

Standardizing the Evaluation and Management of Adolescents with Abnormal Uterine Bleeding and Secondary Anemia

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BACKGROUND

Abnormal Uterine Bleeding (AUB) is the most common gynecologic complaint among adolescents. There are multiple causes of AUB including hematologic, hormonal, infectious and structural. Given the various etiologies, the diagnosis and management of AUB can benefit from an evidence-based medicine (EBM) pathway.

AIMS

- Improve screening of common non-hematologic causes of AUB to 75% of patients
- Standardize management of AUB and anemia where 75% of admitted patients will receive IV iron, oral iron and oral hormonal therapy
- Improve gynecologic involvement for adolescents presenting with abnormal uterine bleeding to 75%

METHODS

Retrospective chart review performed for hospital encounters at CHNOLA

Admitted (aged 10 - 21 years) with diagnosis of iron deficiency or iron deficiency anemia and menorrhagia from 2018 - 2023, N = 199

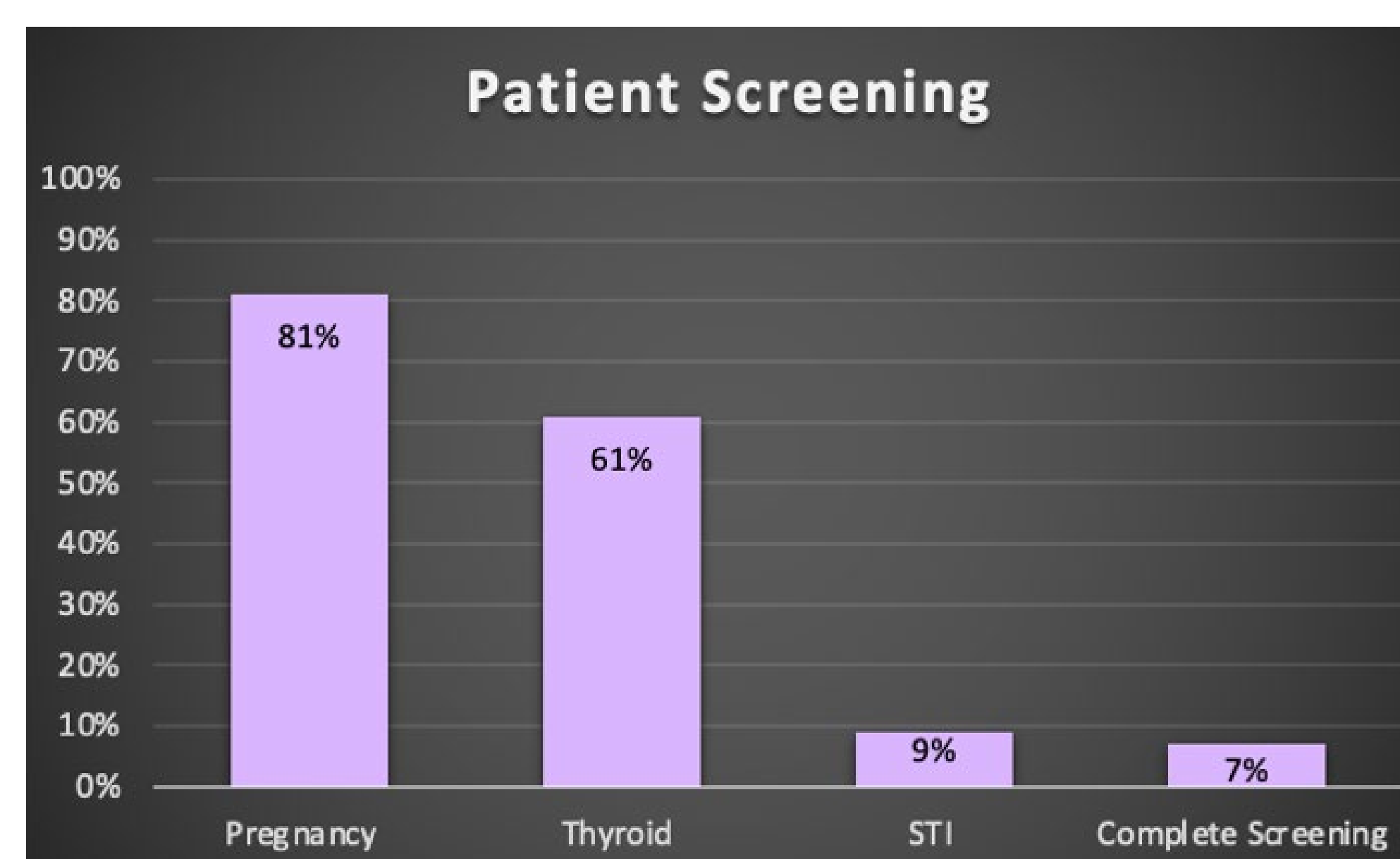
Exclusion criteria:

