

Anticoagulant Therapies

COUMARINS AND INDANDIONES

COUMARINS AND INDANDIONES ①	DRUG CLASS:	Coumarins and Indandiones
	GENERIC NAME:	Warfarin
	BRAND NAME(S):	Jantoven; Coumadin
	DESCRIPTION:	Warfarin is a Coumarin. It is an oral anticoagulant that inhibits Vitamin K epoxide reductase, an enzyme that recycles oxidized vitamin K. Vitamin K is an activator of coagulating factors II, VII, IX and X, so by decreasing the availability of Vitamin K synthesis of these factors are decreased.
	ORAL VS. INJECTABLE:	Oral
	LAB / DISPENSING:	Patient will need frequent "INR" or prothrombin time tests to measure blood-clotting time. International Normalized Ratio (INR) is used to determine the clotting tendency of blood, in the measure of warfarin dosage, liver damage, and vitamin K status. Prothrombin time (PT) measures factors I (fibrinogen), II (prothrombin), V, VII and X.
	CONTRAINDICATIONS:	Pregnancy, increases the risk of bleeding, high blood pressure, hemophilia, anemia
	RESTRICTIONS:	Must be taken on time; every day. 207 major drug interactions are known to exist.

DOSE RANGE	DOSAGE SIZE FOR PRICING	COST PER DOSAGE	DOSAGE PER DAY	TOTAL COST PER 30 DAYS
1-10 mg/day	5 mg	\$2.90	1	\$87.00

FACTOR Xa INHIBITORS

FACTOR Xa INHIBITORS ①	DRUG CLASS:	Factor Xa inhibitors
	GENERIC NAME:	Fondaparinux
	BRAND NAME(S):	Arixtra
	DESCRIPTION:	Factor Xa inhibitors are anticoagulants that block the activity of clotting factor Xa and prevents blood clots from developing or getting worse. Factor Xa is generated by both the extrinsic and intrinsic coagulation pathways. It activates prothrombin to thrombin; which activates the final components of the coagulation pathway to form clots.
	ORAL VS. INJECTABLE:	Injectable
	LAB / DISPENSING:	Fondaparinux injection comes as a solution (liquid) to be injected subcutaneously in the lower stomach area. It is usually given one time a day for 5 to 9 days or sometimes for up to about 1 month
	CONTRAINDICATIONS:	Pregnancy, Increased risk of spinal bleeding, clotting that could lead to paralysis
	RESTRICTIONS:	Kidney or liver problems, weigh 110 lbs. or less. 144 major drug interactions are known to exist.

DOSE RANGE	DOSAGE SIZE FOR PRICING	COST PER DOSAGE	DOSAGE PER DAY	TOTAL COST PER 30 DAYS
Sub Q daily x 8 days (up to 45 days)	2.5 mg	\$66.74	1	\$2,002.20
Sub Q daily x 8 days (up to 45 days)	5.0 mg, 7.5 mg, or 10 mg	\$157.05	1	\$4,711.50

FACTOR Xa INHIBITORS ②	DRUG CLASS:	Factor Xa inhibitors
	GENERIC NAME:	Rivaroxaban
	BRAND NAME(S):	Xarelto
	DESCRIPTION:	Factor Xa inhibitors are anticoagulants that block the activity of clotting factor Xa and prevents blood clots from developing or getting worse. Factor Xa is generated by both the extrinsic and intrinsic coagulation pathways. It activates prothrombin to thrombin; which activates the final components of the coagulation pathway to form clots.
	ORAL VS. INJECTABLE:	Oral
	LAB / DISPENSING:	Ongoing monitoring required
	CONTRAINDICATIONS:	Pregnancy, Increased risk of spinal bleeding, clotting that could lead to paralysis; Pregnancy, increases the risk of bleeding, high blood pressure, hemophilia, anemia
RESTRICTIONS:	Kidney or liver problems, weigh 110 lbs. or less. 160 major drug interactions are known to exist.	

DOSE RANGE	DOSAGE SIZE FOR PRICING	COST PER DOSAGE	DOSAGE PER DAY	TOTAL COST PER 30 DAYS
10-30 mg/day	10 mg, 15 mg, or 20 mg	\$11.45	2	\$687.00

