

# Cardiophonics Case Study

## Home Health Care & Medication Monitoring

**Case Study:** 67-year-old female treated for paroxysmal atrial fibrillation and congestive heart failure.

**Monitor:** Cardiophonics 1000.

**Symptoms:** Nausea and lack of appetite.

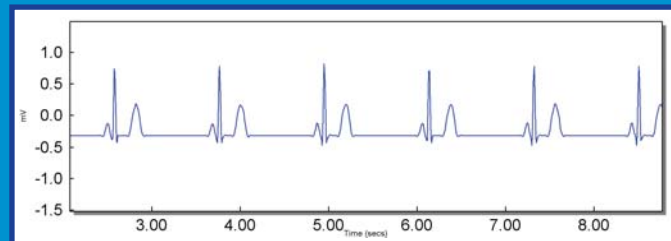


The patient in this case study is a 67-year-old female who has been treated for A-fib with digoxin 0.25 mg, Lasix 40 mg, and K-lyte 25 mEq daily. Two weeks after beginning treatment, the patient began to complain of nausea and lack of appetite. Physical exam, as reported by a home care nurse, revealed BP at 120/60 mm Hg, whereas her heart rate was regular at 70 beats per minute. No other changes were noted. A TTM ECG transmission was automatically sent to the physician which established the cardiac rhythm as junctional at a rate of 70 beats per minute. This finding was viewed as a strong indication of digitalis intoxication, and digoxin was ordered withheld while blood was drawn for serum electrolytes and digoxin level. The digoxin level was found to be 2.9 ng/ml and the serum potassium 3.0mEq/l. Three days following the withdrawal of digoxin the patient had reverted back to atrial fibrillation with a ventricular rate of 92 beats per minute (confirmed by TTM ECG recorder) with no ventricular ectopy. Repeat digoxin level was 1.2 and serum potassium at 4.5mEq/l.

**Discussion:** This case illustrates that the complaint of nausea could justifiably have been interpreted as a possible side-effect of any of the medication she was taking. However, with the help of TTM ECG, digoxin was confirmed to be the offending agent owing to the documentation of non-paroxysmal junctional tachycardia, a rhythm highly suggestive if not pathognomonic of digitalis intoxication with hypokalemia (Mooreman & Pritchett 1995). The critical importance of adequate objective documentation in any clinical situation is illustrated by this case.

Transtelephonic Arrhythmia Monitoring is recommended for the patient whose symptoms do not occur on a daily basis.

Task Force Guidelines for Ambulatory Electrocardiography  
American College of Cardiology/American Heart Association



CardioViewer digital recording of Junctional Rhythm



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