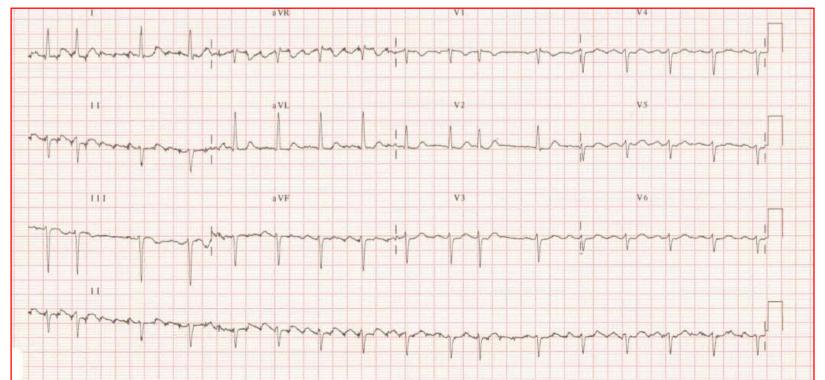


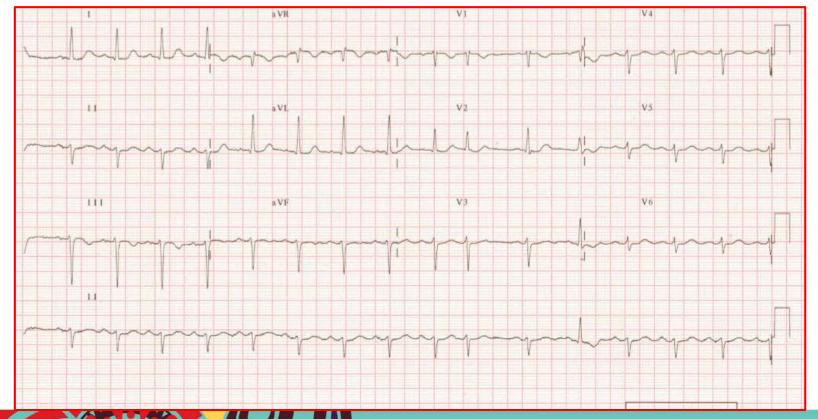
# Male, 79 yo.







