Differential diagnosis for primary TMAs: **atypical HUS,** TTP, and STEC-HUS[1-5]

Thrombocytopenia
Platelet Count <150,000/mm³ *or*
>25% Decrease from Baseline

AND

Microangiopathic Hemolysis
Schistocytes *and/or*
Elevated LDH *and/or*
Decreased Haptoglobin *and/or*
Decreased Hemoglobin

Plus one or more of the following:

Neurological Symptoms
Confusion *and/or*
Seizures *and/or*
Other Cerebral Abnormalities

Renal Impairment
Elevated Creatinine *and/or*
Decreased eGFR *and/or*
Elevated Blood Pressure *and/or*
Abnormal Urinalysis

Gastrointestinal Symptoms
Diarrhea ± Blood *and/or*
Nausea/Vomiting *and/or*
Abdominal Pain *and/or*
Gastroenteritis

Cardiovascular Symptoms
Myocardial Infarction *and/or*
Hypertension *and/or*
Arterial Stenosis *and/or*
Peripheral Gangrene

Pulmonary Impairment
Dyspnea *and/or*
Pulmonary Hemorrhage *and/or*
Pulmonary Edema

Visual Symptoms
Pain and Blurred Vision
Retinal Vessel Occlusion
Ocular Hemorrhage

Evaluate ADAMTS13 Activity and Shiga-toxin/EHEC* Test
While waiting for ADAMTS13 results, a platelet count of >30,000/mm³ and/or a serum creatinine level >150–200 µmol/L almost eliminates a diagnosis of severe ADAMTS13 deficiency (TTP)

≤10% ADAMTS13 Activity	>10% ADAMTS13 Activity	Shiga-toxin/EHEC Positive
TTP	atypical HUS	STEC-HUS*

- Genetic mutations are **not** identified in **30%** to **50%** of patients with atypical HUS
- A diagnosis of atypical HUS does not require identification of a mutation

The availability of an effective treatment option warrants a differential diagnosis of atypical HUS.

eGFR, estimated glomerular filtration rate; EHEC, enterohemorrhagic *E. coli*; LDH, lactate dehydrogenase; STEC-HUS, Shiga-toxin–producing *E. coli* hemolytic uremic syndrome; TMA, thrombotic microangiopathy; TTP, thrombotic thrombocytopenic purpura.

*Shiga-toxin/EHEC test is warranted in history/presence of GI symptoms.

The catastrophic consequences of atypical HUS make RAPID DIAGNOSIS and CLINICAL INTERVENTION CRITICAL[4]

Atypical HUS can cause **SUDDEN** and **PROGRESSIVE** damage[3]

- **33%** to **40%** of all patients die or progress to ESRD with the first clinical manifestation
- **65%** of all atypical HUS patients die, require dialysis, or have permanent renal damage within the first year after diagnosis despite PE/PI

Atypical HUS is a **CHRONIC, LIFE-THREATENING** condition

- The complement system is always "on" and regulated by natural inhibitors[5]
- Genetic mutations in complement inhibitors result in chronic, uncontrolled complement activation[5]
- Complement-mediated TMA persists despite PE/PI, dialysis[4], or kidney transplantation[6], and results in extra-renal morbidities

Atypical HUS has **SYSTEMIC** impact

- TMA occurs throughout the body and affects multiple vital organs, including the renal, nervous, and cardiovascular systems[4]
- **63%** of atypical HUS patients have at least 1 complication outside of the kidney, including neurological, cardiovascular, and gastrointestinal systems[3]

Atypical HUS affects **BOTH** adults and children

- The onset of atypical HUS occurs as frequently during adulthood as during childhood[7]

To learn more about the aHUS Registry or to enrol your patients, contact your Alexion Representative or e-mail aHUS-Registry@increresearch.com

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