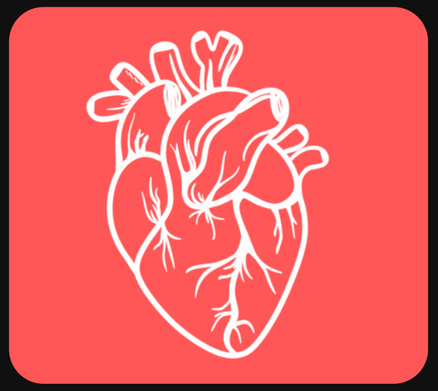








Cardiac Mixology

A Bartender's Guide

Presented By:

Jennifer Carlquist

PA-C, ER-CAQ

Disclosures:

None



Objectives:

1. Review basic HTN/ACS cardiac pharmacology
2. New medications to have on your radar
3. Case based study on when to use the new medications



Hypertension



B.P. Buckets



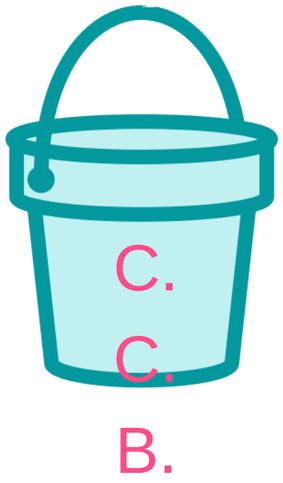
Bisoprolol
Carvedilol
Metoprolol Succinate

Preferred in
HFrEF
Aortic Disease



Eplerenone
Spironolactone

Preferred in
Resistant HTN



Amlodipine
Diltiazem

AVOID di-hy
in HF
Good: Angina



HCTZ
Furosemide
Bumetanide

Preferred in
CHF
Lower edema



Lisinopril
Losartan

Preferred in
Diabetics
Younger patients



Hydralazine
Nitrates

Preferred in
HTN crisis

B.P. Side Effects





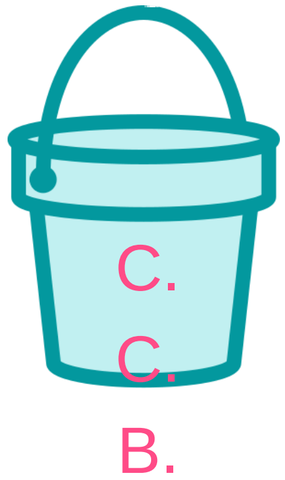
Bisoprolol
Carvedilol
Metoprolol Succinate

Bradycardia
Dizziness
Fatigue
Nightmares



Eplerenone
Spironolactone

Hyperkalemia
Gynocomastia
Diarrhea
Arrythmia



Amlodipine
Diltiazem

Lower extremity Edema
Hypotension
Dizziness
Erythema Multiforme



HCTZ
Furosemide
Bumex

Hypokalemia
Diarrhea
Rash
Hypotension
Muscle cramps



Lisinopril
Losartan

Dry Cough
Hypotension
Headache
Fatigue



Hydralazine
Nitrates

Tachycardia
Nausea
Diarrhea
Palpitations

Where they all work

ALPHA AGONIST

- Clonidine

ALPHA BLOCKERS

- Terazosin
- Prazosin

HEART

Beta Blockers

- Atenolol (β1 selective)
- Metoprolol (β1 selective)
- Carvedilol (α1, β1, β2)

VESSELS

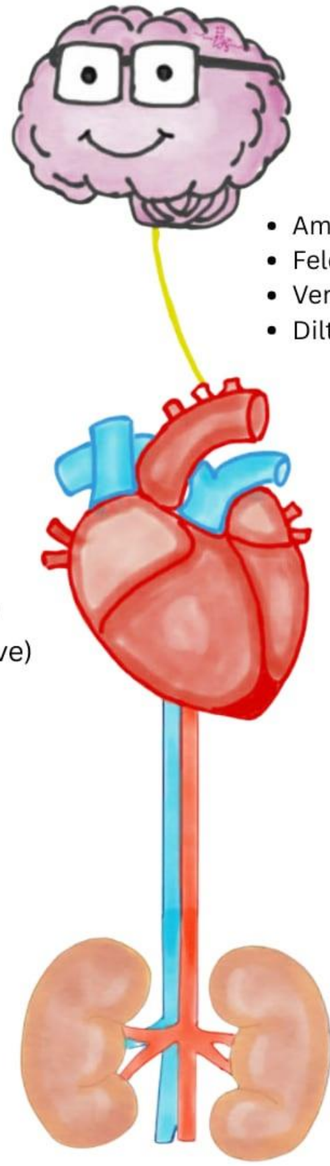
- Hydralazine
- Nitrates

LOOPS

- Furosemide
- Torsemide
- Bumetanide

THIAZIDES

- Metolazone
- Hydrochlorothiazide



HEART

Calcium Channel Blockers

- Amlodipine (dihydropyridine)
- Felodipine (dihydropyridine)
- Verapamil (non-dihydropyridine)
- Diltiazem (non-dihydropyridine)

RENAL (ACEi / ARB)