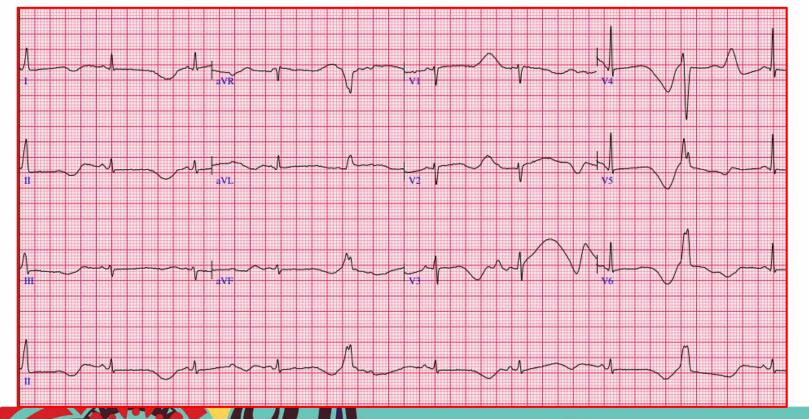
### To look well





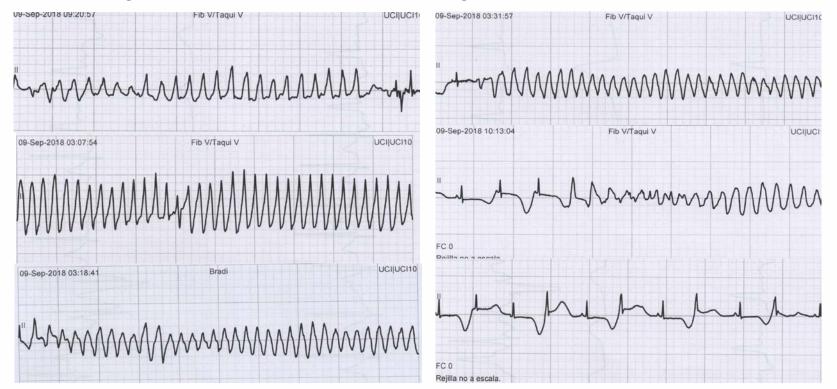


#### Male, 61 years old. HTN, DM2, badly controlled. CKD





#### Male, 61 years old. HTN, DM2, badly controlled. CKD

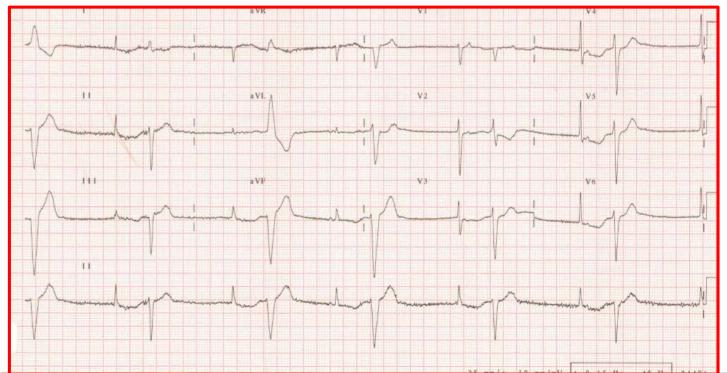






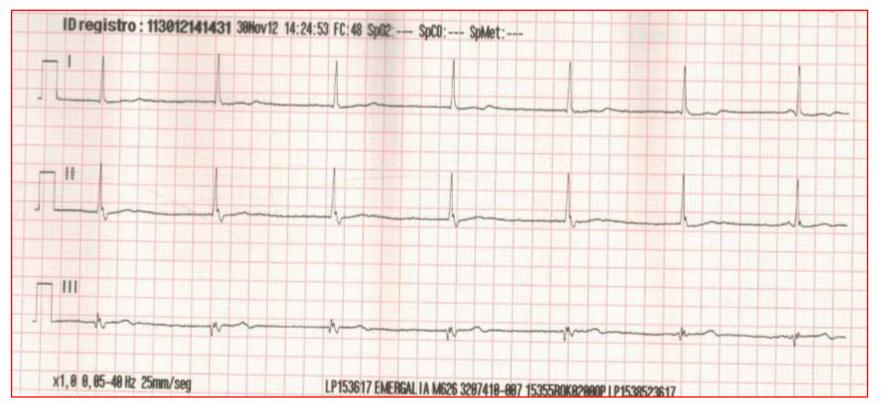


