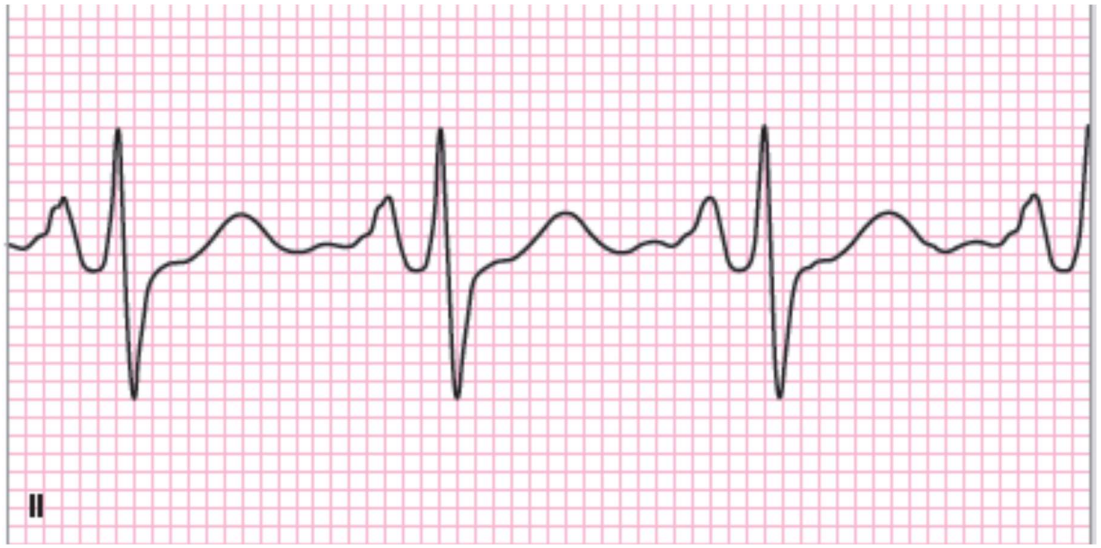
• Right atrial enlargement/abnormality



- Tall, upright P wave of sinus origin:
  - ≥ 2.5 mm in leads II, III, or aVF (P pulmonale), *or*
  - ≥ 1.5 mm in leads V1 or V2
- P wave axis shifted rightward (i.e., axis > +75°)

In up to 30% of cases, P pulmonale may actually represent left atrial enlargement. Suspect this possibility when left atrial abnormality/enlargement is present in lead V1.

Prominent atrial repolarization waves (Ta) can mimic Q waves and ST depression by deforming the PR and ST segments, respectively.

Right atrial enlargement should only be coded when the rhythm is sinus. Tall, ectopic P waves can be seen with multifocal atrial tachycardia (MAT), SVT, or APCs should not be used to diagnose right atrial enlargement.

P pulmonale can be seen in

- COPD with or without cor pulmonale
- Pulmonary hypertension
- Congenital heart disease (such as pulmonic stenosis, Tetralogy of Fallot, tricuspid atresia, Eisemenger's physiology)
- Pulmonary embolism (usually transient)
- Normal variant in patients with a thin body habitus and/or vertical heart