



Long-acting Factor XI Inhibition and Periprocedural Bleeding

A Secondary Analysis from AZALEA-TIMI 71

Siddharth M. Patel, Robert P. Giugliano, David A. Morrow, Bruce Hug, Sanobar Parkar, Shih-Ann Chen, Shaun G. Goodman, Boyoung Joung, Robert G. Kiss, Jindrich Spinar, Wojciech Wojakowski, Jeffrey I. Weitz, Dan Bloomfield, Marc S. Sabatine, Christian T. Ruff on behalf of the AZALEA-TIMI 71 Investigators

September 2, 2024





- Management of perioperative anticoagulation is a commonly encountered clinical scenario among patients with AF.
- An estimated ~20% of patients with AF undergo invasive procedures per year, with frequent need for anticoagulation interruption.

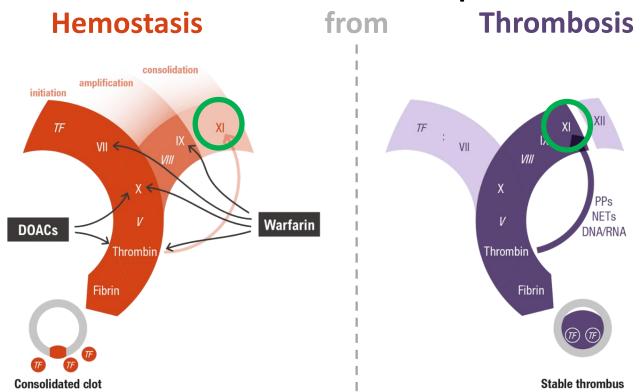
Douketis JD et al. *Chest.* 2022;162(5):e207-243.

Douketis JD et al. JAMA. 2024; doi:10.1001/jama.2024.12708

FXI Inhibition may offer safer anticoagulation



Potential to Uncouple



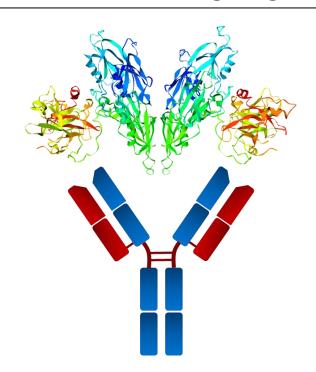
Hsu C, et al. J Am Coll Cardiol 2021;78:625-631

