Bleeding After Pregnancy Primary Care Pathway

(Retained Products Of Conception)

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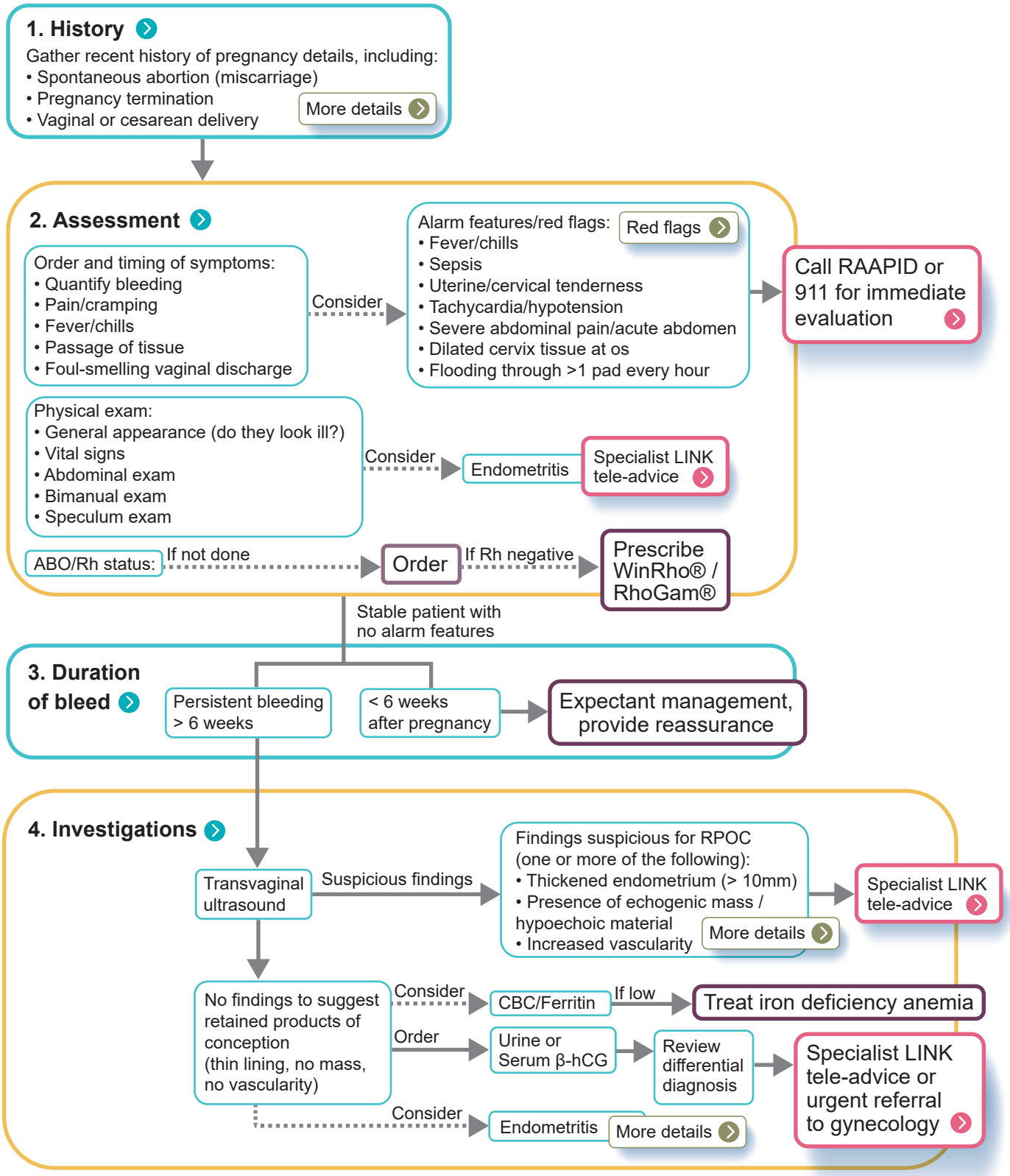

PATHWAY PRIMER

A diagnosis of retained products of conception (RPOC) occurs when placental or pregnancy tissue persists in the uterus following spontaneous abortion (miscarriage), pregnancy termination, or vaginal or caesarean delivery. It is normal for women to have light bleeding post-abortion or labor that can last for up to several weeks. The amount of debris within the uterus is variable and most cases will resolve without medical or surgical intervention.[1,2,3]

