

**Literature Search**  
**ACR Appropriateness Criteria®**  
**First Trimester Vaginal Bleeding**

Literature Search Performed on: 06/09/17

Beginning Date: January 2011

End Date: May 2017

Database: Ovid MEDLINE(R) Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>

Search Strategy:

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- 1 ultrasound.mp. (205465)
  - 2 doppler.mp. (125838)
  - 3 safety.mp. (450024)
  - 4 pregnancy.mp. (889171)
  - 5 1 and 2 and 3 and 4 (88)
  - 6 limit 5 to (abstracts and english language and yr="2016 -Current") (8)
  - 7 Pregnancy, Ectopic/ (10747)
  - 8 pregnancy, cornual/ or pregnancy, tubal/ (3330)
  - 9 Pregnancy, Interstitial/ (114)
  - 10 cesarean section scar pregnancy.mp. (13)
  - 11 1 and (7 or 8 or 9 or 10) (1230)
  - 12 limit 11 to (abstracts and english language and humans and yr="2011 -Current") (256)
  - 13 Magnetic Resonance Imaging/ (343659)
  - 14 Pregnancy, Ectopic/ and Cesarean Section/ and Pregnancy/ and Pregnancy Complications/ (31)
  - 15 13 and 14 (3)
  - 16 Arteriovenous Malformations/dg [Diagnostic Imaging] (2255)
  - 17 16 and (1 or 13) (212)
  - 18 limit 17 to (abstracts and english language and humans and yr="2011 -Current") (63)
  - 19 6 or 12 or 15 or 18 (327)
  - 20 limit 19 to case reports (155)
  - 21 19 not 20 (172)
  - 22 remove duplicates from 21 (164)

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Literature Search Performed on: 10/03/16

Beginning Date: January 2011

End Date: September 2016

Database: Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>

Search Strategy:

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- 1 retained products of conception.mp. (272)
  - 2 first trimester pregnancy.mp. (584)
  - 3 ultraso\$.mp. (371267)
  - 4 postpartum.mp. (57283)
  - 5 limit 1 to (abstracts and english language and yr="2011 -Current") (80)
  - 6 5 not 4 (64)
  - 7 fetal loss.mp. (3207)
  - 8 pregnancy loss.mp. (4771)
  - 9 miscarriage.mp. (8229)
  - 10 7 and 8 and 9 (58)
  - 11 limit 10 to (abstracts and english language and yr="2011 -Current") (24)
  - 12 6 or 11 (88)
  - 13 Placenta, Retained/pa, us [Pathology, Ultrasonography] (81)
  - 14 \*Postpartum Hemorrhage/pa, us [Pathology, Ultrasonography] (49)

- 15 13 and 14 (5)
- 16 12 or 15 (93)
- 17 Abortion, Induced/ae [Adverse Effects] (2169)
- 18 \*Myometrium/bs, us [Blood Supply, Ultrasonography] (242)
- 19 \*Uterus/bs, us [Blood Supply, Ultrasonography] (4508)
- 20 17 and 18 and 19 (1)
- 21 16 or 20 (94)
- 22 remove duplicates from 21 (94)
- 23 \*Crown-Rump Length/ (153)
- 24 Fetal Death/di [Diagnosis] (893)
- 25 Gestational Sac/ah, us [Anatomy & Histology, Ultrasonography] (51)
- 26 Pregnancy Trimester, First/ (14469)
- 27 23 and 24 and 25 and 26 (1)
- 28 22 or 27 (95)

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Literature Search Performed on 9/26/16

Beginning date: January 2011

End date: August 2016

Database: Epub Ahead of Print, In-Process & Other Non-Indexed Citations, Ovid MEDLINE(R) Daily and Ovid MEDLINE(R) <1946 to Present>

Search Strategy:

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- 1 "Dilatation and Curettage"/ (2174)
  - 2 Chorionic Gonadotropin, beta Subunit, Human/ (3773)
  - 3 Laparoscopy/ (69794)
  - 4 exp Diagnostic Imaging/ (1947251)
  - 5 Uterine Hemorrhage/ (8873)
  - 6 Placenta Previa/ (2539)
  - 7 Abruptio Placentae/ (2081)
  - 8 Pregnancy, Ectopic/ (10338)
  - 9 Placenta Diseases/us [Ultrasonography] (312)
  - 10 Pregnancy Complications/di, ep, et, pp, us, ur [Diagnosis, Epidemiology, Etiology, Physiopathology, Ultrasonography, Urine] (27985)
  - 11 Pregnancy Trimester, First/ (14442)
  - 12 11 and (5 or 6 or 7 or 8 or 9 or 10) (1389)
  - 13 1 or 2 or 3 or 4 (2014138)
  - 14 12 and 13 (539)
  - 15 double decidual sac sign.mp. (9)
  - 16 intradecidual sign.mp. (8)
  - 17 empty amnion sign.mp. (2)
  - 18 expanded amnion sign.mp. (2)
  - 19 first trimester bleeding.mp. (99)
  - 20 Uterine Hemorrhage/ and Pregnancy Trimester, First/ (308)
  - 21 4 and 20 (78)
  - 22 14 or 15 or 16 or 17 or 18 or 19 or 21 (635)
  - 23 limit 22 to (abstracts and english language and yr="2011 -Current") (127)
  - 24 limit 23 to case reports (19)
  - 25 23 not 24 (108)
  - 26 remove duplicates from 25 (104)
  - 27 Abortion, Spontaneous/ and Pregnancy Trimester, First/ and Ultrasonography, Prenatal/ (122)
  - 28 limit 27 to (abstracts and english language and humans and yr="2011 -Current") (29)
  - 29 guidelines.mp. (308331)
  - 30 in-utero fetal death.mp. (55)
  - 31 miscarriage.mp. (8201)
  - 32 29 and 30 and 31 (1)

33 26 or 28 or 32 (124)

34 remove duplicates from 33 (123)

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### **Literature Search Summary**

Of the 55 citations in the original bibliography, 33 were retained in the final document.

A literature search was conducted in September 2016, October 2016 and June 2017 to identify additional evidence published since the *ACR Appropriateness Criteria® First Trimester Vaginal Bleeding* topic was finalized. Using the search strategies described above, 382 unique articles were found. 18 articles were added to the bibliography. The remaining articles were not used due to either poor study design, the articles were not relevant or generalizable to the topic, or the results were unclear or biased.

The author added 27 citations from bibliographies, websites, or books that were not found in the literature searches, including 16 articles outside of the search date ranges.

Four citations are supporting documents that were added by staff.