# Female, 84 yo. HTA, HF. Digoxin, losartan





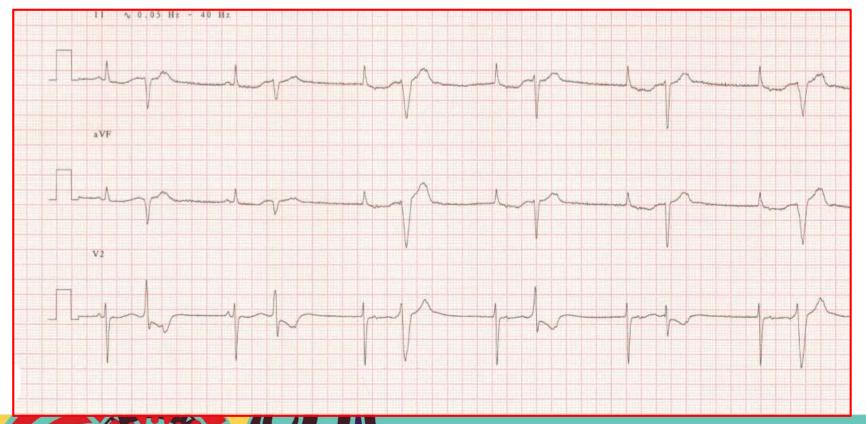






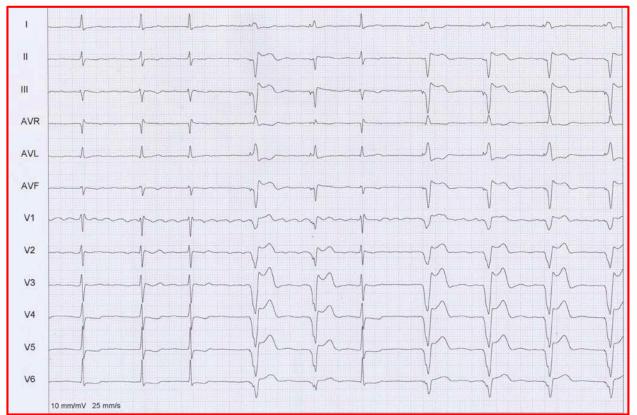










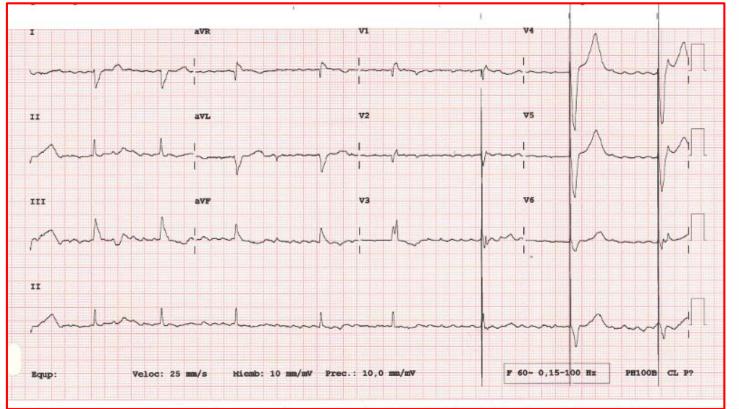






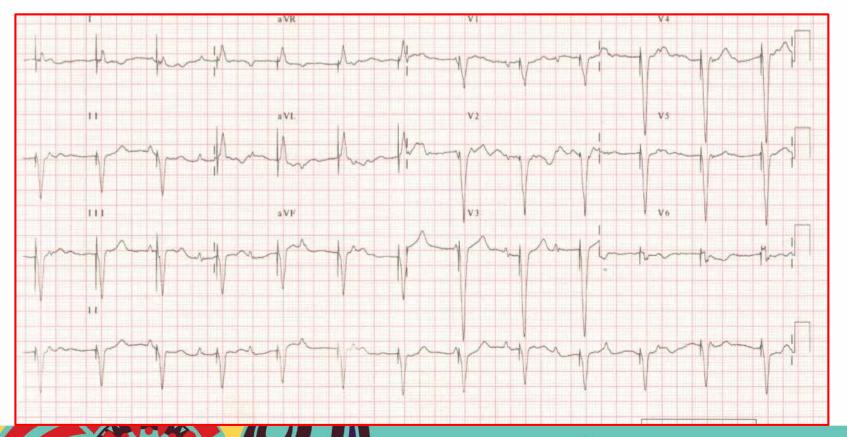


# Female. 90 yo.





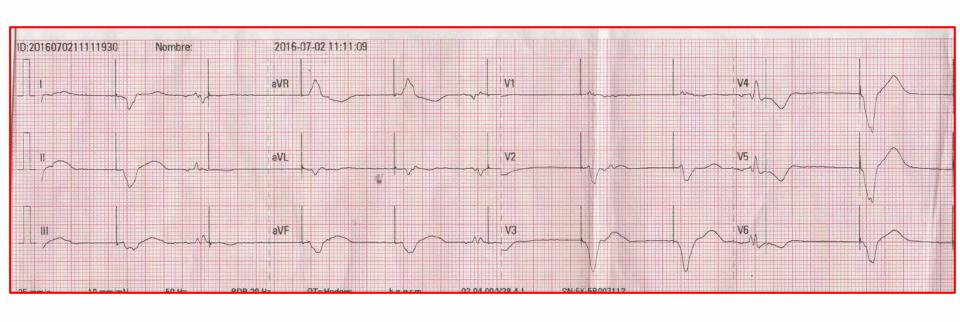






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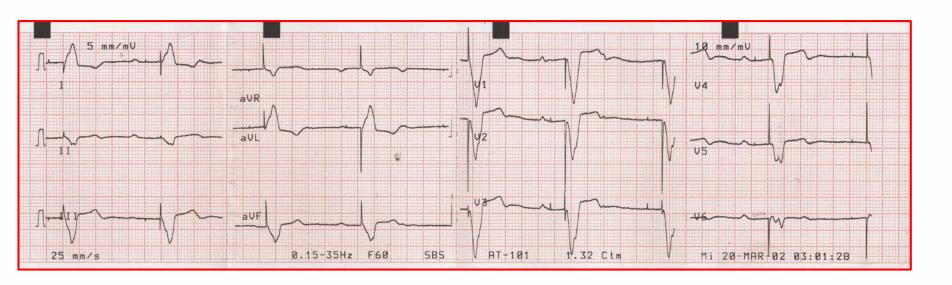






