Argatroban vs. Unfractionated Heparin for Circuit Anticoagulation in Continuous Renal Replacement Therapy

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The authors have no conflict of interest.

Background

- Continuous renal replacement therapy (CRRT) increases risk for anemia due to potential blood loss when the circuit clots
- Multiple anticoagulants (AC) have been reported to be used to prevent in circuit thrombosis in CRRT

Objectives

Primary

- Filter survival time, measured in hours between pre-filter argatroban and UFH (unfractionated heparin)

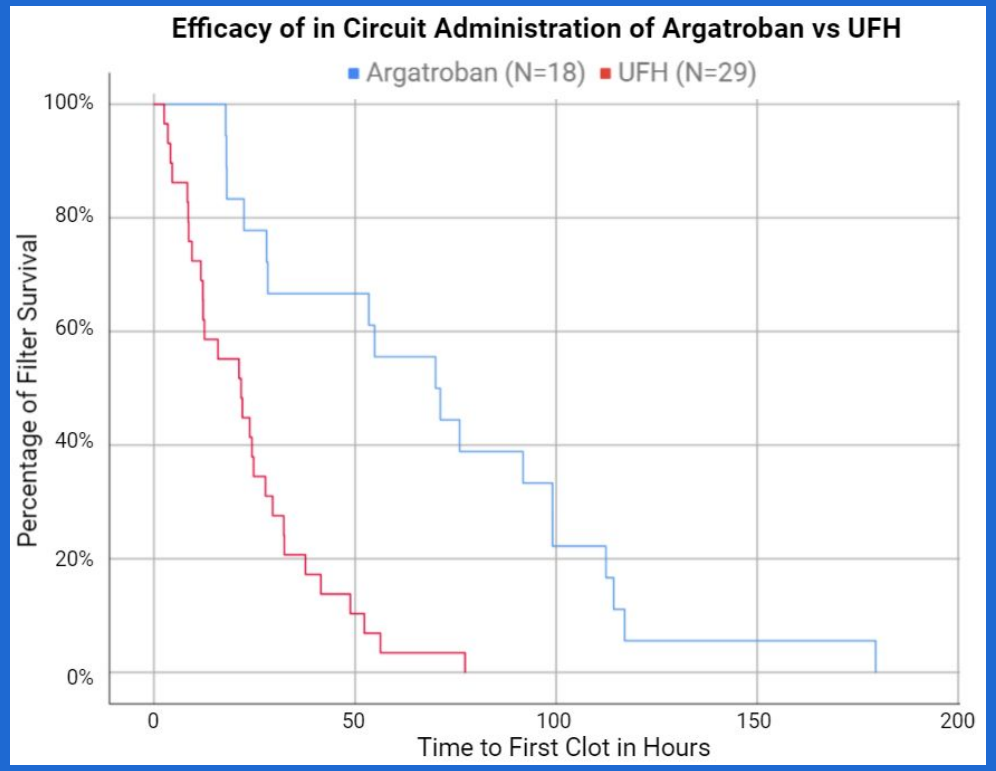
Secondary

- Incidence of major and minor bleeds, incidence of HIT, recorded PTTs

Methods

- Retrospective single center study
- January 2019 through October 2020 for argatroban or January 2017 through October 2020 for UFH
- Inclusion Criteria: received argatroban or UFH pre-filter while on CRRT in an adult intensive care unit
- Exclusion Criteria: < 18 years of age, received UFH or argatroban < 24 hours, received CRRT < 24 hours

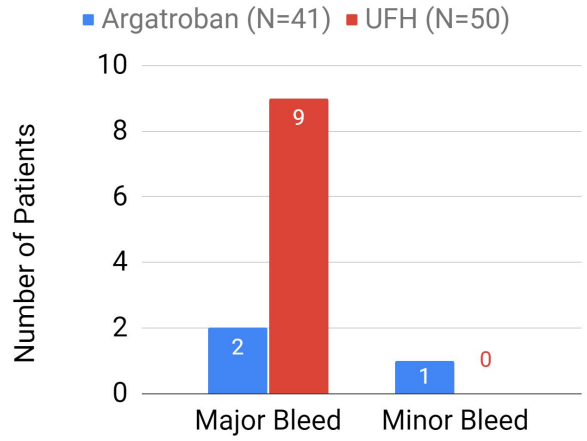
Argatroban pre-filter administration led to a **longer filter survival time** with less clots per day of CRRT without significant increase in bleeding compared to UFH



Results

Baseline Characteristics	Argatroban (*n*=41)	UFH (*n*=50)	*p* Value
Time on AC in days, mean (range)	7.4 (1.1-21)	11.2 (1.7-34.5)	0.368
Hemoglobin at start of AC in g/dL, mean, (range)	10 (6.6-15.9)	8.7 (6.5-17.1)	**0.004**
Starting Dose, mean (range)	1 mg/hr	482 units/hr (200-1000)	

Major & Minor Bleed Incidence



Limitations

- Retrospective study
- No propensity matching completed
- Temporal confounding with changes in practice