti-D immunoglobulin. London (UK): British Committee for Standards in Haematology (BCSH); 2006. 13 p. [21

references]

3. ACOG practice bulletin. Prevention of Rh D alloimmunization. Number 4, May 1999 (replaces educational bulletin Number 147, October 1990). Clinical management guidelines for obstetrician-gynecologists. American College of Obstetrics and Gynecology. Int J Gynaecol Obstet 1999; 66: 63-70. (There are no new American College of Obstetrics and Gynecology guidelines since 1999)

**1b. Opportunity for Improvement: H ● M ● L ● I ●**

(There is a demonstrated performance gap - variability or overall less than optimal performance)

**1b.1 Briefly explain the benefits (improvements in quality) envisioned by use of this measure:**

The management of early pregnancy loss, and the prevention of Rh alloimmunization.

**1b.2 Summary of Data Demonstrating Performance Gap** (Variation or overall less than optimal performance across providers): [**For Maintenance** – Descriptive statistics for performance results for this measure - distribution of scores for measured entities by quartile/decile, mean, median, SD, min, max, etc.] Recent studies suggest that recommendations for antenatal anti-D immunoglobulin administration were not closely followed, and closer adherence might further reduce the incidence of Rhesus D immunisation.

"If there is no evidence of anti-D alloimmunization in the RhD-negative woman, 300 micrograms of rhesus immune globulin should be administered intramuscularly at 28 weeks of gestation. This practice has been reported to reduce the incidence of antenatal alloimmunization from 2% to 0.1%....Evidence for the use of rhesus immune globulin in other scenarios that breach the fetoplacental barrier is lacking."

Source: Management of Rhesus Alloimmunization in Pregnancy, Obstetrics & Gynecology. Volume 112(1), July 2008, pp 164-176

"Over the years, many reports have documented a lack of adherence to guidelines regarding anti-RhD administration, although there are no data specific to the US situation. In Canada, a retrospective chart review of pregnant women presenting to the emergency department with a risk factor for Rh sensitization found significant underutilization of anti-RhD. Patients who were admitted to hospital did have their Rh status determined, but there was more than one instance when a patient was not given anti-RhD when it was indicated. Of the patients who were not hospitalized, the vast majority (86%) were not Rh typed. Although some of these mothers may well have known their blood types or their clinicians may have had access to their prenatal records including blood type, this high percentage of untyped trauma victims may indicate a lack of awareness on the part of physicians. None of the women was administered anti-RhD, whether or not it was indicated."

"The lack of awareness for anti-RhD requirement in the United Kingdom was confirmed by a telephone survey of senior house officers working in accident and emergency departments: the doctors were given a clinical scenario of a patient who presented to the department at 18 weeks' gestation following closed abdominal trauma from domestic violence and asked what their management would be. Only 20 of the 62 doctors surveyed (31%) recognized the possibility of Rh sensitization. Of these, 3 said they would request a KB test and the remainder said they would check Rh status. In the case of an Rh-negative result, 9 of the doctors reported that they would administer anti-RhD in the emergency department, whereas the remainder answered that they would refer the patient to the on-call obstetricians. More worryingly, 23 of the 44 doctors (52%) who did not recognize the 114 Obstetrical and Gynecological Survey possibility of Rh sensitization in the first instance still did not appreciate the risk when informed of the Rh-negative status of the patient in question."

Source: Thorp JM. Utilization of anti-RhD in the emergency department after blunt trauma. Obstetrical & Gynecological Survey. 63(2):112-5, 2008 Feb.

**1b.3 Citations for Data on Performance Gap: [For Maintenance – Description of the data or sample for measure results reported in 1b.2 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included]**

1. Moise KJ. Red blood cell alloimmunization in pregnancy. Semin Hematol 2005;42:169-178.
2. Eager R, Sutton J, Spedding R, et al. Use of anti-D immunoglobulin in maternal trauma. Emerg Med J 2003;20:498.
3. Howard HL, Martlew VJ, McFadyyn IR and Clarke CA. Preventing Rhesus D hemolytic disease of the newborn by giving anti-D immunoglobulin: are the guidelines being adequately followed? Br J Obstet Gynaecol 1997; 194: 37-41.
4. Herman M, Kjellman H, Ljunggren C. Antenatal prophylaxis of Rh isoimmunisation with 250microg anti-D immunoglobulin. Acta Obstet Gynecol Scand 1984; 124: 1-15.
5. Ghosh S, Murphy WG. Implementation of the rhesus prevention programme: a prospective study. Scott Med J 1994; 39: 147- 49.
6. Bowman JM. Controversies in Rh prophylaxis. Who needs Rh immunoglobulin and when should it be given? Am J Obstet Gynecol 1985; 151: 289-294.
7. Stewart FH, Burnhill MS, Bozorgi N. Reduced dose of Rh immunoglobulin following 1st trimester pregnancy termination. Obstet Gynecol 1978; 51:318-322.
8. Bhat R, Venkatesh KS. Obstetric Practice Related Severe Neonatal Jaundice. JK Science Research Letter. Vol 10 (1), Jan-Mar 2008, p 46-7.

