Welcome to Telligen's Project ECHO® Series: Anticoagulants in Long-Term Care

What Prescribers and Pharmacists Should Know About Anticoagulant Best Practices

We will get started momentarily

- Using chat, enter your organization and state
- Please complete the poll

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Project ECHO®

A Project ECHO® Series: Anticoagulant Use in Long-Term Care - What Prescribers and Pharmacists Should Know About Anticoagulant Best Practices

Session 3 – Uses for Direct Oral Anticoagulants (DOACs)

August 17, 2023

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Before We Begin

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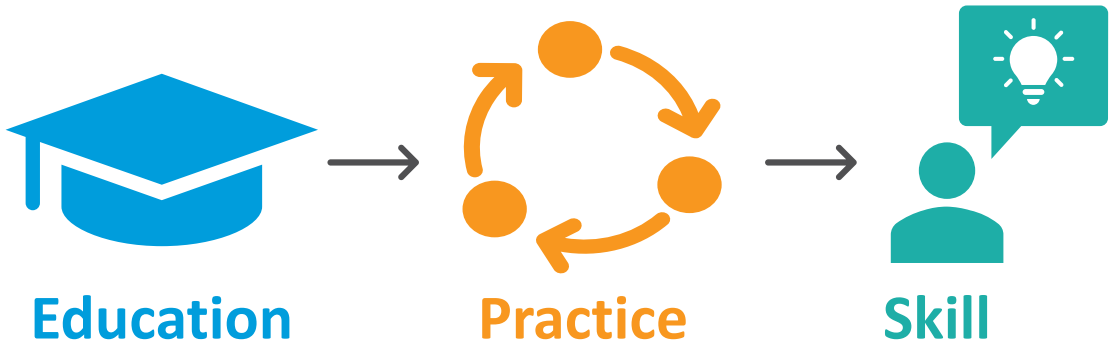
Begin With the End in Mind

During the presentation, visualize and plan how you will use the information:

- What impactful actions can you take as a result of the information shared today?
- How are you able to increase collaboration within your network to ensure a true change in patient safety?
- Based on what you heard today, what activities do you currently have underway that can leverage immediate action over the next week, 30, 60 and 90 days?



Today's Speaker

Keith A. Swanson, Pharm.D.

Associate Professor of Pharmacy Practice

University of Oklahoma College of Pharmacy

Anticoagulation in Long-Term Care: Applying Recommendations and Addressing Risk

Disclosures and Resolution

I have no relevant financial relationships with ineligible companies to disclose.

Data and recommendations presented may include information not included in product labelling.

Presentation Objectives

- Recommend first line anticoagulant therapies in elderly individuals for common conditions and indications
- Compare potential benefit and risk of Direct Oral Anticoagulants (DOACs) against warfarin in individuals with atrial fibrillation
- Suggest situations where continued or combination use of anticoagulants may be associated with significant risk in elderly individuals

Presentation Goals and Expectations

- Brief summary of anticoagulation recommendations
  - Cardiovascular specialty recommendations
  - Geriatric specialty recommendations
- Data regarding combination anticoagulant therapy risks
- Addressing decision points in advanced age and increased frailty

Current Anticoagulant Recommendations for AFIB in Elderly Individuals

- Significant changes and updates in recent years
  - Adoption of DOACs over warfarin in most situations
  - Warfarin still recommended in specific situations

Recent Guidelines for Managing Patients with AFIB

- Term ‘nonvalvular AF’ is no longer used
- DOACs (NOACs) excluded in moderate to severe mitral stenosis or mechanical heart valve replacement
- Dabigatran, rivaroxaban, edoxaban not recommended in end-stage chronic kidney disease
- DOACs recommended over warfarin in chronic AFIB/flutter – except where contraindicated

2019 AHA/ACC/HRS Focused Update of the 2014 Guideline for Management of Patients with Atrial Fibrillation

Recent Guidelines for Managing Patients with AFIB

- Anticoagulants recommended in AFIB with CHA_2DS_2-VASc score of 2 (men) or 3 (women)
- INR to monitor warfarin activity recommended at least weekly initially or with dose change, then monthly when stable at target (2-3)
- Reevaluate use and choice of anticoagulation periodically based on stroke and bleeding risks
- Adjust selection and doses of DOACs in renal insufficiency

