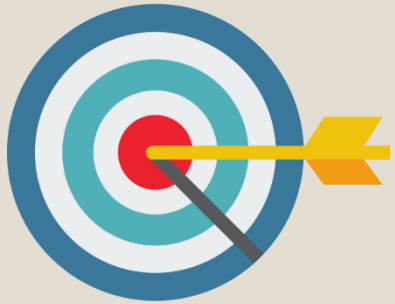
GUIDELINE UPDATE POTPOURRI

Amy Matheny, MD, MPH, FAAFP

2025 Big Mountain Medical Conference
Montana Academy of Family Physicians

Please visit **www.pollev.com/amymatheny324**
to answer questions during the presentation

Our Goals



- Identify a collection of guideline updates over the past year pertinent to primary care practice
- Highlight practical considerations from these updated guidelines
- Identify areas in your practice where you can incorporate these guideline updates or seek out additional information

Disclaimer

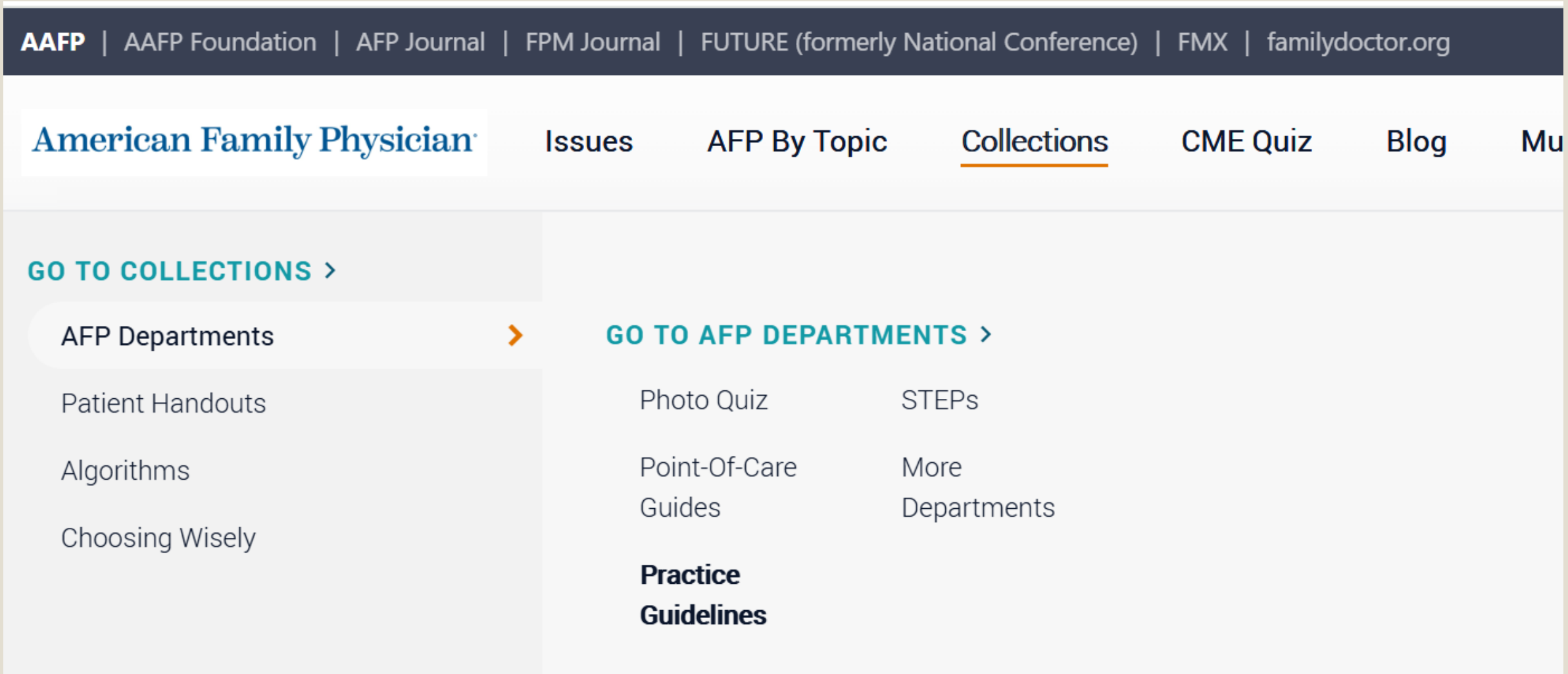
- Each of these guidelines could be a full presentation within itself
- This will be a rapid review with some practical practice points

- My goal is to:
  - Heighten your awareness of the guidelines presented
  - Help you identify goals for additional learning or applications in practice
  - Share helpful resources along the way
  - Hopefully show you something new to inspire new directions in care!

Guideline Updates Galore

What new guidelines will we address today?

- Management of Congestive Heart Failure (AHA/ACC)
- Management of Bipolar Disorder (VA/DoD)
- Doxycycline for Bacterial STI Prevention (CDC)



https://www.aafp.org/pubs/afp.html

G-TRUST GUIDELINE SCORECARD

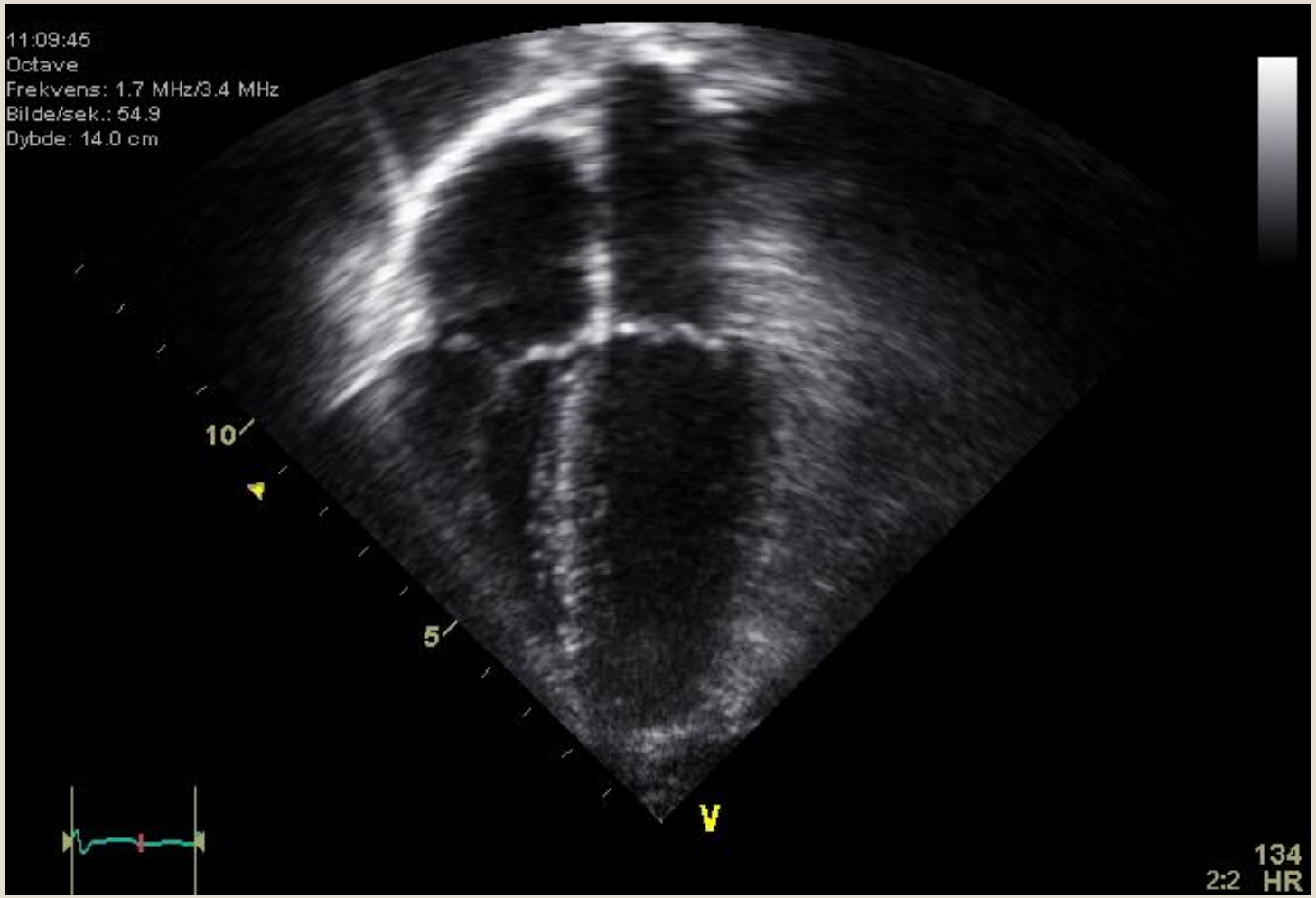
Score	Criteria
Yes	Focus on patient-oriented outcomes
Yes	Clear and actionable recommendations
Yes	Relevant patient populations and conditions
Yes	Based on systematic review
Yes	Evidence graded by quality
Yes	Separate evidence review or analyst in guideline team
Yes	Chair and majority free of conflicts of interest
Yes	Development group includes most relevant specialties, patients, and payers
	Overall – useful

Note: See related editorial, Where Clinical Practice Guidelines Go Wrong, at https://www.aafp.org/afp/gtrust.html.

