

# Microangiopathic Hemolytic Anemias

Consists of two syndromes: Hemolytic Uremic Syndrome  
Thrombotic Thrombocytopenic Purpura

## Hemolytic Uremic Syndrome (HUS)

Usually follows a prodromal diarrhea illness  
Most common cause is E coli 0157:H7  
Presents with petechiae/purpura, hypertension, oliguria  
Coagulation studies: Usually normal  
Treatment: Supportive with possible dialysis  
Prognosis: good

## Thrombotic Thrombocytopenic Purpura

Unknown cause, possibly due to an antibody inhibitor to ADAMST13 a protease that cleaves multimers of VWF

Classic Pentad: FAT RN

F fever

A anemia

T thrombocytopenic purpura

R renal diseas

N neurologic abnormalities

Coagulation studies: Usually normal

Treatment: Plasma exchange

Can have relapses

Comparisons Between HUS, TTP, and Disseminated Intravascular Coagulation (DIC)

	<b>HUS</b>	<b>TTP</b>	<b>DIC</b>
<b>Age</b>	Children	Adults	Adults
<b>CBC</b>	Anemia	Anemia and thrombocytopenia	Anemia and thrombocytopenia
<b>Peripheral smear</b>	MAHA*	MAHA	MAHA
<b>Clinical manifestation</b>	Predominantly renal	Predominantly CNS	Reflects the underlying illness
<b>Treatment</b>	Supportive	Plasmapheresis, steroids	Heparin and blood components
<b>Prognosis</b>	Good	Poor	Generally poor