- Lisinopril
- Losartan

ALDOSTERONE ANTAGONISTS

- Spironolactone
- Eplerenone

AVOID *these*

1. NSAIDS + Anticoagulants

2. Ginko Biloba + Anticoagulants

3 Calcium Channel Blockers + Beta Blockers

Let's Talk ACS




STATIN
ACEI
BETA BLOCKER
CLOPIDOGREL
ASA
CAD TOOLBOX
Plumber

ACS

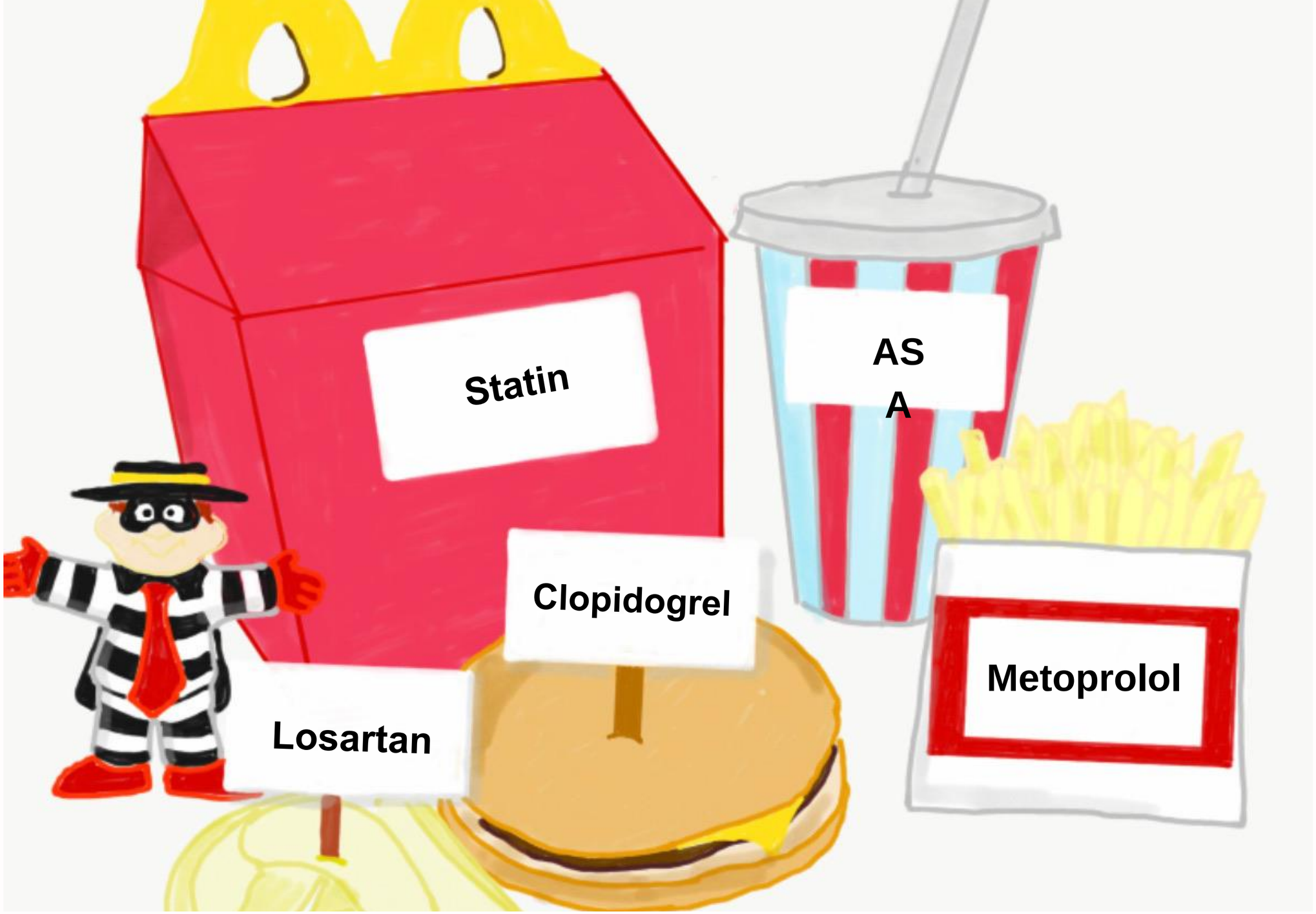


- **DUAL ANTIPLATELET**
  What options do we have?

- **STATIN**
  High intensity statin LDL under 70

- **BETA BLOCKER**
  Up to 3 years post MI or LVEF under 40%

- **ACEI/ARB**
  Post MI, EF under 40%, CHF, HTN, DM, Kidney Disease


Statin
AS
A
Clopidogrel
Losartan
Metoprolol

Angina Management



CCB

Decreases preload
Decrease HR
Decrease contractility

HA
FLUSHING
WORSEN CHF

NITRATES

Decreases myocardial oxygen
Decreases preload

HA
HYPOTENSION
REFLEX TACHY

RANOLAZINE

Late sodium channel inhibitor

Prolongs QT
Limit dose to 500 with dilt or Verapamil

Cardiac Happy Meal

WHAT'S MISSING?

Carvedilol 6.25 mg bid

Ticagrelor 90 mg bid + _____

Rouvastatin 40 mg qd + _____

Lisinopril 20 mg qd



Let's do some practice cases.....



A 72 Y/O MALE S/P STENT

He needs the cardiac happy meal what is that?



What will we pick for her HTN?

A 40 Y/O WITH HTN, DM



A 60 Y/O F WITH CAD/Angina

What meds should she be on?

NEW



NOTABLE DRUGS

New HCM

Drug
Mavacamten



For: [NYHA] class II and III) secondary to obstructive HCM to improve functional capacity and symptoms

How it works: Promotes an energy-sparing and super-relaxed state that translates as a reduction in LVOT obstruction and improvement of cardiac filling pressures

Who: 15 mm wall thickness, LVOT gradient above 50

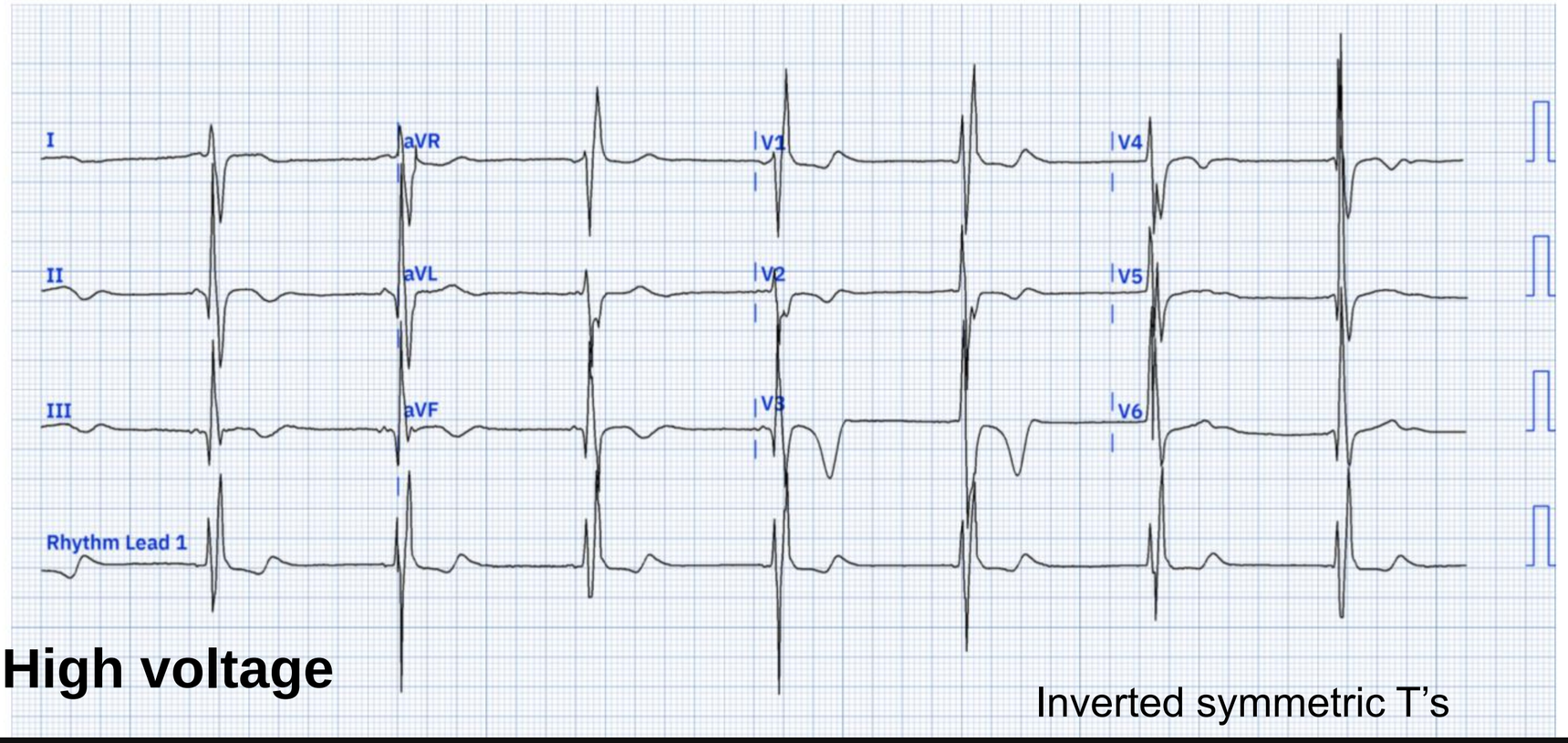
Downfall: Needs serial echos and prescriber needs to have special certification

Trial: EXPLORER-HCM

Bello J, Pellegrini MV. Mavacamten. [Updated 2023 Mar 17]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK582152/

Hypertrophic Cardiomyopathy

Lets See an EKG!



High voltage

Inverted symmetric T's

NEW DRUG

Rilonacept



Arcalyst (rilonacept) is an interleukin-1 (IL-1) inhibitor. It blocks IL-1α and IL-1β, key drivers of inflammation in recurrent pericarditis.

◆ FDA Approval

- Approved in 2021 for treatment of recurrent pericarditis and reducing risk of recurrence.
- First and only FDA-approved therapy specifically for recurrent pericarditis.

◆ Indications

Used in patients with recurrent pericarditis (≥2 recurrences), especially those who are:

- *Corticosteroid-dependent*
- *Not responding well to NSAIDs, colchicine, or steroids*
- *Experiencing significant impairment in quality of life*

◆ How It's Given

- Subcutaneous injection.
- Dosing:
  - Loading dose: 320 mg (two 160 mg injections)
  - Maintenance: 160 mg once weekly

◆ Evidence

- RHAPSODY trial (NEJM 2021):
- Rapid symptom relief (median time to pain improvement: ~5 days).
- Steroid-sparing effect—patients were able to taper off steroids safely.

