

# Management of Heparin-Induced Thrombocytopenia

Primary Authors: Barrett Powell, PharmD PGY-1; Zachary Dunn, PharmD PGY-2; Austin Hinchey, PharmD BCCCP, Anjly Kunapuli, PharmD  
 Faculty Advisors: Anjly Kunapuli, PharmD; Austin Hinchey, PharmD BCCCP

## BACKGROUND

- Unfractionated heparin (UFH) and low-molecular weight heparin (LMWH) are among the most commonly used anticoagulants in hospitals.
- Heparin-induced thrombocytopenia (HIT) is a serious and potentially life-threatening adverse event that occurs when antibodies are formed against heparin-platelet protein factor 4.<sup>1</sup>
- The American Society of Hematology (ASH) published guidelines for the management of HIT in 2018. These guidelines outline the management of suspected, acute, subacute, and remote HIT. ASH recommends utilizing the 4Ts score first to make a presumptive diagnosis of HIT, followed by lab studies.<sup>2</sup>
- Serologic testing for HIT often takes days before results are available, and can be costly.
- The delay between suspected HIT and confirmation may leave gaps in patient care.
- Proper drug selection and dosing for patients with impaired organ function poses a challenge for healthcare providers.

## AIM STATEMENT

Determine the appropriate use and dosing of non-heparin anticoagulants in the setting of suspected HIT, from 11/1/2020 to 5/31 2021.

## OBJECTIVES

We are evaluating data to determine whether patients with presumed HIT are placed on proper anticoagulation in accordance with nationally-approved guidelines managing HIT.

Specific aims of this study include:

- Identifying prescribing patterns for patients with a presumed HIT diagnosis.
- Evaluating the indications, dosing, and duration of anticoagulants initiated in suspected HIT
- Assessing areas for quality improvement utilizing the 2018 ASH guidelines that outline proper diagnosis and subsequent management of HIT.