- Known hematologic disorder or chronic disease
- Identified alternative bleeding source
- Pregnancy
- Outside hospital management of AUB and anemia

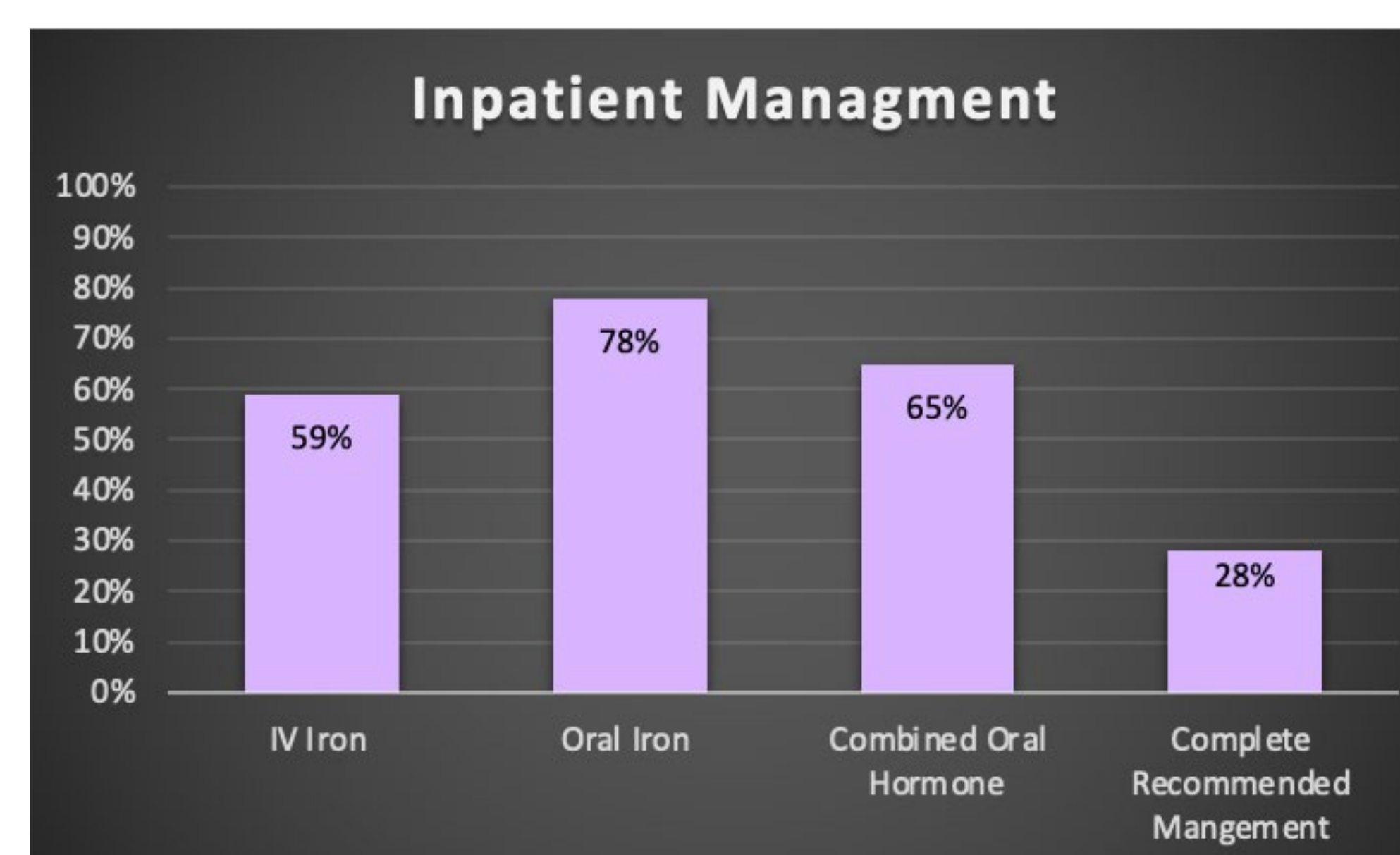
N = 46

RESULTS

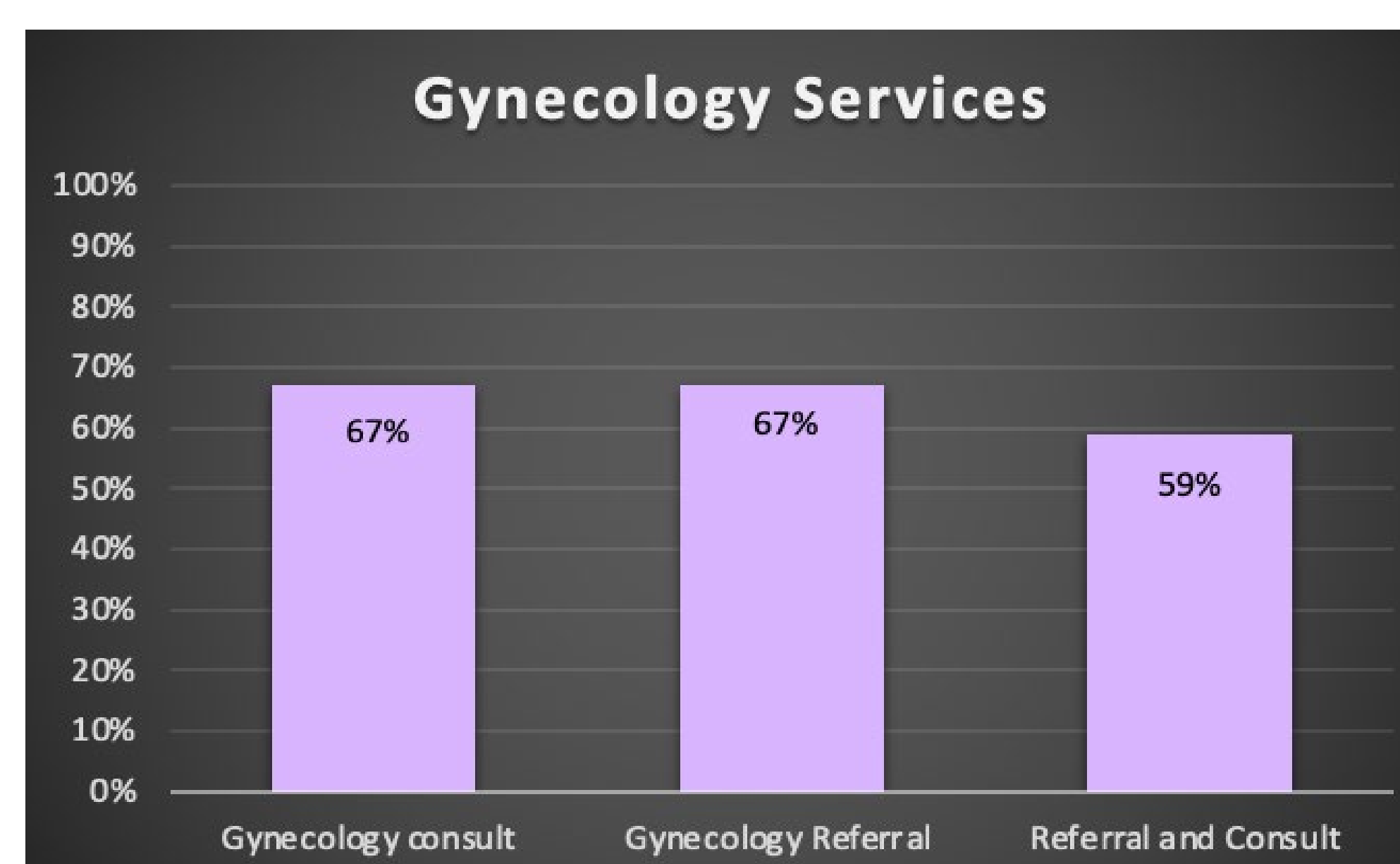
Screening of Common Non-Hematologic Causes of AUB