2019 AHA/ACC/HRS Focused Update of the 2014 Guideline for Management of Patients with Atrial Fibrillation

Recent Guidelines for Managing Patients with AFIB

- Anticoagulation recommended in patients with AFIB and ACS unless bleeding risk exceeds expected benefit
  - Clopidogrel recommended over prasugrel in triple therapy (DOAC/warfarin + ASA + $P2Y_{12}$ Inh)
  - Double therapy for AFIB post-stinting recommendations include $P2Y_{12}$ Inh + warfarin or clopidigrel + low dose rivaroxaban or dabigatran vs. triple therapy
  - Consider transitioning from triple therapy to double therapy after 4-6 weeks

2019 AHA/ACC/HRS Focused Update of the 2014 Guideline for Management of Patients with Atrial Fibrillation

Evolving Recommendations for Managing AFIB and ACS

Example:

- Recent trial evaluating rivaroxaban monotherapy vs. dual therapy with a single antiplatelet agent in AFIB with ACS at least 1 year post PCI or CABG
- Trial stopped early (increased mortality with combination therapy)
  - Monotherapy non-inferior event rate (4.14% vs. 5.75%; HR 0.72 [95% CI 0.55 to 0.95])
  - Increased safety with monotherapy with reduced event rate (1.62% vs. 2.76% ; HR 0.59 [95% CI 0.39 to 0.89])

Yesuda S, et al. N Engl J Med 2019;381:1103-13.

Assessing Bleeding Risk with Anticoagulation

- Typical risk assessment using HAS-BLED scoring rubric
- Newer guidelines from Royal College of Physicians recommend ORBIT Bleeding Risk Score for Atrial Fibrillation (ORBIT Bleeding Risk Score for Atrial Fibrillation (mdcalc.com) based on higher accuracy in predicting absolute bleeding risk
- Increased risk
  - Uncontrolled HTN
  - Concurrent medications (antiplatelets, SSRIs, NSAIDS)
  - Harmful alcohol consumption
  - Reversible causes of anemia

Bleeding Risk with Combination Anticoagulation Therapies

- Warfarin alone:
  - 2-fold estimated risk of hemorrhagic complications
  - Major bleeding risk 0.3% to 0.5% per year
  - Risk higher with venous thromboembolism than with AFIB
  - 2-fold increased risk with INR >3.0 vs. INR between 2.0 and 3.0
- Warfarin plus ASA:
  - Hemorrhage risk HR: 2.5 [95% CI 1.7 to 3.7]

Shoeb M & Fang MC. J Thromb Thrombolysis. 2013 April ; 35(3): 312–319

Bleeding Risk with Combination Anticoagulation Therapies

- Case control study of over 23,000 new DOAC users
- Major bleeding events in 393 out 23492 treated patients (1.67%)
- Increased risk with concomitant use of antiplatelet agents and SSRIs [OR 1.92; (95% CI, 1.40–2.66)]
  - Antiplatelets: OR 2.01 (95% CI, 1.29–3.11)
  - SSRIs: OR 1.68 (95% CI, 1.10–2.59)
  - Inadequate numbers to assess ‘triple’ therapy

Zhang Y, et al. Br J Clin Pharmacol 2020;86:1150-1164.

Selection of Anticoagulants in Older Individuals

(Applying the 2023 AGS Beers Criteria for Potentially Inappropriate Medications)

Aspirin for primary prevention of cardiovascular disease	Risk of major bleeding from aspirin increases markedly in older age. Studies suggest a lack of net benefit and potential for net harm when initiated for primary prevention in older adults. There is less evidence about stopping aspirin among long-term users, although similar principles for initiation may apply. *Note:* Aspirin is generally indicated for secondary prevention in older adults with established cardiovascular disease.

