Inclusion Criteria: Menstruating females with concern for heavy bleeding
Exclusion Criteria:
- Previously identified bleeding disorder (Rheumatology, Cancer, Anti-Coagulation, Congenital Heart Disease).
- Patients with altered mental status, severe hypotension, requiring intubation, or who are otherwise clinically unstable

Screening Questions (Adapted from Claire Philipp Screening tool; AMJOG 2011)
1. On average does your period last 7 or more days?
2. Do you experience “flooding” or overflow bleeding through your tampon or pad?
3. Do you need to change your tampon or pad more than every 1-2 hours at times during your period?
4. Have you ever been treated (PO iron, IV iron, blood transfusion) for iron deficiency anemia in the past?
5. Do you have a family history of a bleeding disorder?
6. Have you had excessive bleeding with a dental extraction or dental surgery?
7. Have you had excessive bleeding with a miscarriage or following delivery of a child?

Considered to be positive if answered yes to any of the above questions

Algorithm

Concern for Heavy Menstrual Bleeding or Positive Screening
Consult Hematology if known history of blood thinners

- Ask and document screening questions (smartphrase .hmb)
- Obtain CBC and Urine Pregnancy Test
- Consider Type & Screen
- Additional workup if indicated (See Box 1 on page 2)

No Anemia
Hgb ≥12

Mild to Moderate Anemia
Hgb 8-11.9

Severe Anemia
Hgb <8

Any one of the following present?
- PO Intolerance
- Soaking >6ppd
- Hypotensive
- Hgb ≤5

Yes

Active Bleeding?

No

Yes

• Discharge for outpatient follow-up
• No hormone therapy needed

Symptomatic Anemia?

No

Yes

• Discharge for outpatient follow-up with MAINTENANCE hormone therapy (see Table 2)

Actively Bleeding?

No

Yes

• Discharge for outpatient follow-up with TAPER hormone therapy (see Table 2)
• Add ferrous sulfate for Hgb <10

Admit on ORal Hormone Therapy (see Table 1)

Admit on IV Hormone Therapy (see Table 1)

Activating Conditions

1. Symptoms of Anemia
- Tachycardia
- Orthostatic Hypotension
- Headache/Dizziness
- Fatigue

2. Admission Criteria
- Hgb <8
  OR
- Symptomatic of anemia

3. Discharge Instructions
- See Table 2 for discharge meds
- Follow-up with a Gynecologist in the CHOA Pediatric Gynecology clinic (404.785.1491), or in the Hughes Spalding Adolescent Medicine Clinic (404.785.9850) in 2-4 weeks
- Follow-up with the Hematology Clinic (404.785.1319) in 4-8 weeks to complete bleeding disorder workup
- Iron supplementation if indicated and encourage iron rich foods
- If bleeding recurs on discharge medication, return to previous dose and call PCP. Skip placebo pill until seen for follow-up.
- Provide teaching sheet: “When Your Child Has Iron-Deficiency Anemia” for all anemic patients.
- For medication Prior Authorizations:
  - EG and SR: Consult Case Management
  - HS: Patient to work with PCP

Definitions
- ppd = pads per day

General Care
- Monitor vitals per routine
- Start IV if indicated

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### Box 1: Additional Lab Work-up (if indicated)

- If Obesity (BMI ≥95%), Acanthosis Nigricans, Hirsutism, or missed period for more than 3 months in a row:
  - Prior to starting hormone therapy, draw FSH, LH, Estradiol, Prolactin, Testosterone. Results not needed prior to starting therapy.
  - **Consider:** Urine GC/Chlamydia, Serum RPR and HIV if sexually active

