



**REGION 11
CHICAGO EMS SYSTEM
PROCEDURE**

Title: Synchronized Cardioversion - ALS

Section: Cardiac Management

Approved: EMS Medical Directors Consortium

Effective: May 17, 2021

SYNCHRONIZED CARディオVERSION - ALS

INDICATIONS

- Narrow or wide complex tachyarrhythmia (heart rate typically $\geq 150/\text{min}$) causing the patient to be unstable with signs of shock including:
 - Hypotension (SBP < 100 mmHg)
 - Acutely altered mental status
 - Ischemic chest discomfort
 - Respiratory distress (acute heart failure)

CONTRAINDICATIONS

None

EQUIPMENT

- Cardiac monitor/defibrillator
- Cardiac leads
- Therapy electrode pads
- Therapy cable

PROCEDURE

1. Apply personal protective equipment: gloves.
2. Apply cardiac monitor leads to identify tachyarrhythmia that requires synchronized cardioversion (12-lead ECG if available).
3. Identify and treat underlying causes.
4. Assess adequate oxygenation.
5. Assess pulse and blood pressure.
6. Establish IV access.
7. Consider analgesia prior to procedure per Pain Management protocol.
8. Attach therapy pads to therapy cable and connect to the cardiac monitor/defibrillator.
9. If necessary, clean and dry skin or remove excess chest hair with razor.
10. Apply pads in the anterior-lateral placement or anterior-posterior placement (per manufacturer specific guidelines) and press down firmly. Pads should not be placed directly over implanted devices (cardiac defibrillators or pacemakers). Pediatric pads should be used based on manufacturer weight guidelines.



**REGION 11
CHICAGO EMS SYSTEM
PROCEDURE**

Title: Synchronized Cardioversion - ALS

Section: Cardiac Management

Approved: EMS Medical Directors Consortium

Effective: May 17, 2021

11. Assure safe environment – evaluate risk of sparks, combustibles, oxygen-enriched environment.
12. Activate synchronized mode to “SYNC”.
13. Confirm synchronized marker on QRS complexes.
14. Charge monitor to appropriate energy setting:
 - a. Adult patients: 100 J
 - b. Pediatric patients: 0.5-1 J/kg (See Pediatric Resuscitation Card)
15. Verbalize “all clear” and visually ensure that all individuals are clear of the patient, stretcher and any equipment connected to the patient.
16. Press the shock button to deliver synchronized shock to the patient.
17. Reassess rhythm, patient pulse and blood pressure.
18. For persistent tachyarrhythmia with signs of shock, administer a second synchronized shock:
 - a. Adult patients: 200 J
 - b. Pediatric patients: 2 J/kg (See Pediatric Resuscitation Card)