**1b.4 Summary of Data on Disparities by Population Group: [For Maintenance –Descriptive statistics for performance results for this measure by population group]**

None

**1b.5 Citations for Data on Disparities Cited in 1b.4: [For Maintenance – Description of the data or sample for measure results reported in 1b.4 including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included]**

None

**1c. Evidence (Measure focus is a health outcome OR meets the criteria for quantity, quality, consistency of the body of evidence.)**

**Is the measure focus a health outcome? Yes ☐ No ☐ If not a health outcome, rate the body of evidence.**

**Quantity: H ☐ M ☐ L ☐ I ☐ Quality: H ☐ M ☐ L ☐ I ☐ Consistency: H ☐ M ☐ L ☐ I ☐**

Quantity	Quality	Consistency	Does the measure pass subcriterion1c?
M-H	M-H	M-H	Yes <input type="radio"/>
L	M-H	M	Yes <input type="radio"/> IF additional research unlikely to change conclusion that benefits to patients outweigh harms: otherwise No <input type="radio"/>
M-H	L	M-H	Yes <input type="radio"/> IF potential benefits to patients clearly outweigh potential harms: otherwise No <input type="radio"/>
L-M-H	L-M-H	L	No <input type="radio"/>
Health outcome – rationale supports relationship to at least one healthcare structure, process, intervention, or service			Does the measure pass subcriterion1c? Yes <input type="radio"/> IF rationale supports relationship

**1c.1 Structure-Process-Outcome Relationship** (Briefly state the measure focus, e.g., health outcome, intermediate clinical outcome, process, structure; then identify the appropriate links, e.g., structure-process-health outcome; process- health outcome; intermediate clinical outcome-health outcome):

Decreased incidence of Rh alloimmunization and minimized practice variation with regards to immunoprophylaxis strategies.

**1c.2-3 Type of Evidence** (Check all that apply):

Evidence-based guideline

**1c.4 Directness of Evidence to the Specified Measure** (State the central topic, population, and outcomes addressed in the body of evidence and identify any differences from the measure focus and measure target population):

Guideline Summary: Guidelines for the use of prophylactic anti-D immunoglobulin (Parker J, Wray J, Gooch A, Robson S, Qureshi H. Guidelines for the use of prophylactic anti-D immunoglobulin. London (UK): British Committee for Standards in Haematology (BCSH); 2006)

Sensitizing episodes

- Amniocentesis
- Cordocentesis
- Other in-utero therapeutic intervention/surgery (e.g., intrauterine transfusion, shunting)
- Ante partum haemorrhage (APH)
- Chorionic villus sampling
- Ectopic pregnancy
- External cephalic version
- Fall/abdominal trauma
- Intrauterine death
- Miscarriage

Table: Recommendations for Antenatal and Postnatal Tests and the Prevention of Sensitization

Gestation      Summary of Tests and Treatment

- |                      |  |
|----------------------|--|
| <12 weeks            | • No action for uncomplicated miscarriage or painless vaginal bleeding.  |
|                      | • In all other cases check ABO and D type to confirm D negativity. Confirm absence of anti-D.                                    |
|                      | • Issue and administer 250 iu anti-D, intramuscularly (i.m.)   |
| 12 weeks to 20 weeks | • For all potentially sensitising episodes ABO and D type to confirm D negativity. Confirm absence of immune anti-D.             |
|                      | • Issue and administer 250 iu anti-D, i.m.   |
| 20 weeks             | • For all potentially sensitising episodes ABO and D type to confirm D negativity. Confirm absence of immune anti-D. Assess FMH. |
|                      | • Issue and administer at least 500 iu anti-D, i.m., depending on the size of FMH.   |

Guideline Summary: The management of early pregnancy loss

Royal College of Obstetricians and Gynaecologists (RCOG). The management of early pregnancy loss. London (UK): Royal College of Obstetricians and Gynaecologists (RCOG); 2006 Oct. 18.

Grade B - Non-sensitised rhesus (Rh) negative women should receive anti-D immunoglobulin in the following situations: ectopic pregnancy, all miscarriages over 12 weeks of gestation (including threatened), and all miscarriages where the uterus is evacuated (whether medically or surgically).

Grade C - Anti-D immunoglobulin should only be given for threatened miscarriage under 12 weeks gestation when bleeding is heavy or associated with pain. It is not required for cases of complete miscarriage under

12 weeks of gestation when there has been no formal intervention to evacuate the uterus.