◆ Side Effects

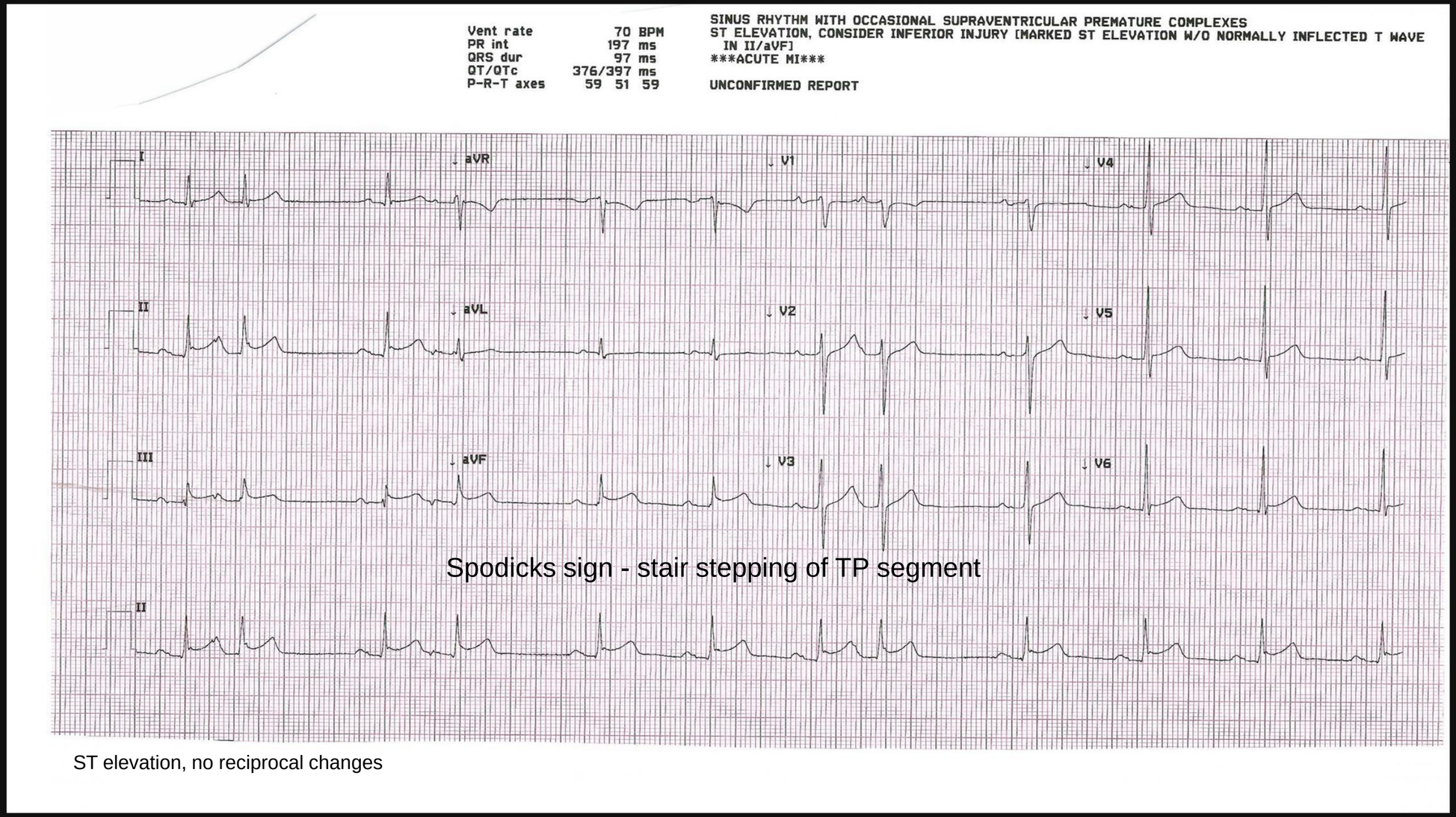
- Most common: injection site reactions, upper respiratory infections.
- Rare but serious: risk of infections (due to immunosuppression).

◆ Clinical Pearls

- Best for patients with inflammatory-driven pericarditis (elevated CRP).
- Not first-line—colchicine + NSAIDs still mainstay initially.
- Offers an option for chronic, relapsing, steroid-dependent cases

PERICARDITIS

Lets See an Ekg



ST elevation, no reciprocal changes

Widaplik – Triple Combo Antihypertensive

Telmisartan – ARB

Amlodipine – Dihydropyridine CCB

Indapamide – Thiazide-like diuretic

Designed to improve adherence and control resistant or multi-drug hypertension.

Why This Combination Works

- Improves adherence (one pill replaces 2–3 meds)
- Simplifies regimens for elderly or polypharmacy patients
- Excellent for Stage 2 HTN, resistant HTN, or patients uncontrolled on dual therapy
- Avoids common side effects seen with higher-dose monotherapy

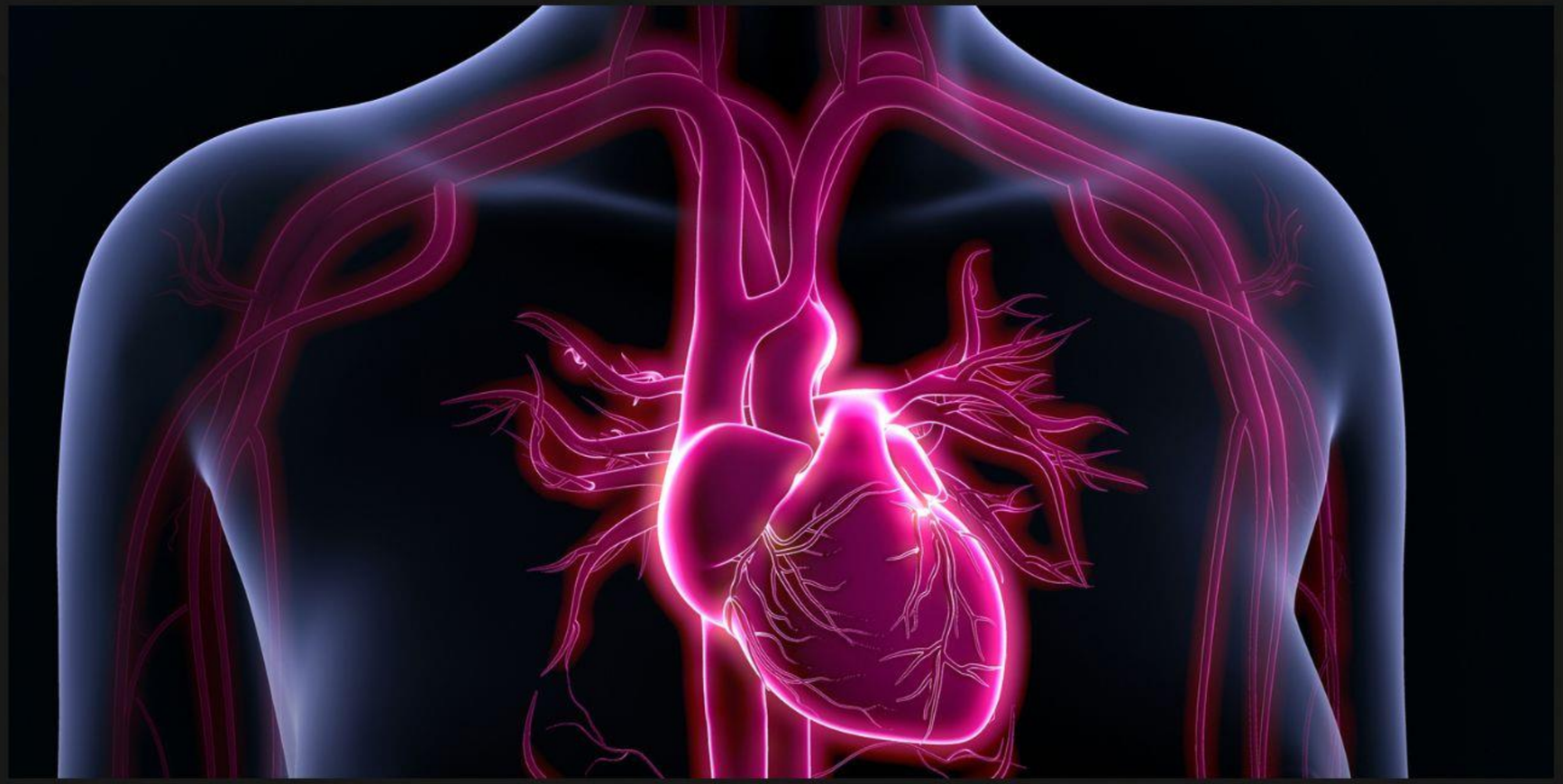
Great Choice For:

