

## Interpretation of the Electrocardiogram

A systematic approach to reading the 12-lead ECG should be practised so as to avoid missing data and making mistakes. The following or similar approach is advised:

- ✧ Check these data (patient's name, birthday, and identification number; date and time of tracing) on the ECG to make sure:
  - ✦ It belongs to the patient you are reviewing.
  - ✦ It was obtained on the day and time you requested the examination.
- ✧ Review the patient's medical history, physical and laboratory findings, diagnosis, and indication of the ECG examination. These pieces of information help to focus your attention when reviewing the tracing. However, to focus attention does not mean developing tunnel vision. You still should review all aspects of the ECG before drawing your conclusion.
- ✧ Make old tracings available for comparison. In medical practice, changes in findings over time are as important as the presence or absence of findings at any discrete moment in time.
- ✧ Check heart rate.
- ✧ Check rhythm:
  - ✦ Primary rhythm: supraventricular (sinus, atrial, junctional) or ventricular in origin.
  - ✦ Superimposed abnormalities (escape or premature beats).
- ✧ Check heart blocks.
- ✧ Check QRS axis.
- ✧ Check signs of clinical abnormalities:
  - ✦ Right and left atrial abnormalities.
  - ✦ Right and left ventricular hypertrophy.
  - ✦ Right and left bundle branch block.
  - ✦ Acute myocardial infarction.
  - ✦ Electrolyte abnormalities.
  - ✦ Drug effects.
  - ✦ Pulmonary embolism.
- ✧ Correlate the ECG findings with the patient's clinical presentation. Treat the patient; not the waveforms.