Guideline Summary: Prevention of Rh alloimmunization (Canada)

Fung Kee Fung K, Eason E, Crane J, Armson A, De La Ronde S, Farine D, Keenan-Lindsay L, Leduc L, Reid GJ, Aerde JV, Wilson RD, Davies G, Désilets VA, Summers A, Wyatt P, Young DC; Maternal-Fetal Medicine and Genetics Committees of the Society of Obstetricians and Gynaecologists of Canada (SOGC). Prevention of Rh alloimmunization.. J Obstet Gynaecol Can. 2003 Sep;25(9):765-73.

OBJECTIVE: To provide guidelines on use of anti-D prophylaxis to optimize prevention of rhesus (Rh) alloimmunization in Canadian women. OUTCOMES: Decreased incidence of Rh alloimmunization and minimized practice variation with regards to immunoprophylaxis strategies. EVIDENCE: The Cochrane Library and MEDLINE were searched for English-language articles from 1968 to 2001, relating to the prevention of Rh alloimmunization. Search terms included: Rho(D) immune globulin, Rh iso- or allo-immunization, anti-D, anti-Rh, WinRho, Rhogam, and pregnancy. Additional publications were identified from the bibliographies of these articles. All study types were reviewed. Randomized controlled trials were considered evidence of highest quality, followed by cohort studies. Key individual studies on which the principal recommendations are based are referenced. Supporting data for each recommendation is briefly summarized with evaluative comments and referenced. VALUES: The evidence collected was reviewed by the Maternal-Fetal Medicine and Genetics Committees of the Society of Obstetricians and Gynaecologists of Canada (SOGC) and quantified using the Evaluation of Evidence guidelines developed by the Canadian Task Force on the Periodic Health Exam.

RECOMMENDATIONS:

1. Anti-D Ig 300 microg IM or IV should be given within 72 hours of delivery to a postpartum nonsensitized Rh-negative woman delivering an Rh-positive infant. Additional anti-D Ig may be required for fetomaternal hemorrhage (FMH) greater than 15 mL of fetal red blood cells (about 30 mL of fetal blood). Alternatively, anti-D Ig 120 microg IM or IV may be given within 72 hours of delivery, with testing and additional anti-D Ig given for FMH over 6 mL of fetal red blood cells (12 mL fetal blood). (I-A)
2. If anti-D is not given within 72 hours of delivery or other potentially sensitizing event, anti-D should be given as soon as the need is recognized, for up to 28 days after delivery or other potentially sensitizing event. (III-B)
3. There is poor evidence regarding inclusion or exclusion of routine testing for postpartum FMH, as the cost-benefit of such testing in Rh mothers at risk has not been determined. (III-C)
4. Anti-D Ig 300 microg should be given routinely to all Rh-negative nonsensitized women at 28 weeks' gestation when fetal blood type is unknown or known to be Rh-positive. Alternatively, 2 doses of 100-120 microg may be given (120 microg being the lowest currently available dose in Canada): one at 28 weeks and one at 34 weeks. (I-A)
5. All pregnant women (D-negative or D-positive) should be typed and screened for alloantibodies with an indirect antiglobulin test at the first prenatal visit and again at 28 weeks. (III-C)
6. When paternity is certain, Rh testing of the baby's father may be offered to all Rh-negative pregnant women to eliminate unnecessary blood product administration. (III-C)
7. A woman with "weak D" (also known as Du-positive) should not receive anti-D. (III-D)
8. A repeat antepartum dose of Rh immune globulin is generally not required at 40 weeks, provided that the antepartum injection was given no earlier than 28 weeks' gestation. (III-C)
9. After miscarriage or threatened abortion or induced abortion during the first 12 weeks of gestation, nonsensitized D-negative women should be given a minimum anti-D of 120 microg. After 12 weeks' gestation, they should be given 300 microg. (II-3B)
10. At abortion, blood type and antibody screen should be done unless results of blood type and antibody screen during the pregnancy are available, in which case antibody screening need not be repeated. (III-B)
11. Anti-D should be given to nonsensitized D-negative women following ectopic pregnancy. A minimum of



