Rapid Recap

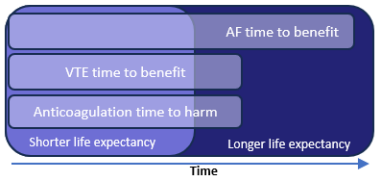
Anticoagulation FORUM | ANTICOAGULATION Centers of Excellence

January 2025

Anticoagulation at the end of life whether, when, and how to treat

Patients with atrial fibrillation (AF) or venous thromboembolism (VTE) often have a high likelihood of death within 1 year of diagnosis. End-of-life poses a unique and complex situation in which guideline recommendations on anticoagulation (AC) deprescribing are scant. Decisions about stopping, starting, or continuing AC must be balanced with the patient's end-of-life priorities. Time-to-benefit and time-to-harm are important in the treatment decision framework, as the time-to-benefit may exceed life expectancy, specifically in the setting of AF. Time-to-harm from bleeding tends to occur near the initiation of anticoagulation. For VTE, the risk of recurrent VTE is highest in the 1st month, dropping in months 2-3, before stabilizing to the patient's baseline.

Rapid Takeaway: End-of-life AC decisions require a delicate assessment of the risks/benefits, and specifically the time to benefit/harm, while keeping the patient's priorities at the forefront.



Hematology Am Soc Hematol Educ Program. 2024 Dec 6;2024(1):348-354

Warfarin and heparin monitoring in antiphospholipid syndrome (APS)

The presence of lupus anticoagulant (LA) in APS can complicate the ability to accurately assess anticoagulant intensity due to the interaction between LA and phospholipid-dependent coagulation tests necessitating alternative strategies for VKA and UFH monitoring (e.g., aPTT, ACT, and the thromboplastin reagent used in INR testing.)

Potential alternatives: For venous INR monitoring, using an LA-insensitive thromboplastin is suitable for most patients with APS. Chromogenic Factor X (CFX) monitoring is LA-independent but not widely available or standardized. Studies have shown conflicting results for POC INR testing in patients with APS. However, if proceeding with POC INR, monitoring is recommended to complete three initial venous vs. POC INR comparisons for concordance and routinely thereafter. The chromogenic anti-Xa assay is not affected by LA and may be necessary for UFH monitoring if the baseline aPTT is prolonged, or if LMWH monitoring is warranted.

Rapid Takeaway: Alternative methods for monitoring anticoagulation intensity, such as CFX, may be needed for patients with APS due to the presence of LA which can interact with phospholipid-dependent coagulation tests.

Hematology Am Soc Hematol Educ Program. 2024 Dec 6;2024(1):192-199

Heparin-Induced Thrombocytopenia (HIT)

Demystifying autoimmune HIT: what it is, when to test, and how to treat

HIT is one of several disorders that is linked to the presence of anti-platelet factor 4 (PF4) antibodies. This article differentiates varied types of thrombocytopenia (TCP), including atypical HIT (aHIT), vaccine-induced thrombocytopenia & thrombosis (VITT), and HIT- and VITT-like disorders.

Rapid Takeaway: The approach to diagnosis and treatment varies between TCP presentations with atypical anti-PF4 antibodies as compared to classical HIT. Collaboration between laboratory medicine and medical clinicians is essential for optimizing patient care and anticoagulation stewardship.

Hematology Am Soc Hematol Educ Program. 2024 Dec 6;2024(1):403-408

Additional Classifications of Autoimmune HIT

aHIT: *Atypical HIT*
Heparin independent and/or dependent anti-PF4 antibodies.
TCP begins or persists in the absence of heparin.
Use alternate anticoagulant +/- IVIG.

VITT
Heparin independent anti-PF4 antibodies.
Related to adenoviral vaccine.
Consider plasma exchange or IVIG.

HIT-like disorder
Spontaneous HIT
Heparin independent anti-PF4 antibodies.
No immunizing heparin exposure.

VITT-like disorder
Spontaneous VITT
Heparin independent anti-PF4 antibodies; 50% infection related.
Requires immunosuppressive therapy.