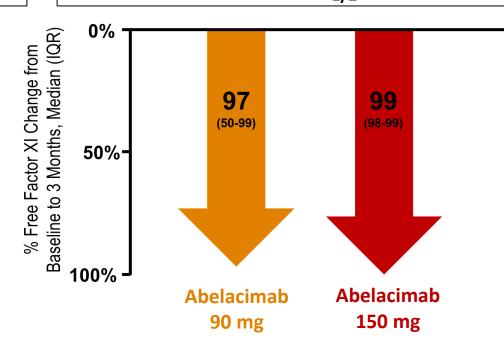
Abelacimab



Monoclonal Ab targeting factor XI

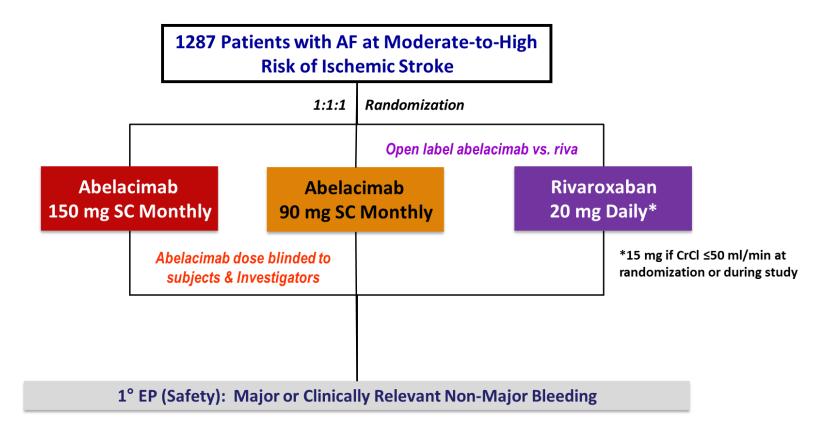






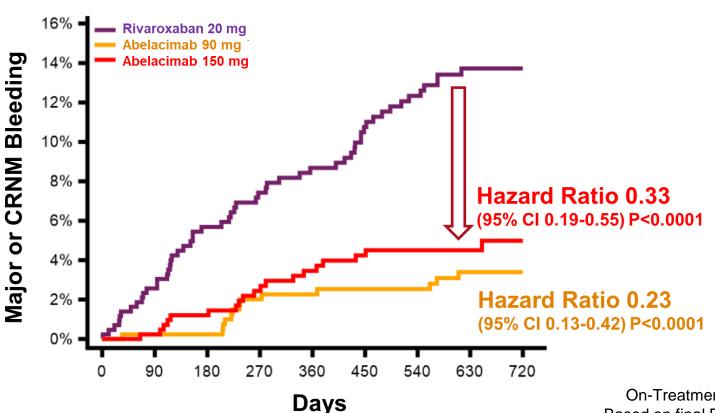
AZALEA-TIMI 71 Trial Design





AZALEA-TIMI 71 Primary Results





On-Treatment Population Based on final DMC Datacut

Objective



To examine periprocedural bleeding among patients undergoing invasive procedures randomized to abelacimab, a long-acting factor XI inhibitor, vs. rivaroxaban in AZALEA-TIMI 71

AZALEA Peri-procedural Guidance



| Bleeding Risk | Low Risk | Intermediate-High Risk | Very High Risk | |
|------------------------|---|--|-------------------------------------|--|
| Procedure example | Coronary angiography | Colonoscopy w/ polypectomy | | open thoracic or al surgery |
| Abelacimab guidance | No interruption or therapy | No interruption; consider anti- fibrinolytic (e.g., TXA) pre-procedurally | Elective Interrupt abelacimab | Non-elective Consider anti- fibrinolytic + low- dose rVIIa |
| Rivaroxaban guidance | Interruption per SoC (~24-48h prior to procedure based on CrCl) | | | |

Application of guidance & perceived procedural bleeding risk based on local site's judgement

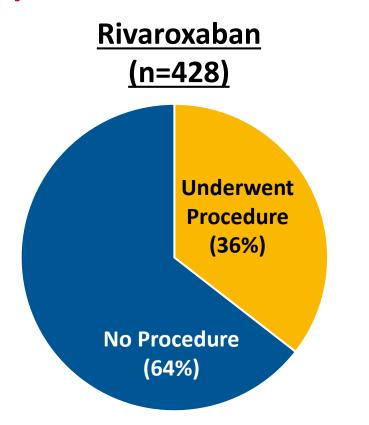
Classification of Procedural and Bleeding Events ***CAZALEA



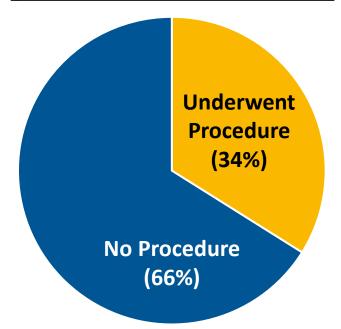
- Procedural bleeding risk was categorized as per the 2017 ACC Periprocedural Management Expert pathway as low, intermediate, or high.
- Periprocedural bleeding events were identified as:
 - Major or CRNM bleeds adjudicated by an independent CEC blinded to treatment assignment
 - Within 30 days of the procedure and classified as related to the procedure