- 120 microg should be given before 12 weeks' gestation and 300 microg after 12 weeks' gestation. (III-B)
12. Anti-D should be given to nonsensitized D-negative women following molar pregnancy because of the possibility of partial mole. Anti-D may be withheld if the diagnosis of complete mole is certain. (III-B)
13. At amniocentesis, anti-D 300 microg should be given to nonsensitized D-negative women. (II-3B)
14. Anti-D should be given to nonsensitized D-negative women following chorionic villous sampling, at a minimum dose of 120 microg during the first 12 weeks' gestation, and at a dose of 300 microg after 12 weeks' gestation. (II-B)
15. Following cordocentesis, anti-D Ig 300 microg should be given to nonsensitized D-negative women. (II-3B)
16. Quantitative testing for FMH may be considered following events potentially associated with placental trauma and disruption of the fetomaternal interface (e.g., placental abruption, blunt trauma to the abdomen, cordocentesis, placenta previa with bleeding). There is a substantial risk of FMH over 30 mL with such events, especially with blunt trauma to the abdomen. (III-B)
17. Anti-D 120 microg or 300 microg is recommended in association with testing to quantitate FMH following conditions potentially associated with placental trauma and disruption of the fetomaternal interface (e.g., placental abruption, external cephalic version, blunt trauma to the abdomen, placenta previa with bleeding). If FMH is in excess of the amount covered by the dose given (6 mL or 15 mL fetal RBC), 10 microg additional anti-D should be given for every additional 0.5 mL fetal red blood cells. There is a risk of excess FMH, especially when there has been blunt trauma to the abdomen. (III-B)
18. Verbal or written informed consent must be obtained prior to administration of the blood product Rh immune globulin. (III-C)

**VALIDATION:** These guidelines have been reviewed by the Maternal-Fetal Medicine Committee and the Genetics Committee, with input from the Rh Program of Nova Scotia. Final approval has been given by the Executive and Council of the Society of Obstetricians and Gynaecologists of Canada.

**1c.5 Quantity of Studies in the Body of Evidence** (*Total number of studies, not articles*):

**1c.6 Quality of Body of Evidence** (*Summarize the certainty or confidence in the estimates of benefits and harms to patients across studies in the body of evidence resulting from study factors. Please address: a) study design/flaws; b) directness/indirectness of the evidence to this measure (e.g., interventions, comparisons, outcomes assessed, population included in the evidence); and c) imprecision/wide confidence intervals due to few patients or events*):

**1c.7 Consistency of Results across Studies** (*Summarize the consistency of the magnitude and direction of the effect*):

**1c.8 Net Benefit** (*Provide estimates of effect for benefit/outcome; identify harms addressed and estimates of effect; and net benefit - benefit over harms*):

**1c.9 Grading of Strength/Quality of the Body of Evidence.** Has the body of evidence been graded?

**1c.10 If body of evidence graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias:**

**1c.11 System Used for Grading the Body of Evidence:** The Cochrane Library and MEDLINE were searched for English-language articles from 1968 to 2001, relating to the prevention of Rh alloimmunization. Search terms included: Rho(D) immune globulin, Rh iso- or allo-immunization, anti-D, anti-Rh, WinRho, Rhogam, and pregnancy. Additional publications were identified from the bibliographies of these articles. All

study types were reviewed. Randomized controlled trials were considered evidence of highest quality, followed by cohort studies. Key individual studies on which the principal recommendations are based are referenced. Supporting data for each recommendation is briefly summarized with evaluative comments and referenced.

VALUES: The evidence collected was reviewed by the Maternal-Fetal Medicine and Genetics Committees of the Society of Obstetricians and Gynaecologists of Canada (SOGC) and quantified using the Evaluation of Evidence guidelines developed by the Canadian Task Force on the Periodic Health Exam.

**1c.12 If other, identify and describe the grading scale with definitions:**

**1c.13 Grade Assigned to the Body of Evidence:** Grade B : Non-sensitised rhesus (Rh) negative women should receive anti-D immunoglobulin in the following situations: ectopic pregnancy, all miscarriages over 12 weeks of gestation (including threatened), and all miscarriages where the uterus is evacuated (whether medically or surgically); Grade C : Anti-D immunoglobulin should only be given for threatened miscarriage under 12 weeks gestation when bleeding is heavy or associated with pain. It is not required for cases of complete miscarriage under 12 weeks of gestation when there has been no formal intervention to evacuate the uterus.

**1c.14 Summary of Controversy/Contradictory Evidence:** • Evidence does not support the measure for all instances of vaginal bleeding

- Patients who have "received appropriate Rh immunoglobulin previously" are not necessarily protected from current risk of fetomaternal transfusion
- The evidence is not strong for first trimester use, but it may be considered "standard of care."

**1c.15 Citations for Evidence other than Guidelines (Guidelines addressed below):**

Royal College of Obstetricians and Gynaecologists

**1c.16 Quote verbatim, the specific guideline recommendation** (Including guideline # and/or page #):

Administration of Anti-D Immunoglobulin

1. Documentation accompanying the injection must include a report containing the following details:
  - Identity of the patient to include surname, forename, date of birth and a unique ID number with the date when the injection is to be given. (Level IIa, Grade B).
  - Identity and address of the general practice (GP) surgery/antenatal clinic administering the injection. (Level IIa, Grade B).

Details of the injection will include batch number and strength of dose and route of administration.

