THE TABLET:
PALLIATIVE CARE PHARMACY TIPS

Palliative Care Pharmacy Team:

Clinical Pharmacy Specialist:

Maria Felton Lowry, PharmD, BCPS, BCGP
Assistant Professor
University of Pittsburgh School of Pharmacy, Department of Pharmacy and Therapeutics
Palliative
Care Clinical Pharmacy Specialist
UPMC Palliative and Supportive Institute

Cell: 412-627-8473
Office: 412-864-2899
Email: lowrymf@upmc.edu

If you have a topic you would like the pharmacy team to answer, please send your suggestions to: lowrymf@upmc.edu

TODAY'S TOPIC:
Atrial Fibrillation, Functionality, and Anticoagulation

Background:
Older patients are commonly prescribed anticoagulants for stroke prevention and these anticoagulants are oftentimes continued through the last 6 months of life. For older adults with Atrial Fibrillation (AF), we have risk assessment tools to guide our therapeutic decisions on when to (CHA2DS2-VASC) and when not to (HASBLED) use anticoagulation in this population. The prevention of strokes not only improves mortality outcomes, but also preserves functional independence.

Importance:
In our population, utilizing anticoagulation to prevent strokes may preserve functionality and thus retain quality of life. We balance risk versus benefit of our pharmacologic decisions to assist with determining prescribing appropriateness or the opportunity to deprescribe to reduce pill burden. Palliative care clinicians should be aware of data outcomes that may supplement mortality benefit, focusing more specifically on quality of life for our patients to help guide our decisions for each individual patient.

The Literature:
We know that anticoagulation helps prevent strokes in patients with A Fib (average time to benefit ~3 months)... but also know that with anticoagulation comes a risk of bleeding

Cochrane Database Syst Rev. 2005 Jul 20;(3):CD001927.
Oral Anticoagulants for preventing stroke in patients with non-valvular atrial fibrillation and no previous history of stroke or transient ischemic attacks

Warfarin:

Number Needed to Treat (Stroke)	25
Number Needed to Treat (All-cause mortality)	42
Number Needed to Harm (bleeding)	25
Number Needed to Harm (intracranial hemorrhage)	384

Yes, this might be "older" data pertaining to warfarin; these numbers may differ slightly for DOACs

We use CHA2DS2-VASC and HASBLED to help guide our risk-benefit decision for patients.

CHA_2DS_2-VASc	Score	HAS-BLED	Score
Congestive heart failure	1	Hypertension (systolic blood pressure >160 mm Hg)	1
Hypertension	1	Abnormal renal and liver function* (1 point each)	1 or 2
Age ≥75 y	2	Stroke	1
Diabetes mellitus	1	Bleeding tendency/predisposition*	1
Stroke/TIA/TE	2	Labile INRs (if on warfarin)*	1
Vascular disease (prior MI, PAD, or aortic plaque)	1	Elderly (eg, age >65 y)	1
Aged 65 to 74 y	1	Drugs or alcohol (1 point each)*	1 or 2
Sex category (ie, female sex)	1		
Maximum score	9	Maximum score	9

We typically anticoagulated patients with "low" scores on the CHA2DS2-VASC. It is important to note that patients with a score of 0 have annual ischemic stroke risk of < 1%, and those with score of 9 (max score) have annual risk of 15.2% (Circulation. 2014;130:e199–e267).

It is important to consider annual stroke risk for our patients with life expectancy < 1 year and for those with life expectancy >1 year, it is also important to note that risk of stroke is cumulative in AF.

So what are we trying to prevent for our patients- mortality or decreased functionality? We know that strokes typically have an immediate impact on decreasing functionality, but how does this compare in the long-term? Read on...

J Am Geriatr Soc. 2021 Jun;69(6):1570-1578.
Long-term individual and population functional outcomes in older adults with atrial Fibrillation

Objective: Understand the longitudinal course of independence of older patients with AF and whether and to what degree stroke affects their long-term trajectory.

Methods: Adults ≥ 65 years old (n = 3530)

Outcomes: Effect of strokes on activities of daily living (ADL) impairment, instrumental activities of daily living (IADLs) impairment, and community dwelling. Independence defined as not requiring assistance with any ADLs or IADLs