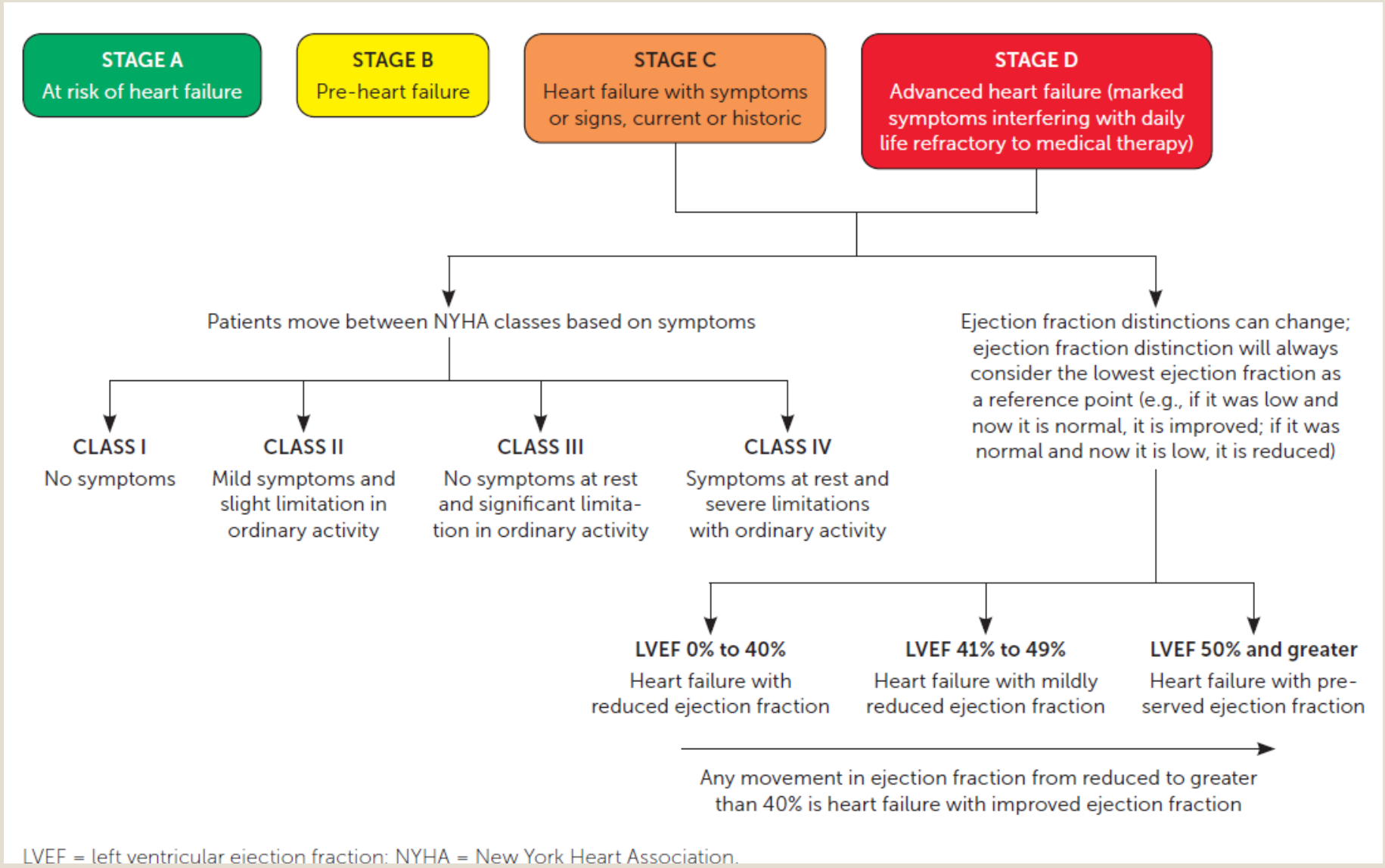
G-TRUST = guideline trustworthiness, relevance, and utility scoring tool.

Ford B. et al. Management of Heart Failure: Updated Guidelines from the AHA/ACC. *Am Fam Physician.* 2023;108(3):315-320

Management of Congestive Heart Failure



Classification Schema



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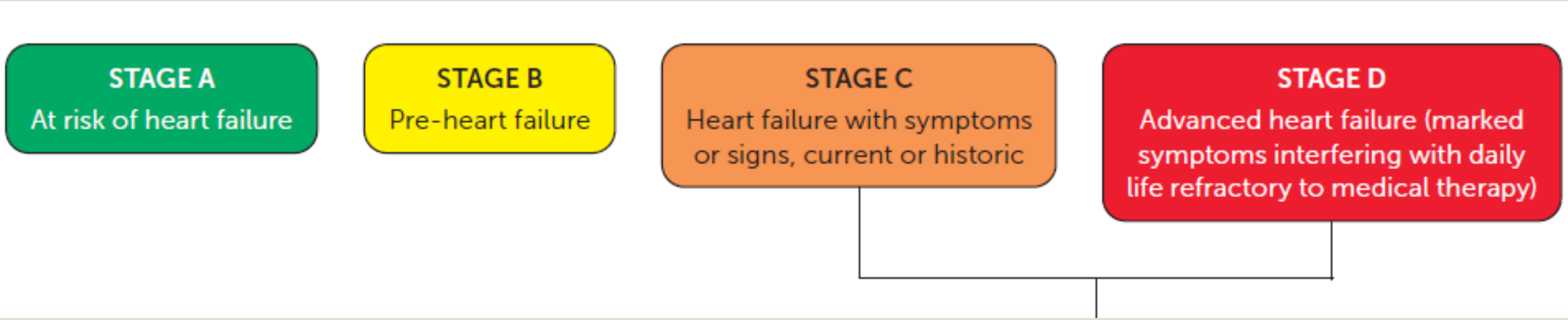

- Stage A: At risk for CHF – HTN, DM, CAD
- Stage B: Structural changes in heart w/o signs/symptoms
- Stage C: Structural changes w/ current or prior symptoms
- Stage D: Advanced, marked symptoms/functional impact

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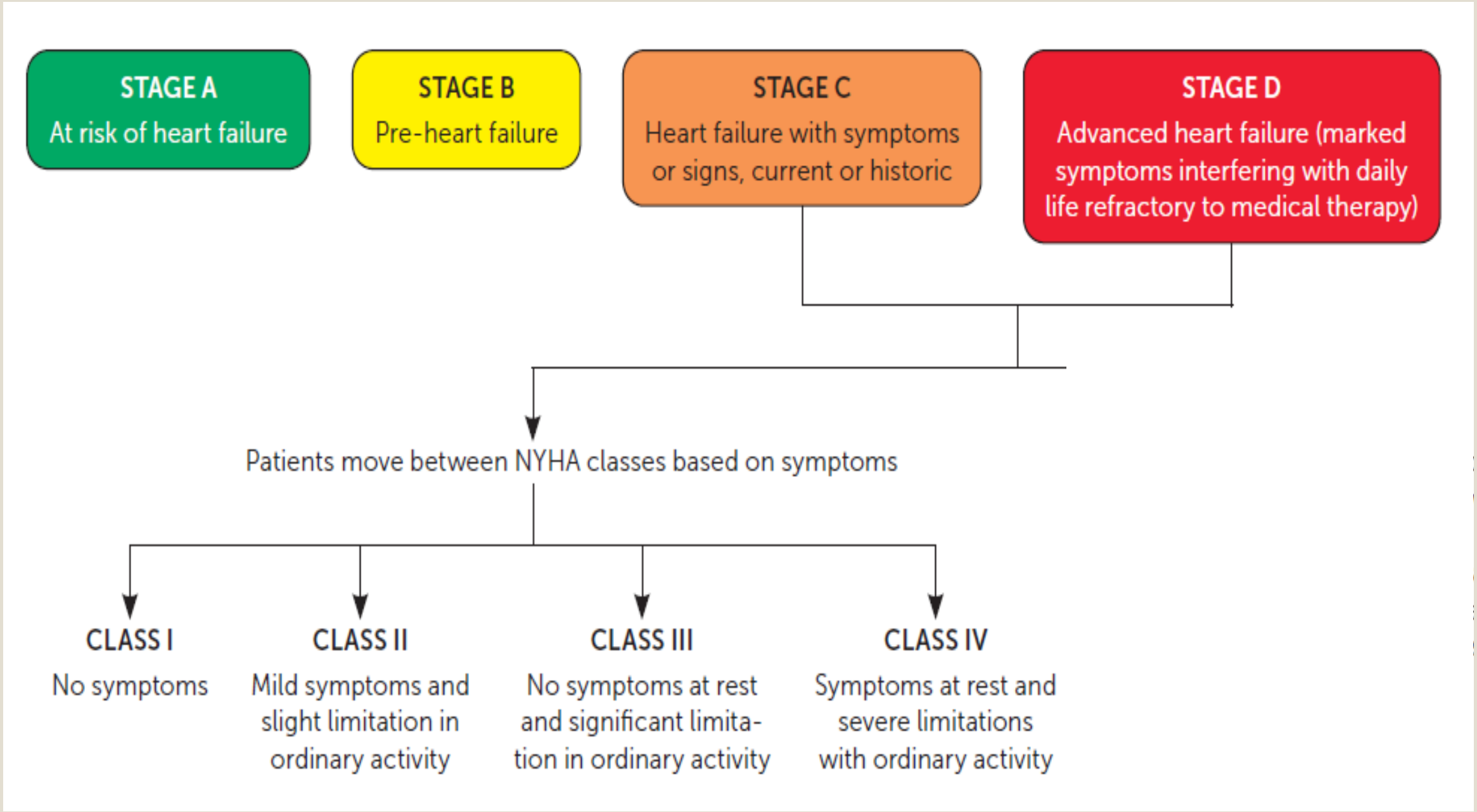

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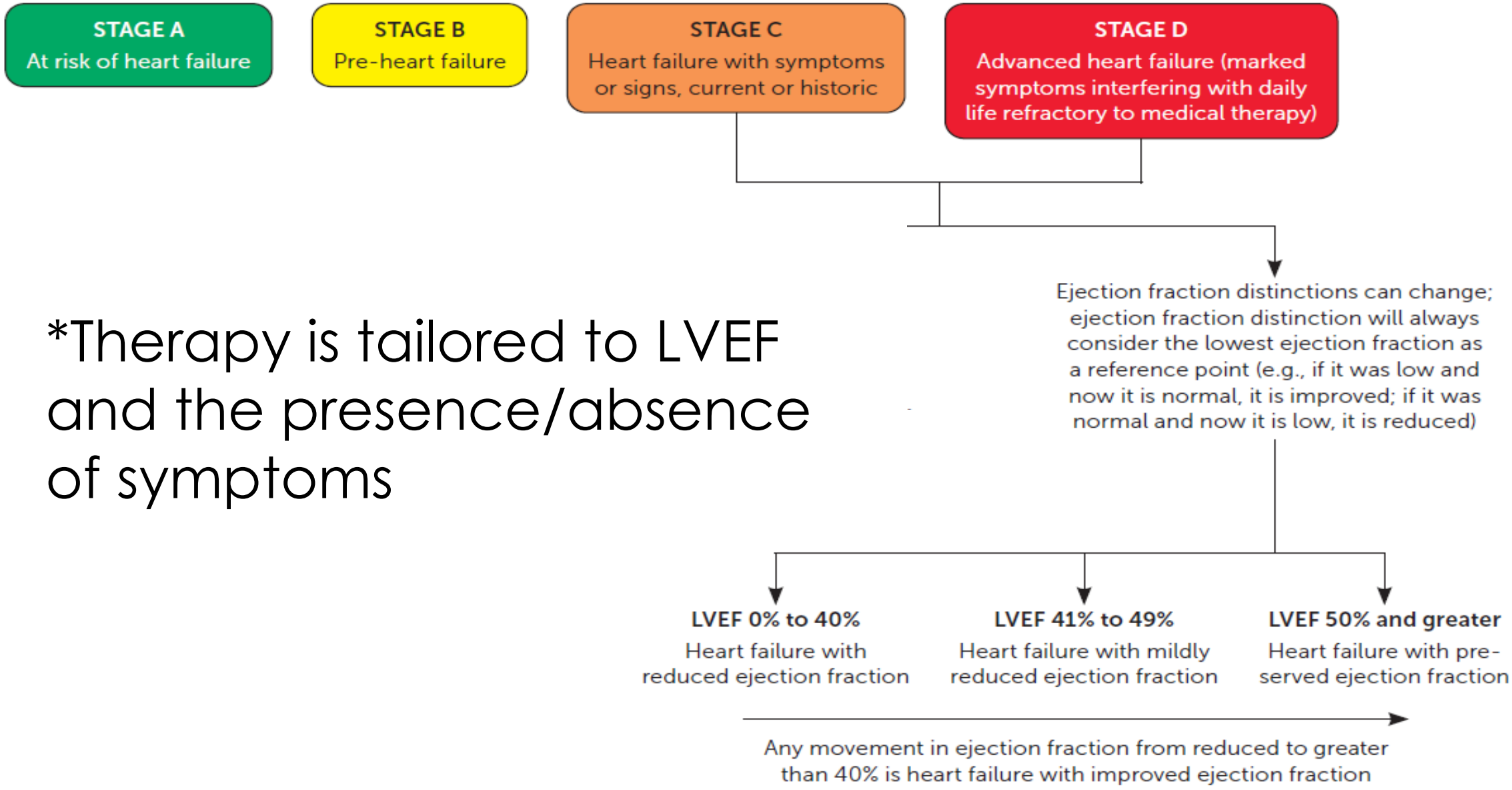

