

Assessment of Post Surgery Heparin Dosing Practices in a Community Hospital



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BACKGROUND

Its short half-life and studied monitoring levels makes unfractionated heparin one of the most commonly used agents in the post surgical setting. Many literature support that an institution specific dosing nomogram in addition to patient specific factors be considered for dosing after surgery to determine risk of rebleeding or clot formation.

OBJECTIVE

To assess the therapeutic anticoagulation status of patients on heparin continuous infusion pre and post surgery and the dosing practices post surgery in Memorial Medical Center of Modesto

<u>METHODS</u>

- IRB approved for exemption
- Retrospective chart review of eligible patients were performed.
- Retrospective studies inclusion criteria: acute care patients 18 years of age or older, had orders of continuous heparin infusion pre and post a documented surgical procedure
- Retrospective study was conducted from 12/1/2021-1/31/2022. Data collection: number of patients on heparin infusion, type of surgical procedure baseline demographics, Xa/PTT pre/post surgery, heparin bolus pre/post sugery, heparin drip rate change post surgery

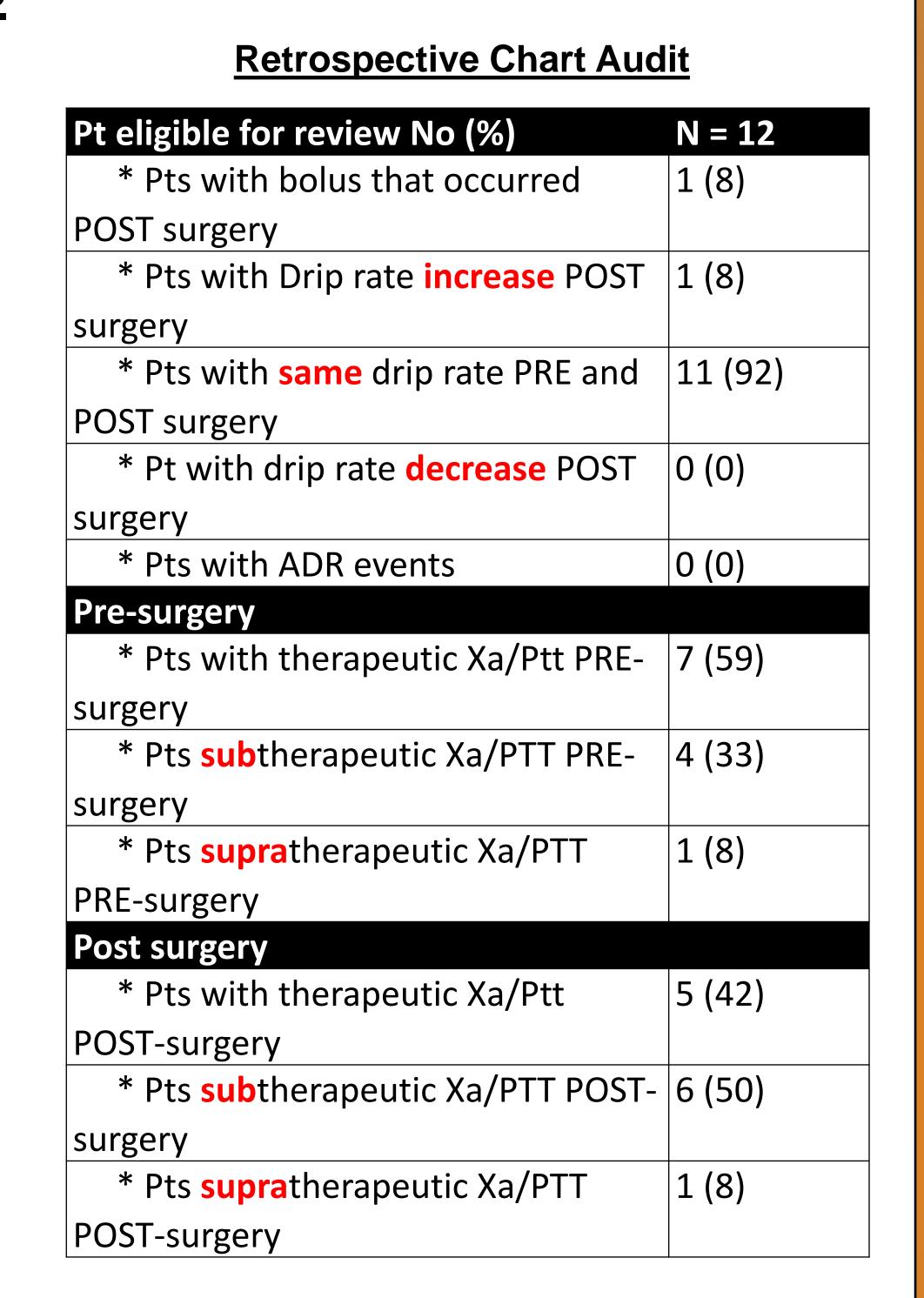
Statistical Analysis:

