Ventricular Tachycardia

CHI Formulary Treatment algorithm

Figures 1 to 3 outline a comprehensive treatment algorithm on **the management of Ventricular tachycardia** aimed at addressing the different lines of treatment after thorough review of medical and economic evidence by CHI committees.

For further evidence, please refer to CHI **Ventricular tachycardia** full report. You can stay updated on the upcoming changes to our formulary by visiting our website at https://chi.gov.sa/AboutCCHI/CCHIprograms/Pages/IDF.aspx

Our treatment algorithm offers a robust framework for enhancing patient care and optimizing treatment outcomes across a range of treatment options, holding great promise for improving healthcare delivery.
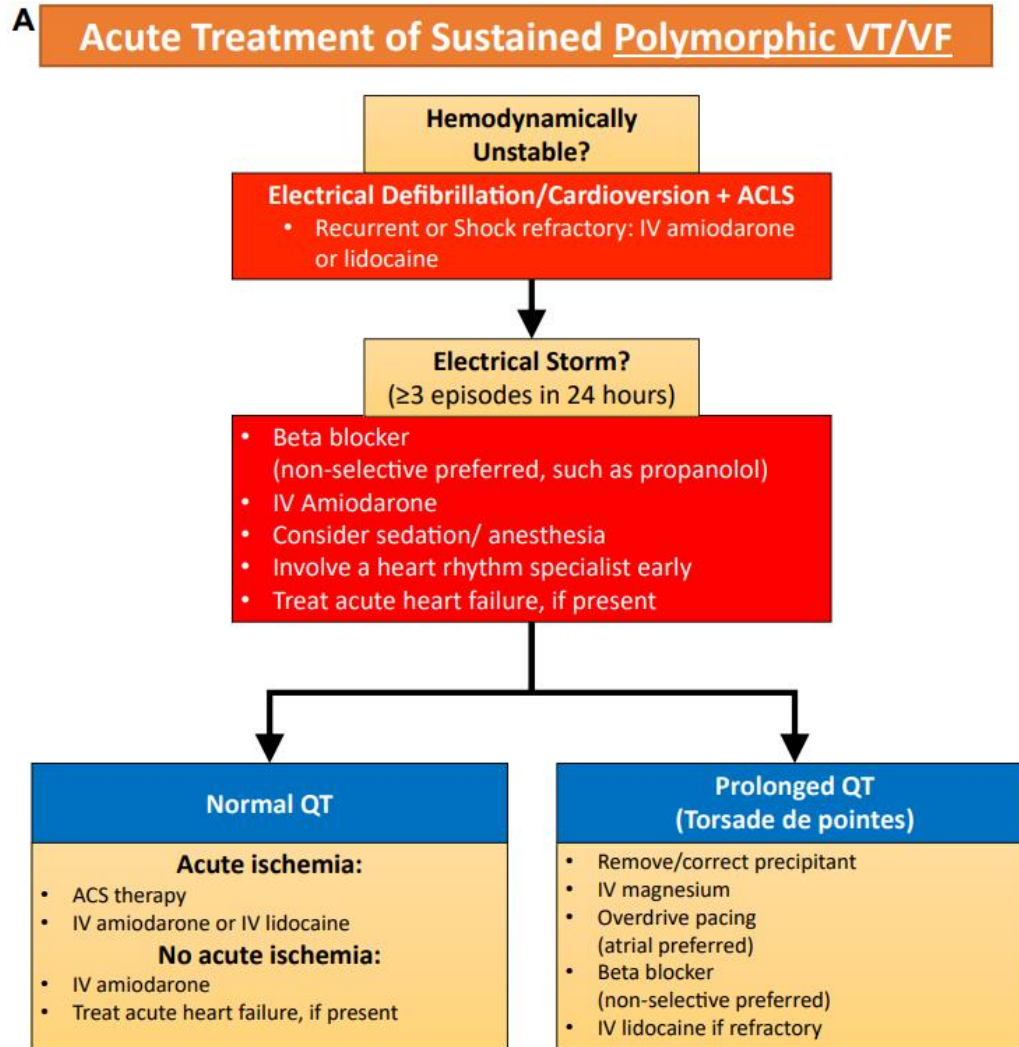
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A | Acute Treatment of Sustained Polymorphic VT/VF

Hemodynamically Unstable?

