Initiation/Resumption of Anticoagulation after Hemorrhagic Stroke

Consider the **risks** and **benefits**

Risk of recurrent hemorrhagic stroke

HAS-BLED can be used if you are concerned about the risk of **SYSTEMIC** bleeding, but it **NOT** useful at predicting the risk of hemorrhagic stroke

Location of the intracranial bleeding:
ICH: lobar is higher risk than deep
SAH: aneurysms must be secured
SDH: if traumatic, factors leading to trauma must be addressed

Review **medications**, compliance and monitoring prior to the ICH:

- Was pt over anticoagulated at the time of the bleed? (ex: INR > 3.0, DOAC in pt with renal insufficiency) Were they being appropriately monitored/dose adjusted?
- Was the patient also on antiplatelet agents? If so, is that necessary (i.e. recent coronary stent placement)
- Was the patient on NSAIDs or SSRIs? Do they need to be?
- Was the patient taking any supplements (ex: gingko biloba, ginseng, St. John's wort) that can increase risk of bleeding?

Risk of thrombotic event

Indication for AC:

- Mechanical valve: mitral position is higher risk than aortic position
- AF: assess risk with CHADS-VASc Score
- DVT/PE: assess risk with Geneva Score

For AF:
Consider **WATCHMAN** device placement if pt a good candidate (discuss with cardiology)

Prior to initiation/resumption of AC:

Blood pressure MUST be controlled

The patient must be medically stable

There should be no procedures planned in the immediate future (PEG tube placement, EVD removal, etc.)

Fall risk should be assessed and addressed (PT, home health visit, avoid polypharmacy, correct orthopedic issues, address vision problems, provide walking assist devices, etc.

Counselling should be provided to avoid excess alcohol/other intoxication
May chose **not** to initiate/resume anticoagulation in the setting of uncontrolled alcohol or drug use

Choice of anticoagulant:

- DOACs have equivalent efficacy as warfarin with a lower risk of ICH and are preferred over warfarin for the prevention of stroke in AF if there are no other reason to chose warfarin
- DOACs will result in therapeutic anticoagulation within hours of taking a first dose, vs. warfarin which takes 3-5 days

Medications should be reviewed for polypharmacy, antiplatelets, NSAIDs, SSRIs and supplements and adjusted to reduce bleeding risks

Suggestion for timing of initiation/resumption of anticoagulation following hemorrhagic stroke

If it is decided that initiation/resumption of anticoagulation is the best option for a patient:

- The timing should be approximately **2-4 weeks** following stabilization of the hemorrhage à
  - At ~ 2 weeks for high thrombosis low hemorrhage risk patients
  - At ~ 3 weeks for intermediate risk for either thrombosis or hemorrhage
  - At ~ 4 weeks for the low thrombosis high hemorrhage risk patients