## STABLE ANGINA CLASSIFICATION:

| Class I | Class II | Class III | Class IV |
|---|---|---|---|
| No sx | Slight limitation of ordinary activity | Marked limitation of physical activity | Unable to do any physical activity without discomfort |
| Can perform ordinary activities without limitations (walking and climbing stairs) | Sx with walking > 2 level blocks and climbing > 1 flight of stairs at normal pace in normal conditions | Sx with walking ≤ 2 blocks or climbing ≤ 1 flight of stairs at normal pace in normal conditions | Sx at rest |
| Mild | | Moderate | Severe |

## MAIN GOALS OF THERAPY:

- Anti-anginal therapy: prevent episodes of angina and relieve sx = ↑ quality of life
- Secondary prevention txt: prevent CV events and death = ↑ quantity of life

### GOALS OF THERAPY:

1. Eliminate or reduce ischemic sx
2. Maintain or restore a level of activity, functional capacity and quality of life that is satisfactory to the pt
3. Reduce premature CV death
4. Prevent complications that impair patient's well-being (MI or HF)
5. Minimize healthcare costs (prevent hospital admissions, reducing unnecessary tests and treatments)
6. Avoid adverse drug reactions
7. Treat surrogates and risk factors (blood pressure, heart rate, blood glucose (DM), lipids, etc….)

## APPROACH TO MANAGING STABLE CAD:

1. Anti-anginal therapy for symptom relief
    - Uncomplicated patient
        a. NTG SL for immediate relief of angina
        b. B-blockers first line therapy
            > CCBs if B-blockers not tolerated or contraindicated
        c. If maxed out on b-blockers (titrated until heart rate 55-60 bpm), consider adding DHP CCB or nitrates
            > CCBs preferred (better tolerated)
        d. Can use triple therapy if not adequately controlled (B-blockers + CCB + nitrates)
    - HR < 60 bpm
        a. NTG SL for immediate relief
        b. DO NOT use beta-blockers (due to low HR)
        c. Use DHP CCBs or nitrates (CCB preferred)
    - HR < 60 bpm and low BP
        a. None are feasible options
        b. Consider revascularization w/ PCI or CABG
        c. If revascularization not an option
            > Consider ranolazie
            > Opioids for analgesia
            > EECP, spinal cord stimulation, TENS (acupuncture not recommended)
        d. NTG SL with caution (check blood pressure)
2. Prevent MI and death
    - All patients receive 81 mg of ASA indefinitely
        a. If intolerant or contraindicated, use clopidogrel 75 mg
        b. DAPT (ASA + clopidogrel) not recommended UNLESS THEY HAD A STENT
    - All patients receive statin (LDL target < 2 or reduce by 50%)
    - ACEI (or ARB) if pt also has HTN, DM, left ventricular EF < 40%, or CKD
        a. Can use ACEI in stable CAD without compelling indication but is controversial
    - B-blockers continued indefinitely if LV systolic dysfunction (EF < 40%) w/ or w/o HF (unless contraindicated) or prior MI
        a. B-blocker therapy should be started and continued for 3 years in ALL patients with normal LV function after MI or ACS
3. Risk factor modification
    - Blood pressure control
    - Weight loss (goal BMO < 25)
    - Healthy eating
    - Increase physical exercise (!50 min/wk mod to vig activity)
    - Smoking cessation
    - Reduce alcohol consumption 1-2 drinks/day
    - Management of psychological factors (stress)

| | Adverse effects | Contraindications |
|---|---|---|
| B-blockers | • B1 effects: hypotension, bradycardia, cardiac failure<br>• B2 effects: bronchospasm, cold extremities, hyperglycemia impaired insulin release, blunt signs of hypoglycemia | • HR < 60 (relative)<br>• SBP < 100 (relative)<br>• Mod or sev LV failure (relative)<br>• Signs of peripheral hypoperfusion<br>• Shock<br>• PR interval > 0.24 sec<br>• $2^{o}$ or $3^{o}$ AV block<br>• Active asthma or reactive airway disease (relative, but absolute if severe) |
| CCB<br>Non-DHP: verapamil, diltiazem<br><br>DHP: amlodipine, felodipine, nifedipine XL | • Bradycardia (non-DHP)<br>• Hypotension<br>• Constipation<br>• Headache<br>• Peripheral edema<br>• DO NOT USE SL nifidepine (reflex tachycardia and increased risk of MI)<br>• CYP450 metabolism (except amlodipine) | • Avoid use of non-DHP CCB<br>  ○ With beta-blockers<br>  ○ In HFrEF<br>• Watch for CYP3A4 interactions with verapamil and diltiazem<br>• |
| Nitrates | • Headache<br>• Flushing<br>• Nausea<br>• Postural hypotension<br>• Syncope<br>• Nocturnal or rebound angina<br>• Skin irritation (patch)<br>• Tachyphylaxis (recommend 10-12 hrs nitrate-free interval daily) | • Severe hypotension<br>• Concomitant use of PDE inhibitors<br>• Right ventricular infarction<br>• Severe aortic stenosis |
| Ranolzine | • Dizziness<br>• Nausea<br>• Weakness<br>• Constipation<br>• Headache<br>• QT prolongation | |