

Date: 14 April 2018 2:47 pm

Topic: Blood in stool

# Neonate with Bloody Stool

	0 - 1 month	1 - 12 months	> 12 months
Upper GI Bleeding	Esophagitis Maternal Blood Blood dyscrasia AVM	Esophagitis Maternal Blood Blood dyscrasia AVM Mallory-Weiss	Esophagitis Mallory-Weiss PUD Varices FB
Lower GI Bleeding	Fissure Volvulus NEC Colitis Milk Allergy	Intussusception Meckels Fissure Volvulus Colitis Milk Allergy	Fissure HPS HUS C.Diff Intussusception Volvulus Meckels Colitis

While the pediatric population deserves special attention (*the purpose of this website*), **kids are not aliens**... they are just small humans with **unique anatomy and physiology** that must be considered when caring for them. The neonate, on the other hand, is like an alien! They, literally, are brand new to the planet and behave differently. We have covered [several neonatal issues](#) previously, but let us add to that list with potentially challenging complaint: the **Neonate with Bloody Stool**.

# Gastrointestinal Bleeding in Kids

Gastrointestinal bleeding (GIB) is **commonly encountered** in children.

[*Romano, 2017; O'Neill, 2016*]

**Causes vary with age** (*like everything in pediatrics*)

See [Table](#) on prior Morsel for a quick review

**Mortality** from acute GIB in children is **low**. [*Romano, 2017; Teach, 1994*]

Rectal bleeding in infancy is often a self-limited condition. [*Arvola, 2006*]

Most are able to be discharged from the

ED. [*Teach, 1994*]  
With a good H+P, **EM providers are able to accurately make a presumptive Dx.**  
[*Teach, 1994*]

# Neonate with Bloody Stool: DDx

## Emergent Considerations

### **Necrotizing Enterocolitis**

Uncommon in term neonates, but can occur.

Other symptoms: **emesis** and **abdominal distension**

**Xray findings** = hepatobiliary gas, pneumatosis intestinalis, pneumoperitoneum

**U/S findings:** [*Bohnhorst, 2013*]

Portal venous gas

Pneumatosis intestinalis

Increased wall echogenicity

Bowel wall thickening or thinning

Absent perfusion or reduced peristalsis

Free fluid

### **Malrotation w/ Volvulus**

May cause hematochezia, but child

will be **ill appearing**.

75% present in first month of life

Other symptoms: **bilious** emesis  
and **abdominal distension**

Xray findings are often not specific

### **Hirschsprung Disease**

Presentation age depends upon  
length of segment involved.

Neonates may have had  
**delayed passage of  
meconium.**

Older infants and children may  
have "**chronic constipation.**"

**Abdominal distension** and emesis  
are also seen.

### **Systemic Coagulopathy**

**Vitamin K Deficiency** needs to be  
considered in any neonate with  
suspected bleeding. Ask whether Vit  
K was given after birth.

**Maternal thrombocytopenia** –  
transferred antibodies against  
platelets can lead to neonatal  
thrombocytopenia

**Disseminated Intravascular  
Coagulation** – potentially related  
to sepsis

### **Infectious Colitis**

Viral infections can lead to bloody  
stool in neonates.

Salmonella, shigella, and yersina are unusual in neonates. [Arvola, 2006]

May be related to low numbers of normal flora in gut flora. [Arvola, 2006]

## **Other Conditions related to Rectal Bleeding in Infants**

### **Swallowed Maternal Blood**

Possibly related to **swallowed blood during birth** or from **breastfeeding from cracked nipples**.

The Apt test can be useful for this diagnosis:

Qualitative test (color-change) using alkali to detect maternal hemoglobin

**Fetal hemoglobin is resistant to alkali** (i.e., stays pink in test tube), but **Adult hemoglobin will be hydrolyzed by alkali** (i.e., turn yellow-brownish).

### **Milk Protein Enterocolitis**

Presents most commonly between 1st month and 1st year of age.

Will have a **normal examination and appear well**.

Elimination of milk protein from diet

is commonly done, but improvement does not prove the diagnosis.

Recurrence of the problem with re-instituting the milk protein will help reduce number of false-positive diagnoses. [Arvola, 2006]

**Often blamed for bloody stool in well appearing neonate, but actual prevalence is likely less than believed.** [Arvola, 2006]

### **Perianal/Rectal Fissure**

Typically related to passage of large and/or hard stool.

Typically not an issue in the neonate, but worth looking for.

## Moral of the Morsel

**Think Worse First!** Bloody stool in a neonate's diaper may be a benign condition, but don't get ahead of yourself. Think about the big, bad, and ugly.

**Vitamin K?** Easily overlooked. Ask about the Vit K Shot!

**Sick or Not Sick?** The child's physical exam is important.

The emergent conditions **can be tricky to detect early on**, but they don't

typical present with only hematochezia.  
**Hematochezia PLUS another finding is concerning!**  
**Toxic appearance, abdominal distension, Shock?** These are not due to benign disorders.

## References

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