- Diabetics
- CKD patients (telmisartan benefit)
- LVH patients
- African American patients who often require multi-drug therapy

Dosing

- Fixed-dose combination (varies by market)
- Typically taken once daily
- Adjust based on BP goals and patient tolerability

HEART FAILURE



"FANTASTIC 4"






SGLT2I
ARNI
Sacubitril/
Valsartan
MRA
BB
Carvedilol
Metoprolol
Succ
Empaglifozin
Eplerenone
Spironolactone
Dapaglifozin


HF EXTRAS
STORE
TACHYCARDIC?
Ivrabadine
Digoxin
NEED
VASODILATION?
Vericiguat

Sacubitril / Valsartan

Used in NYHA Class II-IV HF (20% reduction in mortality v ACEI)

Half diuretic dose may help

STOP ARB or ACEI 36 hour washout pre start

Double after 2-4 weeks

Finerenone

(KERENDIA®)

FDA expanded indication: (July 2025)

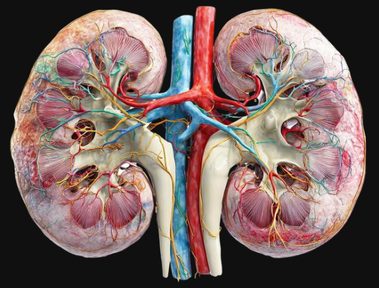
For **heart failure with LVEF ≥ 40% (HFmrEF / HFpEF)**, beyond its prior use in CKD + T2DM

What Is It?

- A **nonsteroidal mineralocorticoid receptor antagonist** (ns-MRA) that reduces inflammation + fibrosis in the heart and kidneys.
- **Stronger anti-fibrotic effects** and **fewer hormonal side effects** than spironolactone.

Think of it as:

“Spironolactone’s cleaner, more cardio-renal-protective cousin.”



FDA-Approved Indications

- Slows kidney disease progression
- Reduces albuminuria
- Lowers cardiovascular events

(2025 Expanded Indication) HFpEF & HFmrEF (LVEF ≥ 40%)

- Reduces heart failure hospitalizations
- Offers a new MRA option for patients with limited therapy choices

Clinical Benefits

Kidney

- ↓ progression to ESRD
- ↓ albuminuria
- ↓ risk of eGFR decline

Cardiovascular

- ↓ cardiovascular death
- ↓ HF hospitalization
- ↓ MI and stroke (modest but meaningful)

Who Should Get It?

Ideal for patients with:

- HFpEF / HFmrEF
- CKD + T2DM
- Albuminuria
- Intolerance to spironolactone
- High potassium sensitivity
- Resistant hypertension with kidney disease

Dosing

- 10 mg or 20 mg once daily

For HR reduction



Ivabradine

Must be in sinus to work!

For: [NYHA] class II and III) To reduce HR 10 bpm

How it works: HCN antagonist - Works in funny channels in SA node to lower heart rate

Say no for: Heart block, decompensated HF, hypotension, bradycardia

Ivabradine

- HCN blocker in SA node
- (inhibits cardiac pacemaker current to decrease HR)
- Lowers HR
- Lowers CHF admissions
- Use when maxed out BB, EF less than 35%
- Will decrease HR 10-15 bpm
- Needs to be in sinus to work
- No effect on BP

Why do we care about HR in HF?

New Amyloid Drug



Tafamidis

🔬 Mechanism of Action:
- Selectively binds transthyretin (TTR), stabilizing the tetramer
- Prevents dissociation into monomers and amyloid fibril formation

💼 Indications:
- FDA-approved for wild-type or hereditary ATTR-CM in adults

💊 Dosing:
- Vyndaqel: 80 mg PO daily (4 x 20 mg)
- Vyndamax: 61 mg PO daily (1 capsule, bioequivalent)

⚠️ Monitoring / Safety:
- Well tolerated; monitor GI symptoms and LFTs
- No dose adjustment for renal/hepatic impairment

📝 Pearls for Practice:
- Maximal benefit in NYHA I–II
- Suspect with LVH + low voltage ECG
- Use Tc-99m PYP scan to confirm diagnosis noninvasively

📊 Key Evidence – ATTR-ACT Trial:
- NEJM 2018: Reduced all-cause mortality & CV hospitalizations
- Slowed functional decline (6MWT, KCCQ scores)



Furoscix (Furosemide)

It delivers 80 mg of furosemide
over about 5 hours

Avoid hospitalizations ->>>

Especially those who may struggle with oral diuretics or need more controlled diuresis

- Patients must be currently on **oral loop diuretic therapy** and be deemed **suitable** for at-home treatment by a healthcare provider.
- STABLE vital signs and no evidence of renal failure.
- Enrollment in an at-home monitoring program and education on device use are also required.

41 y/o M with HFrEF (EF 35%)

- Also has DMII - Hga1c **6.8%**
- HLD - LDL **110**
- Cath: Non obstructive CAD
- HTN: **156/98, HR 110**
- Weight: **245**
- **OSA not treated**



Meds:

- Crestor 20 mg qd
- Lasix 40 mg bid
- Jardiance 25 mg qd
- Metoprolol xl 25 mg qd



What does he need now?

41 y/o M with HFrEF (EF 35%)

- Also has DMII - Hga1c **6.8%**
- HLD - LDL **110**
- Cath: Non obstructive CAD
- HTN: **156/98, HR 110**
- Weight: **245**
- **OSA not treated**



Changes:

- Crestor **40** mg qd
- Lasix 40 mg bid → Torsemide vs bumex → or increasing lasix dose
- Could consider Furosix or metolazone
- Jardiance 25 mg qd
- Metoprolol xl **50** mg qd if HR can support or corlanor if BP soft
- +/- dig
- Consider **GLP1a**

Does he have a ICD?

Treat OSA!

How did he get here?

SGLT2 INHIBITOR

New meds!

FARXIGA(DAPAGLIFLOZIN)
JARDIANCE(EMPAGLIFLOZIN)

SGLT2I

Who: NYHA II-IV with reduced EF to reduce death/hospitalization

SE: Genital Mycotic infections, Urosepsis, Hypoglycemia with insulin admin

How: Once daily

Watch outs: If on diuretic, decrease the dose



Hyperkalemia

WHICH IS BETTER?

