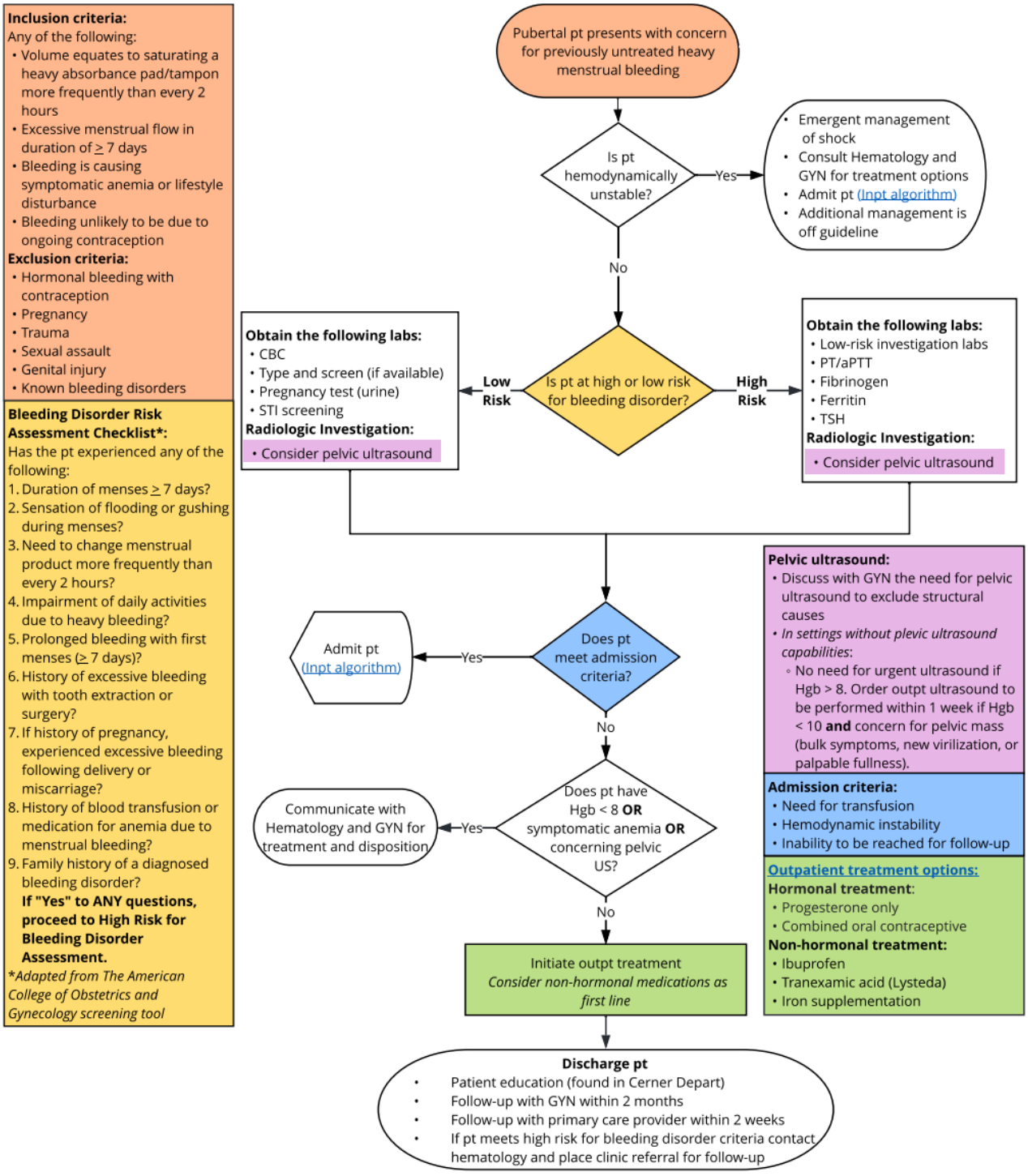
Heavy Menstrual Bleeding Clinical Pathway Synopsis