Excerpts from the Updated 2023 AGS BEERs Criteria for Potentially Inappropriate Medications

Selection of Anticoagulants in Older Individuals

(Applying the 2023 AGS Beers Criteria for Potentially Inappropriate Medications)

Warfarin for the treatment of nonvalvular atrial fibrillation or venous thromboembolism (VTE)	Compared with DOACs, warfarin has higher risks of major bleeding (particularly intracranial bleeding) and similar or lower effectiveness for the treatment of nonvalvular atrial fibrillation and VTE. DOACs are thus the preferred choice for anticoagulation for most people with these conditions. For older adults who have been using warfarin long-term, it may be reasonable to continue this medication, particularly among those with well-controlled INRs (i.e., >70% time in the therapeutic range) and no adverse effects.

Excerpts from the Updated 2023 AGS BEERs Criteria for Potentially Inappropriate Medications

Selection of Anticoagulants in Older Individuals

(Applying the 2023 AGS Beers Criteria for Potentially Inappropriate Medications)

Rivaroxaban for long-term treatment of nonvalvular atrial fibrillation or venous thromboembolism (VTE)	At doses used for long-term treatment of VTE or nonvalvular atrial fibrillation, rivaroxaban appears to have a higher risk of major bleeding and GI bleeding in older adults than other DOACs, particularly apixaban.[c] Rivaroxaban may be reasonable in special situations, for example when once-daily dosing is necessary to facilitate medication adherence. All DOACs confer a lower risk of intracranial hemorrhage than warfarin.[c]

Excerpts from the Updated 2023 AGS BEERs Criteria for Potentially Inappropriate Medications

STOPPFrail Criteria

Table 1. STOPPFrail Criteria

STOPPFrail is a list of potentially inappropriate prescribing indicators designed to assist physicians with stopping such medications in older patients (≥65 y) who meet *all* of the criteria listed here:

1. End-stage irreversible pathology
2. Poor 1-year survival prognosis
3. Severe functional or severe cognitive impairment or both
4. Symptom control is the priority rather than prevention of disease progression

Section A: General

A1: Any drug that the patient persistently fails to take or tolerate despite adequate education and consideration of all appropriate formulations.

A2: Any drug without a clear clinical indication.

Section B: Cardiology System

B1: Lipid lowering therapies (statins, ezetimibe, bile acid sequestrants, fibrates, nicotinic acid, and acipimox)

These medications need to be prescribed for a long duration to be of benefit. For short-term use, the risk of ADEs outweighs the potential benefits

B2: α-Blockers for hypertension

Stringent blood pressure control is not required in very frail older people. α-Blockers in particular can cause marked vasodilatation that can result in marked postural hypotension, falls, and injuries

764 CURTIN ET AL. APRIL 2020-VOL. 68, NO. 4 JAGS

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Section C: Coagulation System

C1: Antiplatelets

Avoid antiplatelet agents for primary (as distinct from secondary) cardiovascular prevention (no evidence of benefit)

Section D: Central Nervous System

D1: Neuroleptic antipsychotics

Aim to reduce dose and discontinue these drugs in patients taking them for > 12 wk if there are no current clinical features of BPSD

D2: Memantine

Discontinue and monitor in patients with moderate to severe dementia, unless memantine has clearly improved BPSD (specifically in frail patients who meet the criteria above)

Section E: Gastrointestinal System

E1: Proton pump inhibitors

Proton pump inhibitors at full therapeutic dose ≥8/52, unless persistent dyspeptic symptoms at lower maintenance dose

E2: H_2 receptor antagonist

H_2 receptor antagonist at full therapeutic dose for ≥8/52, unless persistent dyspeptic symptoms at lower maintenance dose

E3: Gastrointestinal antispasmodics

Regular daily prescription of gastrointestinal antispasmodics agents unless the patient has frequent relapse of colic symptoms because of high risk of anticholinergic side effects

Section F: Respiratory System

F1: Theophylline

This drug has a narrow therapeutic index, requires monitoring of serum levels, and interacts with other commonly prescribed drugs putting patients at an increased risk of ADEs

F2: Leukotriene antagonists (montelukast, zafirlukast)

These drugs have no proven role in COPD; they are indicated only in asthma

The decision to prescribe/not prescribe medications to the patient should also be influenced by the following issues:

1. Drug adherence/compliance is difficult
2. Administration of the medication is challenging
3. Monitoring of the medication effect is challenging
4. Drug adherence/ compliance is difficult