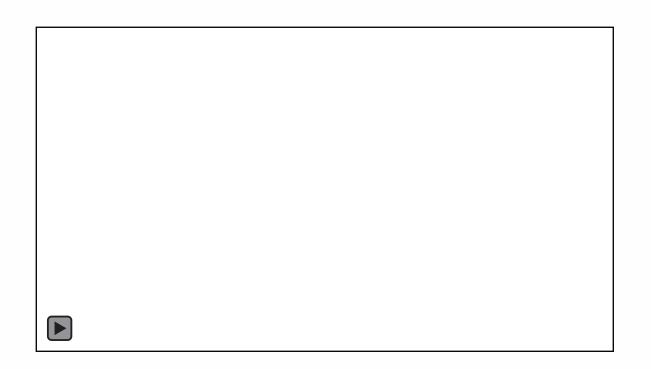


# Female 34 y. Pacemaker carrier since age 21.



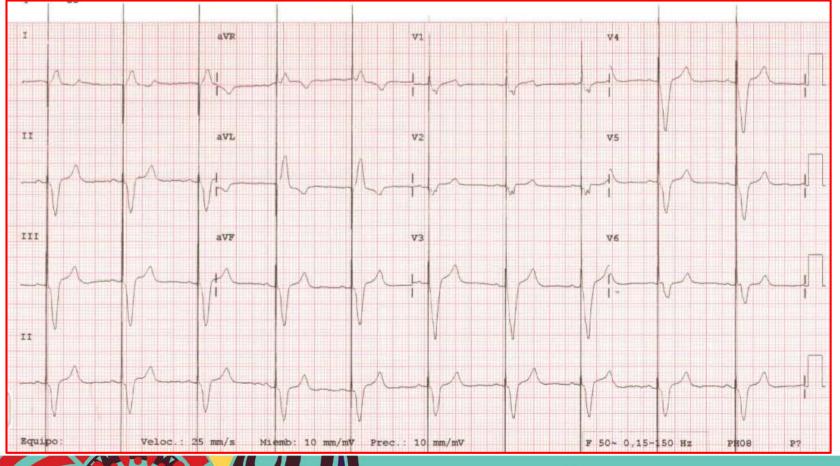










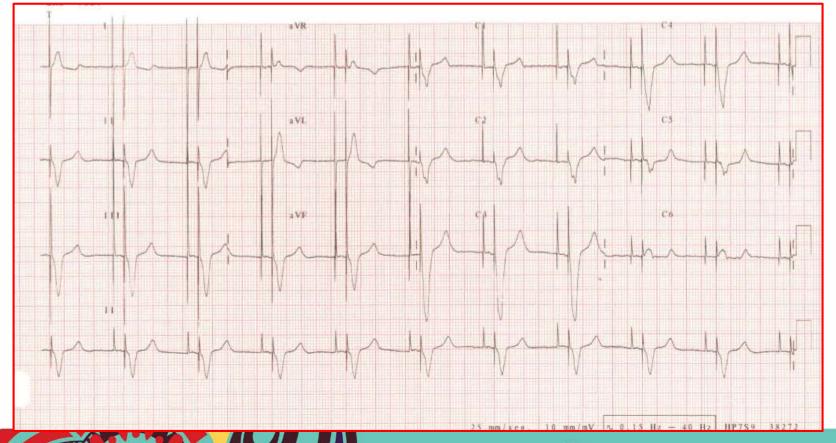










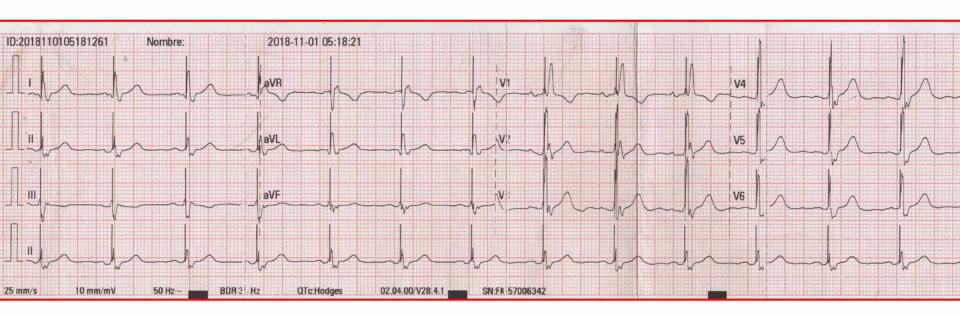






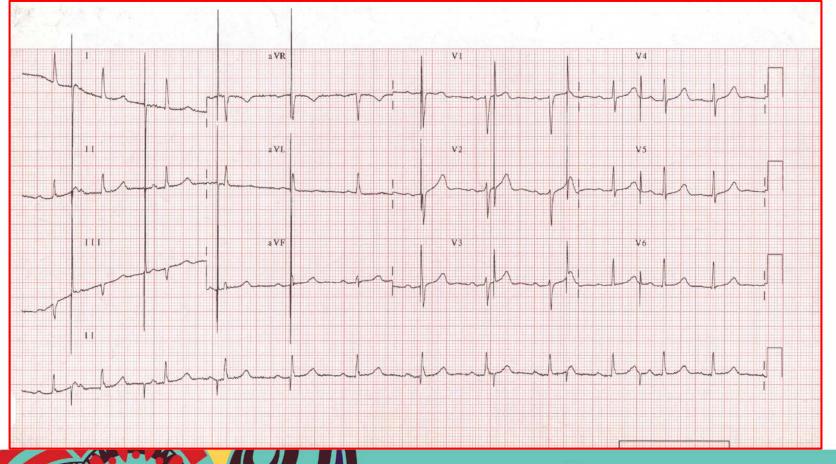