Inpatient Management of Patients with AUB + Anemia



Gynecology Consult and Referrals for Females with AUB



CONCLUSION / FUTURE DIRECTIONS

- Screening and management of patients with AUB and anemia exist are inconsistent at our hospital.
- Using EBM and multidisciplinary expert opinion we created a clinical pathway to standardize evaluation and treatment of AUB and anemia.

Baseline Labs: All Patients with AUB and Anemia Symptoms

Blood: CBC, Retic, Type and Screen, Ferritin, TSH
Urine pregnancy test, Gonorrhea/Chlamydia Screen

Admit to CHPA with Hematology and Gynecology Consult.

Admission Orders: Vitals Every 4 hours, regular diet, fall precautions.

Secondary Labs for hemodynamically stable patients admitted

PT/PTT, Fibrinogen, Platelet Function Assay, Iron Panel, Von Willebrand Antigen and Activity
***If previously worked up for bleeding disorder do not need

Labs for Patients Receiving FIRST Blood Transfusion

Transfusion screening Labs (CMV, HIV, Hepatitis panel, Hemoglobinopathy Evaluation) – Please use General Pediatric Blood Transfusion Order Set

Medical Management – Iron Replacement

IV Iron (100 mg) Over 1 hour
PO Iron (325 mg) daily, avoid giving with dairy products or calcium supplements
Fiber supplementation or stool softener while on Iron

Medical Management – Blood Transfusion

Based on clinical judgement. Recommend in patients with hemoglobin <7 who are actively bleeding, patients with symptomatic anemia or patients with other clinical concerns.
Blood Transfusion 2-unit pRBC over 3 hours. Order using Pediatric General Blood Transfusion Order Set
Recommend repeat CBC in patients who continue to have symptomatic anemia or no change to severity of bleeding. Do not need to repeat CBC in patients who are symptomatically improving.
Repeat Transfusion if Hgb <7 or per clinician judgement

Medical Management – Menstrual Bleeding

1st Line: Combined Oral Hormone Replacement Taper (30 mcg ethinyl estradiol)
Combined oral hormone TID x7 days → daily until follow up
*Consider PRN Zofran for nausea associated with high dose estrogen therapy *
***If patient is not actively bleeding, daily combined oral hormone replacement, continue until follow up
Contra-indication to estrogen therapy or family refusal: Aygestin or TXA

PCOS work up to be determined by Gynecology consult

Discharge: When patient anemia is symptomatically improved and bleeding stopped/decreasing
Do not need a repeat CBC if anemia and bleeding are symptomatically improved

Follow up: 1 week with Hematology. 1 month with gynecology.

Discharge Medications: Combined Oral Hormone Taper, Daily Oral Iron

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