*Therapy is tailored to LVEF and the presence/absence of symptoms

Ford B. et al. Management of Heart Failure: Updated Guidelines from the AHA/ACC. *Am Fam Physician*. 2023;108(3):315-320

Pharmacologic Management

TABLE 1

Pharmacologic Management of Heart Failure

Stage	Left ventricular ejection fraction	New York Heart Association functional classification	Management recommendations
A (at risk of heart failure)	NA	NA	Consider SGLT-2 inhibitors in patients with diabetes Control comorbidities
B (pre-heart failure)	≤ 40%	Class I	ACE inhibitors or ARBs Control comorbidities Heart failure–specific beta blockers
	> 40%	NA	Control comorbidities

Carvedilol
Bisoprolol
Metoprolol Succinate

continues

ACE = angiotensin-converting enzyme; ARB = angiotensin receptor blocker; HFimpEF = heart failure with improved ejection fraction; HFmrEF = heart failure with mildly reduced ejection fraction; HFpEF = heart failure with preserved ejection fraction; HFrEF = heart failure with reduced ejection fraction; NA = not applicable; SGLT-2 = sodium-glucose cotransporter-2.

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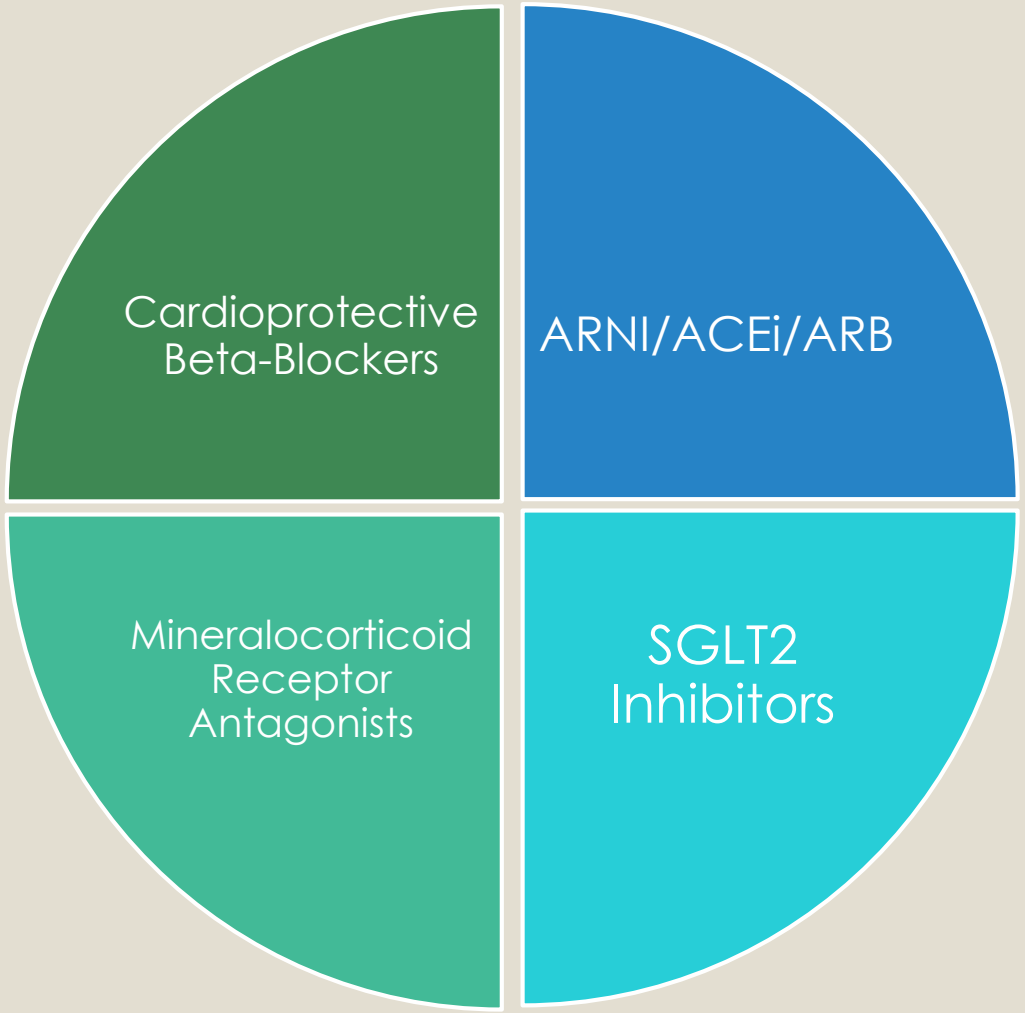
Stage	Left ventricular ejection fraction	New York Heart Association functional classification	Management recommendations
C and D (symptoms present)	≤ 40% (HFrEF)	Class I	ACE inhibitors or ARBs Control comorbidities Heart failure–specific beta blockers
		Class II	ARB/neprilysin inhibitor preferred, or ACE inhibitor or ARB Control comorbidities Heart failure–specific beta blockers Loop diuretic, if congested Mineralocorticoid receptor antagonists SGLT-2 inhibitors
		Class III	ARB/neprilysin inhibitor preferred, or ACE inhibitor or ARB Control comorbidities Heart failure–specific beta blockers Loop diuretic, if congested Mineralocorticoid receptor antagonists SGLT-2 inhibitors
		Class IV	Control comorbidities Heart failure–specific beta blockers Loop diuretic, if congested Mineralocorticoid receptor antagonists SGLT-2 inhibitors

Ford B, et al. Management of Heart Failure: Updated Guidelines from the AHA/ACC. *Am Fam Physician*. 2023;108(3):315-320y

Guideline-Directed Medical Therapy

- All recommended for patients with symptoms - NYHA Class II +

- All 4 components can reduce all-cause mortality by 73% vs. no treatment



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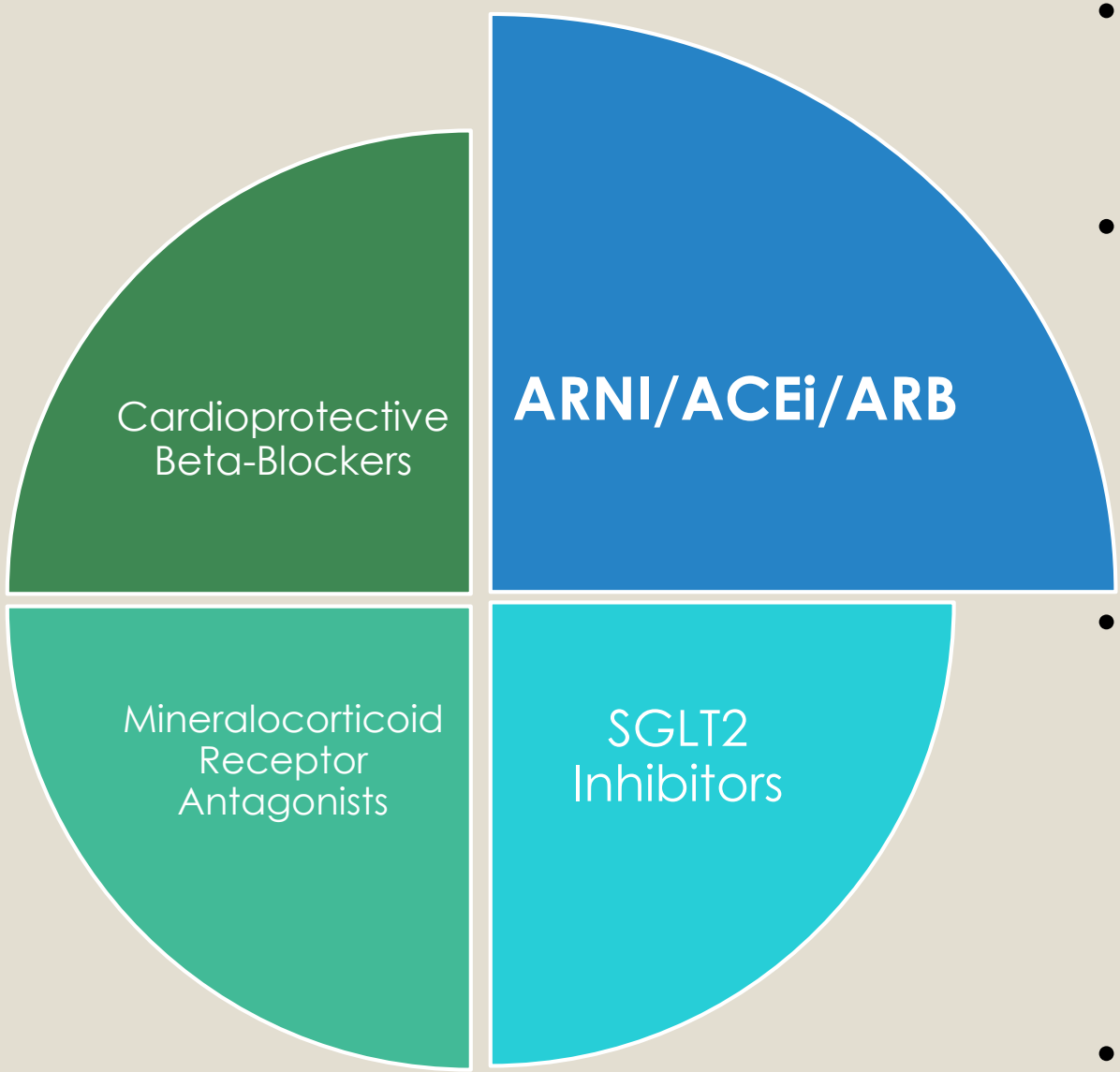

- Renin-angiotensin system inhibitors reduce mortality at similar rates
- Guidelines recommend ARNI as first line NYHA Class II or III to reduce morbidity and mortality
  - ACEi can be substituted if ARNI not available and ARB 3rd line
- ARNIs reduce a composite endpoint of cardiovascular death and hospitalization by 20% compared to ACEi (Enalapril), but higher rates of symptomatic hypotension
- ARNIs can cause angioedema – need to separate from last ACEi by 36 hrs

