

Table 2. Safety Issues with Rapidly Acting Anticoagulants in the United States (Effective November 2006)

SAFETY CONCERN	UFH	LMWHS	FONDAPARINUX	DTIS
Avoid if hypersensitivity to drug or its components	X	X	X	X
Avoid if active major bleeding	X	X	X (or if bacterial endocarditis)	X
Use with extreme caution if increased risk of bleeding	X	X	X	X
Bleeding, including major hemorrhage, can occur	X	X	X	X
Black box warning: Neuraxial hematoma or spinal puncture	†	X	X	
Avoid in patients with UA or MI undergoing regional anesthesia		Dalteparin		
Avoid if severe thrombocytopenia, cross-reactivity with antiplatelet antibody in presence of drug, or current or previous HIT (or use with extreme caution if history of HIT)	X	X	X*	
Not for intramuscular injection	X	X	X	X
AT-dependent drugs not interchangeably used (unit for unit)	X	X	X	
Presence of renal impairment				
• Avoid if CLcr <30 mL/min and caution if CLcr 30-50 mL/min			X	
• Avoid if CLcr < 15 mL/min and reduce dose if CLcr <60 mL/min				Lepirudin
• Reduce dose if CLcr < 30 mL/min		Enoxaparin		Bivalirudin
Presence of hepatic impairment, reduce dose				Argatroban
Patient body weight				
• Avoid using for prophylaxis if < 50 kg			X	
• Antifactor Xa monitoring if > 150 kg		X‡		
Anaphylaxis risk on re-exposure				Lepirudin
Routine monitoring with coagulation assay	X			X
No antidote			X	X

* In vitro and in vivo cross reactivity with HIT antibody is negligible.

† Event has also been reported in association with UFH

‡ Per ACCP guidelines⁷; not in prescribing information of drugs.

Key: AT, antithrombin; CLcr, creatinine clearance; HIT, heparin-induced thrombocytopenia; MI, myocardial infarction; UA, unstable angina