2. The details of the administration of anti-D must be recorded in the antenatal record. It is also important that these details are centrally recorded in the hospital blood bank computer so that this information is readily available should pre-transfusion testing be required.

**1c.17 Clinical Practice Guideline Citation:** Parker J, Wray J, Gooch A, Robson S, Qureshi H. Guidelines for the use of prophylactic anti-D immunoglobulin. London (UK): British Committee for Standards in Haematology (BCSH); 2006

**1c.18 National Guideline Clearinghouse or other URL:** National Guideline Clearinghouse: [http://www.guideline.gov/summary/summary.aspx?doc\\_id=12011](http://www.guideline.gov/summary/summary.aspx?doc_id=12011).

**1c.19 Grading of Strength of Guideline Recommendation.** Has the recommendation been graded?

**1c.20 If guideline recommendation graded, identify the entity that graded the evidence including balance of representation and any disclosures regarding bias:**



**1c.21 System Used for Grading the Strength of Guideline Recommendation:** [Please see above.](#)

**1c.22 If other, identify and describe the grading scale with definitions:**

**1c.23 Grade Assigned to the Recommendation:** [Level II.a, Grade B - Level IIa Evidence](#), means evidence obtained from at least one well-designed controlled study without randomization; Grade B Recommendation (evidence levels IIa, IIb, III) requires availability of well-conducted clinical studies but no randomised clinical trials on the topic of recommendation

**1c.24 Rationale for Using this Guideline Over Others:** [Strength of Evidence](#)

**Based on the NQF descriptions for rating the evidence, what was the developer's assessment of the quantity, quality, and consistency of the body of evidence?**

**1c.25 Quantity:** **1c.26 Quality:** **1c.27 Consistency:**

**1c.28 Attach evidence submission form:**

**1c.29 Attach appendix for supplemental materials:**

**Was the threshold criterion, *Importance to Measure and Report*, met?**

**(1a & 1b must be rated moderate or high and 1c yes) Yes ☒ No ☒**

**Provide rationale based on specific subcriteria:**

**For a new measure if the Committee votes NO, then STOP.**

**For a measure undergoing endorsement maintenance, if the Committee votes NO because of 1b. (no opportunity for improvement), it may be considered for continued endorsement and all criteria need to be evaluated.**

## 2. RELIABILITY & VALIDITY - SCIENTIFIC ACCEPTABILITY OF MEASURE PROPERTIES

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. (**evaluation criteria**)

Measure testing must demonstrate adequate reliability and validity in order to be recommended for endorsement. Testing may be conducted for data elements and/or the computed measure score. Testing information and results should be entered in the appropriate field. Supplemental materials may be referenced or attached in item 2.1. See [guidance on measure testing](#).

**S.1 Measure Web Page** (*In the future, NQF will require measure stewards to provide a URL link to a web page where current detailed specifications can be obtained*). Do you have a web page where current detailed specifications for this measure can be obtained? [No](#)

**S.2 If yes, provide web page URL:**

**2a. RELIABILITY. Precise Specifications and Reliability Testing:** **H ☒ M ☒ L ☒ I ☒**

**2a1. Precise Measure Specifications.** (*The measure specifications precise and unambiguous.*)

**2a1.1 Numerator Statement** (*Brief, narrative description of the measure focus or what is being measured about the target population, e.g., cases from the target population with the target process, condition, event, or outcome*):

[Number of appropriate patients who receive Rhogam in the ED.](#)

**2a1.2 Numerator Time Window** (*The time period in which the target process, condition, event, or outcome is eligible for inclusion*):

[None](#)

**2a1.3 Numerator Details** (*All information required to identify and calculate the cases from the target*

See Guidance for Definitions of Rating Scale: H=High; M=Moderate; L=Low; I=Insufficient; NA=Not Applicable

Created on: 05/24/2021 at 05:11 PM

population with the target process, condition, event, or outcome such as definitions, codes with descriptors, and/or specific data collection items/responses:

- CPT E/M Service Codes: 99281, 99282, 99283, 99284, 99285, 99291 and
- Chart review evidence of Rh-immunoglobulin administered  
(Recommend new CPT2 or G codes be created)

**2a1.4 Denominator Statement** (Brief, narrative description of the target population being measured):

All women, confirmed pregnant, who are at significant risk of fetal blood exposure, including:

1. those diagnosed with an ectopic pregnancy
2. those in the second or third trimester:
  - a. with a threatened abortion (threatened, partial, complete, or spontaneous)
  - b. those who report or are found to have significant vaginal bleeding (not just spotting)
  - c. those who have sustained blunt abdominal trauma
3. those who undergo an invasive obstetric procedure in the ED (genetic amniocentesis; chorion villus sampling; fetal blood sampling, D&C).