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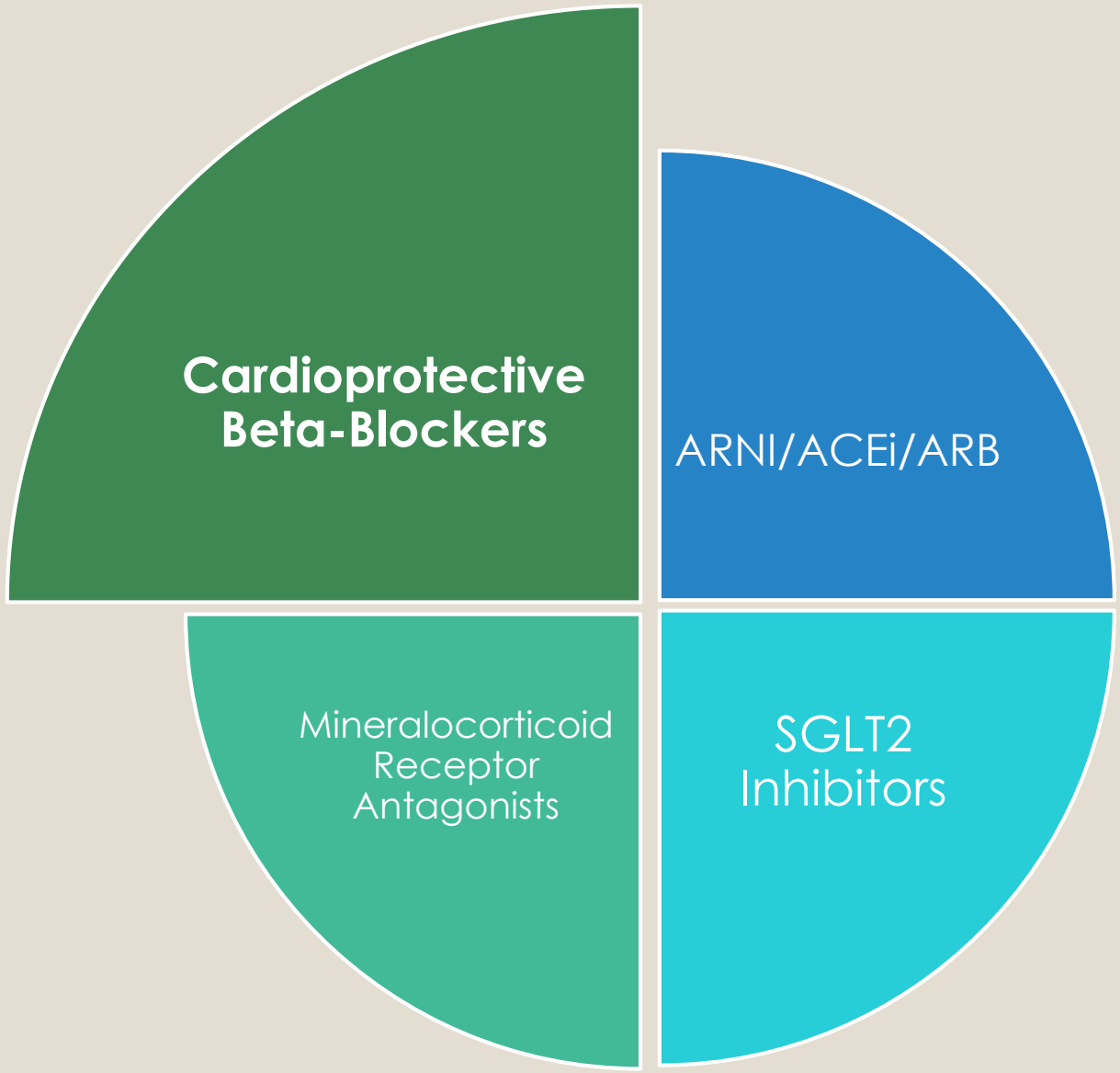

- Reduce risk of death and combined risk of death or hospitalization in pts w/ HF
- Include carvedilol, bisoprolol, and metoprolol succinate

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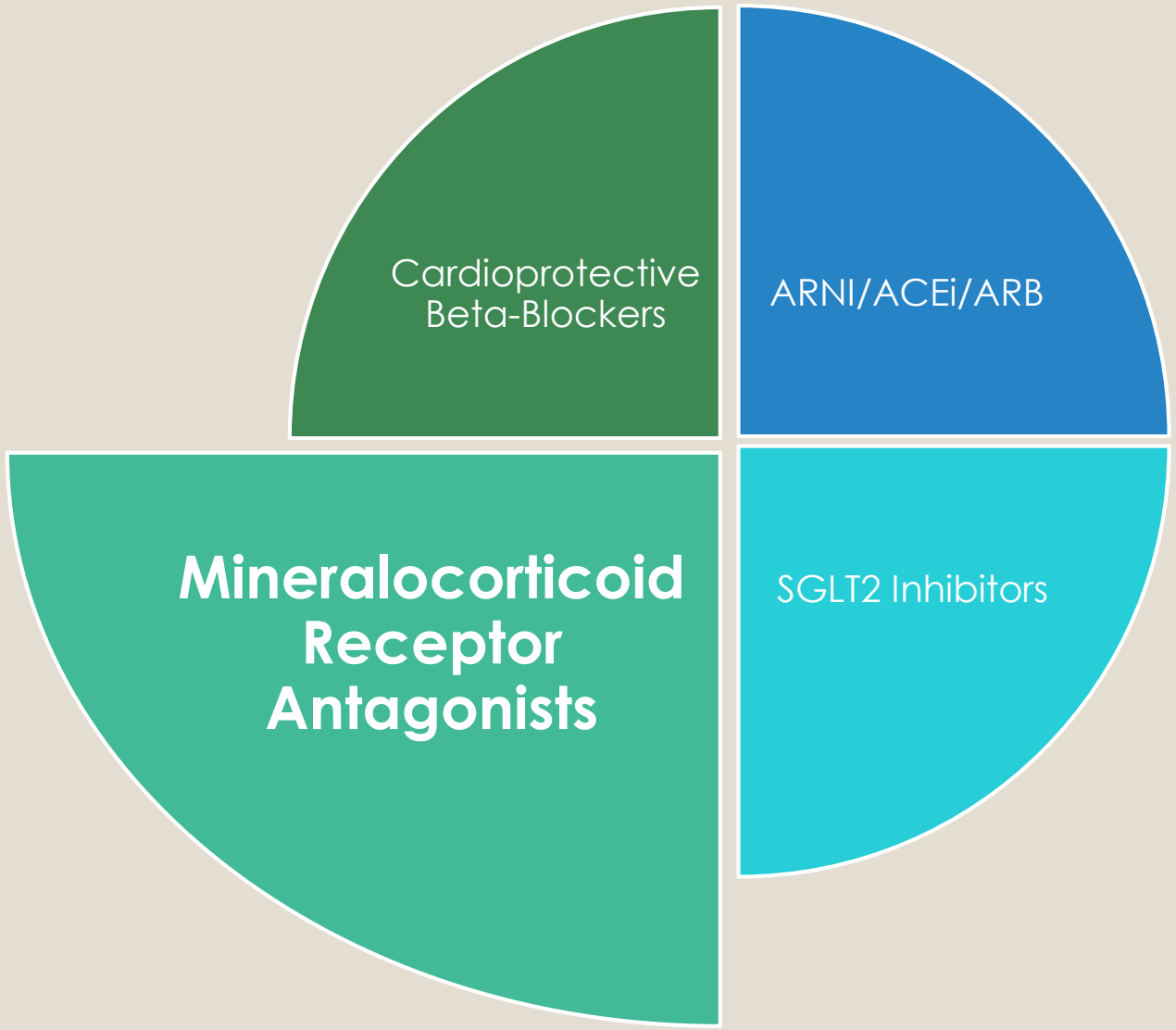

- Include Spironolactone, Eplerenone
- Reduce all-cause mortality across EFs
- Avoid in renal insufficiency and GFR <30, dc if cannot maintain K under 5.5

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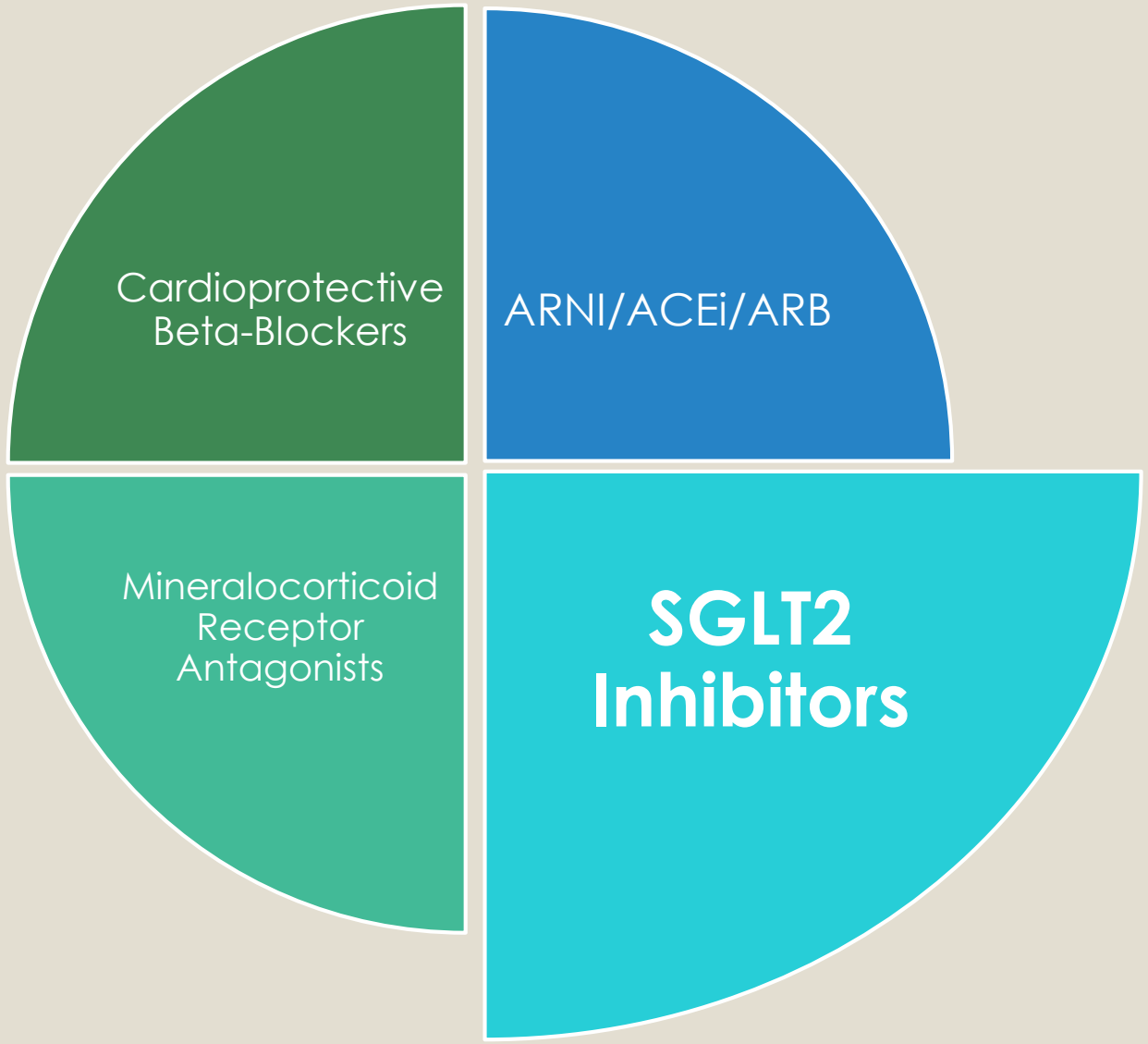