Heavy Menstrual Bleeding- ED/UCC Algorithm



** These products do not establish a standard of care to be followed in every case. It is recognized that each case is different, and those individuals involved in providing health care are expected to use their judgment in determining what is in the best interests of the patient based on the circumstances existing at the time. It is impossible to anticipate all possible situations that may exist and to prepare guidelines for each. Accordingly, these products should guide care with the understanding that departures from them may be required at times.*

Heavy Menstrual Bleeding- Inpatient Algorithm

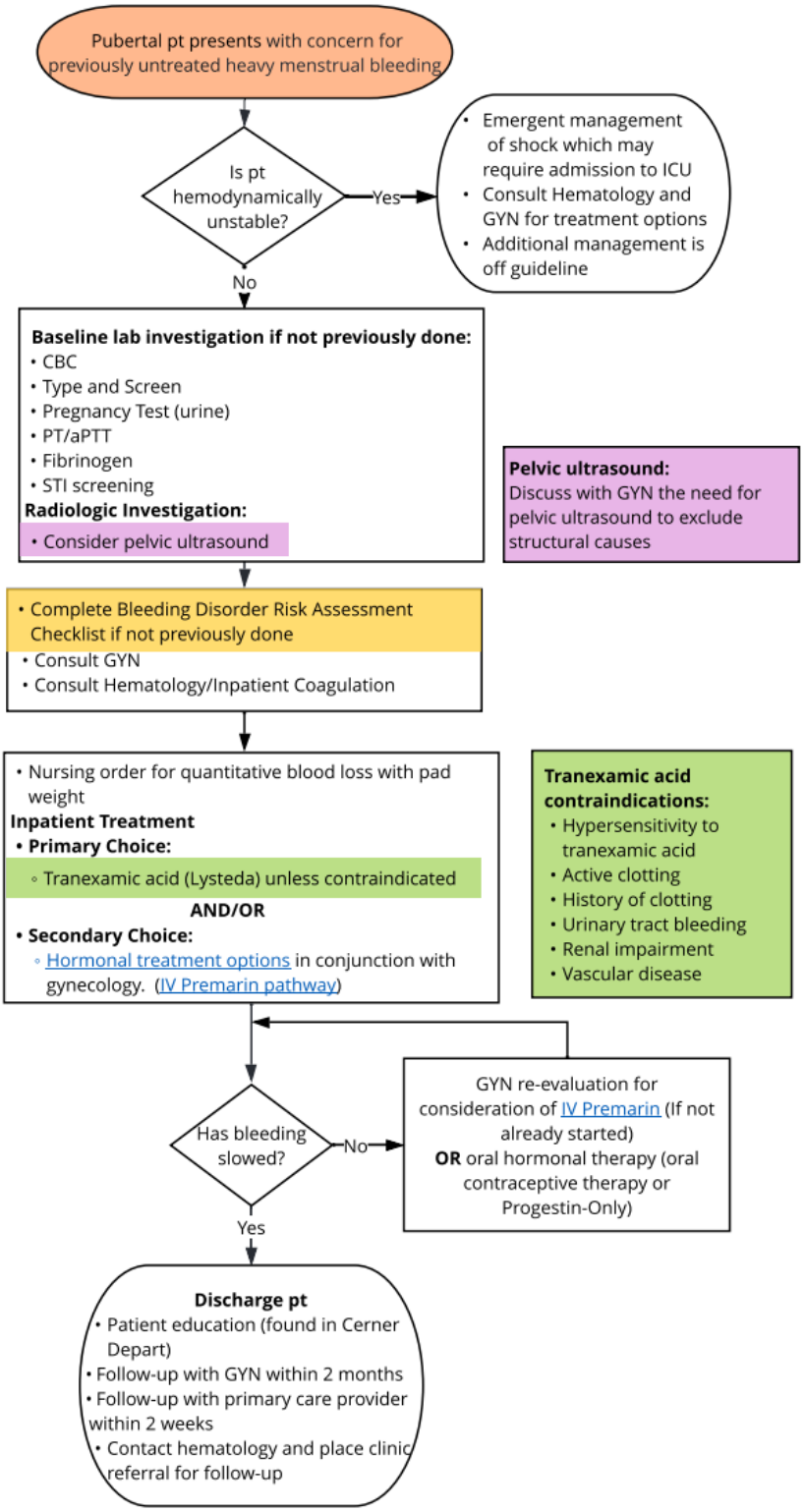
Inclusion criteria:
Any of the following:
- Volume equates to saturating a heavy absorbance pad/tampon more frequently than every 2 hours
- Excessive menstrual flow in duration of ≥ 7 days
- Bleeding is causing symptomatic anemia or lifestyle disturbance
- Bleeding unlikely to be due to ongoing contraception