# Male, 85 yo. Hospitalized for sepsis





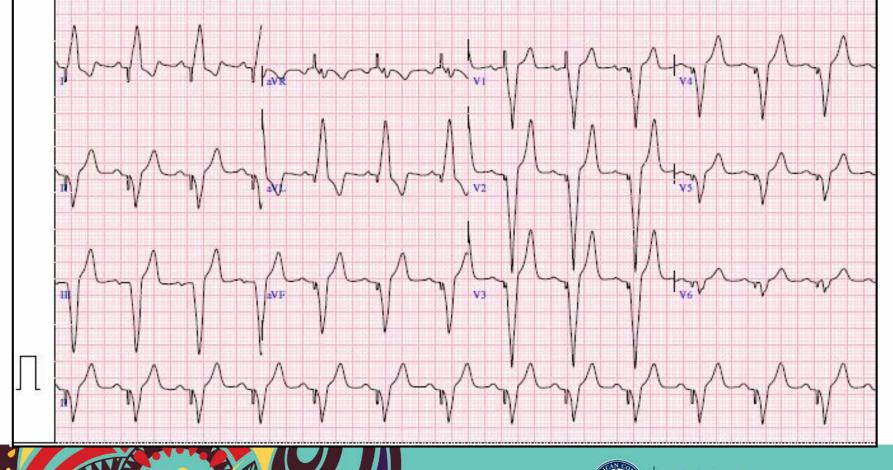






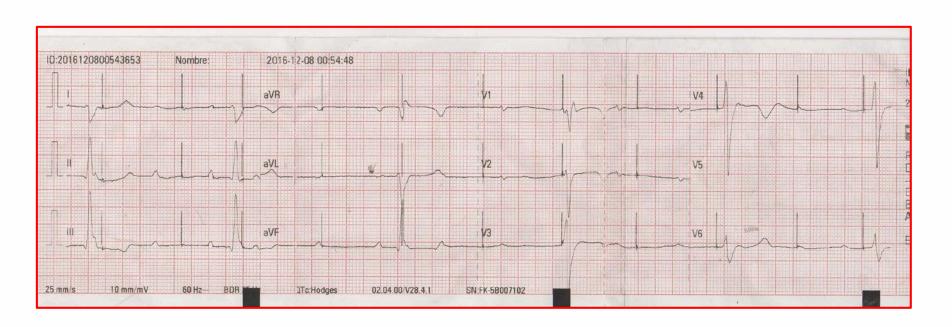








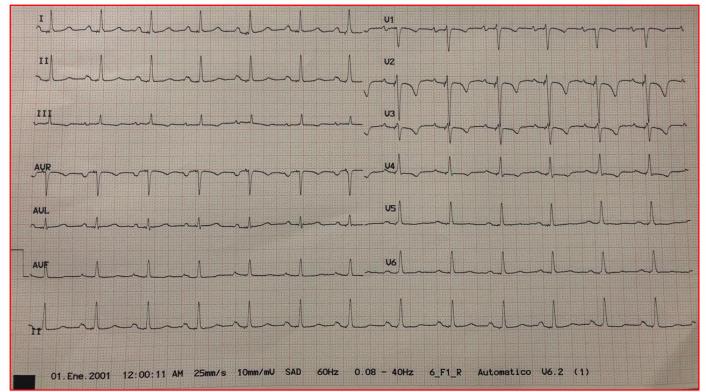








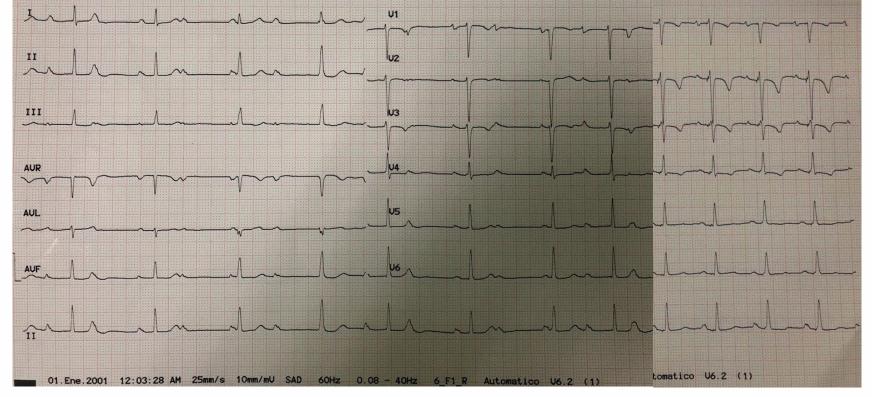
## 22 yo, female.