Section G: Musculoskeletal System

G1: Calcium supplementation

Unlikely to be of any benefit in the short term

G2: Antiresorptive/bone anabolic drugs FOR OSTEOPOROSIS (bisphosphonates, strontium, teriparatide, denosumab)

G3: SERMs for osteoporosis

Benefits unlikely to be achieved within 1 year; increased short- to intermediate-term risk of associated ADEs, particularly venous thromboembolism and stroke

G4: Long-term oral NSAIDs

Increased risk of side effects (peptic ulcer disease, bleeding, worsening heart failure, etc) when taken regularly for ≥2 mo

G5: Long-term oral steroids

Increased risk of side effects (peptic ulcer disease, etc) when taken regularly for ≥2 mo. Consider careful dose reduction and discontinuation

Section H: Urogenital System

H1: 5-α reductase inhibitors

No benefit with long-term urinary bladder catheterization

H2: α-Blockers

No benefit with long-term urinary bladder catheterization

H3: Muscarinic antagonists

No benefit with long-term urinary bladder catheterization, unless clear history of painful detrusor hyperactivity

Section I: Endocrine System

I1: Diabetic oral agents

Aim for monotherapy. Target of hemoglobin A1c <8%/64 mmol/mol. Stringent glycemic control is unnecessary

I2: ACE-inhibitors for diabetes

Stop where prescribed only for prevention and treatment of diabetic nephropathy. There is no clear benefit in older people with advanced frailty with poor survival prognosis

I3: ARBs

Stop where prescribed only for prevention and treatment of diabetic nephropathy. There is no clear benefit in older people with advanced frailty with poor survival prognosis

I4: Systemic estrogens for menopausal symptoms

Increases risk of stroke and VTE disease. Discontinue and only consider recommencing if recurrence of symptoms

Section J: Miscellaneous

J1: Multivitamin combination supplements

Discontinue when prescribed for prophylaxis rather than treatment

J2: Nutritional supplements (other than vitamins)

Discontinue when prescribed for prophylaxis rather than treatment

J3: Prophylactic antibiotics

No firm evidence for prophylactic antibiotics to prevent recurrent cellulitis or UTIs

Abbreviations: ACE, angiotensin-converting enzyme; ADE, adverse drug event; ARB, angiotensin receptor blockers; BPSD, behavioral and psychiatric symptoms of dementia; COPD, chronic obstructive pulmonary disease; NSAIDs, nonsteroidal anti-inflammatory drugs; SERMs, selective estrogen receptor modulators; UTI, urinary tract infection; VTE, venous thromboembolism.

Disclaimer (STOPPFrail).

Although every effort has been made to ensure that the potentially inappropriate prescribing criteria listed in STOPPFrail are accurate and evidence based, it is emphasized that the final decision to avoid or initiate any drug referred to in these criteria rests entirely with the prescriber. It is also to be noted that the evidence base underlying certain criteria in STOPPFrail may change after the time of publication of these criteria. Therefore, it is advisable that prescribing decisions should consider current published evidence in support of or against the use of drugs or drug classes described in STOPPFrail.

J Am Geriatr Soc 68:762-769, 2020.

STOPPFrail Criteria

- Recommendations regarding anticoagulation

Section C: Coagulation System

C1: Antiplatelets

Avoid antiplatelet agents for primary (as distinct from secondary) cardiovascular prevention (no evidence of benefit)

J Am Geriatr Soc 68:762-769, 2020.

References

- NICE Guideline. Atrial fibrillation: diagnosis and management. 2021(April). National Institute for Health and Care Excellence and Royal College of Physicians.
- American College of Cardiology. 2019 AHA/ACC/HRS Focused Update of the 2014 Guideline for Management of Patients with Atrial Fibrillation. 10.1016/j.jack.2019.01.011
- Yasuda S, et al. Antithrombotic Therapy for Atrial Fibrillation with Stable Coronary Disease. NEJM 2019;381:1103-13
- Shoeb M and Fang MC. Assessing Bleeding Risk in Patients Taking Anticoagulants. J Thromb Thrombolysis. 2013;35(3):312-319.
- Zhang Y, et al. Risk of major bleeding among users of direct oral anticoagulants combined with interacting drugs: A population-based nested case-control study. Br J Clin Pharmacol 2020;86:1150-1164.
- American Geriatrics Society 2023 updated AGS Beers Criteria for potentially inappropriate medication use in older adults. J Am Geriatr Soc. 2023;1-30.
- Curtin D, Jennings E, Daunt R, et. al. Deprescribing in Older People Approaching End of Life: A Randomized Controlled Trial Using StoppFrail Criteria. J Am Geriatr Soc 68:762-769, 2020.