Proportion of Patients with Invasive Procedures





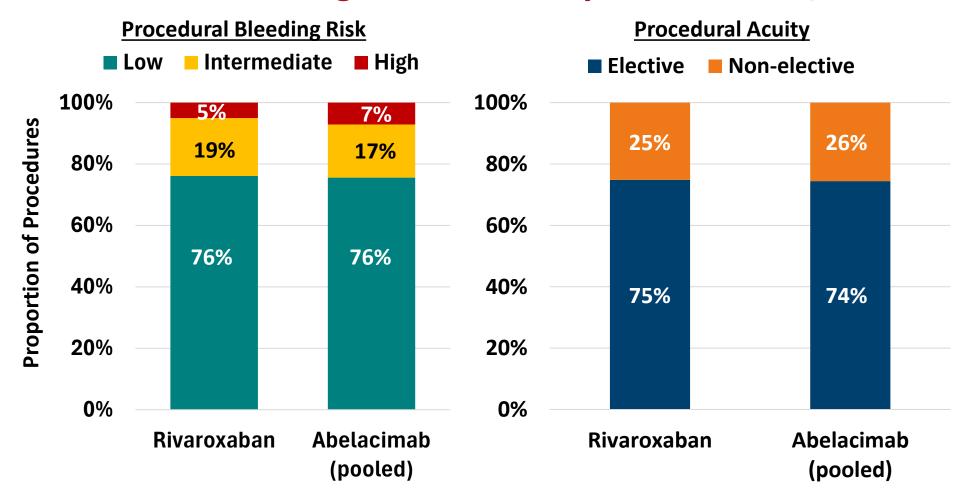
Pooled Abelacimab (blinded to dose; n=852)



Similar proportion in each treatment arm undergoing procedures, with similar baseline characteristics