Results:
- Mean age: 79 years old
- Average follow up time 4.9 years
- Average time to stroke was 2.8 years after diagnosis of AF
- Absolutely likelihood of ADL independence decreased by 4.4% per year, regardless of stroke.
- Stroke was associated with decrease in the predicted likelihood of independence from 58% to 27%.
- Stroke was not associated with a change in the baseline rate of decline in ADL independence
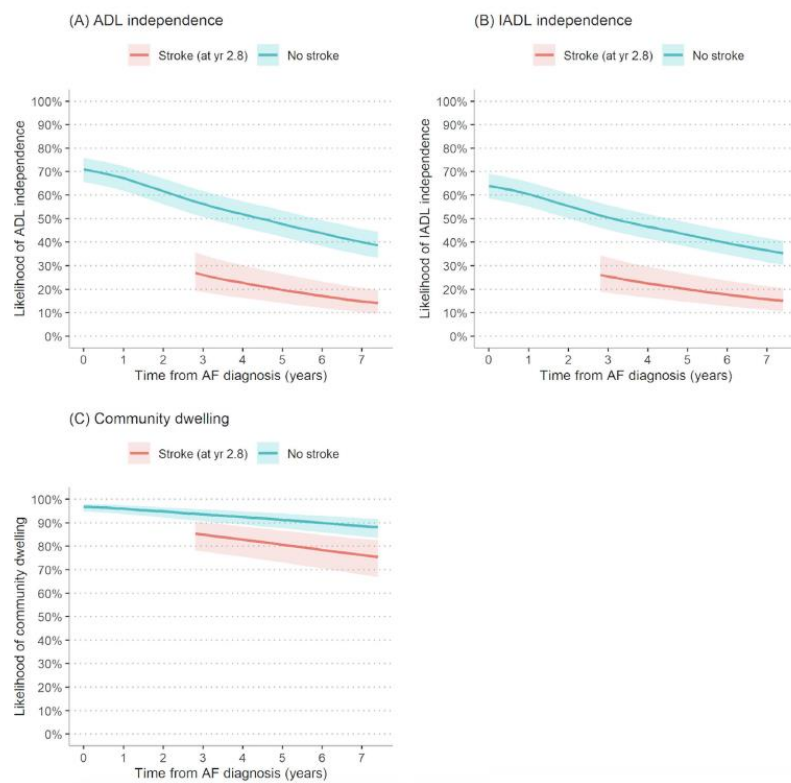
CLINICAL PEARL: There is no guideline for discontinuing anticoagulation in patients with A Fib. Continue to weigh patient-specific factors including goals of care (functionality), and risks and benefits, when making the decision to continue or deprescribe anticoagulation in this population.

(A) ADL independence

(B) IADL independence

(C) Community dwelling

Results continued:
- Absolute likelihood of IADL independence decreased by 3.9% per year. Stroke was associated with a decrease in the likelihood of IADL independence from 52% to 26%.
- Stroke was not associated with change in the baseline annual rate of decline in IADLs independence.

Discussion:
- Older adults with AF experience a significant loss of function over time, even in those who did not suffer a stroke
- Strokes were associated with an immediate and substantial decline in function and increase in the likelihood of nursing home move
- In the years following a stroke, loss of independence did not accelerate

Conclusion:
- "Long-term functional decline was common in older adults with AF, and mostly occurred in the absence of stroke"
- Older adults with AF acquire disabilities through multiple mechanisms

JAMA Intern Med. 2021 May 10;e211819.
Anticoagulant use for Atrial Fibrillation Among Persons with Advanced Dementia at End of Life

Objective: How often anticoagulation is continued among nursing home residents in the final stage of life and to examine clinical associations of use

Methods: Cross-sectional study of NH residents $\geq$ 65 yo with advanced dementia and AF (n=15217) with CHA_2DS_2-VASC $\geq$ 2; those with diagnosis of VTE or mechanical valves excluded. ATRIA (bleeding risk) and CHA_2DS_2-VASC (stroke risk)utilized as risk assessment tools

Results: Mean age 87.5; 33.1% received AC in last 6 months of life
- Nursing home length of stay $\geq$ 1 year and not having Medicaid were more strongly associated with anticoagulation use than CHA_2DS_2-VASC score
- Indicators of high short-term mortality were associated with greater odds of AC use: difficulty swallowing, weight loss, pressure ulcers

Conclusion: There is no practice guideline standard for stopping anticoagulation use and it is commonly continued until EOL in patients with dementia and AF

Bottom Line:
- I was hoping for clear advice regarding deprescribing anticoagulation in patients with A Fib
- This topic is tricky and one size does not fit all... although it might be a bit more clear-cut in patients with advanced dementia if by preventing stroke we are really trying to preserve functionality...
- The JAGS paper shows that stroke is not the only contributor to decreased functionality over time in patients with AF
- One must consider the drastic decrease in functionality right after a stroke and what the patient would be willing to accept in terms of QOL if anticoagulation would be discontinued and a stroke would occur.
- Does this drastic decrease in functionality make a difference in patients with advanced dementia, whose functionality is lost because of their underlying dementia...?
- Would consider baseline functional status of the patient (dementia and those without dementia) in the shared decision making for continuing versus discontinuing anticoagulation
- There is no clear-cut answer, and the ultimate bottom line is to weigh risk of stroke, including what outcomes are most important to the patient, versus risk of bleeding using risk assessment tools like CHA_2DS_2-VASC and HASBLED
- If patient has "low risk" of stroke or limited life expectancy, it may align with the patient's or family's goals to deprescribe the anticoagulant

CLINICAL PEARL: There is no guideline for discontinuing anticoagulation in patients with A Fib. Continue to weigh patient-specific factors including goals of care (functionality), and risks and benefits, when making the decision to continue or deprescribe anticoagulation in this population.