Exclusion criteria:
- Hormonal bleeding with contraception
- Pregnancy
- Trauma
- Sexual assault
- Genital injury
- Known bleeding disorders

Bleeding Disorder Risk Assessment Checklist*:
Has the pt experienced any of the following:
1. Duration of menses ≥ 7 days?
2. Sensation of flooding or gushing during menses?
3. Need to change menstrual product more frequently than every 2 hours?
4. Impairment of daily activities due to heavy bleeding?
5. Prolonged bleeding with first menses (≥ to 7 days)?
6. History of excessive bleeding with tooth extraction or surgery?
7. If history of pregnancy, experienced excessive bleeding following delivery or miscarriage?
8. History of blood transfusion or medication for anemia due to menstrual bleeding?
9. Family history of a diagnosed bleeding disorder?

Discuss findings with Hematology/Inpatient Coagulation.

**Adapted from The American College of Obstetrics and Gynecology screening tool*



Heavy Menstrual Bleeding- Inpatient IV Premarin Algorithm

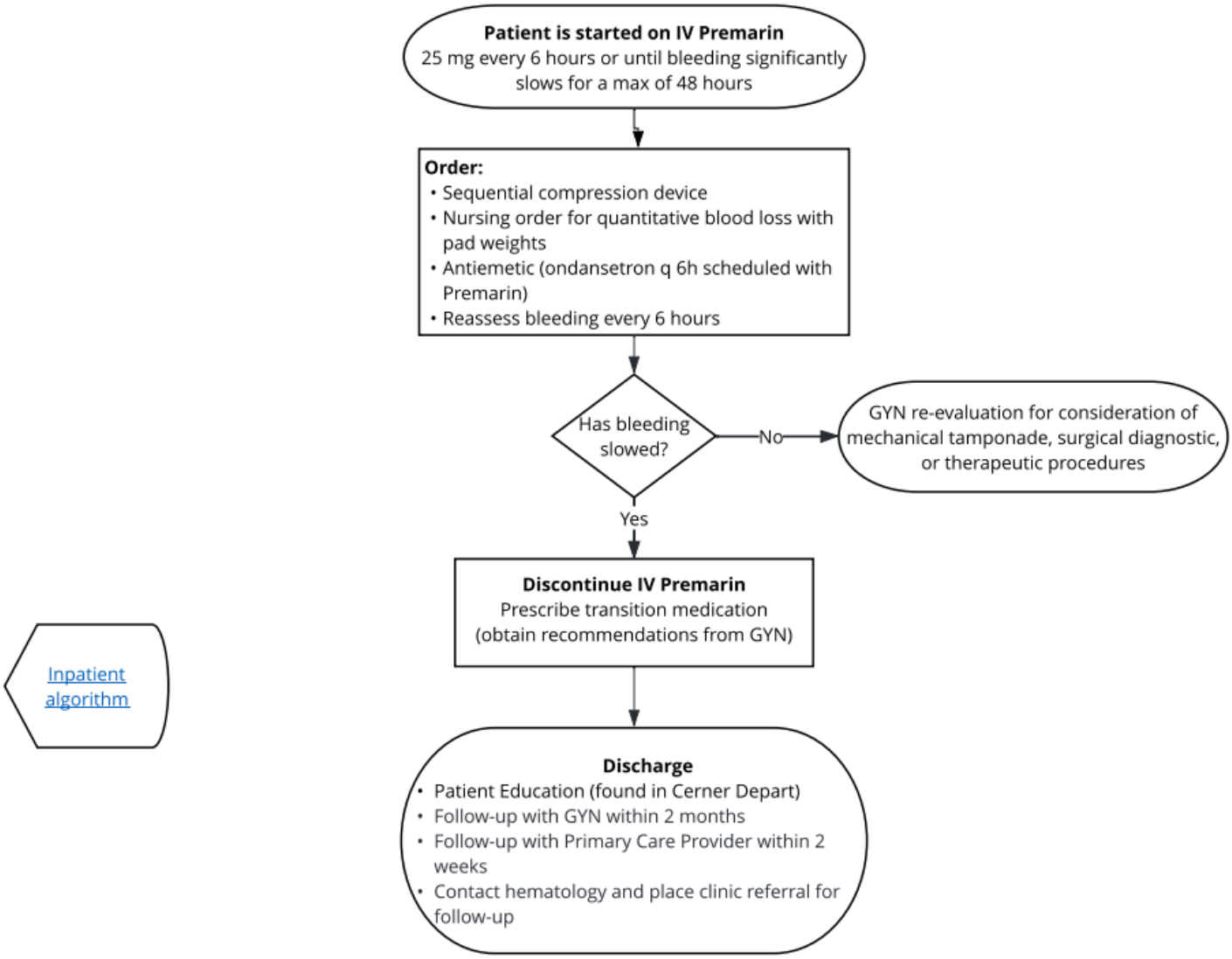


Table of Contents

Objective of Clinical Pathway

The objective of the Heavy Menstrual Bleeding Clinical Pathway is to provide the primary care provider/team or urgent care/emergency room provider with a framework for work-up and initiation of treatment for heavy menstrual bleeding. The aim of the Heavy Menstrual Bleeding Clinical Pathway is to minimize variation of care through guidance for evaluation, diagnosis, and treatment.

Background

Heavy menstrual bleeding is a common medical complaint in menstruating adolescents and is often the initial symptom of bleeding disorders in this population (Haamid et al., 2017). According to the American College of Obstetrics and Gynecologists (ACOG) clinical guidance, evaluation of patients presenting with concern for heavy menstrual bleeding for anemia, endocrine