Clinical evaluation for RPOC can be difficult as symptoms are non-specific and include bleeding, pelvic pain or cramping, fever, or less commonly amenorrhea. Imaging with ultrasonography is typically not required in the medically stable patient unless bleeding is persistent beyond six weeks. RPOC and blood have a similar appearance on sonography and over-investigation with imaging can lead to false positives and unnecessary interventions with potential for complications.[4] A combination of clinical evaluation and diagnostic imaging is more accurate for the diagnosis of RPOC than either modality alone.[5,6,7,8] New onset bleeding at six weeks must be distinguished from persistent bleeding symptoms as this could represent resumption of menses or a new pregnancy.

The goal of this pathway is to reduce the occurrence of low-value testing in the immediate postpartum or post-abortion period. If bleeding is ongoing within the first six weeks, expectant management should be encouraged in otherwise well patients since most cases of RPOC will resolve spontaneously. There is no evidence to support that medical treatment of RPOC improves outcomes compared to expectant management. Avoiding unnecessary surgical procedures avoids risk of harm including intrauterine adhesions, infection, and uterine perforation.

EXPANDED DETAILS

Abnormal bleeding may present after normal pregnancy (vaginal or caesarean delivery), termination, or spontaneous loss. The risk factors for RPOC are: second trimester delivery, termination of pregnancy (medical or surgical termination), or adherent placenta (placenta accreta).

1. History

- Assess if there has been a spontaneous abortion, planned abortion, or labour/delivery (vaginal, caesarean)
- Identify the gestational age of the pregnancy
- Antecedent pregnancy ultrasound details
  - If no intrauterine pregnancy had been confirmed prior to spontaneous abortion or termination, then consider the possibility of an ectopic pregnancy
- Assess if any treatments have been administered:
  - Medical or surgical management of missed abortion, incomplete abortion, planned abortion
  - Delivery details including the history of retained placenta or manual removal after delivery

2. Assessment

Order & timing of Symptoms:

(Note the order and severity of the following)

- Timing of bleeding symptoms – continuous or intermittent
- Passage of tissue

- Pain/cramping
- Fever/chills
- Purulent or foul-smelling vaginal discharge

Physical exam:

- General appearance (does the patient look ill?)
- Vital signs
  - Tachycardia, hypotension are alarm features and a referral to Gynecology through RAAPID is recommended
- Abdominal exam
  - Looking to exclude acute abdomen and severe abdominal pain
- Bimanual exam
  - Note any uterine/cervical tenderness
- Speculum exam
  - Amount of bleeding
  - Assess for dilated cervix, tissue present at cervical os
  - Purulent discharge

Consider endometritis

An infection can present with these signs:

- Fever
- Tachycardia
- Lower abdominal pain
- Uterine tenderness
- Purulent vaginal discharge

A vaginal swab can be used to investigate a suspected infection but will often not be specific (polymicrobial infection).

Contact Specialist LINK (specialistlink.ca) for advice.

If presenting symptoms and physical assessment suggest an infection (endometritis), see Suspected endometritis for guidance on transvaginal ultrasound investigation and empiric antibiotic treatment.

Blood type and Rh factor

Blood type and Rh factor should be reviewed or tested to ensure eligible patients have received Rh immune globulin.

- If patient is Rh negative and has not previously been given Rh immune globulin, give WinRho®/RhoGam®.

Alarm features / red flags

- The presence of these alarm features warrants a referral to RAAPID for consultation with gynecology for immediate evaluation in hospital.
  - Fever/chills
  - Sepsis
  - Uterine/cervical tenderness
  - Tachycardia or hypotension
  - Severe abdominal pain or acute abdomen
  - Dilated cervix tissue at os
  - Flooding through a pad or tampon in less than an hour

3. Duration of bleed

Less than six weeks:

- In patients who are symptomatic with persistent bleeding for less than six weeks expectant management is recommended as most cases will resolve spontaneously.[9,10,11,12] Investigation with ultrasound imaging or lab testing is not necessary unless alarm symptoms are present. If a patient is hemodynamically or medically *unstable* or has suspected sepsis, then RAAPID referral should be initiated for immediate evaluation in hospital.
- In asymptomatic patients with RPOC most cases will resolve spontaneously.[26] Expectant management is recommended, and typically medical or surgical intervention is not required.