Electrical Defibrillation/Cardioversion + ACLS
- Recurrent or Shock refractory: IV amiodarone or lidocaine

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Electrical Storm?
(≥3 episodes in 24 hours)

- Beta blocker
  (non-selective preferred, such as propanolol)
- IV Amiodarone
- Consider sedation/ anesthesia
- Involve a heart rhythm specialist early
- Treat acute heart failure, if present

Normal QT

Acute ischemia:
- ACS therapy
- IV amiodarone or IV lidocaine

No acute ischemia:
- IV amiodarone
- Treat acute heart failure, if present

Prolonged QT
(Torsade de pointes)

- Remove/correct precipitant
- IV magnesium
- Overdrive pacing
  (atrial preferred)
- Beta blocker
  (non-selective preferred)
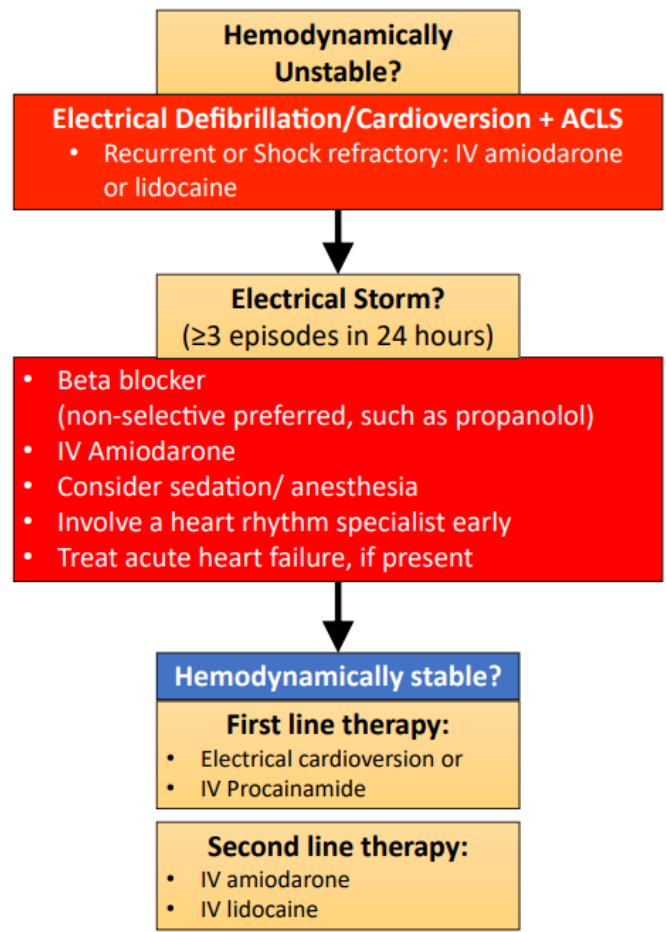- IV lidocaine if refractory

Figure 1: Acute management of sustained polymorphic VT treatment algorithm.

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[1] *the Canadian Cardiovascular Society/Canadian Heart Rhythm Society 2020 guideline*

B **Acute Treatment of Sustained Monomorphic VT**

Hemodynamically Unstable?

Electrical Defibrillation/Cardioversion + ACLS
- Recurrent or Shock refractory: IV amiodarone or lidocaine

Electrical Storm?
(≥3 episodes in 24 hours)

- Beta blocker (non-selective preferred, such as propanolol)
- IV Amiodarone
- Consider sedation/ anesthesia
- Involve a heart rhythm specialist early
- Treat acute heart failure, if present

Hemodynamically stable?