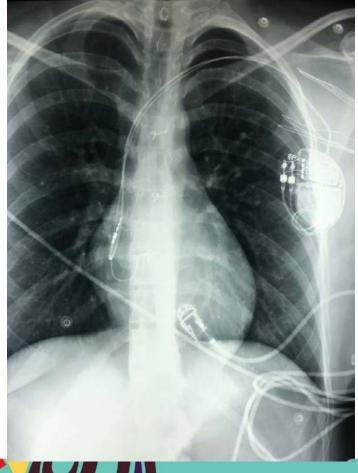


## 22 yo, female, interatrial communication correction





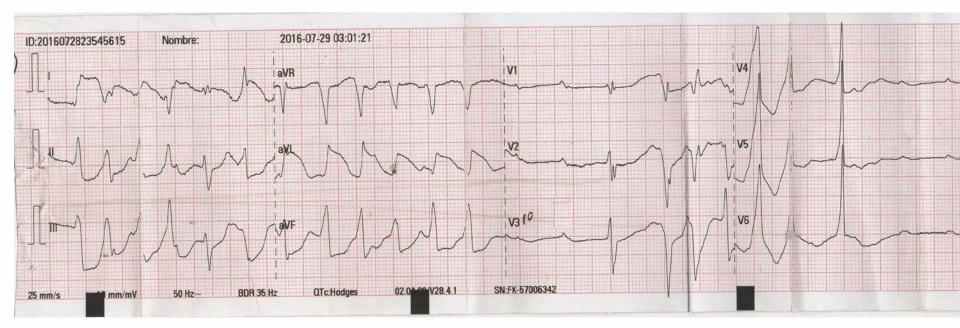








# 95 yo, female. Pacemaker 10 y ago.

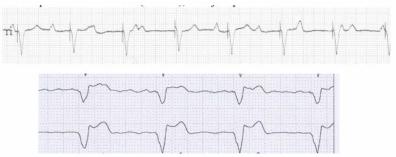




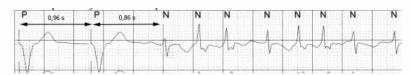


#### Single chamber pacemaker

- Generation of electrical stimuli
- Detection of the spontaneous myocardial electrical activity

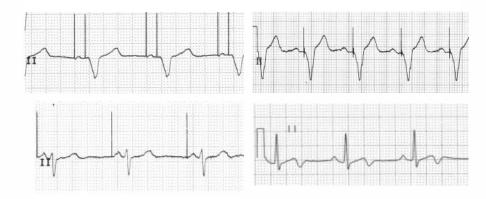


There should be no conflict between the stimulated rhythm and the patient's own



#### Dual chamber pacemaker

- Perform both functions in each of the 2 cameras
- AV interval: mimics the physiological interval between the contraction of both cameras



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# TBC: A simple algorithm to rule out abnormalities in electrocardiograms of patients with pacemakers

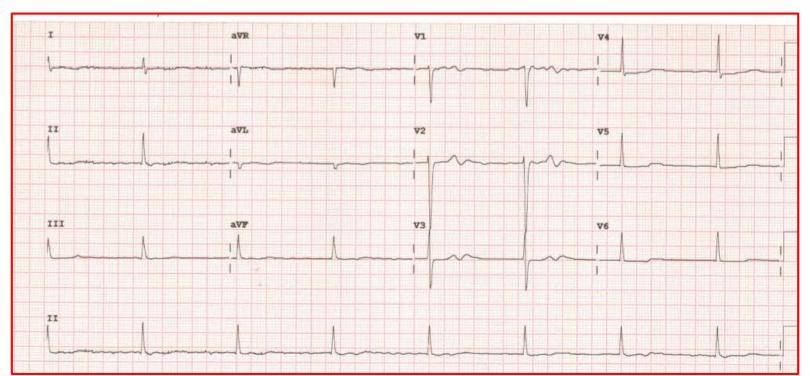
• T: Tachycardia with pacing spikes:

- Patient assessment
- B: Bradycardia without spikes Urgent pacemaker evaluation
- C: Chaos with spikes unrelated to QRS-T complexes.

Higueras et al. Cardiology Journal, accepted: 2018-05-08.



