

# HEART RHYTHMS

## Signs and Symptoms Risks and Possible Treatments Nursing Interventions

### 1. SINUS BRADYCARDIA

#### A. Causes

- i. Hypoglycemia | Hypothermia | Hypothyroidism | Previous cardiac history | Medications | Toxic exposure | MI – Inferior wall involving right coronary artery

#### B. Signs and Symptoms

- i. Syncope | Dizziness | Chest Pain | Shortness of Breath | Exercise Intolerance | Cool, clammy skin

#### C. Risks

- i. Reduced Cardiac Output

#### D. Medical Treatments

- i. Atropine | Pacing if the patient is hemodynamically compromised | Treatment will be based on whether patient is symptomatic

#### E. Nursing Interventions

- i. Assess patient – Are they symptomatic? -Give oxygen and monitor oxygen saturation -Monitor blood pressure and heart rate - Start IV if not already established - Notify MD

### 2. SINUS TACHYCARDIA

#### A. Causes

- i. Damage to heart tissues from heart disease | Hypotension | Fever | Stress | Excess alcohol, caffeine, nicotine, or recreational drugs such as cocaine | A side effect of medications | Response to pain | Imbalance of electrolytes | Hyperthyroidism

#### B. Signs and Symptoms

- i. Dizziness | Shortness of breath | Lightheadedness | Rapid pulse rate | Heart palpitations | Chest pain | Syncope

#### C. Risks

- i. Cardiac output may fall due to inadequate ventricular filling time | Myocardial oxygen demand increases | Can precipitate myocardial ischemia or infarct

#### D. Medical Treatments

- i. Find and treat cause

#### E. Nursing Interventions

- i. Assess patient – Are they symptomatic? Are they stable? - Give oxygen and monitor oxygen saturation - Monitor blood pressure

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## 3. ATRIAL FLUTTER

### A. Causes

- i. Valve disorder (mitral) | Thickening of the heart muscle | Ischemia | Cardiomyopathy | COPD | Emphysema

### B. Signs and Symptoms

- i. Palpitations | SOB | Anxiety | Weakness | Angina | Syncope

### C. Risks

- i. Clot formation in atria | Dramatic drop in cardiac output

### D. Medical Treatments

- i. Cardioversion – treatment of choice | Antiarrhythmics such as procainamide to convert the flutter | Slow the ventricular rate by using diltiazem, verapamil, digitalis, or beta blocker | Heparin to reduce incidence of thrombus formation

### E. Nursing Interventions

- i. Assess Patient | O2 if not already given | Start IV if not already established and hang NS | Notify MD | Prepare for cardioversion

## 4. ATRIAL FIBRILLATION

### A. Causes

- i. Hypoxia | Hypertension | Congestive heart failure | Coronary artery disease | Dysfunction of the sinus node | Mitral valve disorders | Rheumatic heart disease | Pericarditis | Hyperthyroidism

### B. Signs and Symptoms

- i. Heart palpitations | Irregular pulse which feels too rapid or too slow, racing, pounding or fluttering | Dizziness or light-headedness | Fainting | Confusion | Fatigue | Trouble breathing | Difficulty breathing when lying down | Sensation of tightness in the chest

### C. Risks

- i. Clot formation in atria (atria not completely emptying) | Stroke | Pulmonary Embolism | Dramatic drop in cardiac output

### D. Medical Treatments

- i. Rate control (slow ventricular rate to 80-100 beats/minute) | Antithrombotic therapy | Correction of rhythm | Chemical or electrical cardioversion

# HEART RHYTHMS

## 5. VENTRICULAR TACHYCARDIA

### A. Causes

- i. Usually occurs with underlying heart disease | Commonly occurs with myocardial ischemia or infarction | Certain medications may prolong the QT interval predisposing the patient to ventricular tachycardia | Electrolyte imbalance | Digitalis toxicity | Congestive Heart failure

### B. Signs and Symptoms

- i. Chest discomfort (angina) | Syncope | Light-headedness or dizziness | Palpitations | Shortness of breath | Absent or rapid pulse | Loss of consciousness | Hypotension

### C. Risks

- i. Major cause of sudden cardiac death

### D. Medical Treatments

- i. If there is no pulse, begin CPR and follow ACLS protocol | If there is a pulse and the patient is unstable - cardiovert and begin drug therapy

### E. Nursing Interventions

- i. Assess your patient - If symptomatic, treatment must be aggressive and immediate - Pulse present - Oxygen - Patent IV (preferably x2) - Monitor patient very closely - Pulseless | ACLS protocol

## 6. VENTRICULAR FIBRILLATION

### A. Causes

- i. AMI | Untreated VT | Electrolyte imbalance | Hypothermia | Myocardial ischemia | Drug toxicity or overdose | Trauma

### B. Signs and Symptoms

- i. Loss of consciousness | Absent pulse

### C. Risks

- i. Death

### D. Medical Treatments

- i. CPR with immediate defibrillation | Initiate ACLS algorithm

### E. Nursing Interventions

- i. ACLS

## REFERENCES:

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