FACTOR Xa INHIBITORS ③	DRUG CLASS:	Factor Xa inhibitors
	GENERIC NAME:	Apixaban
	BRAND NAME(S):	Eliquis
	DESCRIPTION:	Factor Xa inhibitors are anticoagulants that block the activity of clotting factor Xa and prevents blood clots from developing or getting worse. Factor Xa is generated by both the extrinsic and intrinsic coagulation pathways. It activates prothrombin to thrombin; which activates the final components of the coagulation pathway to form clots.
	ORAL VS. INJECTABLE:	Oral
	LAB / DISPENSING:	Ongoing monitoring required
	CONTRAINDICATIONS:	Pregnancy, Increased risk of spinal bleeding, clotting that could lead to paralysis; Pregnancy, increases the risk of bleeding, high blood pressure, hemophilia, anemia
RESTRICTIONS:	Kidney or liver problems, weigh 132lbs. or less. 168 major drug interactions are known to exist. NSAID (nonsteroidal anti-inflammatory drug)--ibuprofen (Advil, Motrin), naproxen (Aleve)	

DOSE RANGE	DOSAGE SIZE FOR PRICING	COST PER DOSAGE	DOSAGE PER DAY	TOTAL COST PER 30 DAYS
5-20 mg/day	2.5 mg or 5 mg	\$5.83	2	\$349.80

HEPARINS

HEPARINS ①	DRUG CLASS:	Heparins
	GENERIC NAME:	Dalteparin
	BRAND NAME(S):	Fragmin
	DESCRIPTION:	Heparin is an injectable anticoagulant that activates anti-thrombin III, which inhibits thrombin and factor Xa, factors necessary in the final stages of blood clotting cascade. There are two types of heparins: high molecular weight heparins and low molecular weight heparins. High molecular weight heparins require daily blood monitoring. Low molecular weight heparins give a better anticoagulant response and do not need daily blood monitoring.
ORAL VS. INJECTABLE:	Injectable	

	LAB / DISPENSING:	FRAGMIN is administered by subcutaneous injection. It must not be administered by intramuscular injection. *Administered for 5-10 days.
	CONTRAINDICATIONS:	Pregnancy, Increased risk of spinal bleeding, clotting that could lead to paralysis; Pregnancy, increases the risk of bleeding, high blood pressure, hemophilia, anemia
	RESTRICTIONS:	Kidney or liver problems, weigh 132lbs. or less. 125 major drug interactions are known to exist. NSAID (nonsteroidal anti-inflammatory drug)--ibuprofen (Advil, Motrin), naproxen (Aleve),

DOSE RANGE	DOSAGE SIZE FOR PRICING	COST PER DOSAGE	DOSAGE PER DAY	TOTAL COST PER 10 DAYS*
2500 - 18000 units/day sub-q	2500 units	\$26.23	1	\$262.30

HEPARINS ②	DRUG CLASS:	Heparins
	GENERIC NAME:	Enoxaparin
	BRAND NAME(S):	Lovenox
	DESCRIPTION:	Heparin is an injectable anticoagulant that activates anti-thrombin III, which inhibits thrombin and factor Xa, factors necessary in the final stages of blood clotting cascade. There are two types of heparins: high molecular weight heparins and low molecular weight heparins. High molecular weight heparins require daily blood monitoring. Low molecular weight heparins give a better anticoagulant response and do not need daily blood monitoring.
	ORAL VS. INJECTABLE:	Injectable
	LAB / DISPENSING:	Ongoing monitoring required
	CONTRAINDICATIONS:	Pregnancy, Increased risk of spinal bleeding, clotting that could lead to paralysis; Pregnancy, increases the risk of bleeding, high blood pressure, hemophilia, anemia
	RESTRICTIONS:	Currently displaying 125 drugs known to have a major interaction with Lovenox

DOSE RANGE	DOSAGE SIZE FOR PRICING	COST PER DOSAGE	DOSAGE PER DAY	TOTAL COST PER 30 DAYS
60-200mg/day sub-q	30 mg	\$29.77	2	\$1,786.20

THROMBIN INHIBITORS

THROMBIN INHIBITORS ①	DRUG CLASS:	Thrombin Inhibitor
	GENERIC NAME:	Dabigatran
	BRAND NAME(S):	Pradaxa
	DESCRIPTION:	Thrombin inhibitors are anticoagulants that bind to and inhibit the activity of thrombin therefore prevent blood clot formation. Thrombin inhibitors inactivate free thrombin and also the thrombin that is bound to fibrin. Thrombin has many important functions in the clotting pathway, so it is a good target for anticoagulants drugs.
	ORAL VS. INJECTABLE:	Oral
	LAB / DISPENSING:	Ongoing monitoring required
	CONTRAINDICATIONS:	Contraindicated in patients with overt major bleeding, or in patients hypersensitive to this product or any of its components
	RESTRICTIONS:	Currently displaying 91 drugs known to have a major interaction with Pradaxa

DOSE RANGE	DOSAGE SIZE FOR PRICING	COST PER DOSAGE	DOSAGE PER DAY	TOTAL COST PER 30 DAYS
75-220mg/day	75 mg, 220 mg/day	\$5.83	1	\$174.90