- Reduce all-cause mortality w/ NNT 63 over 1 year
- Reduce HF hospitalizations in pts w/ diabetes by 30% as well
- Risk of genital infections and euglycemic ketoacidosis
- Also need to monitor diuretics to avoid dehydration

Ford B. et al. Management of Heart Failure: Updated Guidelines from the AHA/ACC. *Am Fam Physician.* 2023;108(3):315-320

Additional Medication Considerations

- Diuretic therapy for fluid overload/congestion
- Omega-3 polyunsaturated fatty acids - decrease mortality and hospitalization w/ moderate evidence
- Isosorbide dinitrate and hydralazine
- Control other comorbidities as appropriate

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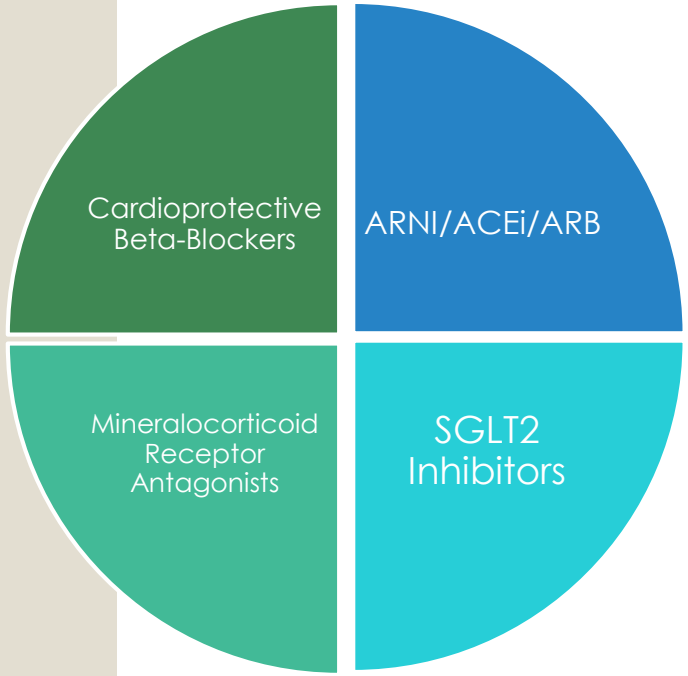

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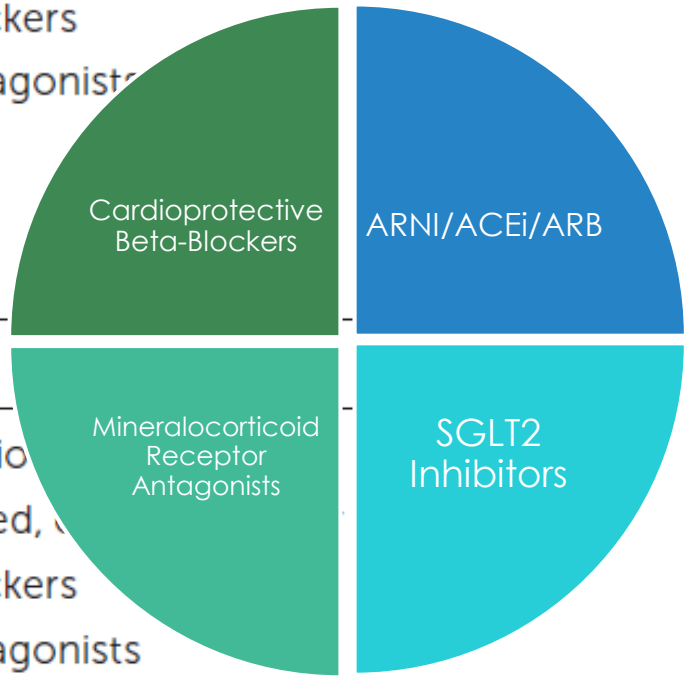
Increasing Ejection Fraction

41% to 49% (HFmrEF)	Class I	See stage B
	Class II	Consider based on ejection fraction and status:
	Class III	ARB/neprilysin inhibitor preferred, or ACE inhibitor or ARB
	Class IV	Heart failure–specific beta blockers
		Mineralocorticoid receptor antagonist
		Control comorbidities
		Loop diuretic, if congested
		SGLT-2 inhibitors
≥ 50% (HFpEF)	Class I	See stage B
	Class II	Consider based on ejection fractio
	Class III	ARB/neprilysin inhibitor preferred,
	Class IV	Heart failure–specific beta blockers
		Mineralocorticoid receptor antagonists
		Control comorbidities
		Loop diuretic, if congested
		SGLT-2 inhibitors
Improved from ≤ 40% (HFimpEF)	All classes	Continue guideline-directed medical therapy based on lowest previous ejection fraction



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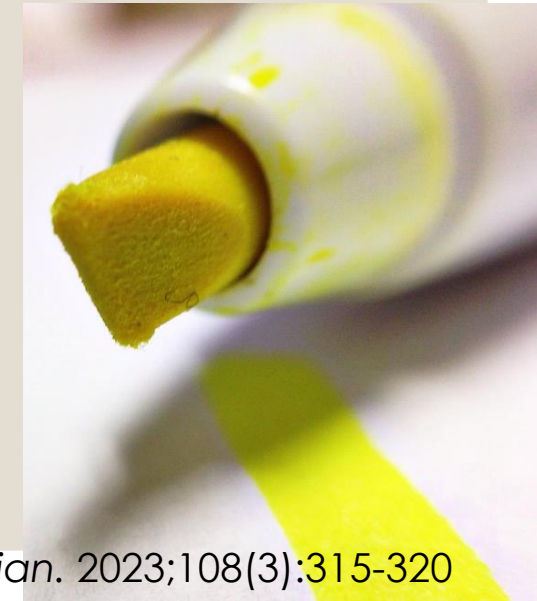
Additional Highlights

- Multidisciplinary teams shown to reduce all-cause mortality, all-cause hospitalization, and HF hospitalization (Cochrane review)
- Limited evidence for lifestyle interventions but consider exercise training and limiting sodium <2300mg/day
- Implantable devices improve various outcomes in appropriately selected patients



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Editor's Note: Because family physicians frequently manage heart failure, in the clinic and the wards, this information is important for our readers. Yet, like many publications from this joint committee, this guideline makes recommendations based on various-quality evidence with limited adherence to their own rating scales. An example is the inclusion of a Level A race-based recommendation for isosorbide dinitrate and hydralazine for people who self-identify as African American, are receiving guideline-directed medical therapy, and still have New York Heart Association class III or IV symptoms. The description includes a detailed criticism of the single trial stopped early, the uncertainty of the racial designation, the effect of this treatment in other populations, and even the poor adherence due to dosing and adverse effects, but none of this affects the evidence rating. Although many recommendations are useful, the lack of assessment limits the practical utility of the guidelines for those not initially deterred by the 138-page length.—Michael J. Arnold, MD, Assistant Medical Editor

Ford B. et al. Management of Heart Failure: Updated Guidelines from the AHA/ACC. *Am Fam Physician*. 2023;108(3):315-320

Management of Bipolar Disorder

VA/DoD Clinical Practice Guidelines

Management of Bipolar Disorder

https://www.healthquality.va.gov/guidelines/MH/bd/index.asp

TABLE 1

Medications for Bipolar Disorder Monotherapy

Medication	Effective for: Acute depression	Acute mania	Depression prevention	Mania prevention	Comments and adverse effects
Most effective					
Lamotrigine	No	No	Yes	No	Most effective for preventing depression; ataxia, nausea, rarely Stevens-Johnson syndrome
Lithium	No	Yes	Yes	Yes	Tremors, weight gain; safest in pregnancy
Olanzapine (Zyprexa)	Yes	Yes	Yes	Yes	Most weight gain
Quetiapine	Yes	Yes	Yes	Yes	Fatigue, weight gain
Less effective					
Aripiprazole	No	Yes	No	No	Limited efficacy for mania
Asenapine	No	Yes	No	No	Twice-daily sublingual administration or transdermal patch
Cariprazine (Vraylar)	No	Yes	No	No	Akathisia, extrapyramidal symptoms, nausea, weight gain
Lumateperone (Caplyta)	Yes	No	No	No	Akathisia, parkinsonism
Lurasidone (Latuda)	Yes	No	No	No	Akathisia, parkinsonism, weight gain
Paliperidone (Invega)	No	Yes	No	Yes	Weight gain, sedation
Risperidone	No	Yes	No	Yes	Long-acting injectable available; significant extrapyramidal effects
Valproate	No	Yes	No	No	Risk of liver toxicity and coagulopathy; teratogenic
Ziprasidone	No	Yes	No	No	Oral must be taken with food; intramuscular requires preparation

Arnold, MJ. Management of Bipolar Disorder: Guidelines from the VA/DoD. *Am Fam Physician*. 2024;109(6):585-587

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Monotherapy Recommendations

Acute Mania

Preferred

- Quetiapine
- Lithium
- Olanzapine

Tx Acute and Prevent

- Paliperidone
- Risperidone

Tx Acute Only

- Aripiprazole
- Asenapine
- Valproate
- Carbamazepine
- Ziprasidone
- Cariprazine

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Monotherapy Recommendations

Acute Mania

Preferred

Quetiapine

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Paliperidone

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Tx Acute Only

Aripiprazole

Asenapine

Valproate

Carbamazepine

Ziprasidone

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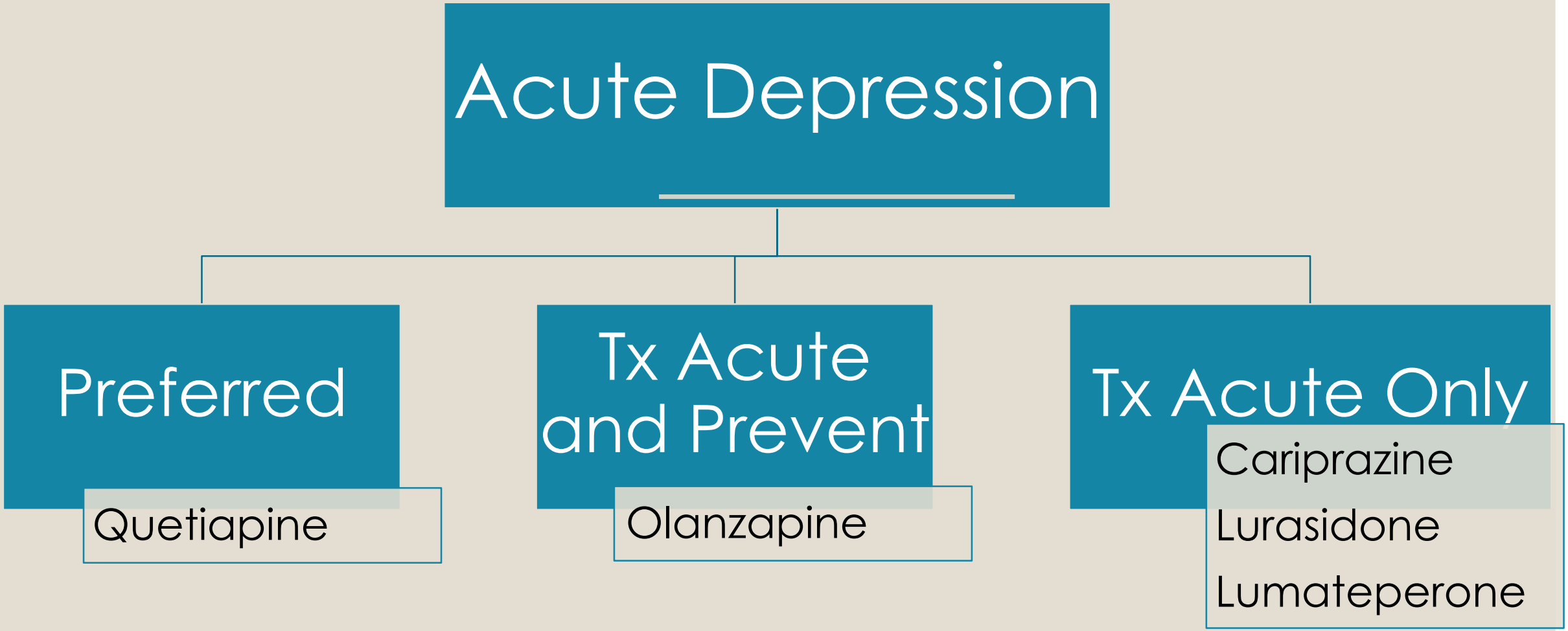
Monotherapy Recommendations



