ACUTE CORONARY SYNDROME

Classification:

1. Stable Angina: chest pain that occurs only during exertion, ECG changes present, no CE elevated. Relieved by S/L GTN

2. Unstable angina: chest pain that occurs even at rest, ECG changes present, no CE. Relieved by S/L GTN

3. NSTEMI: ECG changes present, CE elevated slightly, Troponin I not raised. Does not get relieved by GTN

4. STEMI: ECG changes present, CE elevated high, Troponin raised. Does not get relieve by GTN

SUBSETS OF MI:

Killip I: no signs of heart failure
Killip II: S3 gallop, crackles
Killip III: Acute pulm edema
Killip IV: Cardiogenic shock

Risk Factors:

1. Age > 65 years
2. HPT, DM, hypercholestrolemia
3. Smoking
4. Obesity

Clinical Features:
1. Chest pain: retrosternal/ central, sudden onset, crushing/ heavy type of pain, radiating to the left arm, jaw and neck, lasted for 3-5 minutes, a/w diaphoresis, nausea/ vomiting, palpitations.

2. Epigastric discomfort

**Investigations:**

1. **ECG:**
   - Hyperacute T wave (not tall, and tented like in Hyperkalemia tuh), if highly suspicious → ECG at 15 minutes intervals.
   - T wave inversion
   - ST depression.
   * If ST Depression in
     - ST elevation: in 2 contiguous leads
   * All leads except V2-V3: ≥ 0.1 mV ST segment ≥ 0.1 in all leads.
   * Leads V2-V3. a cut-off point ≥ 0.2 mV (in males < 40 years), ≥ 0.2 mV (in males ≥ 40 years) ≥ 0.15 mV in females is used.
   * Leads V7-V9 (Posterior leads): ≥ 0.05 mV (≥ 0.1 mV in men < 40 years)

   - Presumed/ New onset LBBB using : Sgarbossa’s Criteria (If more than 3 points → AMI)
     * Concordance ST Elevation > 1mm (5 points)
     * Discordance ST Elevation > 5mm (2 points)
     * ST Depression > 1mm in V2-V3 (3 points)

   - Q wave (if patient has U/L IHD before)

   IF INFERIOR STEMI: Order for ECG recording of the right praecordial lead (V4R) to identify concomitant right ventricular (RV) involvement. Also order for posterior ECG (V7-V9) too.
- Use HAS-BLED Score: Estimates risk of major bleeding for patients on anticoagulation to assess risk-benefit in atrial fibrillation care.

Hypertension, Abnormal renal/liver function, Stroke, Bleeding history or predisposition, Labile INR, Elderly, Drugs/alcohol (prior intake of meds like aspirin/ clopipgrel)

- Brady: Heart blocks

2. Heart Failure: - SBP < 90mmHg, and CXR- pulmonary edema
   - oxygen mask
   - IV Frusemide, IV Nitrates
   - IV Inotropes: IV Noradrealine

3. Cardiogenic shock: hypotension with SBP < 90 mmHg, resting tachycardia, altered mental status, oliguria, cool peripheries) and pulmonary congestion

4. RV INFARCTION (Infero-basal STEMI)
   - ST elevation in the right praecordial lead or (V4R)
   - hypotension, clear lung fields, rise JVP, in the setting of inferior STEMI is suggestive of RVI

Mx: - CI drugs that reduces preloads (Nitrates/ diuretics)
   - IV drips
   - IV Inotropes.
   - If fail jugak → indicates concomitant LV dysfunction: Nitroprussides

5. CHEST PAIN POST STEMI
A) REINFARCTION
   - recurrence of chest pain
   - recurrence of STE of at least 0.1 mv in at least two contiguous leads and/or