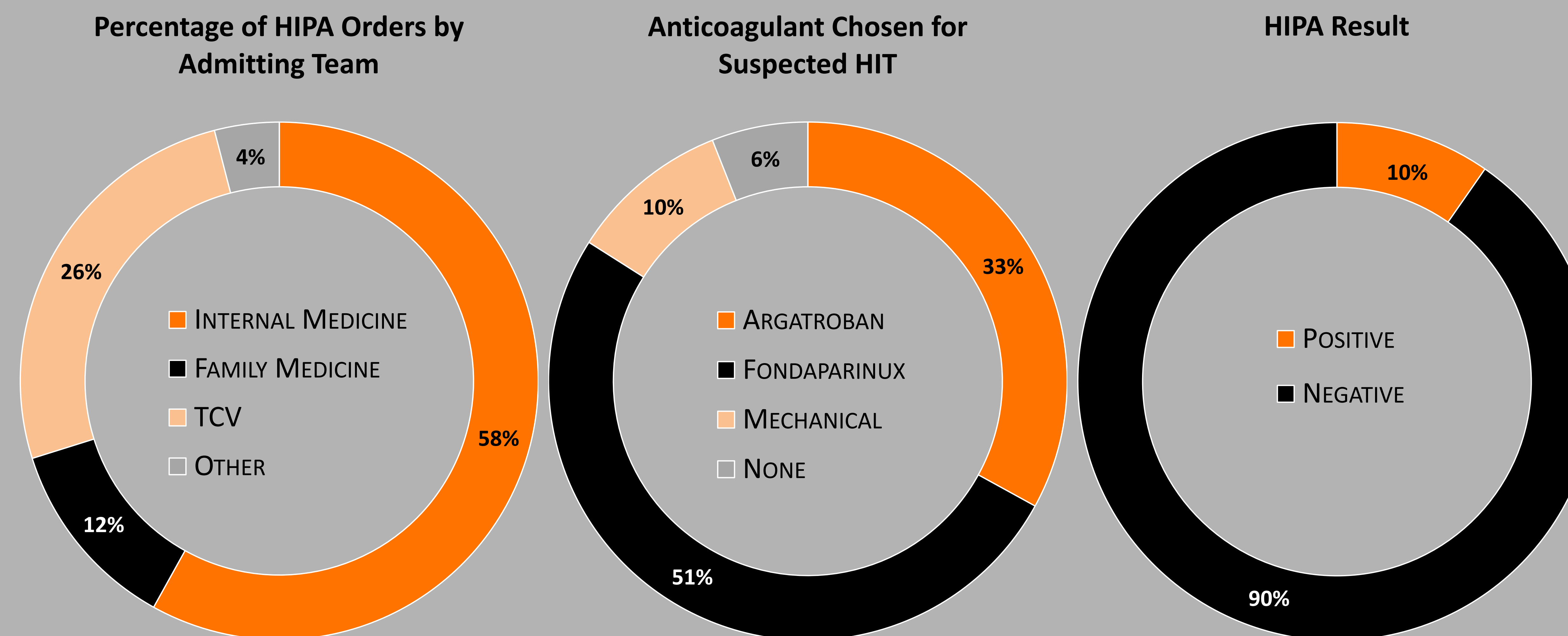
## METHODS

This study is an IRB approved, retrospective chart review. A report was generated containing any patient admitted to Oklahoma State University Medical Center who had a heparin-induced platelet antibody (HIPA) ordered from 11/1/2020 to 5/31/2021 at OSUMC. Patients under the age of 18, pregnant patients, or those with presumed HIT prior to arrival, were excluded from the study. Data collected has been organized with Excel™.

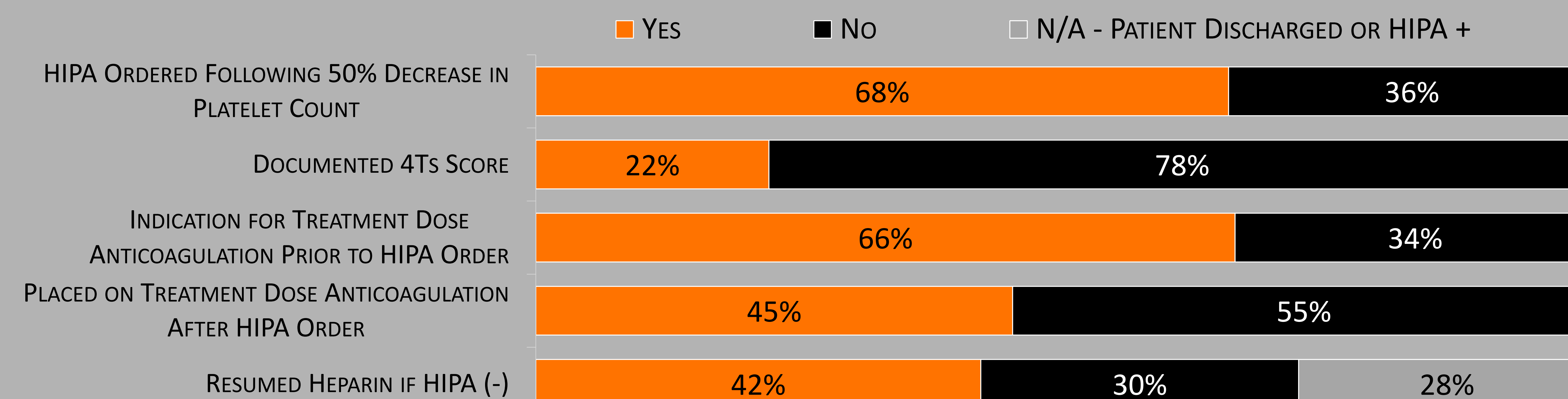
Information to be gathered includes:

- Patient gender/age/weight
- Heparin exposure prior to HIPA order
- 4Ts score or rationale for suspected HIT
- Anticoagulant used after HIPA order placed
- Admitting Team that placed HIPA order
- Documented heparin allergy if HIPA (+)
- HIPA result
- Anticoagulant used after HIPA result

## RESULTS



### Patient Percentages (n=118)



## CONCLUSION

This study is currently ongoing. Preliminary data suggests:

- The majority of patients with suspected HIT have negative HIPA results.
- A more gestalt approach, as opposed to using a 4Ts score, is taken when evaluating for suspected HIT at our institution.
- A notable portion of patients with an indication for treatment dose anticoagulation receive prophylactic dose anticoagulation after HIT is suspected.
- Many patients are not returned to heparin therapy even after having a negative HIPA result.

## MOVING FORWARD

Implementing collaborative patient care with the help of clinical pharmacists, along with education can serve as a point of reference to address current gaps in patient care. Utilizing this technique can ensure patients receive proper anticoagulation in the setting of suspected HIT at our institution.

## REFERENCES

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2. Cuker A, Arepally GM, Chong BH, et al. American Society of Hematology 2018 guidelines for management of venous thromboembolism: heparin-induced thrombocytopenia. *Blood Adv*. 2018 Nov 27;2(22):3360-3392.



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OKLAHOMA STATE UNIVERSITY

## Disclosures

The research team has no disclosures to state on this research and has no commercial or financial interest from this study.