

# Implementing Mechanical CPR Device in Code Blue Management: Our Experience

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EPOSTER : 94

## Introduction

High-quality cardiopulmonary resuscitation (CPR) is critical for cardiac arrest survival.

### BACKGROUND & SETTING

In Ipoh Specialist Hospital, a private hospital with a hospital-wide Code Blue system, Emergency and ICU staff typically manage advanced interventions e.g. airway, defibrillation, and medication administration.

However, manual chest compressions are often performed by the respective unit's staff, particularly in general ward settings. Due to a lower frequency of cardiac arrest events, many staff have limited hands-on real-life resuscitation experience, potentially affecting compression quality. To address this, our hospital implemented the LUCAS mCPR device into Code Blue protocol since July 2023.

This poster outlines our implementation process, challenges and solutions.

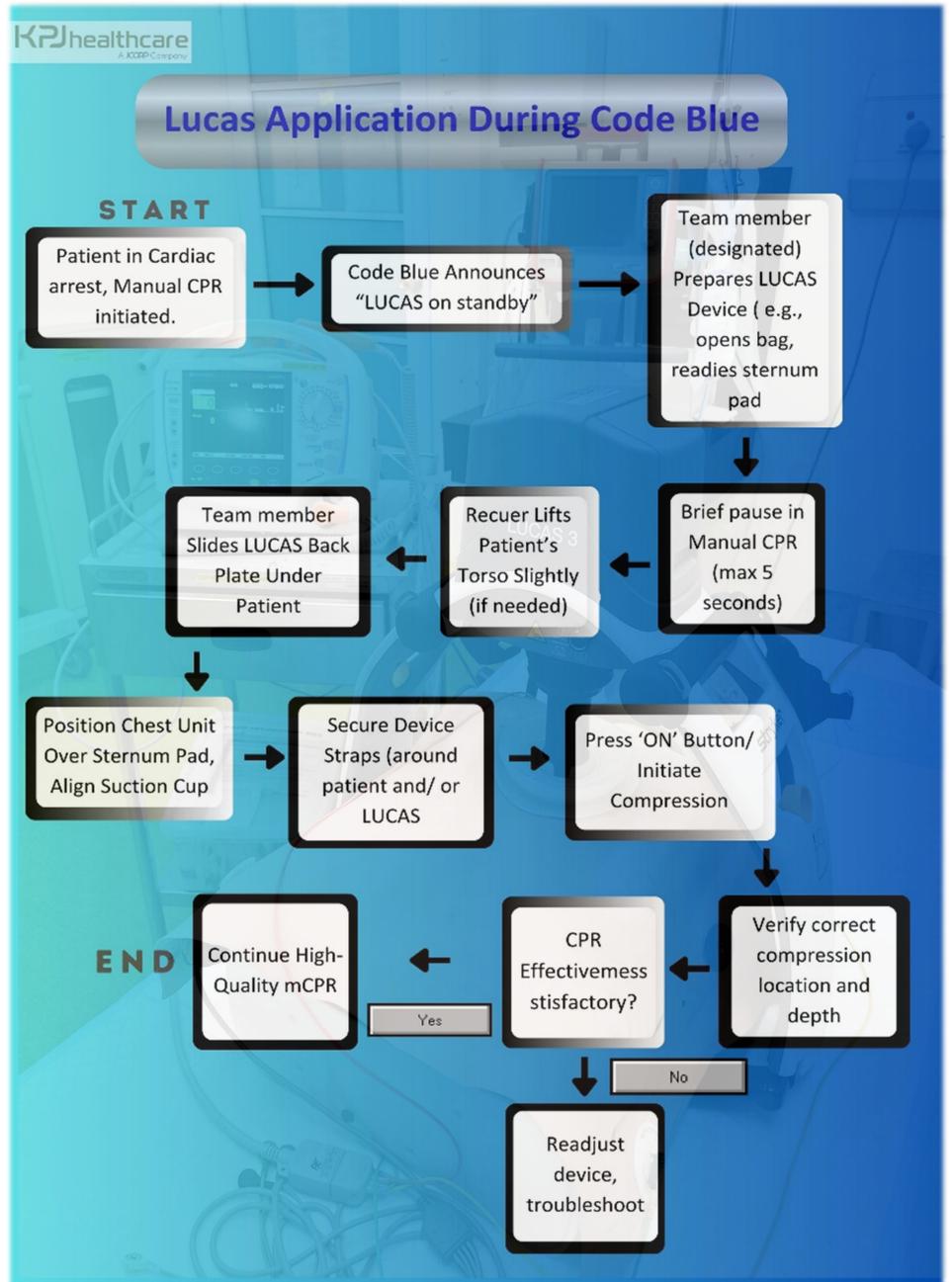
## Case Description

**Device Selection:** LUCAS device chosen due to its minimal consumable needs and low maintenance requirements, fitting out hospital's operational goals.

### Phased Implementation Strategy:

- **Staff Training:** Comprehensive program including:
  - Lectures and theoretical overviews
  - Live demonstrations
  - Hands-on practical sessions for all involved staff.
  - Full-scale mock code simulations, specifically targeting critical care units (Emergency Unit, ICU, HDU)
- **Pilot Testing:** Conducted within the Emergency Room-feedback & improvement
- **Protocol Integration:** Existing Code Blue protocol updated.

Challenges	Solutions
Consultant Doubts	Regular briefings, direct demonstrations to consultants.
Team Unfamiliarity	More hands-on training sessions, repeated mock code simulations, and reinforcement of quick setup technique.
Device Portability Issues	Custom-designed Code Blue cart 'Crash cart'.



## Summary and Recommendations

Mechanical CPR (mCPR) devices significantly enhance resuscitation efforts by ensuring consistent, high-quality chest compressions and reducing rescuer fatigue. Our experience highlights improved code blue management, allowing teams to focus on critical tasks. Successful implementation requires thorough needs assessment, device selection, comprehensive training, stakeholder engagement, protocol updates, pilot testing, and optimized logistics.

## Conclusion

Staff surveys highlighted the mCPR device's benefits: providing consistent, high-quality CPR, reducing rescuer fatigue, freeing team members for critical tasks (airway management, defibrillation, medication administration), and enhancing resuscitation effectiveness.



**Mechanical CPR Experience**  
Scan for Video Demo

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