Table I. Differential diagnosis of disseminated intravascular coagulation (DIC)

Acute DIC

Bleeding and/or thrombosis

Underlying cause always present

No bleeding; may be associated with

Pregnancy and increasing LFTs

Find and treat underlying cause

Prolonged

Very high

Low

Increased circulating free thrombin and

Pathophysiology

plasmin

Clinical Situation PT/PTT/ TT **Platelets** FDP/ D-dimer **Key Clinical Features**

Key Therapeutic Considerations

HELLP

Placental ischemia

Normal Low

Pathophysiology Clinical Situation

preeclampsia PT/PTT/ TT Platelets FDP/ D-dimer

Key Clinical Features

Key Therapeutic Considerations

TTP

Evacuation of uterus

Pathophysiology

ULVWF

Clinical Situation

thrombosis PT/PTT/ TT Platelets

FDP/ D-dimer

Key Clinical Features

Key Therapeutic Considerations

Mildly increased

Impairment of ADAMTS13 and increased

No bleeding; systemic microvascular

Normal Very low

Minimally increased

Typically 5-10% schistocytes, rising

creatinine and LDH, and altered mental status

Therapeutic plasma exchange

HIT

Antiplatelet antibodies secondary to

No bleeding; systemic microvascular

Normal

Very low (or declining) Minimally increased

Falling platelet count, recent exposure to heparin, and positive test for heparin-

Pathophysiology heparin/LMWH Clinical Situation thrombosis PT/PTT/ TT

Platelets FDP/ D-dimer

Key Clinical Features

Key Therapeutic Considerations

associated platelet antibodies Cessation of heparin or LMWH. Thrombin neutralization with argatroban or fondaparinux

TS/ CAPS

Pathophysiology

Clinical Situation

PT/PTT/ TT Platelets FDP/ D-dimer Key Clinical Features and LA Key Therapeutic Considerations Extreme acute hypercoagulability simultaneously at multiple sites
Acute multi-system failure; far more thrombotic than hemorrhagic
Normal
Moderately low to normal

Mildly increased May have or had evidence for SLE, ACLAs,

Aggressive anticoagulation and possibly plasmapheresis and high dose steroids

Key: Platelet counts very low = 10,000-40,000/mm3; low 40,000-70,000/mm3; moderately low-normal = 70,000-normal.

PT = prothrombin time; PTT = partial thromboplastin time; TT = thrombin time; FDP = fibrin degradation products; HELLP = Hemolysis, Elevated Liver function tests, Low Platelets; LFT = liver function tests; TTP = thrombotic thrombocytopenic purpura; ADAMTS13 = a disintegrin and metalloproteinase with thrombospondin components; ULVWF = ultralarge von Willebrand factor multimers; LDH = lactate dehydrogenase; HIT = heparin-induced thrombocytopenia; LMWH = low molecular weight heparin; TS/CAPS = thrombotic storm/catastrophic anti-phospholipid syndrome; SLE = systemic lupus erythematosus; ALCA = anti-cardiolipin antibodies; LA = lupus anticoagulant.

(Adapted from Labelle C, Kitchens CS. Consultative Hemostasis and Thrombosis, 2nd ed. Philadelphia: Elsevier; 2007)