disorders, and bleeding disorders is recommended (Adeyemi-Fowode & Simms-Cendan, 2019). Further guidance from ACOG includes management of acute heavy menstrual bleeding through hormonal or non-hormonal medications, and procedures or surgery for non-response to medications. The objective of this Clinical Pathway is to provide guidance for standardized evaluation, diagnoses, and care for patients presenting with concern for previously untreated heavy menstrual bleeding.

Target Users

- Physicians (Gynecology, Hematology, Emergency Medicine, Urgent Care, Hospital Medicine, Ambulatory, Fellows, Residents)
- Nurse Practitioners
- Nurses

Target Population

Inclusion Criteria

- Pubertal patients (defined as patients with signs of breast development, menstrual cycle(s), and pubic hair development) experiencing any of the following signs or symptoms of excessive menstruation:
    - Duration of bleeding of > 7 days
    - Volume equates to saturating a heavy absorbance pad/tampon more frequently than every 2 hours
    - Bleeding is causing symptomatic anemia or lifestyle disturbance

Exclusion Criteria

- Bleeding that is clearly vaginal (examples: foreign body or laceration)
- Exogenous hormones leading to iatrogenic uterine bleeding
- Prepubertal uterine bleeding
- Pregnancy
- Trauma
- Sexual assault
- Genital injury
- Known bleeding disorders
- Hemodynamic instability

Practice Recommendations

A clinical practice guideline has not been established for the care process for patients presenting with heavy menstrual bleeding. Practice recommendations are based on the expert opinion and consensus of the providers involved in the care of adolescents presenting with concern for previously undiagnosed heavy menstrual bleeding.

Additional Questions Posed by the Clinical Pathway Committee

No clinical questions were posed for formal literature review.

