Screening for Rh (D) Incompatibility

Recommendation Statement

U.S. Preventive Services Task Force

This statement summarizes the U.S. Preventive Services Task Force (USPSTF) recommendations on screening for Rh (D) incompatibility and the supporting scientific evidence, and updates the 1996 recommendations contained in the *Guide to Clinical Preventive Services, Second Edition.*[1] In 1996, the USPSTF recommended Rh (D) blood typing and antibody screening for all pregnant women at their first prenatal visit (A recommendation).[1] Since then, the USPSTF criteria to rate the strength of the evidence have changed.[2] Therefore, this recommendation statement has been updated and revised based on the current USPSTF methodology and rating of the strength of the evidence. Explanations of the current Task Force ratings and of the strength of overall evidence are given in Appendix A and Appendix B, respectively.

The complete information on which this statement is based, including evidence tables and references, is available in the brief update[3] on this topic on the USPSTF Web site (www.preventiveservices.ahrq.gov). The recommendation statement and brief update are also available in print from the Agency for Healthcare Research and Quality (AHRQ) Publications Clearinghouse (call 1-800-358-9295, or e-mail ahrqpubs@ahrq.gov). The recommendation is also posted on the Web site of the National Guideline Clearinghouse™ (www.guideline.gov).

Recommendations made by the USPSTF are independent of the U.S. Government. They should not be construed as an official position of AHRQ or the U.S. Department of Health and Human Services.

Summary of Recommendations

The U.S. Preventive Services Task Force (USPSTF) strongly recommends Rh (D) blood typing and antibody testing for all pregnant women during their first visit for pregnancy-related care. **A recommendation.**

The USPSTF found good evidence that Rh (D) blood typing, anti-Rh (D) antibody testing, and intervention with Rh (D) immunoglobulin, as appropriate, prevents maternal sensitization and improves outcomes for newborns. The benefits substantially outweigh any potential harms.

The USPSTF recommends 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. **B recommendation.**

The USPSTF found fair evidence that repeated antibody testing for unsensitized Rh (D)-negative women (unless the father is also known to be Rh [D]-negative) and intervention with Rh (D) immunoglobulin, as appropriate, provides additional benefit over a single test at the first prenatal visit in preventing maternal sensitization and improving outcomes for newborns. The benefits of repeated testing substantially outweigh any potential harms.

The USPSTF found no new evidence addressing the role of screening, new screening tests, new treatment protocols, or potential harms associated with screening and treatment of Rh (D) incompatibility. However, there is pre-existing good evidence for the efficacy and effectiveness of blood typing, anti-Rh (D) antibody screening, and postpartum Rh (D) immunoglobulin prophylaxis.

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Clinical Considerations

- Administration of a full (300µg) dose of Rh (D) immunoglobulin is recommended for all unsensitized Rh (D)-negative women after repeated antibody testing at 24–28 weeks' gestation.
- If an Rh (D)-positive or weakly Rh (D)-positive (eg, D^u-positive) infant is delivered, a dose of Rh (D) immunoglobulin should be repeated postpartum, preferably within 72 hours after delivery. Administering Rh (D) immunoglobulin at other intervals after delivery has not been studied.
- Unless the biological father is known to be Rh (D)-negative, a full dose of Rh (D) immunoglobulin is recommended for all unsensitized Rh (D)-negative women after amniocentesis and after induced or spontaneous abortion; however, if the pregnancy is less than 13 weeks, a 50 µg dose is sufficient.
- The benefit of routine administration of Rh (D) immunoglobulin after other obstetric procedures or complications such as chorionic villus sampling, ectopic pregnancy termination, cordocentesis, fetal surgery or manipulation (including external version), antepartum placental hemorrhage, abdominal trauma, antepartum fetal death, or stillbirth is uncertain due to inadequate evidence.

References

1. U.S. Preventive Services Task Force. *Guide to Clinical Preventive Services.* 2nd ed. Washington, DC: Office of Disease Prevention and Health Promotion; 1996.
2. Harris RP, Helfand M, Woolf SH, Lohr KN, Mulrow CD, Teutsch SM, Atkins D. Methods Work Group, Third U.S. Preventive Services Task Force. Current methods of the U.S. Preventive Services Task Force: a review of the process. *Am J Prev Med.* 2001;20(3S):21–35.
3. Screening for Rh (D) Incompatibility: A Brief Evidence Update for the U.S. Preventive Services Task Force. Rockville, MD: Agency for Healthcare Research and Quality; 2002. Available at http://www.preventiveservices.ahrq.gov.

Appendix A
U.S. Preventive Services Task Force—Recommendations and Ratings

The Task Force grades its recommendations according to one of 5 classifications (A, B, C, D, I) reflecting the strength of evidence and magnitude of net benefit (benefits minus harms):

A. The USPSTF strongly recommends that clinicians provide [the service] to eligible patients. *The USPSTF found good evidence that [the service] improves important health outcomes and concludes that benefits substantially outweigh harms.*

B. The USPSTF recommends that clinicians provide [the service] to eligible patients. *The USPSTF found at least fair evidence that [the service] improves important health outcomes and concludes that benefits outweigh harms.*

C. The USPSTF makes no recommendation for or against routine provision of [the service]. *The USPSTF found at least fair evidence that [the service] can improve health outcomes but concludes that the balance of benefits and harms is too close to justify a general recommendation*.

D. The USPSTF recommends against routinely providing [the service] to asymptomatic patients. *The USPSTF found at least fair evidence that [the service] is ineffective or that harms outweigh benefits.*

I. The USPSTF concludes that the evidence is insufficient to recommend for or against routinely providing [the service]. *Evidence that [the service] is effective is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.*

Appendix B
U.S. Preventive Services Task Force—Strength of Overall Evidence

The USPSTF grades the quality of the overall evidence for a service on a 3-point scale (good, fair, poor):

Good: Evidence includes consistent results from well-designed, well-conducted studies in representative populations that directly assess effects on health outcomes.

Fair: Evidence is sufficient to determine effects on health outcomes, but the strength of the evidence is limited by the number, quality, or consistency of the individual studies, generalizability to routine practice, or indirect nature of the evidence on health outcomes.

Poor: Evidence is insufficient to assess the effects on health outcomes because of limited number or power of studies, important flaws in their design or conduct, gaps in the chain of evidence, or lack of information on important health outcomes.

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