San Mateo County Emergency Medical Services
Mechanical Compression Device (MCD)
(For Adults Only)

P1 — Airway
1. Defibrillate immediately if VT/VF
2. Set up BVM & connect to Oxygen/ETCO2
3. Provide cadence and count for EMT
4. Provide high quality 1-person BVM breaths every 10 compressions
5. Charge defibrillator at 16th breath

Compressions (round 1)

E1 — Chest Compressions
1. Shake and Shout (no pulse check)
2. Open airway and move to floor with adequate space
3. Start high quality chest compressions
4. Change compressor every 2 minutes (Limit changes/pulse checks to < 5 seconds)

E2 — Metronome, Defibrillator set-up
1. Activate metronome at 110 bpm
2. Cut shirt
3. Attach defibrillator pads
4. Can start set up of MCD if compressions aren't compromised.

P1 — Rhythm Check, Defibrillation
1. ETCO2 and Rhythm Check
2. If indicated (VT/VF), clear and defibrillate patient. If not indicated, dump charge

Rhythm Check (round 1) <10 secs

E1 — Pulse Check
1. Pulse Check
2. Prepare to set up MCD

E2 — Pulse Check
1. Pulse Check
2. Prepare to start high quality compressions

P1 — Airway
1. Provide high quality 1-person BVM breaths every 10 compressions
2. Provide cadence and count for compressor
3. Charge defibrillator at 16th breath

Compressions (round 2)

E1 — Set up and Lay Out MCD within 2 minutes
1. Unpack Back Plate and Mechanical Device
2. If air-pressure controlled, attach SCBA
3. Place Mechanical Device on E2 side (EMT doing compressions)
4. Place Back Plate next to P1 (airway paramedic)

E2 — Chest Compressions
1. Continuous chest compressions
2. Push hard (> 2 inches) and fast (110/min)
3. Continue using metronome to ensure proper rate
4. Change compressor every 2 minutes (Limit changes/pulse checks to < 5 seconds)

P1 — Rhythm Check, Defibrillation
1. ETCO2 and Rhythm Check
2. If indicated (VT/VF), clear and defibrillate patient. If not indicated, dump charge
3. Slide Back Plate underneath patient

Rhythm Check (round 2) <10 secs

E1 — Pulse Check, MCD application
1. Pulse Check
2. After shock applied (or decision not to shock), grasp patient's shoulder and support head with E2 to lift the upper torso for paramedic to slide Back Plate underneath patient

E2 — Pulse Check, MCD application
1. Pulse Check
2. After shock applied (or decision not to shock), grasp patient's shoulder and support head with E1 to lift the upper torso for paramedic to slide Back Plate underneath patient

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P1 — Airway
1. Provide high quality 1-person BVM breaths every 10 compressions
2. Provide cadence and count for compressor
3. Charge defibrillator at 16th breath

Compressions (round 3)

E1 — Chest Compressions
1. Continuous chest compressions
2. Push hard (> 2 inches) and fast (110/min)
3. Continue using metronome to ensure proper rate
4. Change compressor every 2 minutes (Limit changes/pulse checks to < 5 seconds)

E2 — Continue to set up MCD within 2 minutes
1. If not completed, finish setting up and laying out MCD
2. Attach the first claw of the Mechanical Device to the Back Plate

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P1 — Rhythm Check, Defibrillation
1. ETCO2 and Rhythm Check
2. If indicated (VT/VF), clear and defibrillate patient. If not indicated, dump charge

Rhythm Check (round 3) <10 secs

E1 — Finish Applying and Turn On MCD Device
1. Attach the second claw of the Mechanical Device to the Back Plate
2. Adjust the compression plunger to the correct depth
3. Turn on MCD Device
4. Apply neck strap

E2 — Pulse Check, MCD application
1. Pulse Check
2. After shock applied (or decision not to shock), assist E1 in applying and turning on MCD device
3. Mark plunger location with permanent marker

SAN MATEO COUNTY HEALTH
EMERGENCY MEDICAL SERVICES

Field Procedure FP19

Effective April 2020