### Table 1: ED Medications

<table>
<thead>
<tr>
<th>Medication</th>
<th>Indications</th>
<th>Dosage</th>
<th>Max Dose</th>
<th>Contraindications/Comments</th>
</tr>
</thead>
</table>
| Preferred Oral Norethindrone Acetate | Use if ALL of the following are true:   - Tolerating PO  
- Hemodynamically Stable  
- Hgb >5  
- Soaking ≤6 ppd | 10 mg PO x1 | 10 mg/dose | Contraindication: Previous intolerance  
Not a preferred method of birth control |
| Preferred IV Conjugated Estrogens (Premarin) | Use if being admitted, actively bleeding, and ANY of the following is true:   - Unable to tolerate PO  
- Hypotensive  
- Hgb ≤5  
- Soaking >6 ppd  | 25 mg IV x1 | 25 mg/dose | Common Contraindications: Personal history of thrombosis or stroke, thrombosis in first degree relative or family history of hypercoagulability, migraine with aura, SBP >160 or DBP >100, <6 weeks post-partum, congenital heart disease, active cancer, renal failure, or uncontrolled rheumatologic disease.*  
Call Hematology or Gynecology if contraindications present |
| Alternate Oral Medroxyprogesterone | Alternate if:   - Norethindrone acetate is contraindicated | 20 mg PO x1 | 20 mg/dose | Contraindication: Previous intolerance  
Not a method of birth control |

### Supplemental Medications (As Appropriate)

- **Ondansetron (Zofran)**: For side effects related to IV and oral hormone therapy  
  - 0.15 mg/kg PO or IV x1  
  - 8 mg/dose  
  - N/A

- **Famotidine (Pepcid)**: For side effects related to IV and oral hormone therapy  
  - 20 mg PO x1  
  - 20 mg/dose  
  - N/A

### Table 2: Discharge Medications

<table>
<thead>
<tr>
<th>Discharge Medications</th>
<th>Indications</th>
<th>Dosage</th>
<th>Max Dose</th>
<th>Comments</th>
<th>Prescription Details</th>
</tr>
</thead>
</table>
| Norethindrone Acetate | Preferred discharge hormone therapy if no contraindications present  
TAPER: 10 mg BID until 3 days after bleeding stops. Then, start maintenance dose  
MAINTENANCE: 10 mg once a day until follow-up appointment.** | 10 mg/dose | Contraindication: Previous intolerance  
Not a preferred method of birth control | Prescribe as 90 tabs for 30 days with 1 refill |
| Lo-Ovral Alternate | Alternate if:  
Norethindrone acetate is contraindicated  
TAPER: 1 tab PO Q8H x 3 days from initiation  
Then, 1 tab PO Q12H x 2 days.  
Then, start maintenance dose  
MAINTENANCE: 1 tab PO QD until follow-up.** | 1 tab/dose | Alternate for Medicaid Patients:  
Seasonique (uses same dosing schedule as Lo-Ovral)  
Common Contraindications: Personal history of thrombosis or stroke, thrombosis in first degree relative or family history of hypercoagulability, migraine with aura, SBP >160 or DBP >100, <6 weeks post-partum, congenital heart disease, active cancer, renal failure, or uncontrolled rheumatologic disease.*  
Call Hematology or Gynecology if contraindications present | Lo-Ovral: Prescribe as a 1-month supply with 3 refills  
Seasonique: Prescribe 1 (84-pill) pack with 1 refill |
| Medroxyprogesterone Alternate | Alternate if:  
Norethindrone acetate and Lo-Ovral are contraindicated  
TAPER: 20 mg BID until 3 days after bleeding stops, then start maintenance dose  
MAINTENANCE: 20 mg once a day until follow-up appointment.** | 20 mg/dose | Contraindication: Previous intolerance  
Not a preferred method of birth control | Prescribe as 90 tabs for 30 days with 1 refill |
| Ferrous Sulfate | If Hgb <10  
325 mg (65mg elemental iron) PO BID | N/A | Contraindication: Previous intolerance  
Not a preferred method of birth control | Prescribe 60 tabs for 30 days with 1 refill |

*Refer to CDC Summary of Medical Eligibility Criteria for Contraceptive Use for complete list of contraindications for estrogens  
**If bleeding recurs, return to previous dose and call PCP. Skip placebo pills until seen for follow-up.  
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