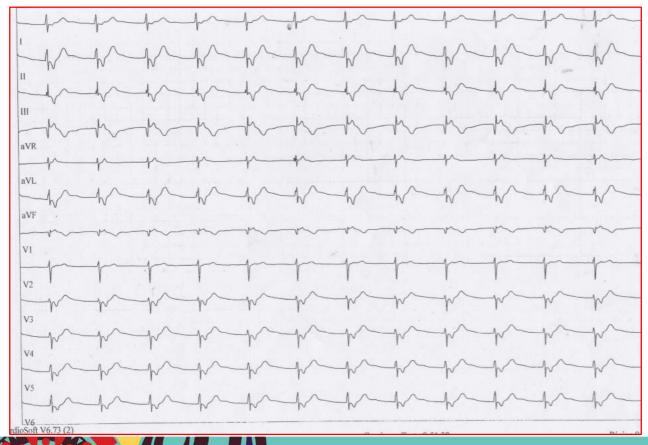










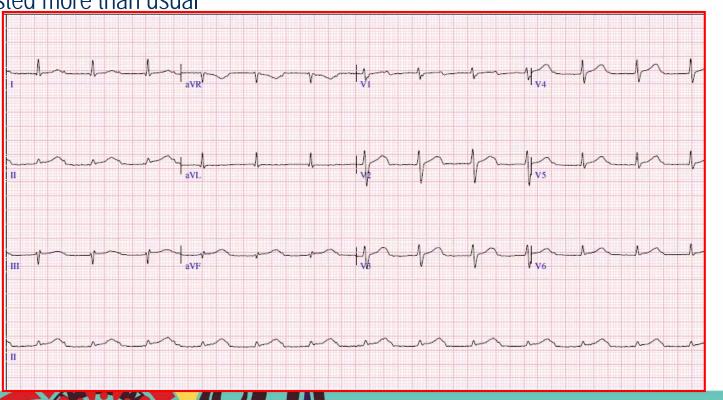






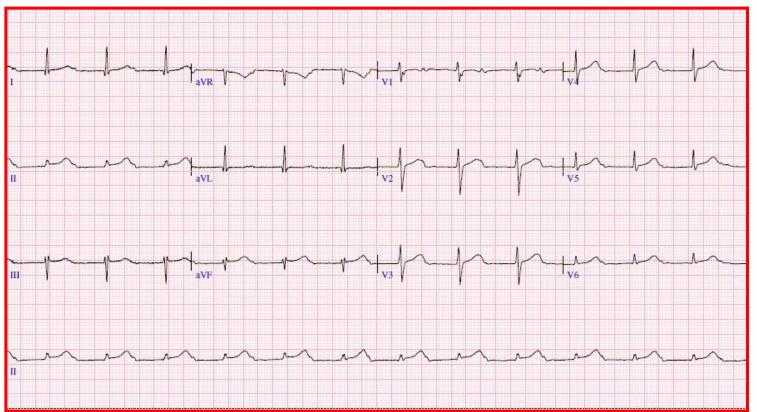


clopidogrel, Eurocor 2.5 ½ tab c / 12hs. Assa 81 mg. Wife states that the patient is exhausted more than usual