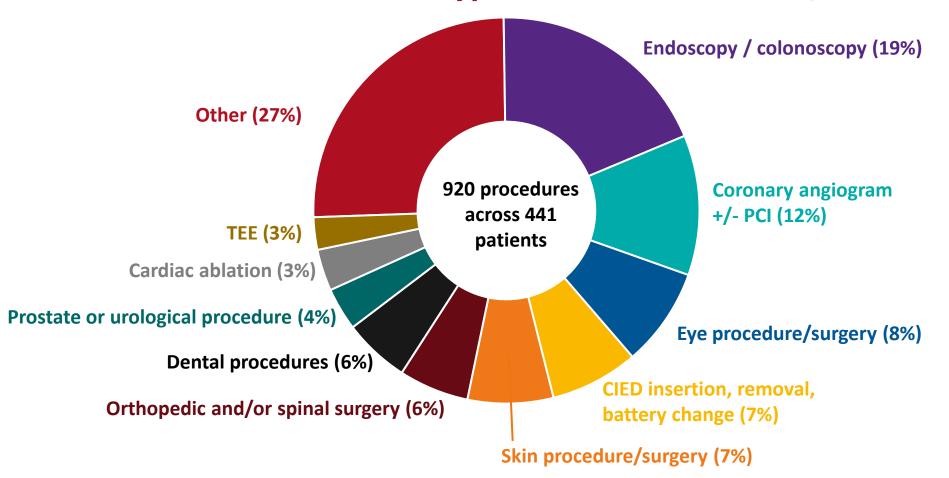
Procedural Bleeding Risk and Acuity





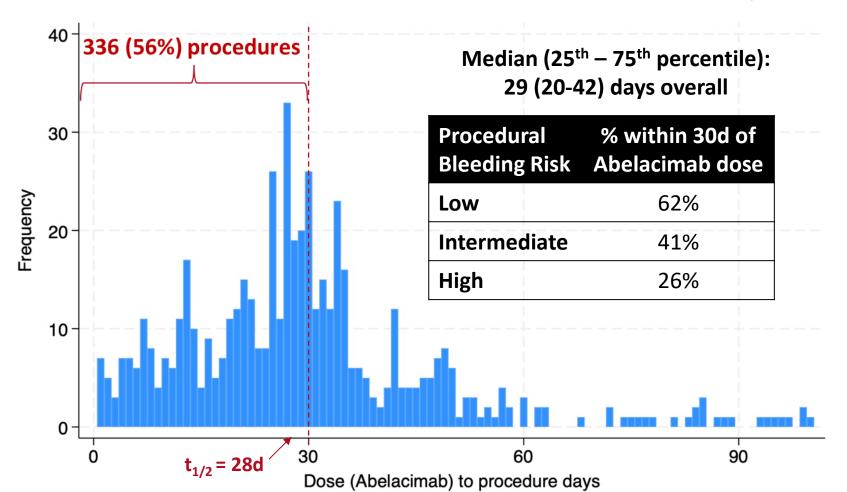
Breakdown of Procedure Types





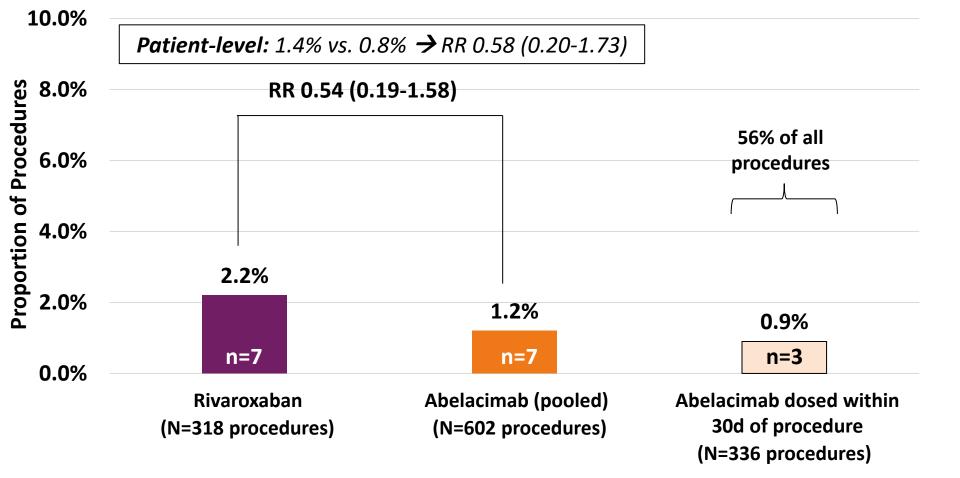
Time from Last Abelacimab Dose to Procedure





Major or CRNM Bleeding (Procedure-level)





Major or CRNM Bleeding by Procedural Risk & Acuity (Procedure level)



| | Proportion (n/N), Rivaroxaban | Proportion (n/N), Abelacimab | | | |
|--------------------------|----------------------------------|---------------------------------|--|--|--|
| Overall | 2.2% (7/318) | 1.2% (7/602) | | | |
| Procedural Bleeding Risk | | | | | |
| Low | 1.2% (3/241) | 0.4% (2/455) | | | |
| Intermediate | 6.6% (4/61) | 2.9% (3/104) | | | |
| High | 0.0% (0/16) | 4.7% (2/43) | | | |
| Procedural Acuity | | | | | |
| Elective | 2.5% (6/238) | 0.9% (4/448) | | | |
| Non-elective | 1.3% (1/80) | 2.0% (3/154) | | | |

Hemostatic Therapies and Transfusions



| | Proportion of Procedures | | |
|---|--------------------------|-----------------------|--|
| Hemostatic Therapy | Rivaroxaban (N=318) | Abelacimab (N=602) | |
| Hemostatic Therapies | 2.5% | 6.6% | |
| Anti-fibrinolytic (e.g., tranexamic acid) | 0.9% | 5.1% | |
| Topical hemostatic agent | 0% | 0.8% | |
| Fresh frozen plasma | 0.9% | 0.2% | |
| Recombinant factor VIIa | 0% | 0% | |
| Other | 0.6% | 0.5% | |

Represents therapies used both pre-/intra-procedurally (>95%) or for bleeding

| Blood Transfusions | 5.3% | 1.2% |
|--------------------|------|------|
|--------------------|------|------|

*AZALEA

Summary

- Invasive procedures are frequent in a contemporary patient population with AF treated with anticoagulation
 - ~1 in 3 patients over median follow-up of 2.1 years
 - Majority (76%) are low bleeding risk
- Very low rates of procedural bleeding overall (<2% of all procedures)
 - Similar rates for abelacimab vs. rivaroxaban (1.2% vs. 2.2%)
- These data suggest routine interruption of anticoagulation may not be necessary for all procedures in the context of FXI inhibition
 - Further data in non-elective/high bleeding risk procedures are necessary