Addressing Risk and Benefit – A Case Example

- 89 y/o Woman admitted three years ago to a local Assisted Living Facility (ALF)
- Hx:
  - Hip Fx (3 yrs ago)
  - HTN
  - Hyperlipidemia
  - CAD w/CABG (~20 yrs ago)
  - AFIB
  - COPD
  - Dementia
  - Depression

Medications:

- Amlodipine + Losartan + Metoprolol + Digoxin
- Simvastatin + Omega 3
- Clopidogrel + ASA + Apixaban
- Furosemide +KCl
- Famotidine
- Calcium/D + Vit E + Folic Acid
- Fluticasone/Salmeterol
- Memantine
- Fluoxetine + Sertraline

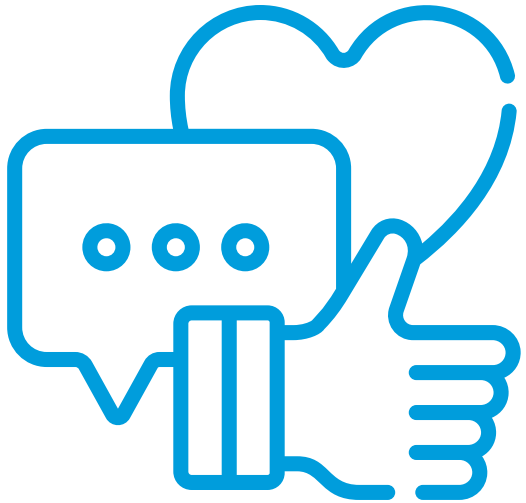
Addressing Risk and Benefit – A Case Example

- Initial thoughts?
- What is the greatest risk to this individual?
- Focusing on anticoagulation –
  - Any specific thoughts?
  - Do you have an estimate of her stroke risk?
  - What if I told you she was admitted last year with an evolving stroke that responded well to acute antithrombotic therapy?
  - What is her risk for a major bleeding episode?
  - Any options to simplify her current ‘triple therapy’?
- What changes are expected with increasing frailty?

Next Steps – Lead into Action

- Review and act on the recommendations for DOACs
- Utilize the information from all three sessions in this series to improve anticoagulant prescribing practices
- Collaborate with long-term care providers to enhance the medication plan of care

How Did We Do? Let Us Know:



Please fill out the poll before logging off

Project ECHO® Series on Anticoagulant Best Practices for **Prescribers and Pharmacists**

- Access session presentations and recordings here!

- ECHO® Session Dates and Topics:
  - Session 1: Introduction to anticoagulant adverse drug events and the impact on long-term care
  - Session 2: Warfarin prescribing practices
  - Session 3: Uses for Direct Oral Anticoagulants (DOACs)

Share this with prescribers and pharmacists who support long-term care facilities

Project ECHO® Series for **Long-Term Care** Medication Management of Blood Thinners

- Register here to attend session 4!
- Access session presentations and recordings here!

- ECHO® Session Topics:
  - Session 1: Introduction to adverse drug events related to anticoagulants
  - Session 2: Anticoagulant adverse drug event recognition and Safety Review Tool
  - Session 3: Communication with residents and representatives
  - Session 4: Communication with prescribers, pharmacists and others outside the facility

Share this series to long-term care providers for process improvements

High-Risk Medication ECHO® Series Resources

Seven sessions to share key information and strategies focusing on medication management, resident safety and quality of care

- Review each session's summary on the website and prioritize improvement needs
- Watch each session recording
- Use the tools and resources
- Implement the call-to-action under each session title

https://www.telligenqiconnect.com/high-risk-medication-echo-series/

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