Lucas System

**Purpose**

To be used when effective manual CPR is unable to be performed on adult patients. (e.g. during patient transport or extended CPR when fatigue may prohibit the delivery of effective/consistent compressions or when there is insufficient EMS personnel available to provide CPR.

**Contraindications**

Do NOT use the LUCAS if it is not possible to position the LUCAS device safely or correctly on the patient’s chest.

1. Too small patient: if the LUCAS device 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 device to the Back Plate without compressing the patient’s chest.

**Procedure**

1. Confirm cardiac arrest and begin manual CPR with a minimum of interruptions until LUCAS is ready.
2. Open bag by pulling red handle on bag to open.
3. Turn on LUCAS: Push ON/OFF for one second to start self-test and power up. (green LED adjacent to ADJUST illuminates.)
4. Pause manual CPR
5. Place backplate under the patient below armpits. (Fig1)
   a. Note incorrect placement (Fig2)
6. Resume manual CPR.
7. Remove LUCAS 2 from bag, pull rings once to check that claw locks open, then release the rings. (Fig3)
8. Stop manual CPR
9. Latch claw locks on either side of the back plate, listen for click, pull up once to ensure attachment.
G5. Automated Compression System

10. Position suction cup in the center of the chest. Lower edge of suction cup should be immediately above the end of the sternum.

11. Push suction cup down with two fingers, making sure you are in “ADJUST” mode (#1 on Fig4) until pressure pad is touching patient’s chest. **If the pad does not touch or the latches unable to be locked, remove system and continue manual compressions**

12. Press PAUSE (#2 on Fig4) to lock the start position, then remove your fingers from the suction cup.

13. Engage: start compressions
   a. Check for proper position and adjust if needed.
   b. Continuous (#3 top in Fig4) or ACTIVE (30:2) (#3 bottom in Fig4) based on patient need.

14. Do not leave patient unattended while LUCAS is active.

15. Follow-up: attach stabilization strap by placing cushion under patient’s neck and fasten the ends to the LUCAS 2 straps. Tighten.

16. If needed, place the patient’s wrists in Velcro straps located on either side of device.

17. Press pause to stop compressions for ECG/Pulse analysis.