Recommendations Specific to Children's Mercy

History

- Simply presenting with the chief complaint of heavy menstrual bleeding warrants a more thorough history to assess the patient for risk of a bleeding disorder
    - Questions should include a full menstrual history (age of menarche, frequency of menstrual cycle, length of menstruation, how many products are needed per day, episodes of flooding), any prior surgical bleeding complications (e.g., return to ER post-tonsillectomy for bleeding), and a family history of a bleeding disorder

  - A review of systems should focus on other endocrinopathies (e.g., symptoms of thyroid dysfunction or hyperandrogenism)
  - Lastly, a confidential history should be performed to assess safety of the patient (confirming no genital trauma or assault) and evaluate sexual activity

Examination

- Document orthostatic and at rest vitals
- Perform an integumentary exam to evaluate for bruising, petechiae or signs of anemia
- Palpate the abdomen to assess for an abdominopelvic mass
- Look at the pad they are currently wearing to quantify their recent bleeding
- Assess for any signs of other causes of bleeding such as urethral prolapse, vaginal laceration, or prolapsing masses using labial traction

Testing

- Labs and imaging should be tailored to the differential diagnosis.
- If this patient is at risk for a bleeding disorder, begin with a screening CBC with differential, PT, PTT, and TSH.
- Any patient who is of menstrual age presenting with a gynecologic concern should have a pregnancy test as this is a low-risk and low-cost test that will change management.
- If sexually active, gonorrhea and chlamydia tests should be collected from a vaginal self-swab or initial urine stream (less accurate).
- Ultrasounds are useful if there is concern for a cervical or ovarian mass driving the bleeding process or to evaluate the endometrial thickness (a sign of estrogenization).

Treatment

- Treatment is tailored to the patient's needs.
- If the patient is hemodynamically unstable or needing transfusion, they should be admitted, and hematology and gynecology should both be consulted.
- If the patient is stable and has a normal hemoglobin, they can be discharged with outpatient clinic referrals.
- If the patient is stable, but with anemia, there are non-hormonal and hormonal treatment options. There may be patient-specific indications for one or the other or both.
  - Considerations should be given to where the patient is in their menstrual cycle and if they need contraception. For example:
    - If a patient is on day 1 of scheduled heavy bleeding and has borderline low hemoglobin, it is more prudent to use all options to slow menses to prevent a blood transfusion.
    - If a patient is nearing the end of their bleed, non-hormonal options like tranexamic acid alone are appropriate.
    - If a patient needs contraception, it should be noted that norethindrone acetate and tranexamic acid are not effective to prevent pregnancy.
  - Underlying cause and response to treatment should also be considered. For example:
    - If thrombocytopenia is present, there is an increased risk of hormonal and non-hormonal options failing and the patient may need uterine balloon tamponade.
    - If there are signs of polycystic ovary syndrome causing anovulatory heavy menstrual bleeding, a combined oral contraceptive may have other desired side effects (ex: acne improvement)
  - If there is heavy bleeding with down-trending hemoglobin, IV estrogen may be needed. If this is the case, frequent bedside assessment of the patient is needed.

Measures

Outcome:

- Tranexamic acid use
- Hormonal medication use
- Consultation with gynecology or hematology prior to parenteral hormone treatment and/or blood products

Process:

- Heavy Menstrual Bleeding Power Plan utilization

Balance:

- 72-hour acute care return visit
- Readmissions within 7 days with same diagnosis
- Consultations – Gynecology and Hematology

Value Implications

The following improvements may increase value by reducing healthcare costs and non-monetary costs (e.g., missed school/work, loss of wages, stress) for patients and families and reducing costs and resource utilization for healthcare facilities.

- Decreased risk of overdiagnosis or underdiagnosis
- Decreased risk of inappropriate treatment
- Decreased frequency of admission
- Decreased inpatient length of stay
- Decreased unwarranted variation in care

Organizational Barriers and Facilitators

Potential Barriers

- Variability of acceptable level of risk among providers
- Challenges with follow-up faced by some families

Potential Facilitators

- Collaborative engagement across care continuum settings during the Clinical Pathway development
- High rate of use of Clinical Pathway
- Standardized order set for Urgent Care Clinic, Emergency Department, Hospital Medicine, and Pediatric Intensive Care

Diversity/Equity/Inclusion

Our aim is to provide equitable care. These issues were discussed with the committee, reviewed in the literature, and discussed prior to making any practice recommendations.