More than six weeks:

- If a patient has persistent bleeding greater than six weeks investigations should be initiated to guide management.

4. Investigations

Transvaginal ultrasonography

- Ultrasonography is first line imaging to assess for RPOC but is limited as blood clot or necrotic decidua can have a similar appearance to retained tissue and the endometrial cavity can look the same in symptomatic and asymptomatic women. [6,13,14] Clinical evaluation in combination with sonography improves diagnostic accuracy for RPOC than either alone. [7,8,5,15]
- There is no consensus in the literature to define a cut-off value for endometrial thickness to diagnose RPOC and guide treatment. The range varies from 8 mm to 13 mm[16,10,17] and even up 40 mm.[18] The presence of an echogenic mass in addition to thickened endometrium >10 mm is more sensitive for the diagnosis of RPOC, although specificity remains low.[18,10,19] RPOC is rare in the absence of echogenic mass and particularly if endometrial thickness is <10 mm with no mass.[15,20,10] An echogenic mass >30 mm on sonography is highly suggestive of RPOC and may be a risk factor for bleeding.[11]
- For the patient population with bleeding following spontaneous abortion, measurable debris of greater than 10 mm might be an indication for surgical intervention although products of conception is found on pathology in only 20-50% of cases.[21] The only reliable ultrasound finding that determines an incomplete miscarriage is the ongoing presence of a gestational sac. The determination of a completed miscarriage is a clinical diagnosis, however if the endometrial thickness is less than 10 mm than a completed miscarriage is confirmed.
- Saline-infused sonohysterography has a high detection rate for RPOC [5,22],[23] but it is more invasive than transvaginal sonography, requires operator experience[24] and there is limited access to this test in our local centres.

Other imaging modalities

Computed tomography (CT) and magnetic resonance imaging (MRI) should not be considered first-line investigations for RPOC. Hysteroscopy provides direct visualization of the uterine cavity but is more invasive than sonography and requires OR time and expertise. It is not first line for diagnosis of RPOC but can be valuable if surgical treatment is required.

Findings suspicious for RPOC

The best predictors of RPOC on sonography are:

- Presence of an echogenic mass or hyperechoic material [7,8,15,25,20,26,27,28]
- Thickened endometrium[13]
- Increased vascularity on color Doppler[15,25,9,29,18]

If the results of a transvaginal ultrasonography are suspicious for RPOC, use Specialist LINK (specialistlink.ca) for medical or surgical management advice.

Medical treatment – bleeding greater than six weeks
Contact Specialist LINK for medical management advice. Uterotonic agents such as misoprostol (prostaglandin E1 analogs) have not been specifically studied for management of RPOC, rather data is from studies of incomplete first trimester spontaneous abortion (managed expectantly or by dilation & curettage).[30] ● 800 mcg of misoprostol vaginally with repeat dose in 24 hours if no bleeding or passage of tissue ○ If resolution of clinical symptoms, then no further investigation is necessary ○ If ongoing clinical symptoms refer to Gynecology for further evaluation and possible surgical intervention

No findings to suggest RPOC

- CBC/Ferritin: With no transvaginal ultrasonography findings that suggest RPOC, consider ordering a CBC/Ferritin. If low, treat for iron deficiency anemia. A complete blood count (CBC) would be most useful in cases of heavy or prolonged bleeding to assess for anemia. White blood cell count (WBC) can be elevated in cases of uterine infection, however there is also leukocytosis associated with physiologic changes of pregnancy.
- Serum β human chorionic gonadotropin (β-hCG): A quantitative serum β human chorionic gonadotropin (β-hCG) may not be useful alone for diagnosis of RPOC as it remains high in the immediate period after pregnancy loss, termination, or delivery. Serum β-hCG is dependent on the level prior to pregnancy loss or termination and may take up to 6 weeks to resolve completely.[2,5,21]
- Differential Diagnoses: Persistent bleeding beyond six weeks should prompt a serum β-hCG to review differential diagnoses for abnormal bleeding after pregnancy or loss/termination:
  - New intrauterine pregnancy
  - Ectopic pregnancy
  - Uterine arteriovascular malformation (AVM)
  - Uterine atony
  - Trauma – cervical or vaginal laceration
  - Endometritis
  - Gestational trophoblastic disease
  - Placenta accreta
  - Uterine perforation of antecedent procedure (dilation & curettage)

  In patients with persistent bleeding at 6 weeks, a negative serum β-hCG does not necessarily rule out RPOC as necrotic tissue can be present in the uterus but not actively produce hormone.

