

4-2 Mains electricity failure v.1

Unexpected total power failure is rare and unpredictable. Ability to safely deliver and maintain anaesthesia is immediately compromised.

START

- 1 Call for help – extra staff to monitor patient and source additional equipment.
- 2 Liaise with local coordinator to activate appropriate local plan (Box A):
 - If immediate evacuation necessary → 4-3
- 3 Get additional light into theatre (Box B).
- 4 Ensure ventilation continues:
 - Manual ventilation if required.
 - Consider moving to spontaneous ventilation.
 - Maintain anaesthesia.
- 5 Check the pulse and blood pressure manually if monitors have failed.
- 6 Check mains oxygen supply intact. If failed → 4-1
- 7 Unplug unnecessary equipment. Use correct socket for essential equipment (Box C).
- 8 Assess reliability of power supply, duration of surgery and patient condition:
 - Consider stopping surgery immediately.
 - Consider continuing surgery until patient is stable and wound is closed (may be temporary closure).
 - Consider evacuation to theatre with intact mains supply → 4-3
- 9 Prepare recovery facilities. Consider theatres, recovery, ICU.

Box A: ACTION FROM LOCAL COORDINATOR

Local coordinator should activate any local incident plan and urgently establish and brief teams on:

- Extent of failure.
- Likely duration of failure.
- Interruption to other services (eg oxygen, water).

Box B: SOURCES OF ADDITIONAL LIGHT

- Open doors and blinds.
- Hand torches, portable lights, mobile phones, laryngoscopes.

Box C: TYPES OF POWER SUPPLY

- Standard power socket: not protected.
- SPS: Secondary supply (red socket) for devices that can sustain brief periods of loss of power (eg those with internal battery back-up).
- UPS: Uninterrupted supply (blue socket) for instantaneous and continuous protection. This supply is limited therefore avoid using UPS sockets unless absolutely necessary.
- Devices' internal battery backup: this may not supply all functions of the device and duration may be variable.

Box D: CRITICAL CHANGES

Mains oxygen failure → 4-1
Emergency evacuation → 4-3