

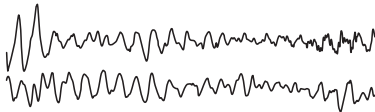
DEFINITIONS OF ARRHYTHMIA'S DETECTED BY ACUITY® Version 7.x



Mortara Instrument's VERITAS™

V-Fib (Ventricular Fibrillation)

Chaotic quivering of the ventricles accompanied by rapid irregular waves but no formed QRS complexes.



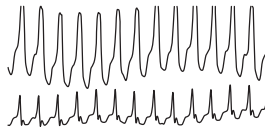
Asystole

Absence of any detected beat for 4 or more seconds.



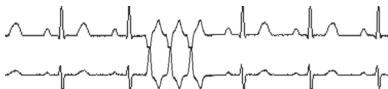
VTach (Ventricular Tachycardia)

Characterized by a run of premature ventricular beats that exceeds the PVC run alarm limit setting and that meets or exceeds the patient's VTach alarm limit.



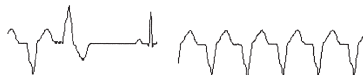
PVC Run (Ventricular Run)

Characterized by a run of three to six consecutive, premature ventricular beats that meets or exceeds the patient's VTach alarm limit.



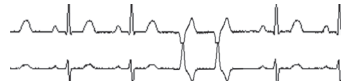
VRhythm (Ventricular Rhythm)

Characterized by a run of successive ventricular beats that is less than the VTach alarm limit setting, and the number of successive ventricular beats is greater than or equal to three.



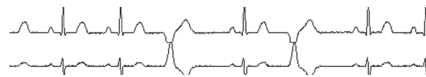
Couplet

Characterized by two consecutive premature ventricular beats that are preceded and followed by a normal beat.



PVC/min

Premature ventricular contractions (PVC's, either unifocal or multifocal) that are greater than or equal to the patient's PVC/min alarm limit setting.



Bigeminy

Characterized by three or more successive cycles consisting of a normal beat followed by a premature ventricular beat. Bigeminy is independent of the average heart rate.



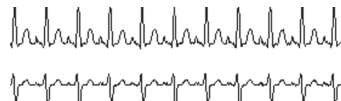
Trigeminy

Characterized by three or more successive cycles of two normal beats followed by a premature ventricular beat. Trigeminy is independent of the average heart rate.



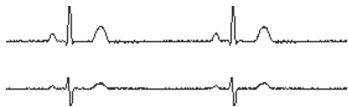
Tachycardia

Characterized by a HR greater than or equal to the patient's tachycardia alarm limit value. If the tachycardia limit is decreased past the HR high limit, then the HR high limit will decrease to a value equal to the tachycardia limit.



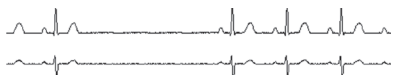
Bradycardia

Characterized by a HR less than or equal to the patient's bradycardia alarm limit value. If the bradycardia limit is increased past the HR low limit, then the HR low limit will increase to a value equal to the bradycardia limit.



Pause

The R-to-R interval that is greater than or equal to two times the average R-to-R.



Irregular (Irregular Rhythm)

An irregularity in the R-R interval over a series of at least 16 non-ventricular beats.



NonCapture (Pacemaker NonCapture)

For pacemaker patients with the Analyze Pacers option enabled, a beat does not directly follow a pacer.



Heart Rate and Arrhythmia

For adult and pediatric patients being monitored for arrhythmia, the HR value at the Acuity is derived from Acuity Arrhythmia Analysis instead of from the patient monitor. Thus for these patients, the HR value at the monitor may differ from the HR value at the Central Station.

ECG Lead Selection

- In order for Arrhythmia Analysis to take place, an ECG waveform must be displayed in the ECG 1 location of the Virtual Monitor. If ECG1 is not displayed, arrhythmia analysis will not be performed. If monitoring with **Propaq® LTR** or **Micropaq®**, Acuity will use ECG leads II, V and III for arrhythmia analysis. If monitoring with **Propaq® CS and/or Propaq Encore®**, Acuity uses the leads that the user selects for ECG1 and/or ECG2. Be sure that lead II and Lead V and if applicable, Lead III has significant amplitude to optimize arrhythmia analysis. For example, if the Lead II, V or III does not have an average amplitude >200 µV peak-to-peak, Acuity may not detect certain arrhythmias, including VFib.
- If false arrhythmia alarms are occurring due to a patient's unique beat morphology, and if you are using a 5-lead cable, you can direct Acuity to analyze arrhythmias using one reliable lead under the Arrhythmia Alarms Setup window.

WARNING: If you turn on Single ECG in response to false lethal arrhythmia alarming (for example, due to bundle branch block or irregular rate), arrhythmia analysis is limited to one lead. Typically, 3-lead analysis (via a 5-lead cable) is optimal.

- The ECG cable and electrodes should be checked for damage on a regular basis and replaced as necessary.
- Lead preparation and placement should be carefully verified
- Consider using stress loops especially for ambulatory patients.
- Tall P and T waves may be incorrectly classified as a QRS complex or PVC and potentially generate a high heart rate or other alarm condition.
- If biphasic QRS complexes appear, a different monitoring lead should be selected.
- Review the quick reference card: Preparing the Patient for Successful Monitoring.

Paced Patients and Arrhythmia

Warning: Always turn ON Analyze Pacers for paced patients, and always turn OFF Analyze Pacers for non-paced patients. The default for Analyze Pacers is set to OFF. Therefore, Acuity will analyze arrhythmias as if the patient is non-paced unless turned ON by the clinician. Once you have turned the Analyze Pacers Setting ON, this will automatically set the Pacer Display to ON and will initiate an ST/Arr Relearn

- In the Arrhythmia Alarms Setup Window, check the Analyze Pacers check box.
- Set Non Capture to HIGH, MEDIUM, or LOW for Acuity to monitor for a Non Capture Arrhythmia Event.

Relearn

- The Relearn function enables the clinician to instruct Acuity to relearn a patient's rhythm based on the patient's dominant beat morphology. During a Relearn phase, a Relearn alert will appear at the device and on the screen at Acuity.
- The Relearn alert presents itself under the following conditions: After a patient connection or system restart, after some lead changes or lead failures, and/or after ST/Arr Relearn or Analyze Pacers is clicked in the Arrhythmia Alarms Setup Window.
- During the learning period, Acuity indicates only the VFib and Asystole arrhythmia conditions. Other vital signs are unaffected.
- Inappropriate use of Relearn can lead to mislabeling of beats and possibly a failure to alarm. Carefully evaluate the patient's current rhythm to make sure that you want the Acuity System to establish it as the patient's normal sinus rhythm. Periods of noise, artifact, pacer poison and other alarm conditions may significantly affect the Relearn function. Choose the best monitoring lead and allow a sufficient time period for stabilization (normally 30 to 40 seconds).
- An appropriate time to use Relearn is when a patient is admitted with a ventricular rhythm that the Acuity system learns as the patient's "normal" rhythm. When the patient's rhythm converts to the rhythm that is truly normal for that patient, Relearn should be initiated. In this way, the Acuity system will alarm appropriately if the patient converts back to the previous ventricular rhythm. Note: The Check Leads alert may appear if this condition occurs.

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