***Lamotrigine is most effective monotherapy to prevent recurrent depression, but not effective otherwise**
***Other options for preventive monotherapy include Quetiapine, Lithium, and Olanzapine**

Arnold, MJ. Management of Bipolar Disorder: Guidelines from the VA/DoD. *Am Fam Physician*. 2024;109(6):585-587

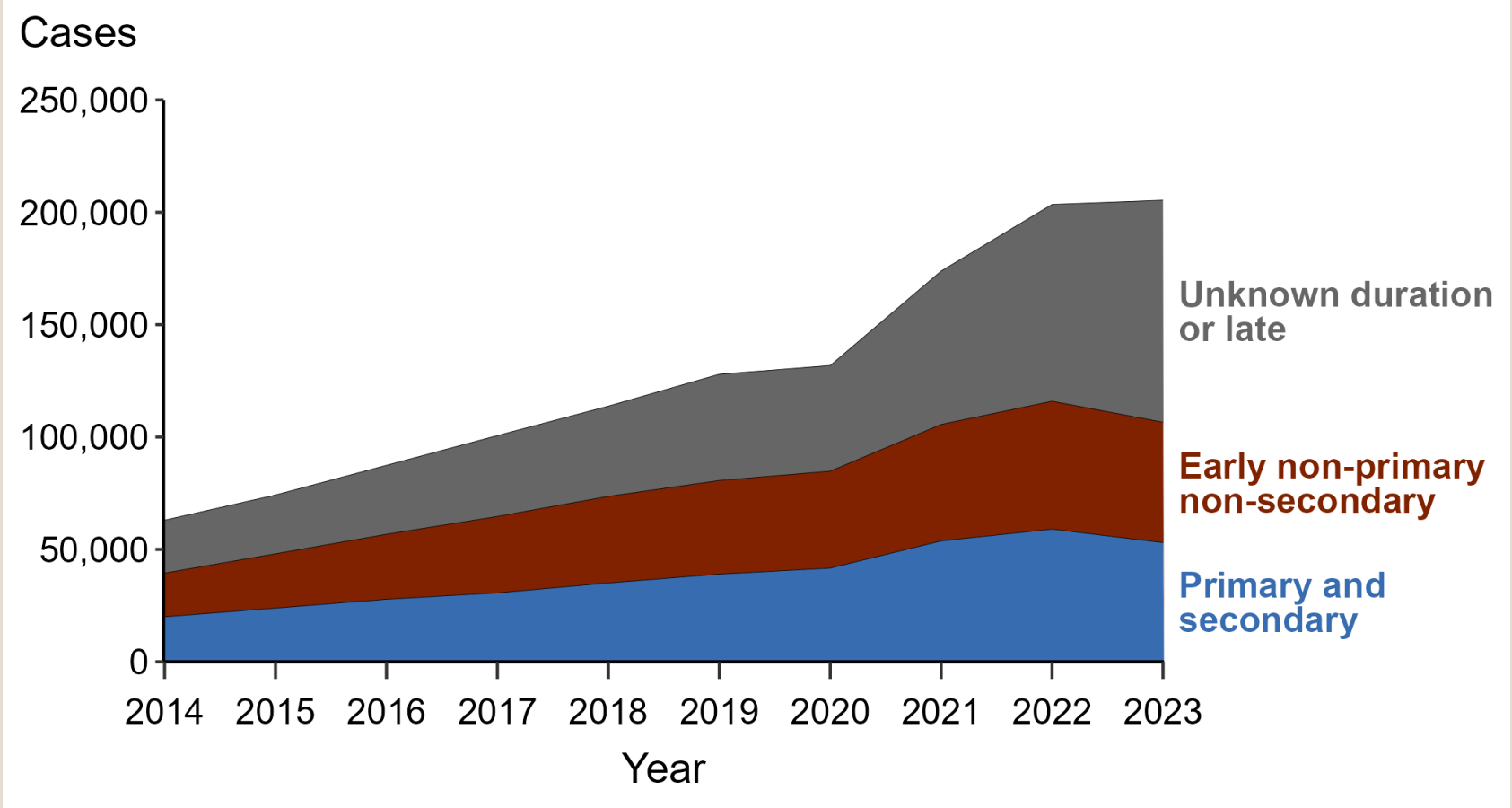
Additional Details in the Guideline

- See AFP article for additional details re: most effective combination therapies based on phase of bipolar presentation
- Additional considerations re: pregnancy, psychotherapy, and other non-pharmacologic approaches

Arnold, MJ. Management of Bipolar Disorder: Guidelines from the VA/DoD. *Am Fam Physician.* 2024;109(6):585-587

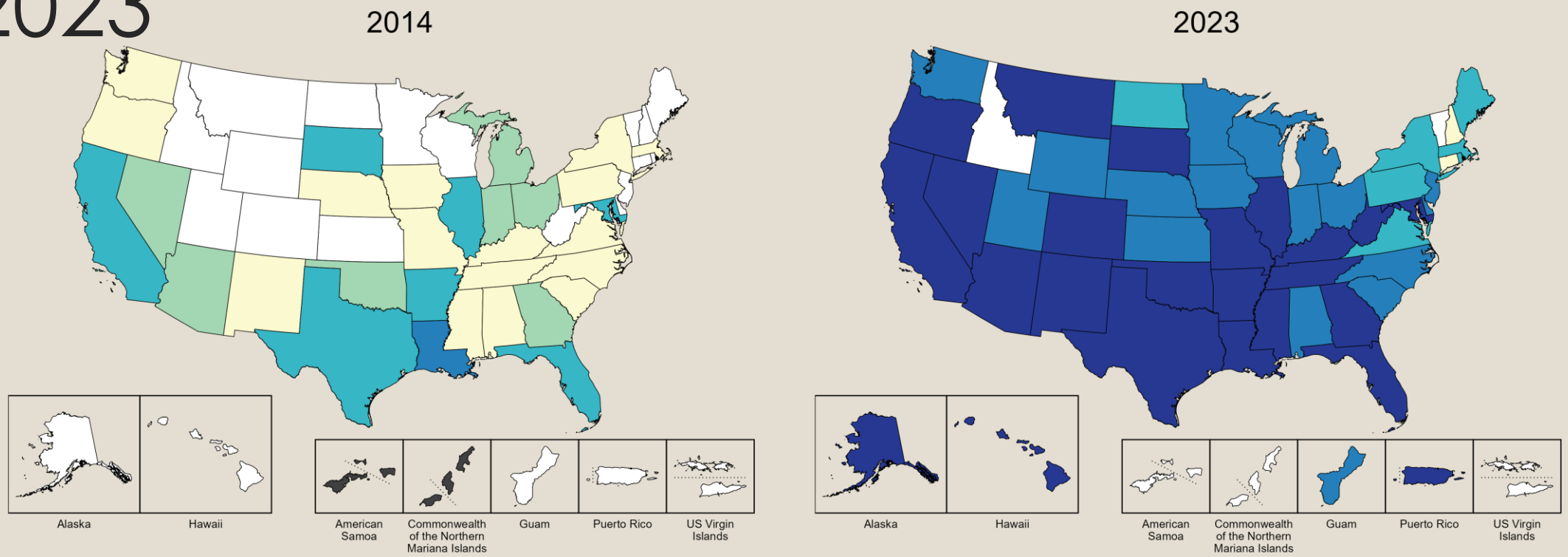
CDC Update: Bacterial STI Prevention

Syphilis — Reported Cases by Stage and Year, United States, 2014–2023



https://www.cdc.gov/sti-statistics/annual/slides.html

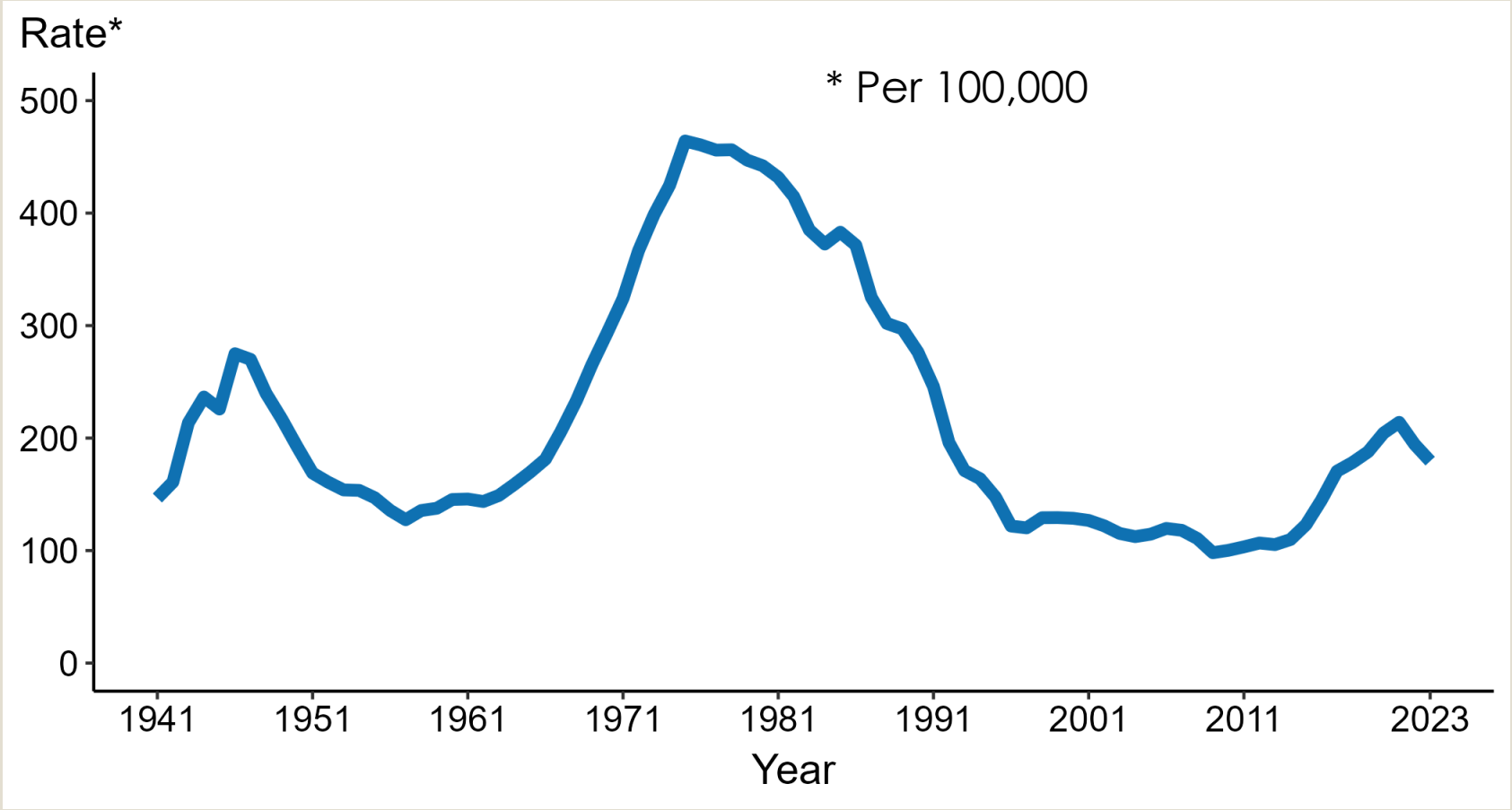
Congenital Syphilis — Rates of Reported Cases by Year of Birth and Jurisdiction, United States and Territories, 2014 and 2023