**2a1.5 Target Population Category** (Check all the populations for which the measure is specified and tested if any):

**2a1.6 Denominator Time Window** (The time period in which cases are eligible for inclusion):

None

**2a1.7 Denominator Details** (All information required to identify and calculate the target population/denominator such as definitions, codes with descriptors, and/or specific data collection items/responses):

CPT E/M Service Codes: 99281, 99282, 99283, 99284, 99285, 99291

**2a1.8 Denominator Exclusions** (Brief narrative description of exclusions from the target population):

1. Patient refusal
2. Patients who have received appropriate Rh immunoglobulin previously
3. OB/GYN consultation documenting Rh immunoglobulin not recommended

**2a1.9 Denominator Exclusion Details** (All information required to identify and calculate exclusions from the denominator such as definitions, codes with descriptors, and/or specific data collection items/responses):

Chart review evidence of Rh immunoglobulin administered.

**2a1.10 Stratification Details/Variables** (All information required to stratify the measure results including the stratification variables, codes with descriptors, definitions, and/or specific data collection items/responses):

N/A

**2a1.11 Risk Adjustment Type** (Select type. Provide specifications for risk stratification in 2a1.10 and for statistical model in 2a1.13): No risk adjustment or risk stratification

**2a1.12 If "Other," please describe:**

**2a1.13 Statistical Risk Model and Variables** (Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development should be addressed in 2b4.):

N/A

**2a1.14-16 Detailed Risk Model Available at Web page URL** (or attachment). Include coefficients, equations, codes with descriptors, definitions, and/or specific data collection items/responses. Attach documents only if they are not available on a webpage and keep attached file to 5 MB or less. NQF strongly

prefers you make documents available at a Web page URL. Please supply login/password if needed:

**2a1.17-18. Type of Score:** [Count](#)

**2a1.19 Interpretation of Score** (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score):

**2a1.20 Calculation Algorithm/Measure Logic**(Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.):

[N/A](#)

**2a1.21-23 Calculation Algorithm/Measure Logic Diagram URL or attachment:**

**2a1.24 Sampling (Survey) Methodology.** If measure is based on a sample (or survey), provide instructions for obtaining the sample, conducting the survey and guidance on minimum sample size (response rate):

[N/A](#)

**2a1.25 Data Source** (Check all the sources for which the measure is specified and tested). If other, please describe:

[Claims, Electronic Health Records, Other, Paper Records](#)

**2a1.26 Data Source/Data Collection Instrument** (Identify the specific data source/data collection instrument, e.g. name of database, clinical registry, collection instrument, etc.): [Data will be collected from the medical record. These can be easily recorded either electronically or on paper using institution-specific instruments.](#)

**2a1.27-29 Data Source/data Collection Instrument Reference Web Page URL or Attachment:**

**2a1.30-32 Data Dictionary/Code Table Web Page URL or Attachment:**

**2a1.33 Level of Analysis** (Check the levels of analysis for which the measure is specified and tested):

[Clinician : Group/Practice, Clinician : Individual](#)

**2a1.34-35 Care Setting** (Check all the settings for which the measure is specified and tested):

[Inpatient/Hospital](#)

**2a2. Reliability Testing.** (Reliability testing was conducted with appropriate method, scope, and adequate demonstration of reliability.)

**2a2.1 Data/Sample** (Description of the data or sample including number of measured entities; number of

patients; dates of data; if a sample, characteristics of the entities included):  
ACEP has not conducted testing.

**2a2.2 Analytic Method** (Describe method of reliability testing & rationale):  
N/A

**2a2.3 Testing Results** (Reliability statistics, assessment of adequacy in the context of norms for the test conducted):  
N/A

**2b. VALIDITY. Validity, Testing, including all Threats to Validity: H M L I**

**2b1.1 Describe how the measure specifications** (measure focus, target population, and exclusions) **are consistent with the evidence cited in support of the measure focus (criterion 1c) and identify any differences from the evidence:**

**2b2. Validity Testing.** (Validity testing was conducted with appropriate method, scope, and adequate demonstration of validity.)

**2b2.1 Data/Sample** (Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):  
N/A

**2b2.2 Analytic Method** (Describe method of validity testing and rationale; if face validity, describe systematic assessment):  
N/A

**2b2.3 Testing Results** (Statistical results, assessment of adequacy in the context of norms for the test conducted; if face validity, describe results of systematic assessment):  
N/A

**POTENTIAL THREATS TO VALIDITY.** (All potential threats to validity were appropriately tested with adequate results.)

**2b3. Measure Exclusions.** (Exclusions were supported by the clinical evidence in 1c or appropriately tested with results demonstrating the need to specify them.)

