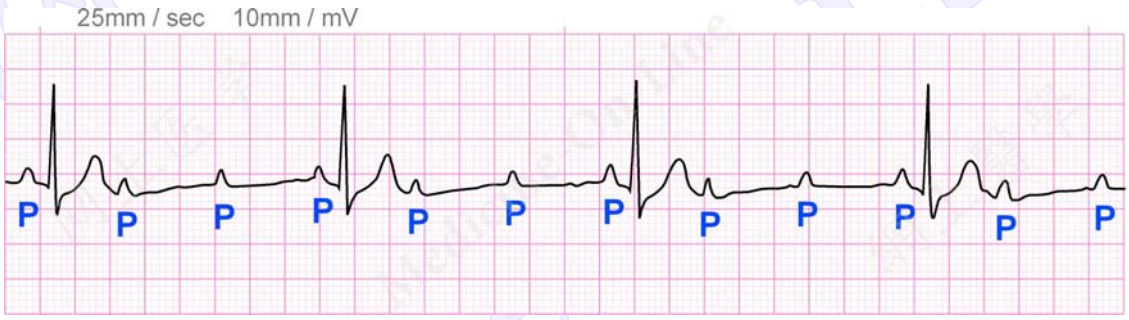
Third Degree Heart Block

In third degree (complete) heart block, all the SA node impulses are blocked and not conducted to the ventricles. In the absence of an alternative pacemaker, ventricular contraction comes to a standstill and the patient dies. But most probably an ectopic pacemaker below the block takes over ventricular pacing and the patient survives. Since the SA node and the ectopic pacemaker pace the atria and ventricles independently, the P waves bear no relationship to the QRS complexes.

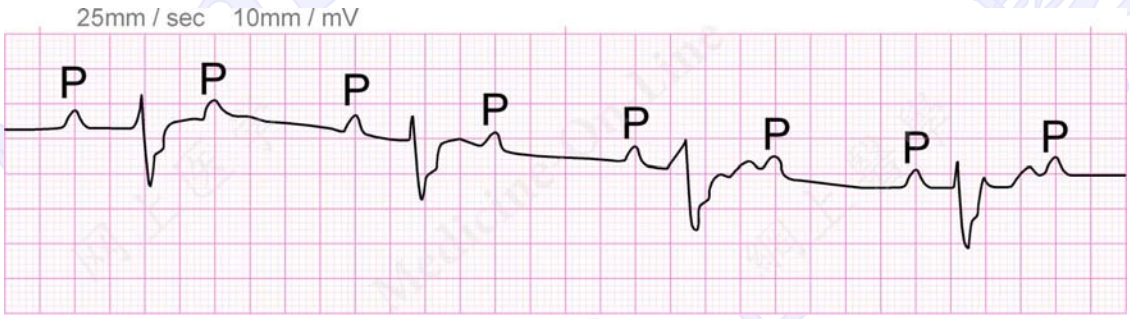
Two types of QRS complexes can be seen in third degree heart block:

- If the block is high in the AV node and the ventricular pacemaker is located lower in the AV junction, the QRS complex is normal in width because ventricular



activation is via the bundle branches.

- If the block is low in the AV junction, the ventricles are paced by an idioventricular pacemaker and the QRS complexes will be wider than normal



because the ventricles are no longer activated via the bundle branches.

Bundle Branch Block

This topic is covered in a later section.