INDICATIONS:

A. The LUCAS device may be used in patients who have suffered non-traumatic cardiac arrest, when manual CPR would otherwise be used.

CONTRAINDICATIONS:

A. Patients who do not fit within the device.
   1. Too small patient: If LUCAS alerts with 3 fast signals when lowering the SUCTION CUP, and you cannot enter the PAUSE mode or ACTIVE mode.
   2. Too large patient: If you cannot lock the upper part of the LUCAS to the backplate without compressing the patient's chest.

B. Traumatic arrest.

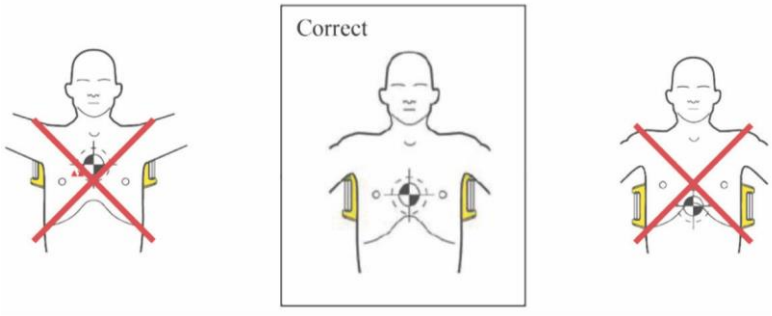
C. Pregnancy.

PROCEDURE:

A. All therapies related to the management of cardiopulmonary arrest should be continued as currently defined in protocol and "Cardiac Arrest Best Practices".

B. Initiate resuscitative measures.
   1. Manual chest compressions should be initiated immediately while the LUCAS device is being placed on the patient.
   2. Limit interruptions in chest compressions to 10 seconds or less.
   3. Do not delay manual CPR for the LUCAS. Continue manual CPR until the device can be placed.

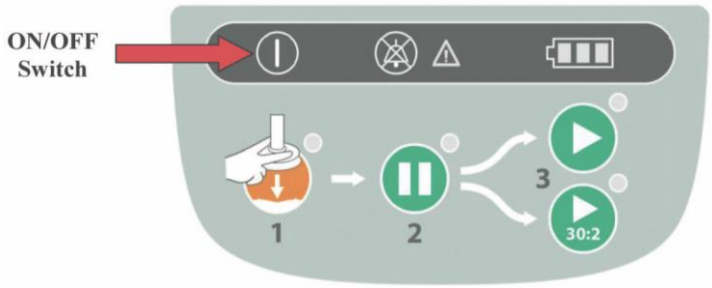
C. While resuscitative measures are initiated, the LUCAS device should be removed from the carrying case and placed on the patient in the following manner:
   1. Backplate Placement
      a. The backplate should be centered on the nipple line and the top of the backplate should be located below the patients armpits.



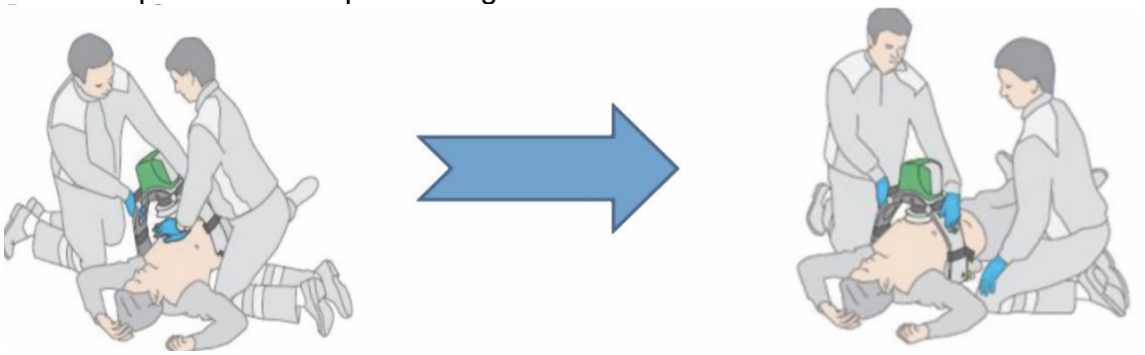
      b. If the patient is already on the stretcher, place the backplate underneath the thorax. This can be accomplished by a single person arm lift, or by log-rolling or sliding the backplate under the patient or raising the torso. Placement should occur during the initial AP pad placement, or during a scheduled pause of

compressions (e.g., after two minutes of uninterrupted compressions).

