



DYSRHYTHMIA MONITORING

Expected Practice:

- ☑ Select the monitoring lead based on the patient's dysrhythmia.
 - Lead V₁ to distinguish VT from SVT with aberrant conduction; left or right BBB
 - Lead II or III to monitor atrial activity
- ☑ Use Lead V₁ for primary monitoring if no history of, or potential for, atrial dysrhythmias.
- ☑ Proper location of the leads for ECG monitoring is critical for optimal identification of problems.
- ☑ Properly prepare the patient's skin before attaching the ECG electrodes.
- ☑ Monitor the QT interval for patients at high risk for Torsades de Pointe.
 - Patients begun on antidysrhythmic drugs known to cause Torsades de Pointe (quinidine, procainamide, disopyramide, sotalol, dofetilide, ibutilide)
 - Overdoses of potentially prodysrhythmic drugs
 - New onset bradycardias
 - Severe hypokalemia or hypomagnesimias

Supporting Evidence:

- Studies show that nurses will use a standard monitoring lead regardless of diagnosis.¹⁻³
- Studies show that the leads of choice for differentiating ventricular tachycardia from supraventricular tachycardia are leads V¹ and V⁶. A five lead monitoring system is recommended. MCL1 in a 3 lead monitoring system has been shown to differ in QRS morphology as compared to V¹ in 40% of patients with ventricular tachycardia.⁴⁻⁷
- Research has shown that when an electrode is misplaced by 1 intercostal space, the morphology of the QRS can change dramatically and missed or miss diagnosis may occur (i.e., ventricular tachycardia can be misinterpreted as supraventricular tachycardia).⁸
- Failure to properly prep the skin before placing the electrodes may cause the monitoring alarms to sound erroneously. Preparation may include shaving areas where electrodes are to be placed and/or cleaning the skin with alcohol to remove skin oils.⁹⁻¹²
- Studies show that a prolonged QT interval (QTc>0.50sec.) can be a contributing factor in the development of Torsades de Pointe. Some medications and electrolyte abnormalities can cause an increase in the QT interval.¹³⁻¹⁷

What You Should Do:

- Review organization policies and procedures related to cardiac monitoring to assure same standard of care across settings.
- Develop proficiency standards for all staff involved in the monitoring process to ensure patient safety and effective monitoring.
- Provide appropriate ECG education for staff.
 - Include didactic content and "hand-on" practice with return demonstration of lead placement.
- Conduct an audit for placement of Lead V¹.
- Conduct an audit of the central monitor and ECG strip documentation to determine which lead is being assessed.
- If compliance for either is <90%, develop a plan to improve compliance: Consider forming a multidisciplinary task force (nurses, physicians, respiratory therapist, monitor technician) or a unit core group of staff to address ECG monitoring practice changes.
 - Educate staff about the significance of correct placement of electrodes and skin preparation.
 - Incorporate content into orientation programs, initial and annual competency verifications.
 - Develop a variety of communication strategies to alert and remind staff of the importance of ECG monitoring.
 - Ensure that practice changes continue.

Need More Information or Help?

- Talk with a clinical practice specialist for additional information / assistance (www.aacn.org) then select PRN.

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