**2b3.1 Data/Sample for analysis of exclusions** (Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):  
N/A

**2b3.2 Analytic Method** (Describe type of analysis and rationale for examining exclusions, including exclusion related to patient preference):  
N/A

**2b3.3 Results** (Provide statistical results for analysis of exclusions, e.g., frequency, variability, sensitivity analyses):  
N/A

**2b4. Risk Adjustment Strategy.** (For outcome measures, adjustment for differences in case mix (severity) across measured entities was appropriately tested with adequate results.)

**2b4.1 Data/Sample** (Description of the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):  
N/A

**2b4.2 Analytic Method** *(Describe methods and rationale for development and testing of risk model or risk stratification including selection of factors/variables):*

N/A

**2b4.3 Testing Results** *(Statistical risk model: Provide quantitative assessment of relative contribution of model risk factors; risk model performance metrics including cross-validation discrimination and calibration statistics, calibration curve and risk decile plot, and assessment of adequacy in the context of norms for risk models. Risk stratification: Provide quantitative assessment of relationship of risk factors to the outcome and differences in outcomes among the strata):*

N/A

**2b4.4 If outcome or resource use measure is not risk adjusted, provide rationale and analyses to justify lack of adjustment:** N/A

**2b5. Identification of Meaningful Differences in Performance.** *(The performance measure scores were appropriately analyzed and discriminated meaningful differences in quality.)*

**2b5.1 Data/Sample** *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):*

N/A

**2b5.2 Analytic Method** *(Describe methods and rationale to identify statistically significant and practically/meaningfully differences in performance):*

N/A

**2b5.3 Results** *(Provide measure performance results/scores, e.g., distribution by quartile, mean, median, SD, etc.; identification of statistically significant and meaningful differences in performance):*

N/A

**2b6. Comparability of Multiple Data Sources/Methods.** *(If specified for more than one data source, the various approaches result in comparable scores.)*

**2b6.1 Data/Sample** *(Describe the data or sample including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included):*

N/A

**2b6.2 Analytic Method** *(Describe methods and rationale for testing comparability of scores produced by the different data sources specified in the measure):*

N/A

**2b6.3 Testing Results** *(Provide statistical results, e.g., correlation statistics, comparison of rankings; assessment of adequacy in the context of norms for the test conducted):*

N/A

**2c. Disparities in Care: H M L I NA** *(If applicable, the measure specifications allow identification of disparities.)*

**2c.1 If measure is stratified for disparities, provide stratified results** *(Scores by stratified categories/cohorts):* N/A

**2c.2 If disparities have been reported/identified (e.g., in 1b), but measure is not specified to detect disparities, please explain:**

N/A



## 2.1-2.3 Supplemental Testing Methodology Information:

**Steering Committee: Overall, was the criterion, *Scientific Acceptability of Measure Properties*, met? (*Reliability and Validity must be rated moderate or high*)** Yes ☒ No ☒

**Provide rationale based on specific subcriteria:**

**If the Committee votes No, STOP**

## 3. USABILITY

Extent to which intended audiences (e.g., consumers, purchasers, providers, policy makers) can understand the results of the measure and are likely to find them useful for decision making. (**evaluation criteria**)

**C.1 Intended Actual/Planned Use** (Check all the planned uses for which the measure is intended):  
Payment Program, Regulatory and Accreditation Programs

**3.1 Current Use** (Check all that apply; for any that are checked, provide the specific program information in the following questions):

**3a. Usefulness for Public Reporting:** H ☒ M ☒ L ☒ I ☒

(The measure is meaningful, understandable and useful for public reporting.)

**3a.1. Use in Public Reporting - disclosure of performance results to the public at large** (If used in a public reporting program, provide name of program(s), locations, Web page URL(s)). If not publicly reported in a national or community program, state the reason AND plans to achieve public reporting, potential reporting programs or commitments, and timeline, e.g., within 3 years of endorsement: **[For Maintenance – If not publicly reported, describe progress made toward achieving disclosure of performance results to the public at large and expected date for public reporting; provide rationale why continued endorsement should be considered.]**

This measure is not in use.

**3a.2. Provide a rationale for why the measure performance results are meaningful, understandable, and useful for public reporting.** If usefulness was demonstrated (e.g., focus group, cognitive testing), describe the data, method, and results:

**3.2 Use for other Accountability Functions (payment, certification, accreditation).** If used in a public accountability program, provide name of program(s), locations, Web page URL(s): N/A

**3b. Usefulness for Quality Improvement:** H ☒ M ☒ L ☒ I ☒

(The measure is meaningful, understandable and useful for quality improvement.)