* Per 100,000 live births

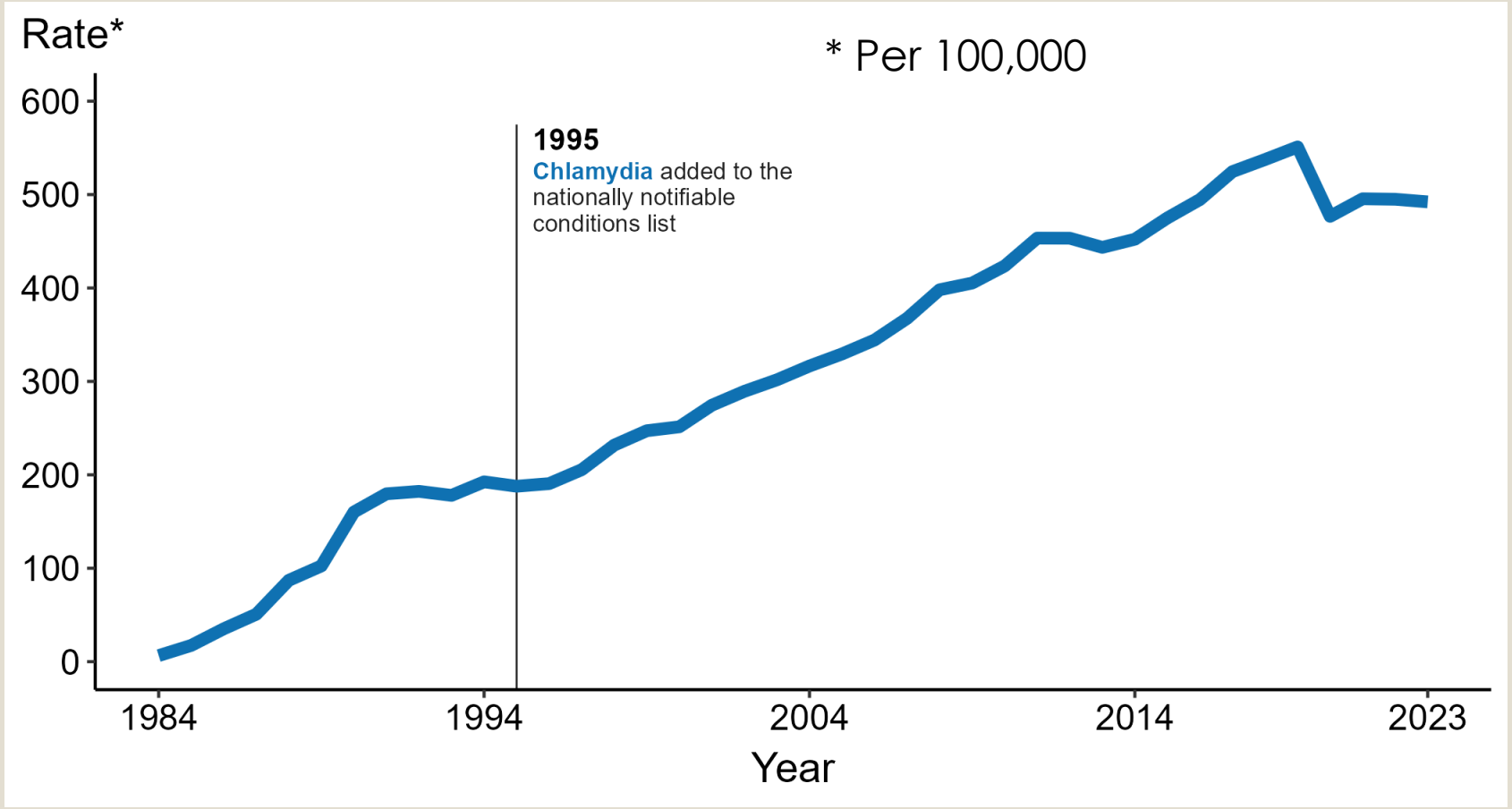
https://www.cdc.gov/sti-statistics/annual/slides.html

Gonorrhea — Rates of Reported Cases by Year, United States, 1941–2023



https://www.cdc.gov/sti-statistics/annual/slides.html

Chlamydia — Rates of Reported Cases by Year, United States, 1984–2023



https://www.cdc.gov/sti-statistics/annual/slides.html

CDC Clinical Guidelines on the Use of Doxycycline Postexposure Prophylaxis for Bacterial Sexually Transmitted Infection Prevention, United States, 2024

Laura H. Bachmann, MD[1]; Lindley A. Barbee, MD[1]; Philip Chan, MD[1,2], Hilary Reno, MD[1,3]; Kimberly A. Workowski, MD[1,4]; Karen Hoover, MD[5]; Jonathan Mermin, MD[6]; Leandro Mena, MD[1]

[1]Division of STD Prevention, National Center for HIV, Viral Hepatitis, STD and TB Prevention, CDC; [2]Department of Medicine, Brown University, Providence, Rhode Island; [3]Department of Medicine, Washington University School of Medicine in St. Louis, St. Louis, Missouri; [4]Department of Medicine, Emory University, Atlanta, Georgia; [5]Division of HIV Prevention, National Center for HIV, Viral Hepatitis, STD and TB Prevention, CDC, Atlanta, Georgia; [6]National Center for HIV, Viral Hepatitis, STD and TB Prevention, CDC, Atlanta, Georgia

Bachmann, LH, et al. CDC Clinical Practice Guidelines on the Use of Doxycycline Postexposure Prophylaxis for Bacterial Sexually Transmitted Infection Prevention, United States, 2024. *MMWR*. 73(2);1–8

Treatment Candidates

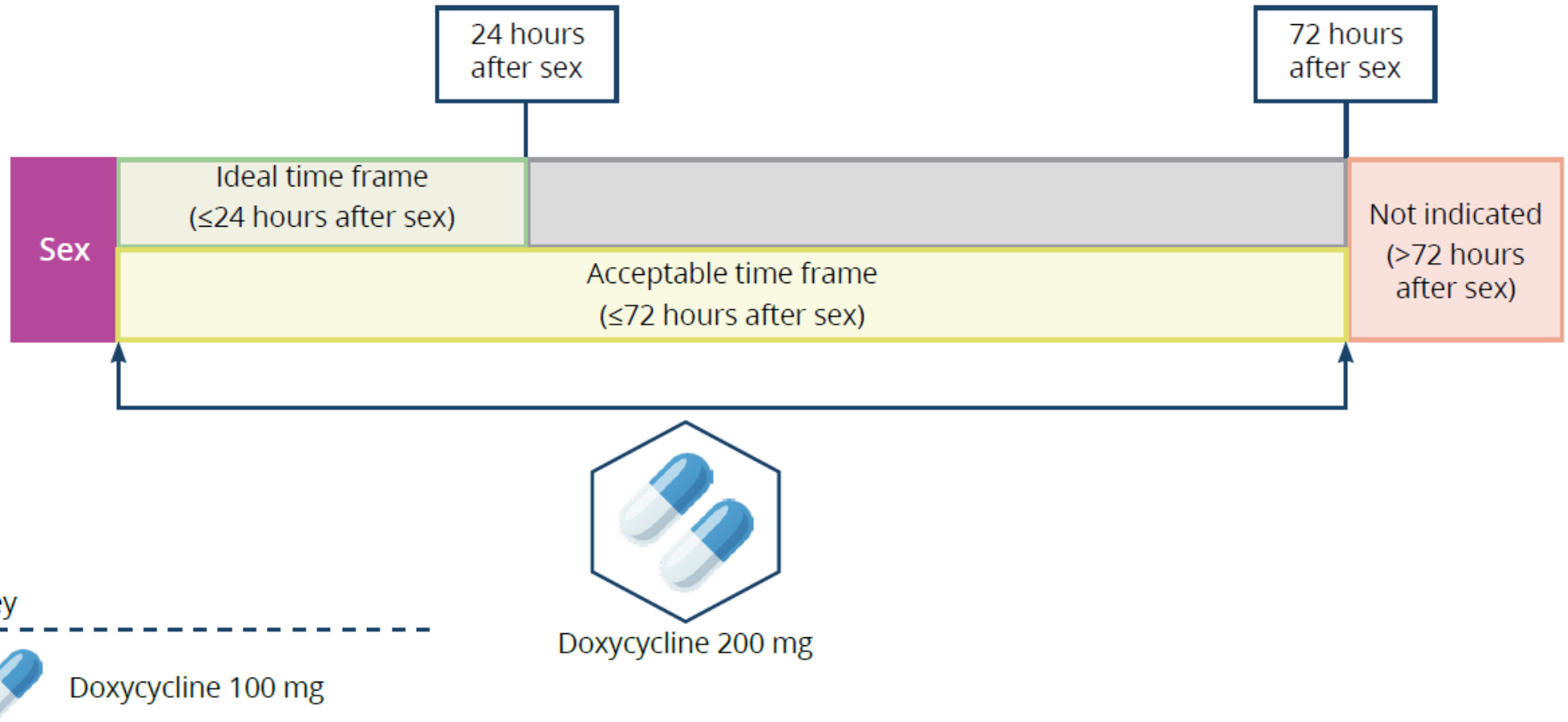
Who is eligible to receive doxy PEP?