First line therapy:
- Electrical cardioversion or
- IV Procainamide

Second line therapy:
- IV amiodarone
- IV lidocaine

Figure 2: Acute management of sustained monomorphic VT treatment algorithm.

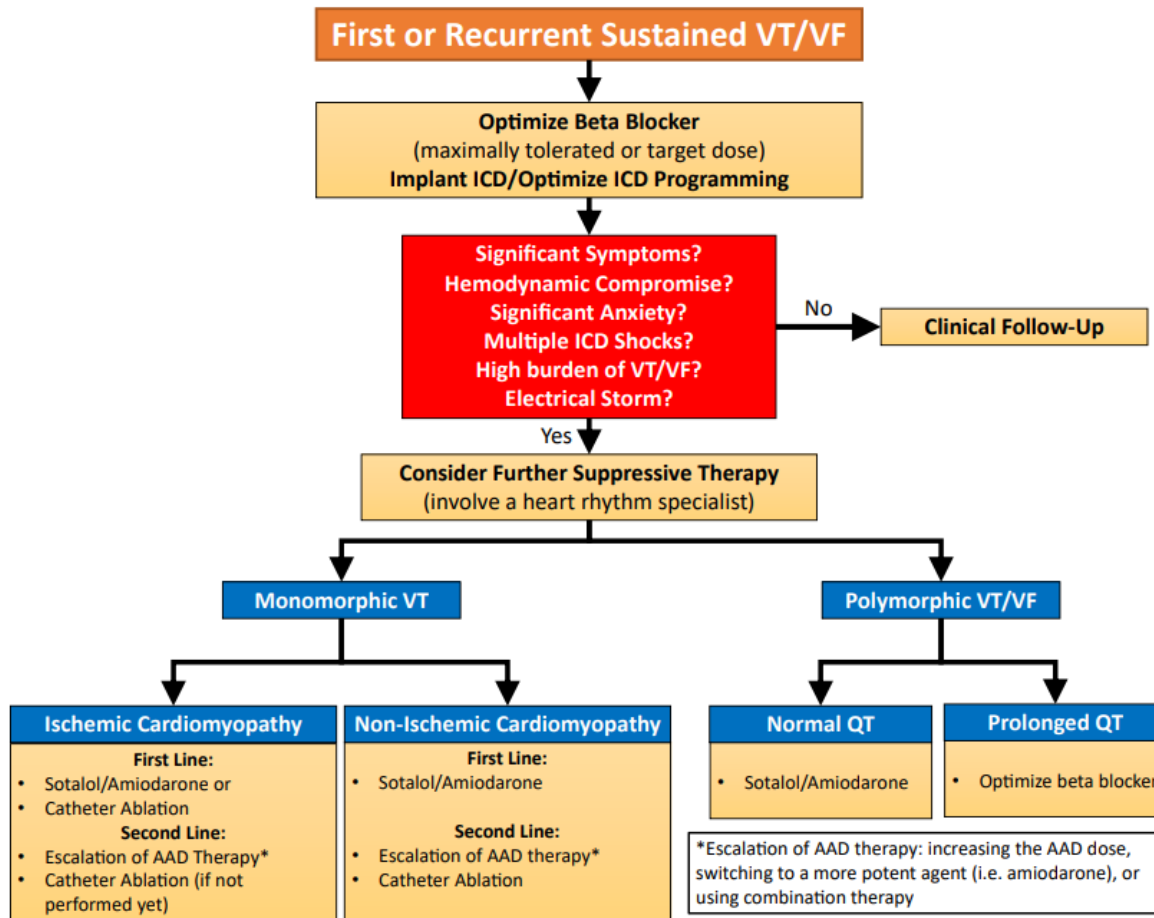[2] Canadian Cardiovascular Society/Canadian Heart Rhythm Society 2020 guideline.

Figure 3: First or recurrent sustained VT/VF treatment algorithm.[3]

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[3] *Canadian Cardiovascular Society/Canadian Heart Rhythm Society 2020 guideline.*