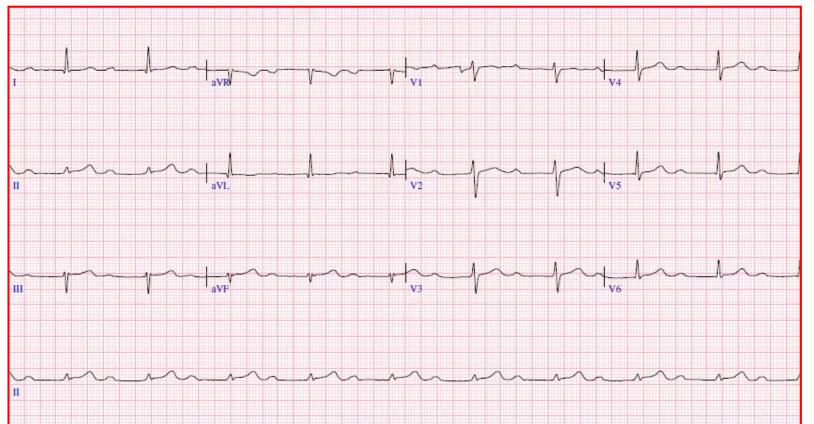








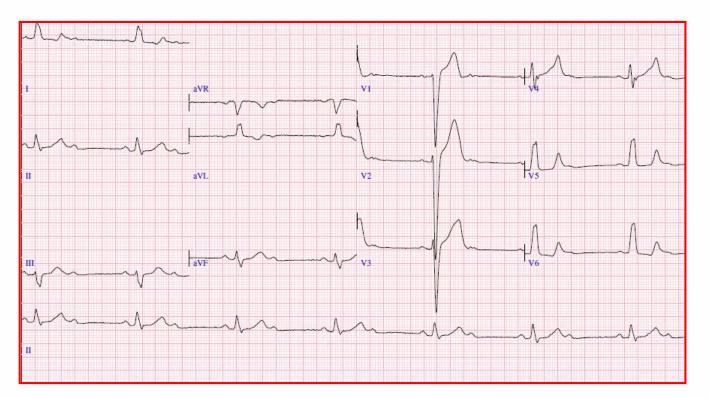








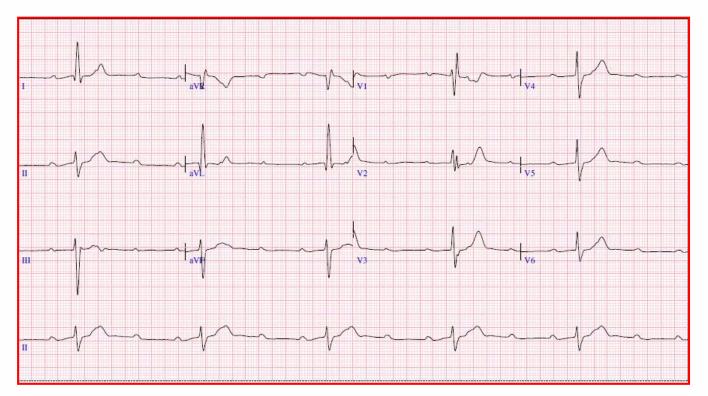










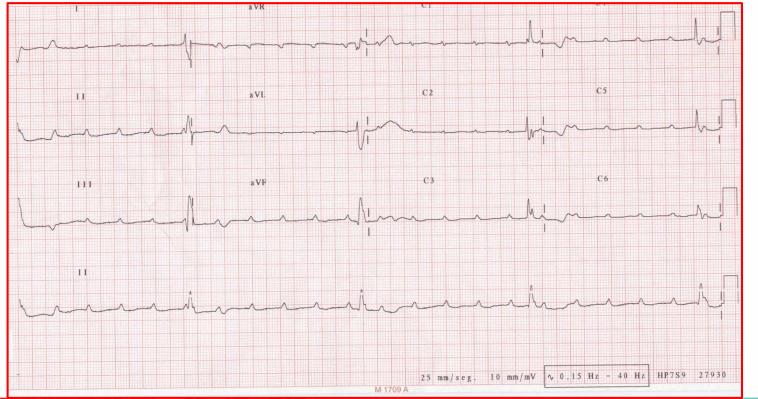








# 64 yo, female. Syncope, dyspnea.

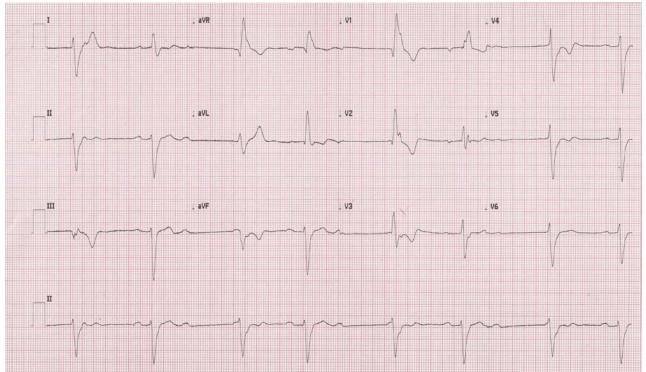








# 70 yo., male.





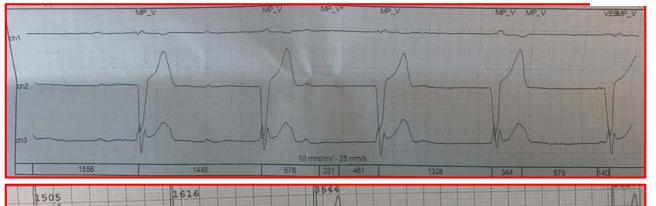


## Young 34 yo. Asyntomatic

Echocardiogram:

Normal

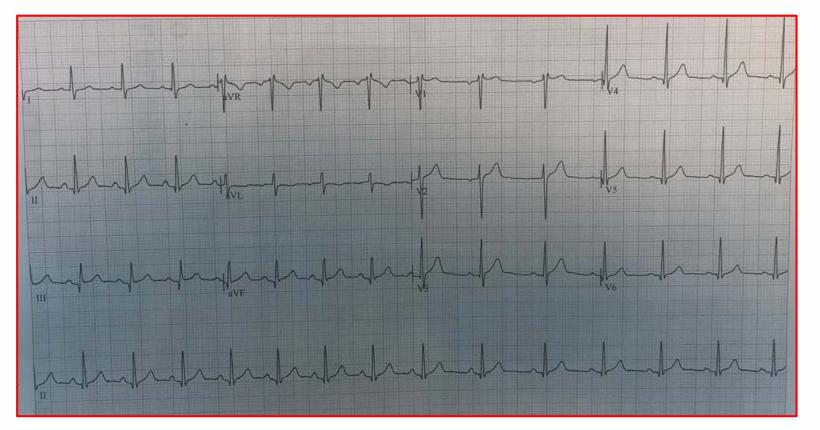
Stress test: Normal

















# 2018 ACC/AHA/HRS Guideline on the Evaluation and Management of Patients With Bradycardia and Cardiac Conduction Delay

#### Atrioventricular block (S2.2-7)

- First-degree atrioventricular block: P waves associated with 1:1 atrioventricular conduction and a PR interval >200 ms (this is more accurately defined as atrioventricular delay because no P waves are blocked)
- Second-degree atrioventricular block: P waves with a constant rate (<100 bpm)
  where atrioventricular conduction is present but not 1:1</li>
  - Mobitz type I: P waves with a constant rate (<100 bpm) with a periodic single nonconducted P wave associated with P waves before and after the nonconducted P wave with inconstant PR intervals
  - Mobitz type II: P waves with a constant rate (< 100 bpm) with a periodic single nonconducted P wave associated with other P waves before and after the nonconducted P wave with constant PR intervals (excluding 2:1 atrioventricular block)
  - 2:1 atrioventricular block: P waves with a constant rate (or near constant rate because of ventriculophasic sinus arrhythmia) rate (<100 bpm) where every other P wave conducts to the ventricles
  - Advanced, high-grade or high-degree atrioventricular block: ≥2 consecutive P waves at a constant physiologic rate that do not conduct to the ventricles with evidence for some atrioventricular conduction
- Third-degree atrioventricular block (complete heart block): No evidence of atrioventricular conduction
- Vagally mediated atrioventricular block: Any type of atrioventricular block mediated by heightened parasympathetic tone
- Infranodal block: Atrioventricular conduction block where clinical evidence or electrophysiologic evidence suggests that the conduction block occurs distal to the atrioventricular node

2018 Bradycardia Clinical Practice Guidelines. JACC







## 63 yo. Female. Pacemaker 3 years ago. Dyspnea