Severe phenotypes- require IVIG or plasma exchange

Approaches to management of HIT in complex scenarios, including cardiac surgery

Scenarios complicated by HIT include the management of patients undergoing cardiac surgery, refractory HIT, and acute bleeding. This article summarizes the limited evidence for managing patients in these scenarios.

- ***Cardiac surgery:*** Unfractionated heparin (UFH) is preferred when cardiopulmonary bypass (CPB) is utilized due to increased risks for thrombus formation. In HIT, a non-heparin anticoagulant is the preferred strategy in urgent/emergent cardiac surgery, although other options include therapeutic plasma exchange (TPE) (+/- IVIG) or platelet inhibition with a potent antiplatelet prior to UFH re-exposure.
- ***Refractory HIT:*** Defined as a prolonged thrombocytopenia (>1 week) or progressive thrombosis despite discontinuing heparin and initiating a non-heparin anticoagulant. Case reports suggest a role for IVIG in refractory HIT. In patients who are unresponsive to IVIG, TPE may be considered, or rituximab as a salvage immunosuppressant.
- ***Active Bleeding:*** Platelet transfusions should generally be avoided due to an increased thrombosis risk, though could be considered for life-threatening bleeds after weighing risks versus benefits.

Rapid Takeaway: A multi-disciplinary, patient-specific approach is necessary to manage HIT in complex scenarios.

Hematology Am Soc Hematol Educ Program. 2024 Dec 6;2024(1):396-402

For additional information on navigating the complex decisions in managing HIT, review: A Practical guide to the diagnosis and management of heparin-induced thrombocytopenia.

Anticoagulation Stewardship

Anticoagulation stewardship in the ambulatory settings of long-term care (LTC) and rehabilitation centers (RC) – A multi-centric descriptive pilot study

Design: Prospective pilot study in 3 RC and 7 LTC facilities over 5 months to assess the feasibility of a pharmacist-led Anticoagulation Stewardship Program.

Results: 411 patients enrolled, largely DOAC users (n=309, 75.2%). Of these, 93 led to at least one intervention (22.6%, total= 100.) Interventions were primarily lab ordering (n=29) and DOAC dose adjustment (n=24). This was significantly greater than the prespecified feasibility threshold of 15% (z=4.33, p (2-tailed) < 0.001). By healthcare setting, more prescriptions requiring intervention were found in LTC facilities at 28.9%, significantly exceeding the feasibility threshold (z=5.835, p <0.001). Conversely, the reviews needing intervention in RC were numerically higher than the feasibility threshold at 15.1% but did not reach statistical significance (z=0.21, p=0.98).

Rapid Takeaway: This study demonstrates the value in anticoagulation-specific trained pharmacists providing interventions to anticoagulation medications via anticoagulation stewardship in the outpatient settings of LTC and RC.

Thromb Res. 2025 Jan;245:109238

Assessing the Impact of Consultant Pharmacist-Directed Anticoagulation Management in the Post-Acute and Long-Term Care (PALTC) Setting

Design: Retrospective observational cross-sectional study of aggregate data from the American Society of Consultant Pharmacists Quality Improvement Project to assess the impact of pharmacist-directed anticoagulation (AC) management in the PALTC setting specifically by pharmacists with additional anticoagulation specialty knowledge.

Results: Of the 274 patients taking any dose of AC, 173 (63%) were found to have an AC regimen–related problem. A total of 216 pharmacist recommendations were sent to providers - 190 (88%) were accepted and completed. The most common interventions were dose decrease (35%), medication discontinuation (31%), and dose increase (14%).

Rapid Takeaway: This study echos the results found in previous studies, as well as MAQI^2, demonstrating the value of pharmacist-directed management to optimize AC regimens while minimizing adverse events.

Sr Care Pharm. 2024 Oct 1;39(10):382-392

Check out these additional publications!

The 2024 European Society of Cardiology Guidelines for Diagnosis and Management of Atrial Fibrillation: A Viewpoint from a Practicing Clinician's Perspective

And, visit the AC Forum Literature Library for additional publications from Hematology, ASH Education Program that are relevant to antithrombotic management

Comprehensive summaries of the most impactful articles from our biweekly literature updates. Includes a short overview and pub med link along with important takeaways from the article. Rapid Recaps are published monthly.

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