2. Position of the Compressor.
   a. Turn the LUCAS device on (the device will perform a three second self-test).

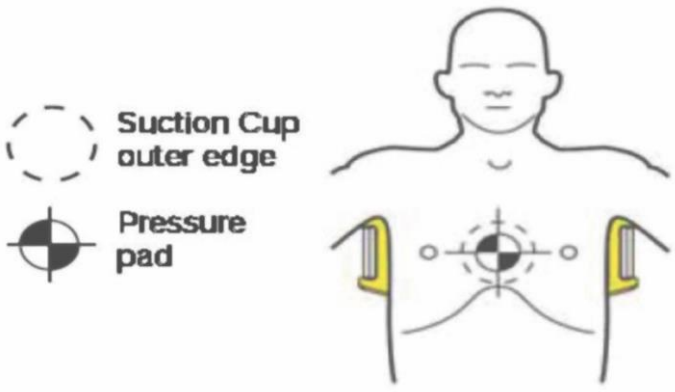


   b. Remove the LUCAS device from the carrying case using the handles provided on each side.
   c. With the index finger of each hand, pull the trigger to ensure the device is set to engage the backplate. Once this is complete, you may remove your index finger from the trigger loop.
   d. Mark the base of the xiphoid process with the supplied felt-tipped marker in the case.
   e. Approach the patient from the side opposite the person performing manual chest compressions.
   f. Attach the claw hook to the backplate on the side of the patient opposite from where compressions are being provided.
   g. Place the LUCAS device across the patient, between the arms of the person who is performing manual CPR.

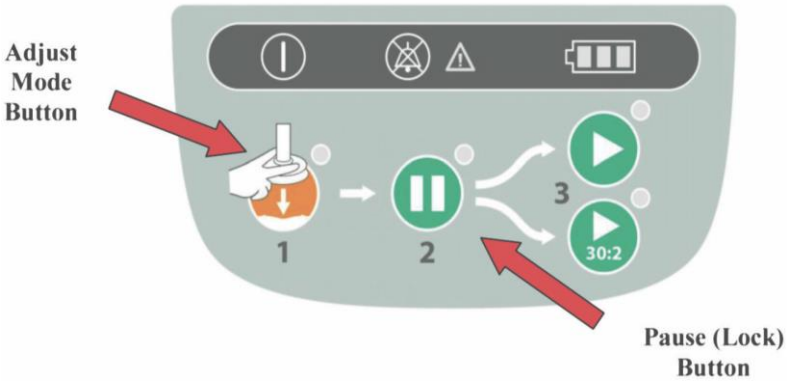


   h. At this point the person performing manual CPR stops and assists attaching the claw hook to the backplate on their side.
   i. Pull up once to make sure that the parts are securely attached.

3. Adjust the Height of the Compression Arm.
    a. Use two fingers (V Pattern) to make sure that the lower edge of the SUCTION CUP is immediately above the end of the sternum. If necessary, move the device by pulling the support legs to adjust the position.

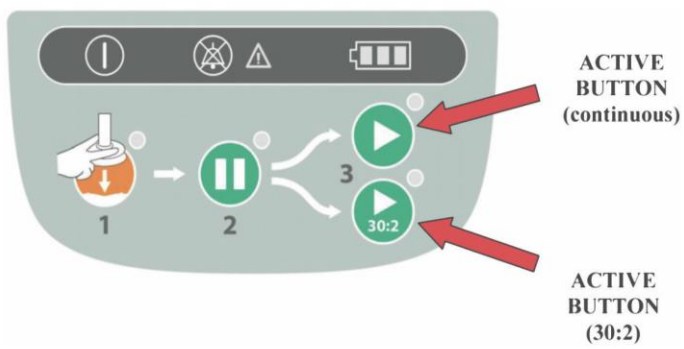


    b. Press the ADJUST MODE BUTTON on the control pad labeled #1 (this will allow you to easily adjust the height of the compression arm).



    c. To adjust the start position of the compression arm, manually push down the SUCTION CUP with two fingers onto the chest (without compressing the patient's chest).
    d. Once the position of the compression arm is satisfactory, push the green PAUSE BUTTON labeled #2 (this will lock the arm in this position), then remove your fingers from the SUCTION CUP.
    e. If the position is incorrect, press the ADJUST MODE BUTTON and repeat the steps.

4. Start Compressions
    a. Press the ACTIVE (continuous) BUTTON. The 30:2 button is not used in our organization.



5. Patient Adjuncts
    a. Place the LUCAS stabilization strap behind the patient's head and attach the straps to the LUCAS device.
        i. This will prevent the LUCAS from migrating toward the patient's feet.
        ii. Place the patients arms in the straps provided.

