

# National Quality Improvement Conference

## Assisted Thermoregulation Support for Babies After Caesarean Birth

Lydia Seow Hui Cheng  
Huicheng.seow@mountelizabeth.com.sg



### Problem Statement

The existing practice of using “Manual mode” on the infant warmer is ineffective in preventing cold and heat stress in babies

**10% of babies** (n=30) from MEH Delivery suite had axillary temperatures that were out of range at 90 mins after cesarean birth (Jan to Feb 2023)

**Cold stress** Peripheral vasoconstriction, metabolism of brown fats and respiratory distress in babies

**Heat stress** Increased heart and respiration rate; insensible water loss, and potential burn injuries in babies

### Potential Solutions

#### Thermoregulation support

- Staff training** on the use of “Servo” Mode on radiant warmer and attachment of temperature probe cover
- Supply** and ensure temperature probe cover is available to ensure accuracy or temperature monitoring

- ✓ A “Cause & effect analysis” was performed and the potential causes for the “Out of Range” temperature were identified and prioritised using the Pareto chart
- ✓ The process workflow was examined with the decision to implement the use of **servo mode on the radiant warm to regulate babies’ temperature**

### Project Aim

To achieve **100%** of babies with thermostability or a temperature between **36.5° and 37.5° Celsius** at **90 minutes** of cesarean birth within **3 months** of implementation



### Lessons Learnt

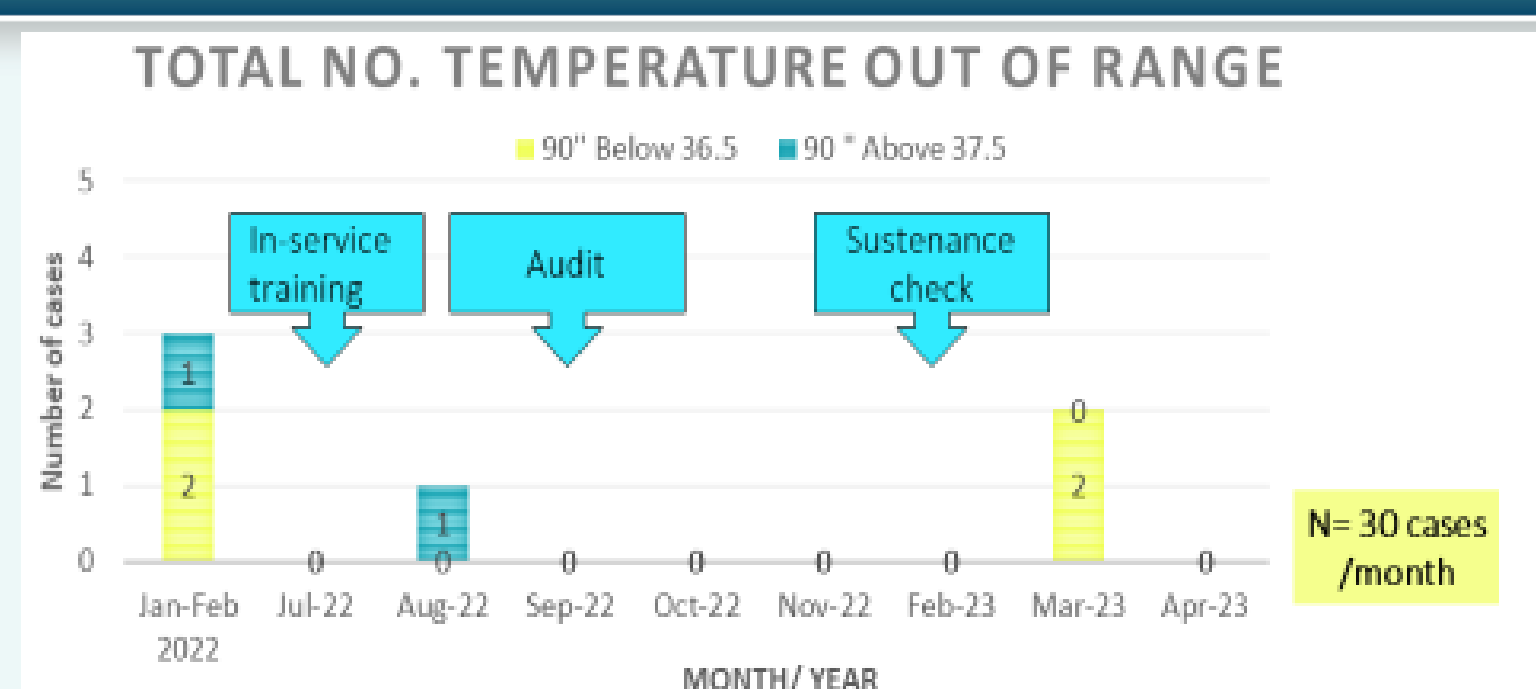
**Strength**  
Data was accessible in the clinical management system

**Weakness**  
Individual baby variation was not examined. All babies >37 weeks’ gestation and above 2500gm were recruited

**Opportunities**  
“Buy-in” from Stakeholders

**Threat**  
Lapses were identified after a 2-month period. In order to maintain consistent practices, pertinent information on clinical risk assessment must be included in our nurses’ orientation and training

### Outcomes & Impacts



- ✓ **Post audit (Sep to Nov 2022): 0** incidence of “Out of Range” Temperature
- ✓ **Sustainability audit (Feb to Apr 2023): 2** episodes of temperature “Out of Range”. Practice was reinforced

IMPACT	Baby	Thermostability and prevention of cold / heat stress → overall reduction for Length of Stay (LOS)
	Nurses	Awareness on the proper use of radiant warmer servo mode
	Institution	Increases patient satisfaction and minimizes risk of potential litigation