Patirome

High K r

Ras induced K

Binds in gut - less caustic

8.5 g qd is the dose

Sodium polystyrene sulfonate (SPS)

Causes bowel necrosis

Tolvaptan

- **HYPER/EUVOLEMIC HYPONATREMIA**
- **NA LESS THAN 125**
- **CAUSES AQUARESIS**

  Diuretics cause fluid & electrolyte loss.
- **USUALLY JUST USED FOR 30 DAYS**

VERICIGUAT INDICATIONS



LVef < 45%
NYHA II, III
Chronic HF
One hospitalization in their lifetime for HF
On standard of care -- (ARNI/BB/Sglt2I/MRA)
Can go down to GFR of 15%
It is BP neutral (1-2 mm)
Dose increase q 2 weeks to max dose where benefits are seen
SE: Anemia, minor hepatic clearance

VERICIGUAT

How: sGC Stimulator = smooth muscle relaxation

Benefits: Decreases hospitalization
Reduce SV death and HF
SO? Don't wait for 5th drug

SE: Anemia





Lipids

WHAT DO WE USE NOW

Lipid Therapy



Statin

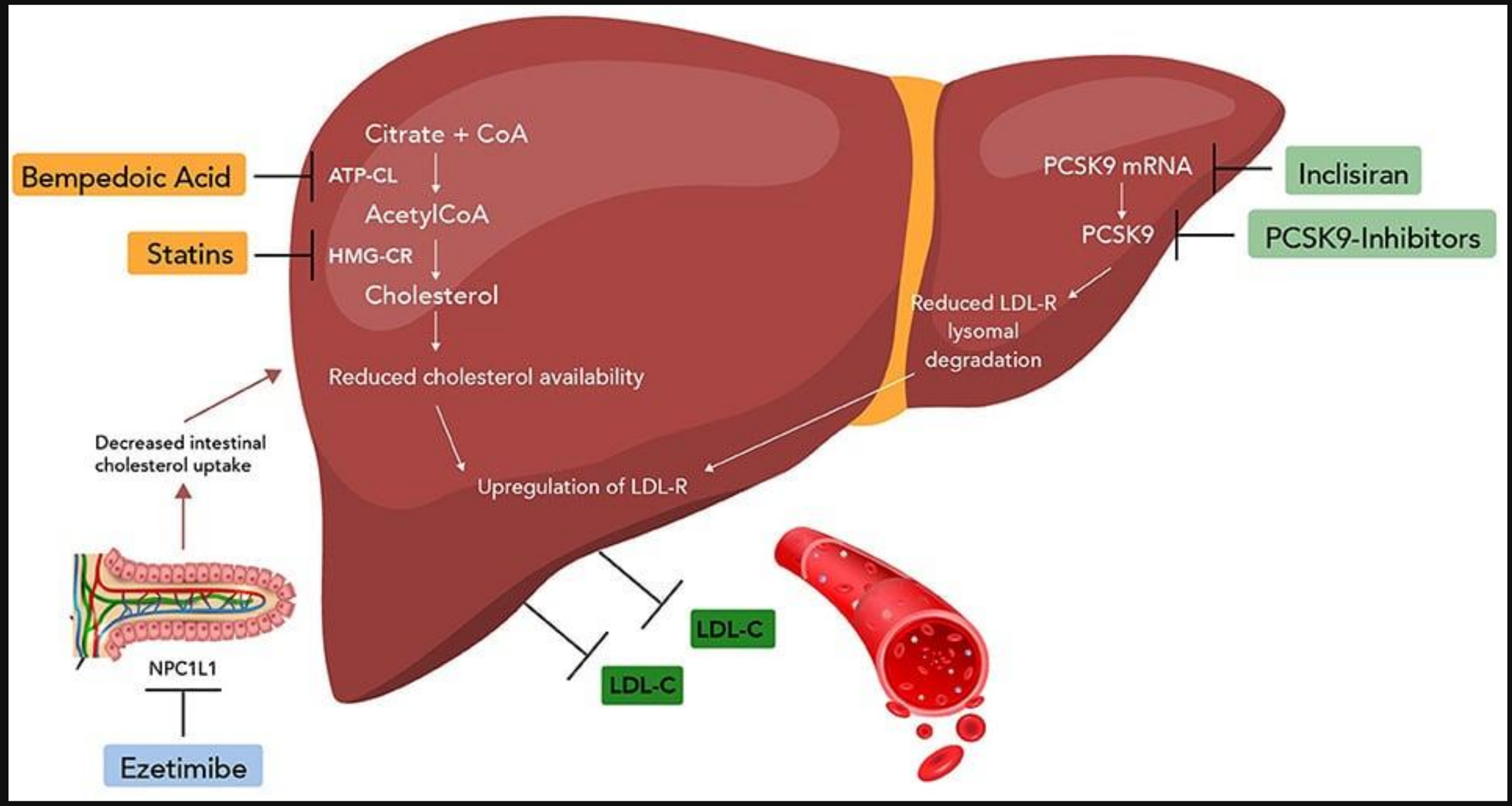


Pks9 Inhibitor



Bempedoic acid

Mechanisms of Lipid-Lowering Agents



www.researchgate.net/figure/Mechanism-of-non-statin-drugs

Bembedoic Acid



◆ Dosing / Administration

- 180 mg PO once daily, with or without food.
- No titration required; check lipids 8–12 weeks after initiation.
- Avoid use with:
  - Simvastatin >20 mg
  - Pravastatin >40 mg
    (↑ risk of myopathy)

◆ Efficacy

As monotherapy or add-on therapy, bempedoic acid yields ~17–28% LDL-C reduction at 12 weeks in clinical trials.

◆ Safety / Monitoring (Key Points)

Common Adverse Effects

- URTI
- Muscle spasms
- Hyperuricemia
- Back or abdominal pain
- Bronchitis
- Pain in extremity
- Anemia
- Elevated LFTs

CLEAR Outcomes CV Trial – Most Frequent AEs (vs placebo)

- Hyperuricemia
- Renal impairment
- Anemia
- Increased LFTs
- Muscle spasms
- Gout
- Cholelithiasis

⚠ Warnings

- **Hyperuricemia / gout**
  - Monitor for symptoms; check uric acid as clinically indicated.
- **Tendon rupture**
  - Higher risk in patients >60 years, those on steroids/fluoroquinolones, with renal failure, or with prior tendon disorders.
  - Discontinue if tendon pain, swelling, or rupture occurs.

CLEAR OUTCOMES TRIAL

New med!

NEXLETOL (BEMPEDOIC ACID)

Blocks the liver's production of cholesterol

Who: CV disease or "very high" LDL (FH)

- SE: muscle spasms, back pain, stomach pain, bronchitis, pain in shoulder, legs, or arms, anemia, and increased liver enzymes

How: 180 mg qd with or without food
Reserve for: Those are needle averse or who don’t get to LDL goal on statin or have FH but don’t give to people who have gout.



TIPS TO GET IT

"Pt **needs more** than what zetia can get us (17%)

Is on max tolerated dose of statin

"Pt **resistant** to injection" and needs more LDL reduction



Bempedoic acid



A — ASCVD dx

D — Documented max tolerated statin

D — Didn't get to LDL goal

Bembedoic acid



Nexletol

Oral ACL inhibitor; prodrug activated in the liver (not skeletal muscle) → upstream of HMG-CoA reductase, ↓ cholesterol synthesis, ↑ LDL-R activity, ↓ LDL-C

Current FDA-Labeled Indications (US, 2024 label)

