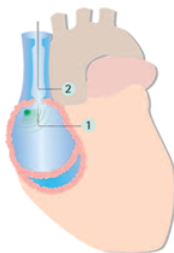


CVC PLACEMENT WITH SIMULTANEOUS ECG LEAD

The intra-arterial ECG lead enables a rapid and reliable positioning control of the catheter tip during the catheterization.

ECG lead positioning

- ➔ allows for immediate corrective measures in the case of initial incorrect positioning of the catheter
- ➔ helps preventing subsequent complications, particularly the risk of pericardiac perforation and catheter-induced cardiac arrhythmias
- ➔ no X-ray required, therefore reduces the time needed and costs involved
 - no transport of patient and equipment required
 - no radiation exposure
 - no incidents with contrast medium



1. The catheter is in the right atrium, indicated by an elevated P wave
2. The catheter tip has been removed from the right atrium and the P wave has normalized. The catheter is now withdrawn a further 2-3 cm to reach its final position

Medicolegal aspect:

Treatment can only be started if the proper position of the catheter tip is verified.

ECG position monitoring provide for an equivalent level of documentation through accompanying ECG printouts as it would normally be available by X-Ray position monitoring and reduces the time needed for a CVC placement by 50% in average.