**3b.1. Use in QI.** If used in quality improvement program, provide name of program(s), locations, Web page URL(s):

**[For Maintenance – If not used for QI, indicate the reasons and describe progress toward using performance results for improvement].**

**3b.2. Provide rationale for why the measure performance results are meaningful, understandable, and useful for quality improvement.** If usefulness was demonstrated (e.g., QI initiative), describe the data, method and results:

Overall, to what extent was the criterion, *Usability*, met? **H** ☐ **M** ☐ **L** ☐ **I** ☐  
Provide rationale based on specific subcriteria:

#### 4. FEASIBILITY

Extent to which the required data are readily available, retrievable without undue burden, and can be implemented for performance measurement. (**evaluation criteria**)

**4a. Data Generated as a Byproduct of Care Processes:** **H** ☐ **M** ☐ **L** ☐ **I** ☐

**4a.1-2 How are the data elements needed to compute measure scores generated?** (*Check all that apply*).

Data used in the measure are:

Coding/abstraction performed by someone other than person obtaining original information (E.g., DRG, ICD-9 codes on claims, chart abstraction for quality measure or registry)

**4b. Electronic Sources:** **H** ☐ **M** ☐ **L** ☐ **I** ☐

**4b.1 Are the data elements needed for the measure as specified available electronically** (*Elements that are needed to compute measure scores are in defined, computer-readable fields*): **No**

**4b.2 If ALL data elements are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources:** **In EDs where EMR is present, data elements will be available electronically. As adoption improves, electronic capture will improve.**

**4c. Susceptibility to Inaccuracies, Errors, or Unintended Consequences:** **H** ☐ **M** ☐ **L** ☐ **I** ☐

**4c.1 Identify susceptibility to inaccuracies, errors, or unintended consequences of the measurement identified during testing and/or operational use and strategies to prevent, minimize, or detect. If audited, provide results:**

**None**

**4d. Data Collection Strategy/Implementation:** **H** ☐ **M** ☐ **L** ☐ **I** ☐

**A.2 Please check if either of the following apply** (*regarding proprietary measures*): **Proprietary measure**

**4d.1 Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues** (*e.g., fees for use of proprietary measures*):

**This measure has not been tested by ACEP.**

Overall, to what extent was the criterion, *Feasibility*, met? **H** ☐ **M** ☐ **L** ☐ **I** ☐  
Provide rationale based on specific subcriteria:

#### OVERALL SUITABILITY FOR ENDORSEMENT

Does the measure meet all the NQF criteria for endorsement? **Yes** ☐ **No** ☐

Rationale:

**If the Committee votes No, STOP.**

**If the Committee votes Yes, the final recommendation is contingent on comparison to related and competing measures.**

## 5. COMPARISON TO RELATED AND COMPETING MEASURES

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure before a final recommendation is made.

**5.1 If there are related measures (*either same measure focus or target population*) or competing measures (*both the same measure focus and same target population*), list the NQF # and title of all related and/or competing measures:**

### 5a. Harmonization

**5a.1 If this measure has EITHER the same measure focus OR the same target population as [NQF-endorsed measure\(s\)](#): Are the measure specifications completely harmonized?**

**5a.2 If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden:**

### 5b. Competing Measure(s)

**5b.1 If this measure has both the same measure focus and the same target population as NQF-endorsed measure(s):**

**Describe why this measure is superior to competing measures (*e.g., a more valid or efficient way to measure quality*); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible):**

## CONTACT INFORMATION

**Co.1 Measure Steward (Intellectual Property Owner):** [American College of Emergency Physicians, 2121 K Street, N.W., Suite 325, Washington, District Of Columbia, 20037](#)

**Co.2 Point of Contact:** [Angela, Franklin, JD, afranklin@acep.org, 202-728-0610-3014](#)

**Co.3 Measure Developer if different from Measure Steward:** [American College of Emergency Physicians, 2121 K Street, N.W., Suite 325, Washington, District Of Columbia, 20037](#)

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**Co.6 Additional organizations that sponsored/participated in measure development:**

**Co.7 Public Contact:** [Angela, Franklin, JD, afranklin@acep.org, 202-728-0610-3014, American College of Emergency Physicians](#)

## ADDITIONAL INFORMATION

**Workgroup/Expert Panel involved in measure development**

**Ad.1 Provide a list of sponsoring organizations and workgroup/panel members' names and**

**organizations. Describe the members' role in measure development.**

The following workgroup developed this measure.

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**Ad.2 If adapted, provide title of original measure, NQF # if endorsed, and measure steward. Briefly describe the reasons for adapting the original measure and any work with the original measure steward:** N/A

**Measure Developer/Steward Updates and Ongoing Maintenance**

**Ad.3 Year the measure was first released:**

**Ad.4 Month and Year of most recent revision:**

**Ad.5 What is your frequency for review/update of this measure?** This is a newly developed measure by the College, however we expect to review at least every 3 years

**Ad.6 When is the next scheduled review/update for this measure?** 10, 2012

**Ad.7 Copyright statement:** None

**Ad.8 Disclaimers:**

**Ad.9 Additional Information/Comments:**

**Date of Submission (MM/DD/YY):** 01/01/0001