  New onset bleeding at 6 weeks should prompt a serum β-hCG and a negative β-hCG could represent resumption of menses.
- Suspected Endometritis: Patients who are suspected to have an infection (endometritis) but are medically stable should undergo investigation with transvaginal ultrasound. A transvaginal ultrasound is recommended to identify

if RPOC need to be removed to treat the infection. There are no ultrasound findings associated with diagnosing endometritis.

- If transvaginal ultrasonography findings suggest RPOC then referral to Gynecology for surgical treatment is recommended.
- If transvaginal ultrasonography findings are negative for RPOC then consider antibiotic treatment for endometritis. Empiric treatment for endometritis includes:[31]

Oral Therapy
Amoxicillin-clavulanate 875 mg PO bid x 10 days and until 48 hours after afebrile and clinical improvement +/- Doxycycline 100 mg PO bid Penicillin Allergy: Cefuroxime 500 mg PO bid x 10 days and until 48 hours after afebrile and clinical improvement +Metronidazole 500 mg PO bid | +/- Doxycycline 100 mg PO bid Cefuroxime allergy: Clindamycin 450 mg PO qid x 10 days and until 48 hours after afebrile and clinical improvement
IV Therapy
Ceftriaxone 1-2 g IV daily x 10 days and until 48 hours after afebrile and clinical improvement +Metronidazole 500 mg IV/PO bid | +/- Doxycycline 100 mg PO bid Ceftriaxone Allergy: Clindamycin 600 mg IV q8h IV x 10 days and until 48 hours after afebrile and clinical improvement +Gentamicin 5-7 mg/kg IV q24h

Follow-up

If a treatment has been initiated for RPOC and the patient becomes asymptomatic then no further follow-up with imaging or lab testing is required. Patients with ongoing bleeding symptoms after medical management should be referred to gynecology.

BACKGROUND

About this pathway

- The pathway is intended to provide evidence-based guidance to support primary care providers in caring for patients with common gynecological conditions within the medical home.

Authors and conflict of interest declaration

- This pathway was reviewed and revised under the auspices of the Calgary Zone Department of Gynecology in 2020, by a multi-disciplinary team led by family physicians and gynecologists. Names of participating reviewers and their conflict of interest declarations are available on request.

Pathway review process, timelines

- Primary care pathways undergo scheduled review every year if there is a clinically significant change in knowledge or practice.

Copyright information

DISCLAIMER

This pathway represents evidence-based best practice but does not override the individual responsibility of health care professionals to make decisions appropriate to their patients using their own clinical judgment given their patients' specific clinical conditions, in consultation with patients/alternate decision makers. The pathway is not a substitute for clinical judgment or advice of a qualified health care professional. It is expected that all users will seek advice of other appropriately qualified and regulated health care providers with any issues transcending their specific knowledge, scope of regulated practice or professional competence.

PROVIDER RESOURCES

Advice options, referral guidelines

- Call RAAPID if any red flags are present upon examination.
- Non-urgent advice is available via Specialist LINK to support family physicians who have questions about:
  - Interpretation of ultrasound results
  - Medical management of RPOC for bleeding greater than six weeks
  - Persistently elevated serum β-hCG after six weeks

Contact information

- For RAAPID South, call **1-800-661-1700** or **403-944-4486**. Visit https://www.albertahealthservices.ca/info/Page13345.aspx for more details.
- Family physicians can request Specialist LINK non-urgent advice online at specialistlink.ca or by calling **403-910-2551**. The service is available from 8 a.m. to 5 p.m. (with some exceptions), Monday to Friday (excluding statutory holidays). Calls are returned within one hour.

Resources, references

Title	Link
General Information on Retained Products of Conception (UpToDate®)	https://www.uptodate.com/contents/retained-products-of-conception?search=retained%20products%20of%20conception&source=search_result&selectedTitle=1~33&usage_type=default&display_rank=1

PATIENT RESOURCES

Title	Link
My Health.Alberta.ca: Information on pregnancy loss (miscarriage) before 20 weeks	https://myhealth.alberta.ca/health/Pages/conditions.aspx?hwid=hw44090#hw44155

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