2J ATRIAL FIBRILLATION/FLUTTER

PATIENT CARE GOALS

- Restore regular sinus rhythm, prevent recurrence of symptomatic dysrhythmia, and maintain adequate oxygenation, ventilation, and perfusion.

EMT

1. Assess the patient and provide initial care, including oxygen and vascular access, per **1B General Assessment and Care**[1].

PARAMEDIC

ADULT	PEDIATRICS (less than 60 kg)
2. For unstable[2] patients, perform **7J Synchronized Cardioversion**. First shock at 120 J. If additional shocks are needed, increase energy setting to 150 J, then 200 J.[3] a. For responsive patients, provide sedation prior to shock as outlined in **1D Anxiety and Sedation Management**, but do not delay cardioversion.	2. For unstable[2] patients, perform **7J Synchronized Cardioversion**. First shock at 1 J/kg. If additional shocks are needed, increase energy settings to 2 J/kg.[3] a. For responsive patients, provide sedation prior to shock as outlined in **1D Anxiety and Sedation Management**, but do not delay cardioversion.
3. For stable[2] patients administer **verapamil (Calan) 5 mg IV/IO over 2 minutes**. If no change, may repeat every 5 minutes to a **maximum total dose of 20 mg**.[3] **OR** Administer **diltiazem (Cardizem) 0.25 mg/kg IV/IO** over 2 minutes. A second dose of **0.35 mg/kg** may be given after 15 minutes, if needed.	3. For stable[2] patients administer **verapamil (Calan) 0.1 mg/kg IV/IO** over 2 minutes. If no change may repeat every 5 minutes to a **maximum total dose of 0.4 mg/kg**. **OR** Administer **diltiazem (Cardizem) 0.25 mg/kg IV/IO** over 2 minutes. A second dose of **0.35 mg/kg** may be given after 15 minutes, if needed.

DOCUMENTATION KEY POINTS

- Vital sign measurements every 10 minutes and before and after administration of medications and cardioversion.
- ECG tracing documentation for all rhythm interpretations, treatment decisions, and changes in the patient's clinical condition.
- Obtain 12-lead ECG before and after rhythm conversion.
- Initial and on-going assessment, monitoring, interventions, patient response, and complications (if any) encountered.

NOTES

[1] **Confirmation of atrial fibrillation or flutter:** Before treatment, paramedic providers should ensure accurate ECG interpretation of dysrhythmia. Confirm the rhythm via 12-lead ECG.

[2] **Stable versus Unstable patients:** A "stable patient" is a patient without signs and symptoms of impaired consciousness or hypoperfusion. Only unstable patients who are experiencing chest pain, pulmonary edema, confusion, or other signs of hypo-perfusion should be cardioverted. If the patient is unstable, do not delay definitive treatment to do vagal maneuvers.

[3] **Verapamil (Calan)**: For patients greater than 65 years of age or with systolic blood pressure less than 100 mmHg, use a 2.5 mg initial dose with 2.5 mg dose repeated if needed.

[4] **Diltiazem (Cardizem)**: For patients greater than 65 years of age or with systolic blood pressure less than 100 mmHg, use a 12.5 mg initial dose with a 12.5 mg repeat dose if needed.