Descriptive statistics were used to report frequencies.

Baseline Demographics			
Characteristic	Patients (n= 50)	Procedure	
Age, average	72	Angiogram	
Gender (female)	24	Aortogram	
Height (cm) average	166.2	Atrial fibrillation ablation	
Wt (kg) average	80.5	Biventricular Pacemaker	
BMI (kg/m²)		Bypass Graft axillary fem	
average	28.1	(left chest)	
Creatinine (mg/dL)		Cardiac Cath	
average	54	Cardioversion Colonoscopy	
Current smoker	4	Coronary Artery Bypass	
Indication, No (%)	→	Endoscopic Retrograde	
VTE	14 (28)	Cholangiopancreatograp	
ACS	17 (34)	with Sphincterotomy	
		Esophagogastroduodend	
Atrial fib	13 (26)	у	
other/unknown Comorbidites No	6 (12)	Excision cyst mid upper l	
(%)		Exploratory Laparotomy	
CV	48 (96)	Image-guided percutane	
	,	drain placement	
Pulmonary	12 (24)	Incision and Drainage	
GI/hepatic	22 (44)	Laparoscopy converted t	
DM	16 (32)	exploratory laparotomy;	
Renal	21 (42)	colectomy	
Muscoskeletal	27 (54)	Large volume paracentes	
Neurologic	11 (22)	Left cardiac Catherization	
Hematologic	11 (22)	Left Femoral Embolector	
Active cancer	1 (1)	Mitral Valve repair	
Previous Medical		Open Gastrostomy Tube	
History No (%)		Placement	
VTE	7 (14)	Peritoneal Dialysis Cathe	
MI	3 (6)	removal	
Atrial fib	17 (34)	Right Femoral Artery Thrombostomy	
Stroke	3 (6)	Tracheostomy	
GI bleed	12 (24)	Tracheostomy Transcatheter Aortic Valv	
		Replacement	

Procedure Angiogram Aortogram Atrial fibrillation ablation Biventricular Pacemaker Bypass Graft axillary femoral (left chest) Cardiac Cath Cardioversion Colonoscopy Coronary Artery Bypass Endoscopic Retrograde Cholangiopancreatography with Sphincterotomy Esophagogastroduodenoscop y 6 Excision cyst mid upper back Exploratory Laparotomy Image-guided percutaneous drain placement Incision and Drainage Laparoscopy converted to exploratory laparotomy; colectomy Large volume paracentesis Left cardiac Catherization Left Femoral Embolectomy Mitral Valve repair Open Gastrostomy Tube Placement Peritoneal Dialysis Catheter removal Right Femoral Artery Thrombectomy Transesophageal Echocardiogram 1 Ultrasound-guided thoracentesis 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u>emographics</u>			
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Eligible Patients N = 50 Pts with heparin drips for review N = 46 pts with initial Ptt/Xa N = 33 Documentation that drip/bolus resumed N = 12 Pts eligible for review



LIMITATIONS

- Small sample size
- Missing chart information
- Not inclusive of pt's rebleeding scores
- Indication of heparin drip

FURTHER DIRECTIONS

- Larger sample size
- Focus on specific high risk surgical procedures

<u>ANALYSIS</u>

The small sample size result of the chart review limits the applicability of the study. Optimal therapeutic anticoagulation pre-surgery was not achieved in all patients which may affect the dosing habits post-surgery. Better processes for administration and documentation with heparin is necessary for MMC.

References

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Disclosure

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation:

Camille Camargo: Nothing to disclose