- Men who have sex with men (MSM) and transgender women (TGW) with a history of a bacterial STI (chlamydia, gonorrhea, or syphilis) in the last year.
- MSM and TGW who have not had a bacterial STI in the last year may be considered for doxy PEP if they anticipate participating in activities associated with elevated risk of STI exposure.
- Data do not currently support the use of doxy PEP in persons assigned female at birth (including cisgender women, transgender men, and other queer/nonbinary persons assigned female at birth).

https://www.std.uw.edu/page/clinical-guides/guides#doxy-pep

DOXY PEP DOSING

Single Sexual Event



- Patients should not take more than 200 mg of doxycycline per 24 hours.
- Patients should take doxy PEP as soon after sex as possible, but no later than 72 hours.

https://www.std.uw.edu/page/clinical-guides/guides#doxy-pep

How effective is DoxyPEP?

- >70% reduction in Syphilis and Chlamydia
- 50% reduction in Gonorrhea

Bachmann, LH, et al. CDC Clinical Practice Guidelines on the Use of Doxycycline Postexposure Prophylaxis for Bacterial Sexually Transmitted Infection Prevention, United States, 2024. *MMWR*. 73(2);1–8

DoxyPEP

Postexposure Doxycycline to Prevent Bacterial Sexually Transmitted Infections in MSM and TGW with and without HIV

Summary

Among men who have sex with men (MSM) and transgender women (TGW) who had a recent sexually transmitted infection (STI), the combined incidence of gonorrhea, chlamydia, and syphilis was lower by two thirds with doxycycline postexposure prophylaxis (doxy PEP) than with standard care.

Study Design

Open-label, randomized study conducted in San Francisco, CA and Seattle, WA

Participants

501
Adults

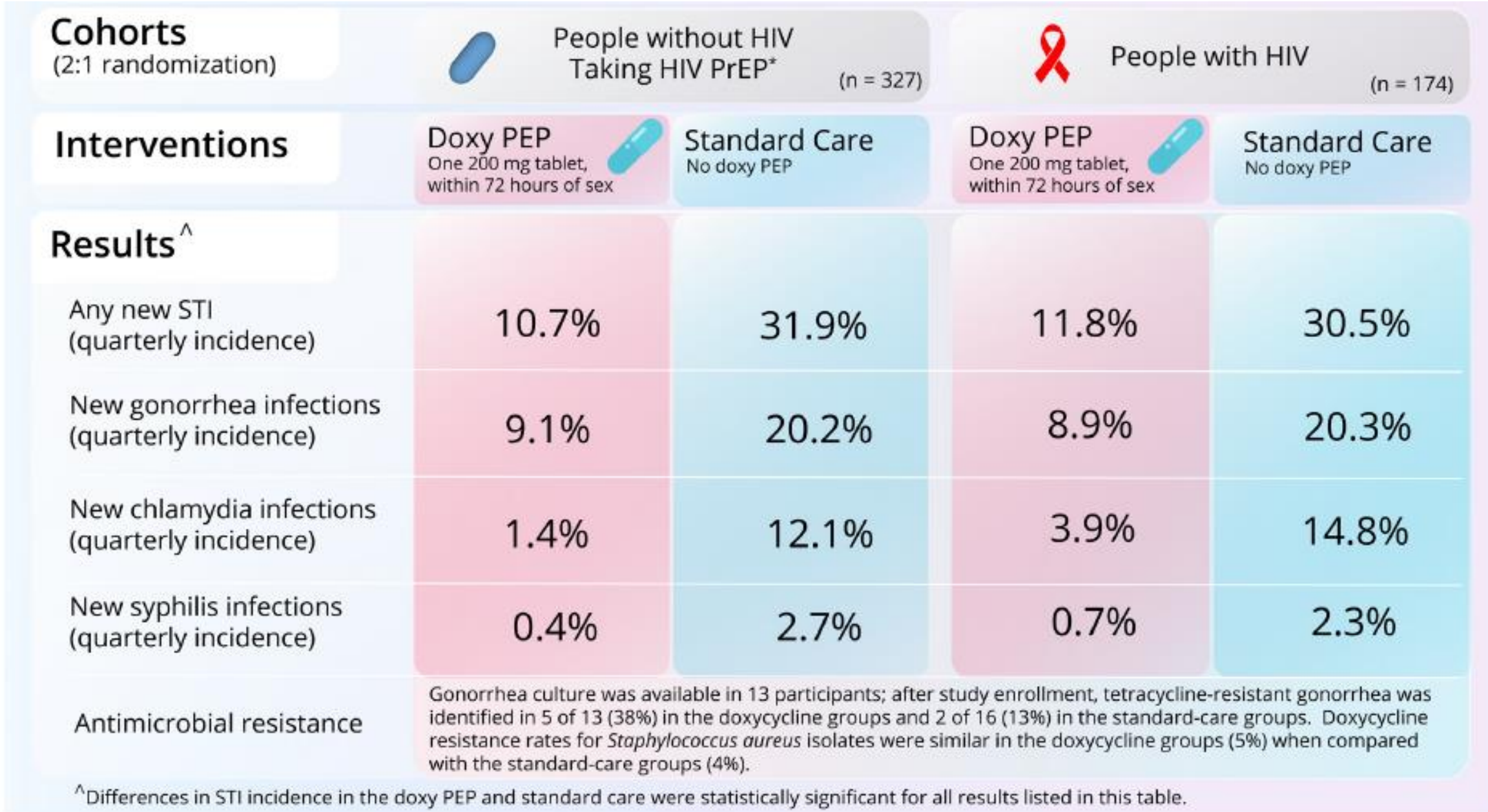
482 MSM

19 TGW

All participants had gonorrhea, chlamydia, or syphilis at least once in the past year

67% White
7% Black
11% Asian or Pacific Islander
30% Hispanic or Latino
(15% multiple races)

https://www.std.uw.edu/page/clinical-guides/guides#doxy-pep



Source: Luetkemeyer AF, et al. Postexposure Doxycycline to Prevent Bacterial Sexually Transmitted Infections. N Engl J Med 2023;388:1296-1306. [PMID: 37018493]

https://www.std.uw.edu/page/clinical-guides/guides#doxy-pep

LABORATORY EVALUATION AND MONITORING

Table based on 2024 CDC Clinical Guidelines on the Use of Doxycycline Postexposure Prophylaxis for Bacterial Sexually Transmitted Infection Prevention

Laboratory Evaluation in Persons Taking Doxy PEP

Test	Initial visit	Follow-up screening (every 3-6 months)
 HIV Antigen/ Antibody	✓ # *	✓ # *
 Syphilis Serology	✓	✓
 Gonorrhea^	✓	✓
 Chlamydia^	✓	✓
 Hepatitis B Serology+	✓	
 Hepatitis C Serology+	✓	

Is patient also a candidate for HIV PrEP?
Reassess need every 3-6 months

https://www.std.uw.edu/page/clinical-guides/guides#doxy-pep

Potential Harms and Counseling

- Counsel patients re: potential risks, including GI side effects, sun sensitivity, and pill esophagitis
  - Recommend full glass of water, upright x1 hour after

- Discuss potential for antimicrobial resistance (esp gonorrhea) and impact on gut microbiome
  - Significance of this is unclear from studies, but guidelines note need to continue to monitor through implementation

1. Bachmann, LH, et al. CDC Clinical Practice Guidelines on the Use of Doxycycline Postexposure Prophylaxis for Bacterial Sexually Transmitted Infection Prevention, United States, 2024. *MMWR*. 73(2);1–8

2. https://www.std.uw.edu/page/clinical-guides/guides#doxy-pep

National STD Curriculum

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National STD Curriculum

A free educational website from the University of Washington STD Prevention Training Center.

Contributors

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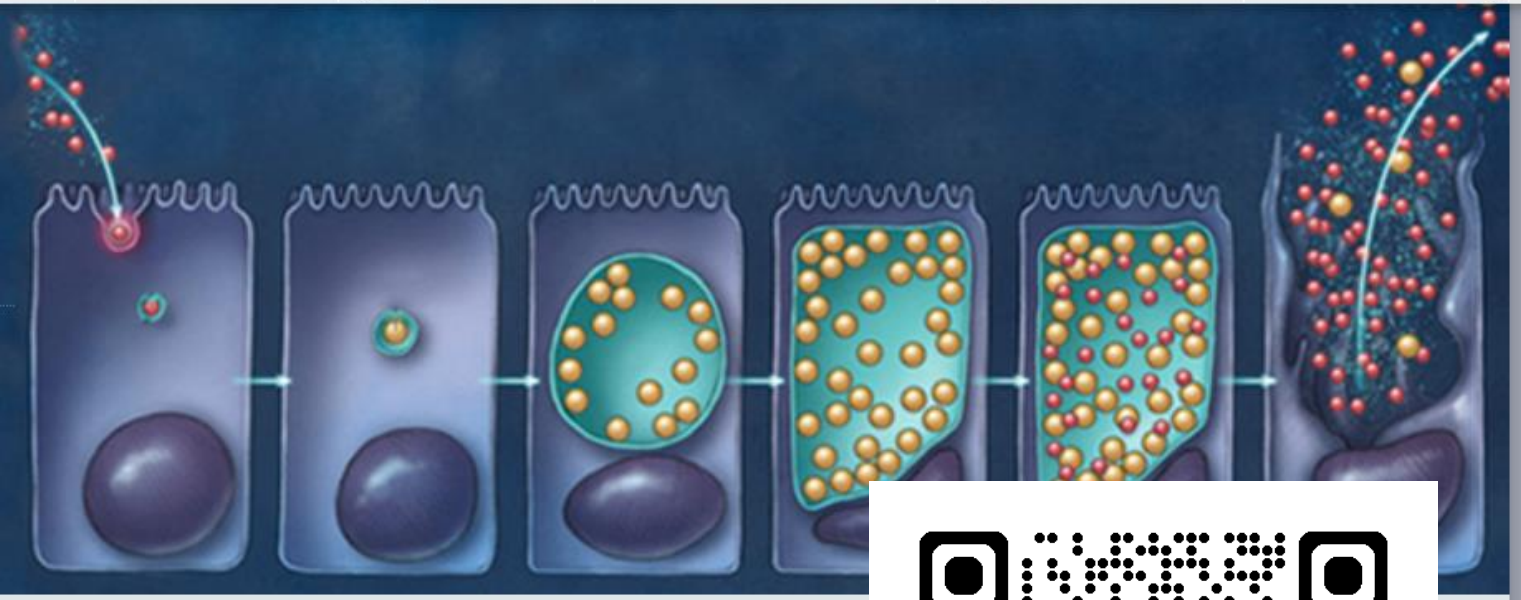

New Doxy PEP Clinical Guide

Check out the new Doxy PEP for STI Prevention: Clinicians' Information Guide

View Guide ›

https://www.std.uw.edu/

Take Home Points

- Understand the general classification schema of CHF and when to apply guideline-directed medication therapy
- Quetiapine and Lithium have the widest range of benefit as monotherapy across all phases of Bipolar Disorder, while many other common medications may only treat one phase
- DoxyPEP is effective in the prevention of bacterial STIs in MSM and TGW with a NNT of 5

Questions?