Power Plans

- EDP Heavy Menstrual Bleeding Pathway
- Inpt: Heavy Menstrual Bleeding Inpatient Pathway

Associated Policies

- There are no associated policies for this Clinical Pathway.

Education Materials

- Heavy Menstrual Bleeding Patient Education
  - Intended to be customized to the individual patient
  - Found in Cerner depart process
  - Available in English and Spanish

Clinical Pathway Preparation

This product was prepared by the Evidence Based Practice (EBP) Department in collaboration with the Heavy Menstrual Bleeding Clinical Pathway Committee composed of content experts at Children's Mercy Kansas City. The development of this product supports the Quality Excellence and Safety initiative to promote care standardization that is evidenced by measured outcomes. If a conflict of interest is identified, the conflict will be disclosed next to the committee member's name.

Heavy Menstrual Bleeding Clinical Pathway Committee Members and Representation

- Ashli Lawson, MD, MS | Gynecology | Committee Chair
- Shannon Carpenter, MD, MS | Hematology/Oncology/BMT | Committee Member
- Lauren Amos, MD | Hematology/Oncology/BMT | Committee Member
- Erin Scott, DO | Emergency Department | Committee Member
- Jeanette Higgins, RN, MSN, CPNP | Gynecology | Committee Member

EBP Committee Members

- Kathleen Berg, MD, FAAP | Hospitalist, Evidence Based Practice
- Megan Gripka, MT (ASCP) SM | Evidence Based Practice

Clinical Pathway Development Funding

The development of this clinical pathway was underwritten by the following departments/divisions: Gynecology, Hematology, Emergency Department, and Evidence Based Practice.

Conflict of Interest

The contributors to the Heavy Menstrual Bleeding Clinical Pathway have no conflicts of interest to disclose related to the subject matter or materials discussed in this pathway.

Approval Process

- This product was reviewed and approved by the Heavy Menstrual Bleeding Clinical Pathway Committee, Content Expert Departments/Divisions, and the EBP Department.
- Products are reviewed and updated as necessary every 3 years within the EBP Department at CMKC. Content expert teams are involved with every review and update.

Review Requested

Department/Unit	Date Obtained
Gynecology	July 2023
Hematology	July 2023
Emergency Department	July 2023
Evidence Based Practice	June 2023

Version History

Date	Comments
December 2017	Version one
July 2023	Version two

Date for Next Review:

- July 2026

Implementation & Follow-Up

- Once approved, the clinical pathway was presented to appropriate care teams and implemented. Care measurements will be assessed and shared with appropriate care teams to determine if changes need to occur.
- Order sets/power plans consistent with recommendations were created or updated for each care setting.
- Additional institution-wide announcements were made via email, hospital website, and relevant huddles.
- Metrics will be assessed and shared with appropriate care teams to determine if changes need to occur.

Disclaimer

When evidence is lacking or inconclusive, options in care are provided in the guideline and the power plans that accompany the pathway.

These pathways do not establish a standard of care to be followed in every case. It is recognized that each case is different, and those individuals involved in providing health care are expected to use their judgment in determining what is in the best interests of the patient based on the circumstances existing at the time.

It is impossible to anticipate all possible situations that may exist and to prepare guidelines for each. Accordingly, these pathways should guide care with the understanding that departures from them may be required at times.

References

Haamid, F., Sass, A. E., & Dietrich, J. E. (2017). Heavy Menstrual Bleeding in Adolescents. *Journal of pediatric and adolescent gynecology*, *30*(3), 335–340. https://doi.org/10.1016/j.jpag.2017.01.002

Adeyemi-Fowode, O., & Simms-Cendan, J. (2019). Screening and management of bleeding disorders in adolescents with heavy menstrual bleeding. *Obstetrics and gynecology*, *134*(3), E71-E83.