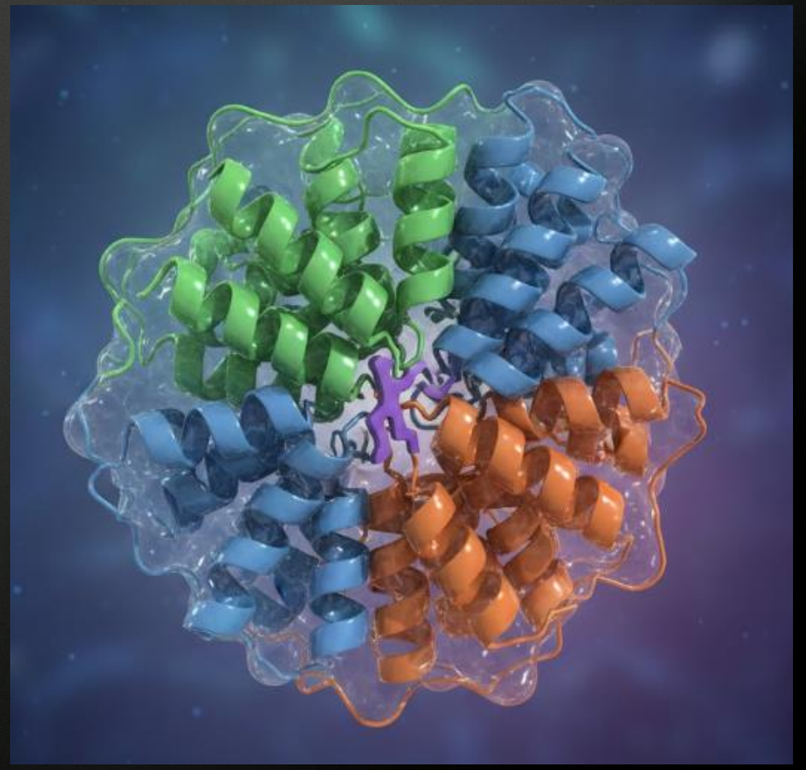
1. **ASCVD or high-risk primary prevention** patients who are unable to take recommended-intensity statins (including no statin):
   - Reduces risk of MI and coronary revascularization (bempedoic acid component of Nexletol / Nexlizet).

2. **Primary hyperlipidemia** (including HeFH) in adults, as adjunct to diet:
   - Nexletol alone or with other LDL-lowering therapies to reduce LDL-C.

PCSK9 Inhibitors (PCSK9i) – Lipid Management Pearls

What is PCSK9?

- PCSK9 binds to LDL receptors (LDLR) on hepatocytes
- Promotes LDLR degradation
- Fewer receptors → higher LDL-C



Mechanism of Action

- PCSK9 inhibitors (monoclonal antibodies):
- Bind circulating PCSK9
- Prevent LDLR degradation
- ↑ LDL receptor recycling to liver surface
- ▼ LDL-C by ~50–60%

PCSK9 Inhibitors (PCSK9i) – Lipid Management Pearls

💡 Use after statin + ezetimibe in most patients
💡 Excellent option when LDL remains high despite “doing everything right”
💡 Helpful in high Lp(a) patients — but not definitive therapy
💡 Cost + prior auth = biggest barrier

Indications (Guideline-Driven)

✓ Clinical ASCVD not at LDL goal on maximally tolerated statin ± ezetimibe
✓ Familial hypercholesterolemia (HeFH, HoFH)
✓ Statin-intolerant patients with high ASCVD risk

PCSK9 Inhibitors (PCSK9i) – Lipid Management Pearls

Lipid Effects

- ▼ LDL-C: 50–60%
- ▼ Lp(a): ~20–30% (not primary indication)
- Minimal effect on TG, HDL modest ↑

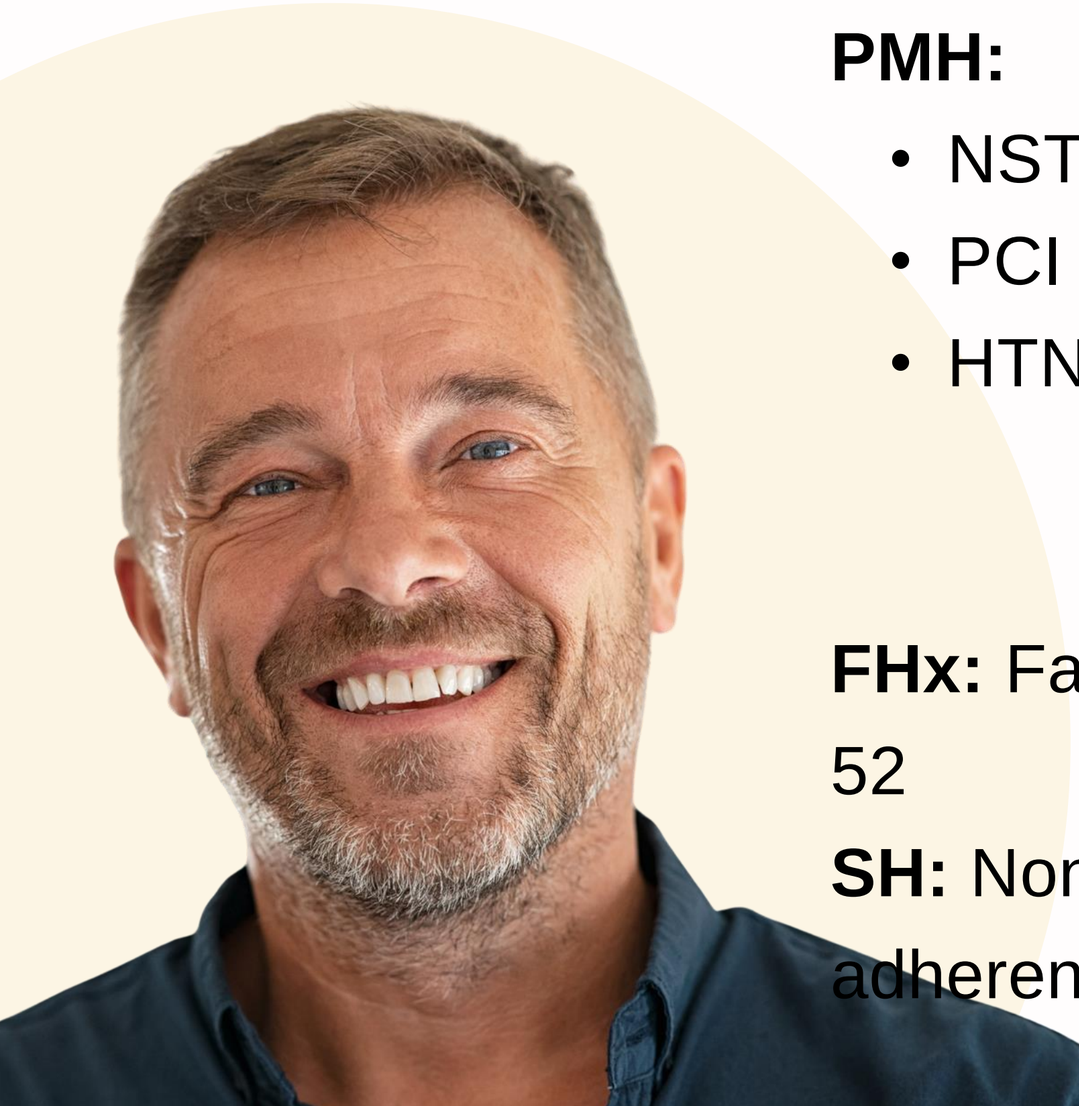
✓ Reduced:

- MI
- Stroke
- Need for revascularization

✗ No increase in:

- Diabetes
- Neurocognitive events (reassuring data)

58 y.o male s/p PCI 2 years ago



PMH:

- NSTEMI 2 years ago
- PCI to LAD
- HTN, HLD

FHx: Father with MI at age 52

SH: Non-smoker, active, adherent to meds

MEDS:

- Atorvastatin 80 mg daily
- Ezetimibe 10 mg daily
- Aspirin 81 mg daily
- Metoprolol succinate
- Lisinopril

RECENT LABS:

LDL-C: 92 mg/dL

HDL-C: 42 mg/dL

Triglycerides: 130 mg/dL

Lp(a): 68 mg/dL (elevated)

🎯 **LDL Goal:** < 70 mg/dL (very high-risk ASCVD)

- Patient has established **ASCVD**
- Already on high-intensity statin
- Already on **ezetimibe**
- LDL remains well **above target**
- **Lifestyle** optimized

High-risk features:

- Prior MI
- FHx
- Elevated Lp(a)

Despite maximally tolerated statin + ezetimibe, LDL remains above goal.

What is the next best step?



