## Should secondary stroke prevention of vascular diseases include NOAC's in addition to aspirin? - No

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Antithrombotics (AT), in particular antiplatelet (AP) agents, are first line treatment in secondary stroke prevention. AP includes ASA, clopidogrel and dipyridamole (which can augment ASA effect with sustained release dipyridamole [Aggrenox]). The anticoagulant (AC) group includes warfarin and NOAC's. AP treatment prescribes first for more than 75% of patients, as it blocks the coagulation cascade initiated by endothelial injury in brain arteries affected by atherosclerosis processes In cardio-embolic, venous thrombosis& coagulation abnormalities, AC's are more effective- therefore used as first line. Arterial disease warfarin was inferior to ASA, with more bleedings, not recommended as an alternative. The NOAC group has lower bleeding rates. The addition of low dose Rivaroxaban (5mg/day) to 100mg ASA in patients with stable (atherosclerotic) cardiovascular disease (CVD) was more effective in the composite outcome than ASA alone, associated with higher bleeding rates. Rivaroxaban alone wasn't superior to ASA alone and with similar higher bleeding risk. Triple AT combination in AF patients who need coronary artery stent insertion is a matter of debate; attempts to reduce duration or to convert to dual therapy are ongoing, in part successful. Thus, even with NOAC's bleeding rates raise concern and its addition to AP remains problematic. Adopting this strategy for stroke patients may be hazardous at present. Another approach was to compare NOAC to ASA for patients with cryptogenic strokes, yet only for those with embolic type. These strokes are called embolic stroke of unknown source (ESUS). However, one of the 2 studies, still recruiting, was prematurely stopped for futility.