USING THE LUCAS DURING RESUSCITATION

A. Defibrillation
    1. Defibrillation can and should be performed with the LUCAS device in place.
    2. One may apply the defibrillation electrodes either before or after the LUCAS device has been put in position.
        1. The defibrillation pads and wires should not be underneath the SUCTION CUP.
        2. If the electrodes are already in an incorrect position when the LUCAS is placed, you must apply new electrodes.
    3. For rhythm analysis, stop the compressions by pushing the PAUSE BUTTON. The duration of interruption of compressions should be kept as short as possible and should not be > 10 seconds. <u>There is no need to interrupt chest compressions other than to analyze the rhythm.</u>
    4. Once the rhythm is determined to require defibrillation, the appropriate ACTIVE BUTTON should be pushed to resume compressions while the defibrillator is charging and then the defibrillator should be discharged.

B. Pulse Checks / Return of Spontaneous Circulation (ROSC)
    1. Pulse checks should occur intermittently while compressions are occurring.
    2. If the patient moves or is obviously responsive, pause the LUCAS device and evaluate the patient.
    3. If there is a change in rhythm, but no obvious indication of responsiveness or ROSC, a pulse check while compressions are occurring should be undertaken. If the palpated pulse is

asynchronous, consider pausing the LUCAS device. IF the pulse remains, reassess the patient. If the pulse disappears, immediately restart the LUCAS device.

4. A sudden change in EtC02 may indicate ROSC.
5. Completely raise LUCAS bar so its not restricting the patients chest.

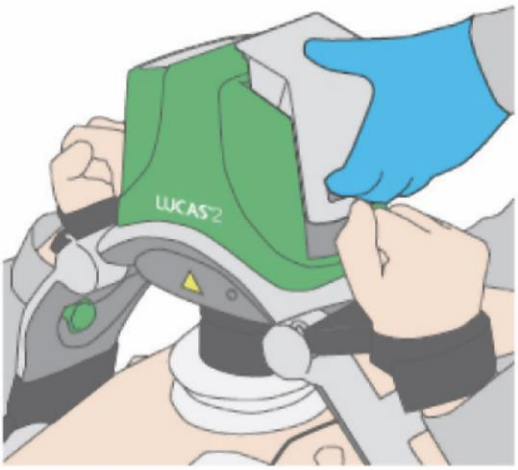
C. Disruption or Malfunction of LUCAS Device

1. If disruption or malfunction of the LUCAS device occurs, immediately revert to manual CPR.

DEVICE MANAGEMENT (Power Supply, Battery Operation)

A. Changing the Battery

1. Push PAUSE to temporarily stop the compressions.
2. Pull the battery our and then upward to remove it.



3. Install a full-charged LUCAS battery. Put it in from above.
4. Wait until the green PAUSE mode LED illuminates.
5. Push ACTIVE (continuous) or ACTIVE to start chest compressions again. The LUCAS Smart Restart feature remember the settings and start position for 60 seconds.

B. Other Battery Operations

1. When fully charged, the Lithium Polymer battery should allow 45 minutes of uninterrupted operation.
2. There is an extra battery in the LUCAS device carrying case.
3. The battery is automatically charged when the device is plugged into a wall outlet and not in operation. The device should be stored with the LUCAS device plugged into a wall outlet (when detaching from the wall outlet, make sure that the cord is always with the LUCAS device)

4. When the orange battery LED shows an intermittent light, replace the battery or connect to a wall outlet.
5. Ambulance: LUCAS is connected while stored in the ambulance (always keep a battery installed for the LUCAS device to remain operational).

C. Care of the LUCAS Device After Use
   1. Remove the SUCTION CUP and the stabilization strap (if used, remove the patient straps).
   2. Clean all surfaces and straps with a cloth and warm water with an appropriate cleaning agent.
   3. Let the device and parts dry.
   4. Replace the used battery with a fully-charged battery.
   5. Remount (or replace) the SUCTION CUP and straps.
   6. Repack the device into the carrying case.
   7. Make sure that the charging cord is plugged into the LUCAS device.
   8. The LUCAS device in the carrying case should be charging on and secure while stored in the ambulance.

PEDIATRIC PATIENTS:

1. Not for use in pediatric population. Note size restrictions below.

NOTES & PRECAUTIONS:

1. No patient weight limitation
2. Chest height: 6.7 to 11.9 inches / 17.0 to 30.3 cm
3. Maximum chest width: 17.7 inches / 44.9 cm