Introducing Lipfendra®

(enlicitide)

First Oral PCSK9 Inhibitor for LDL-C Reduction



💊 Drug Class

- PCSK9 inhibitor
- First FDA-approved oral (tablet) PCSK9 inhibitor
- Prescription medication for lowering LDL ("bad") cholesterol.

📈 Clinical Benefits

- Once-daily oral tablet
- Lowers LDL-C by approximately:
  - 56% in patients with ASCVD/high cardiovascular risk
  - 59% in patients with HeFH
- Offers an oral alternative to injectable PCSK9 inhibitors.

⚠️ Common Side Effects

- Diarrhea
- Dizziness
- Overall adverse event rates were similar to placebo in major trials.

🕒 Administration

- 20 mg orally once daily
- Take on an empty stomach in the morning
- Wait 30 minutes before eating (water permitted).

INCLISIRAN

New med!

INCLISERAN

First "small RNA" therapy for lipid lowering.
Blocks formation on the PCSK9 Inhibitor protein
(PCSK9 I prevents binding)

Who: CV disease or "very high" LDL (FH)

SE: Site injection pain, URI sx

How: SQ 0,3 then q 6 mo
Cost: $6500/year plus admin Evolocumab is $6100
Reserve for: Those who won't do More Freq Injections, can't tolerate a statin.



Inclisiran

siRNA LDL-C-lowering

Any documented **CV disease** (PAD, Atherosclerosis in aorta, CAD, CAC)
Document **statin intolerant** (myalgais or other cognitive se)
Don't necessarily have to try **zetia** first
52% reduction with or without statin



In ORION-10, which included over 1500 ASCVD patients, LEQVIO demonstrated a 52% LDL-C reduction vs placebo at month 17 (95% CI: -56%, -49%; P<0.0001) as a complement to a maximally tolerated statin.1

Familial Hyperlipidemia



Eating Healthy - is it enough?

Hint: no!

Xanthoma tendons

Xanthelasma-eyelids

1-113 people have it

TC: 290

LDL: 190

Incliseran



Inclisiran (Leqvio) – 50% LDL Lowering

- siRNA, works by gene silencing.
- Leqvio plasma levels decline within 24 hours and are undetectable within 48 hours.
- Given in the clinic every 6 months
- ASCVD, Familial Hypercholesterolemia, CAC >300
- Cost is best covered by Medicare + supplemental insurance

CHECKLIST:

Diagnosis of Clinical Atherosclerotic Cardiovascular Disease ASCVD:

- ☐ I24.9: ACS
- ☐ I21.__: MI
- ☐ I20.__: Angina
- ☐ G45.9: TIA
- ☐ I73.9: PAD
- ☐ I70.8: Revascularization
- ☐ I63.__: Stroke
- ☐ I25.10: CAD

Recent LDL–C Level _____

Current Lipid Lowering Therapy:

Statin: _____ Dose: _____ Ezetimibe: YES ☐ NO ☐

(inclisiran) injection 284 mg/1.5 mL

This checklist is meant to capture the most common information typically needed by a treatment center. Use this checklist to help complete the LEQVIO Referral/Order Form and to ensure necessary clinical information in support of the referral is attached. **NOTE: You should check with the treatment center directly to confirm the process for referral and information required.**

Patient Name: _____ Date of Service: _____

Low-density lipoprotein cholesterol (LDL-C) status ☐ Patient requires additional lowering of LDL-C ☐ Other

Patient has a history of clinical atherosclerotic cardiovascular disease (ASCVD)—select all that apply

- ☐ Angina, stable or unstable
- ☐ Coronary syndrome, acute
- ☐ Myocardial infarction, history of
- ☐ Revascularization, coronary or other arterial (coronary artery bypass grafting, percutaneous transluminal coronary angioplasty, etc)
- ☐ Peripheral arterial disease
- ☐ Positive findings in computerized tomography angio or cath
- ☐ Stroke
- ☐ Transient ischemic attack
- ☐ Other: _____

AND/OR

Patient has a history of heterozygous familial hypercholesterolemia (HeFH)—select all that apply

- ☐ Dutch Lipid/WHO Score >8
- ☐ Pretreatment LDL-C ≥190 mg/dL
- ☐ First or second degree relative with pretreatment LDL-C ≥190 mg/dL
- ☐ Simon Broome diagnostic criteria met
- ☐ Other: _____

AND/OR

Other relevant patient history

- ☐ _____
- _____
- _____
- _____
- _____

ICD-10-CM diagnosis codes ☐ Primary ICD-10-CM code ☐ Secondary ICD-10-CM code(s)

Lab values ☐ Relevant tests and recent lab values including LDL-C levels >70 mg/dL

Current and previous lipid-lowering therapy—select all that apply

- ☐ Atorvastatin (LIPITOR®) ☐ 10 ☐ 20 ☐ 40 ☐ 80 ---------- Dates/length of use: _____
- ☐ Pravastatin (PRAVACHOL®) ☐ 10 ☐ 20 ☐ 40 ☐ 80 ------- Dates/length of use: _____
- ☐ Simvastatin (ZOCOR®) ☐ 5 ☐ 10 ☐ 20 ☐ 40 ☐ 80 ------- Dates/length of use: _____
- ☐ Rosuvastatin (CRESTOR®) ☐ 5 ☐ 10 ☐ 20 ☐ 40 --------- Dates/length of use: _____
- ☐ Ezetimibe (ZETIA®) ☐ 10 ---------- Dates/length of use: _____
- ☐ Other: _____ Dates/length of use: _____
- ☐ Patient had inadequate response to maximally tolerated lipid-lowering therapy

Medical history for statin therapy—select all that apply

- ☐ Patient experienced myalgia/myositis that resolved when removed from therapy
- ☐ Patient has undergone re-challenge with lower dose statin with symptom reappearance
- ☐ Patient has known contraindications to statins
- ☐ Patient has creatine phosphokinase elevations >10x upper normal limit
- ☐ Other: _____

IMPORTANT SAFETY INFORMATION

Adverse reactions in clinical trials (≥3% of patients treated with LEQVIO and more frequently than placebo) were injection site reaction, arthralgia, urinary tract infection, diarrhea, bronchitis, pain in extremity and dyspnea.

INDICATION

LEQVIO (inclisiran) injection is indicated as an adjunct to diet and maximally tolerated statin therapy for the treatment of adults with clinical atherosclerotic cardiovascular disease (ASCVD) or heterozygous familial hypercholesterolemia (HeFH) who require additional lowering of low-density lipoprotein cholesterol (LDL-C). **Limitations of Use:** The effect of LEQVIO on cardiovascular morbidity and mortality has not been determined.

Please see accompanying LEQVIO full Prescribing Information.

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ADVERSE REACTIONS



Injection site reaction
Arthralgia
Urinary tract infection
Diarrhea
Bronchitis
Pain in extremity
Dyspnea

NEW DRUG

Evkeez (Evinacumab-dgnb)

What to do when Statin, Zetia andPCSK9i) fail

a

EVKEEZA® (evinacumab-dgnb), an ANGPTL3 inhibitor, has the power to significantly reduce LDL-C levels by ~50% when added to current standard therapies as seen in clinical trials.[1]

◆ Indications

- It is an angiopoietin-like 3 (ANGPTL3) inhibitor indicated as an adjunct to other low-density lipoprotein-cholesterol (LDL-C) lowering therapies for the treatment of adult and pediatric patients, aged 5 years and older, with homozygous familial hypercholesterolemia (HoFH).

◆ Limitations of Use:

• The safety and effectiveness have not been established in patients with other causes of hypercholesterolemia, including those with heterozygous familial hypercholesterolemia (HeFH).
• The effects of on cardiovascular morbidity and mortality have not been determined.

◆ Contraindication

Contraindicated in patients with a history of serious hypersensitivity reactions to evinacumab-dgnb or to any of the excipients in EVKEEZA. Serious hypersensitivity reactions, including anaphylaxis, have occurred.

