

Clopidogrel (Plavix) is NOT an Anticoagulant

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Did you know that there are two different classes of Antithrombotic Drugs? In fact, there are antiplatelets and anticoagulants! Antiplatelet agents **prevent** platelets from clumping and **prevent** clots from forming and growing. The very first antiplatelet medication was aspirin. Over the years, additional antiplatelet medications have been developed such as clopidogrel (Plavix), dipyridamole (Attia), and abciximab (ReoPro).

Anticoagulant drugs act to **slow down clotting**, thereby reducing fibrin formation and preventing clots from forming and growing. Heparin was one of the first anticoagulants discovered. Like antiplatelet medications, additional anticoagulant medications have expanded and include medications such as warfarin (Coumadin), rivaroxaban (Xarelto), dabigatran (Pradaxa), apixaban (Eliquis), and many more.

Many people across the State of Maine and nationwide often misunderstand the meaning of antithrombotic drugs or assume that antiplatelet and anticoagulant medications are interchangeable.

When EMS clinicians are unaware or use antithrombotic drugs interchangeably it has the potential to greatly affect a patient's treatment. Clopidogrel (Plavix) is a common medication that many Mainers take, and it is an antiplatelet medication. As mentioned before this antiplatelet medication **inhibits platelet aggregation** thus preventing platelets in your blood from coming together and forming clots. While antiplatelet and anticoagulant medication often target similar conditions and can be used in conjunction with each other, they do have different impacts on stroke care.

Pre-hospital EMS clinicians should be utilizing stroke assessment tools on all patients who have stroke-like symptoms. Also, pre-hospital EMS clinicians should be communicating their concerns to the receiving facility often with a "code stroke" activation if the clinician is suspicious of the presence of a stroke. One tool that is utilized in helping determine the appropriate destination and treatment path is the "stroke checklist". This checklist contains three major items:

- Has the patient had any recent trauma, surgeries, or procedures in the last 3 months?
- Has the patient had any bleeding problems in the past?
- Is the patient taking any anticoagulants, including oral or injectable medications?

These three questions within the Maine EMS Protocol Stroke Checklist help determine a patient's eligibility for thrombolytic, or "clot-busting" medication. If pre-hospital clinicians are incorrectly identifying a medication like clopidogrel (Plavix), it can increase the time to appropriate care specifically door-to-CT time. As the old saying goes, time is brain so every second counts! Please remember clopidogrel (Plavix) is not an anticoagulant and should not be communicated as such. Clopidogrel (Plavix) is an antiplatelet medication.

If this is something you already know, then please share it with your fellow clinicians. If this is NEW to you, then you, too should share the information with your friends!

Ashley Moody is the Systems of Care Coordinator for Main EMS. This paper was excerpted from the blog on the Maine Stroke Alliance Website 20 Sep 2023 - <https://www.mainestroke.org/blog>