NEW DRUG

Trynglozа

What it is

- ApoC-III inhibitor (antisense therapy)
- Targets apolipoprotein C-III, which normally blocks triglyceride breakdown

👉 So when you inhibit it:

- ↑ Lipoprotein lipase activity
- ↑ Clearance of triglyceride-rich particles

What it does

- Triglycerides ↓ 60–80% (this is massive)
- Works even in genetic hypertriglyceridemia
- 👉 This is NOT your typical “mild improvement” drug
- This is for severe disease

Who it’s for

- Primarily:
- Familial chylomicronemia syndrome (FCS)
- Severe TG elevation (often >500–1000) not controlled with standard therapy

👉 Think:

- Recurrent pancreatitis
- Sky-high TG despite fibrates + omega-3

Dosing

- Subcutaneous injection
- Typically monthly (varies slightly by protocol)

🏆 Most Likely to Come to Market in 2026 — Pelacarsen

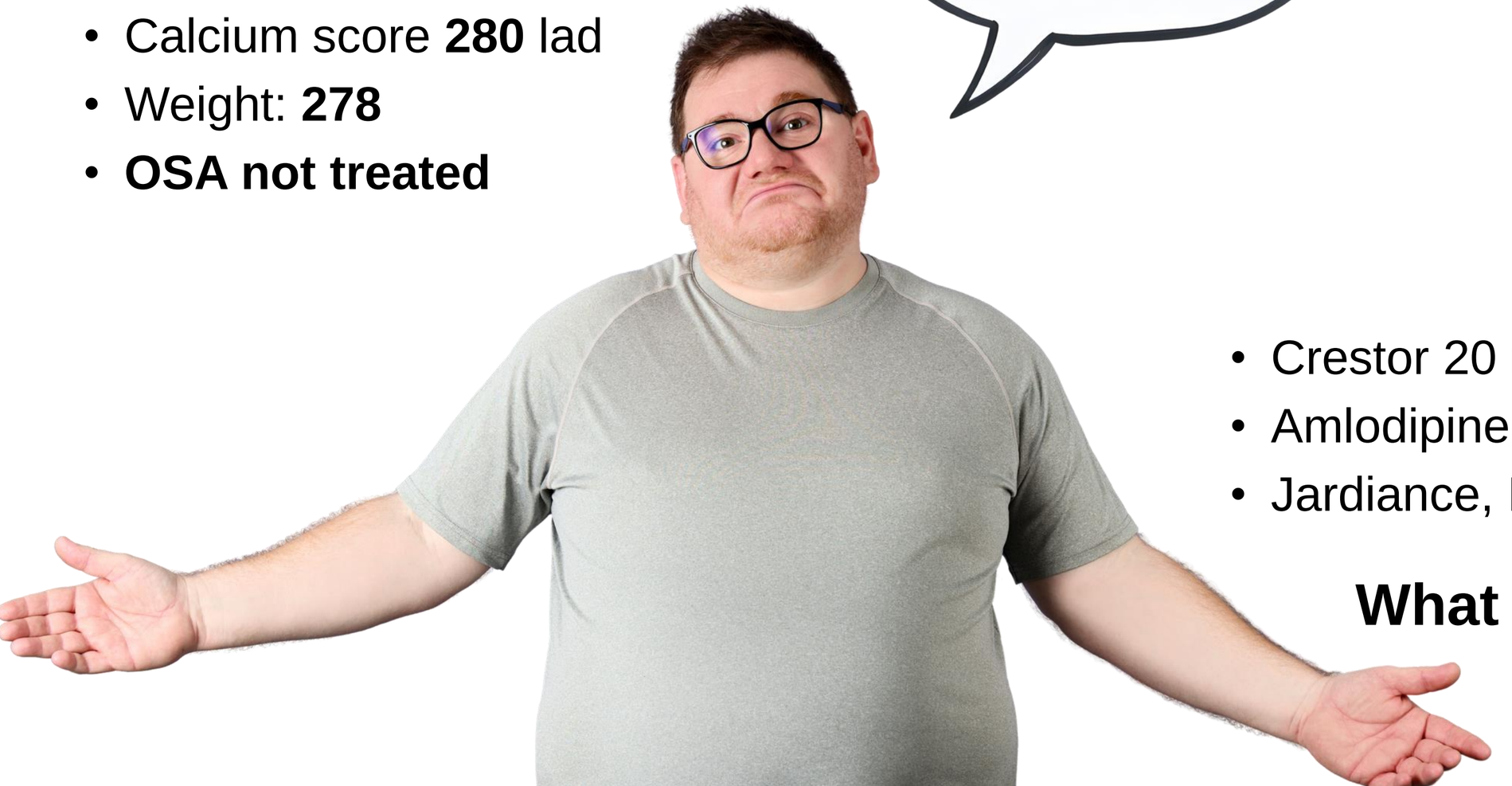
Pelacarsen is an antisense oligonucleotide (ASO) designed to dramatically lower Lp(a) by targeting the LPA gene in the liver.
It’s in the Phase 3 Lp(a)**HORIZON** cardiovascular outcomes trial, which is expected to finish and release data early in 2026.

Why this matters:
So far has shown positive clinical outcomes
— not just Lp(a) reductions



42 y/o M with HFpEF

- Also has DMII - Hga1c **7.8%**
- HLD - LDL **140**
- CKD: **CR 1.3**
- Calcium score **280** lad
- Weight: **278**
- **OSA not treated**



Meds:

- Crestor 20 mg qd, Zetia 10 mg qd
- Amlodipine 10 mg qd
- Jardiance, Metformin

What does he need?

42 y/o M with HFpEF

- Also has DMII - Hga1c **7.8%**
- HLD - LDL **140**
- CKD: **CR 1.3**
- BP: **142/95**
- Calcium score **280** lad
- Weight: **278**
- **OSA not treated**



Meds:

- Crestor 20 mg qd, Zetia 10 mg qd
- Amlodipine 10 mg qd
- Jardiance, metformin
- **- Add on Tirzepitide**
- **- Add on Repatha**
- **- Consider better** bp control

Treat OSA!

Can he exercise?

Whats his diet like?

Tirzepatid

Cardiac Benefits....

- Decreases CRP
- Decreases VLDL (18%)
- Decreases Triglycerides (19%)
- Increases HDL (6.8%)

Other benefits: Weight loss, lowers Hga1c, Fatty liver



Tirzepatide

- Obesity
- Diabetes
- Hypertension
- Early HFpEF

Observational + pooled data show:

↓ MACE
↓ stroke
↓ ACS
↓ mortality

👉 Tirzepatide is not just treating glucose
👉 It is treating the entire cardiometabolic disease process

https://www.sciencedirect.com/science/article/abs/pii/S1530891X25012923?utm_source=chatgpt.com

NEW DRUG

Baxfendy (bexagliflozin)

BAXFENDY® (bexagliflozin), an SGLT2 inhibitor, helps lower blood glucose levels by increasing urinary glucose excretion and supports modest weight loss and blood pressure reduction when added to standard therapy.[1]

◆ Limitations of Use:

• Not recommended for patients with type 1 diabetes mellitus due to increased risk of diabetic ketoacidosis
• Not recommended for use to improve glycemic control in patients with severe renal impairment or end-stage renal disease
• The effects on cardiovascular outcomes have not been established

◆ Indications

- It is a sodium-glucose cotransporter 2 (SGLT2) inhibitor indicated as an adjunct to diet and exercise to improve glycemic control in adults with Type 2 Diabetes Mellitus

◆ Contraindication

Contraindicated in patients with:
• Hypersensitivity to bexagliflozin or any component of the formulation
• Patients on dialysis

Serious adverse reactions may include ketoacidosis, volume depletion, urosepsis/pyelonephritis, and increased risk of genital mycotic infections.



Thank you!

Jen@conqueringcardiology.com