

National Quality Improvement Conference

Decrease non-invasive positive pressure ventilator initiation time

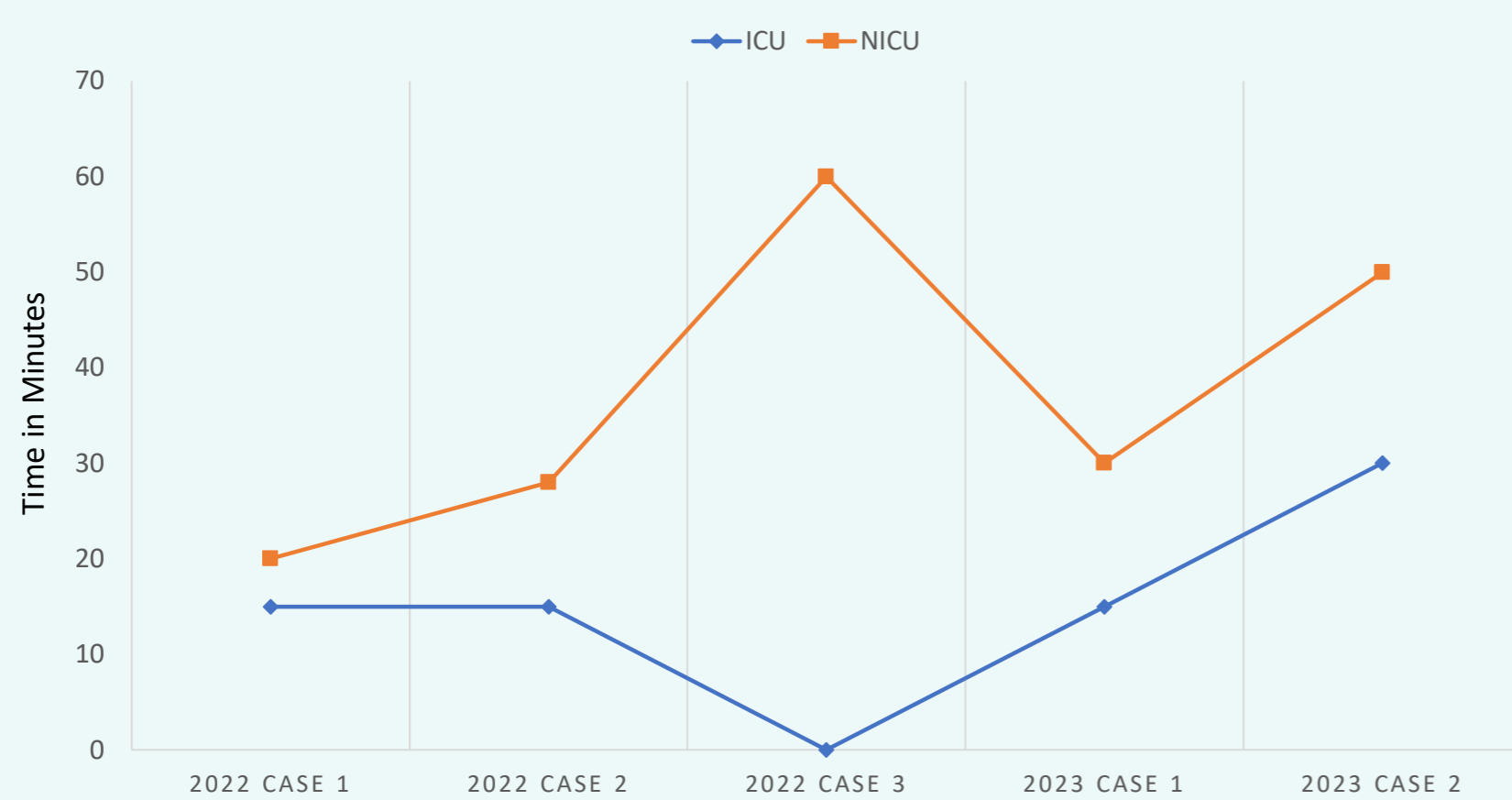
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Problem Statement

Prolonged ICU & NICU non-invasive ventilator initiation time



Potential Solutions

The team deep-dived using the Ishikawa diagram and identified possible root causes as:

- No standardised reference
- Lack of storage space

PDSA CYCLE:	Initiative 1	Initiative 2
PLAN	Standardised step by step pictorial references	Proper storage of CPAP mask & Nasal CPAP
	Standardised preparation process	Easy access to set up the ventilator
DO	Set up non-invasive positive pressure ventilator by referring to pictorial references	Non-invasive ventilator tubing & CPAP mask to be stored strategically in 1 location
STUDY	Reduce application time to initiate non-invasive positive pressure ventilator	Reduce set up time for non-invasive positive pressure ventilator
ACT	Adapt the change and monitor for another 3 months	Adapt the change and monitor for another 3 months

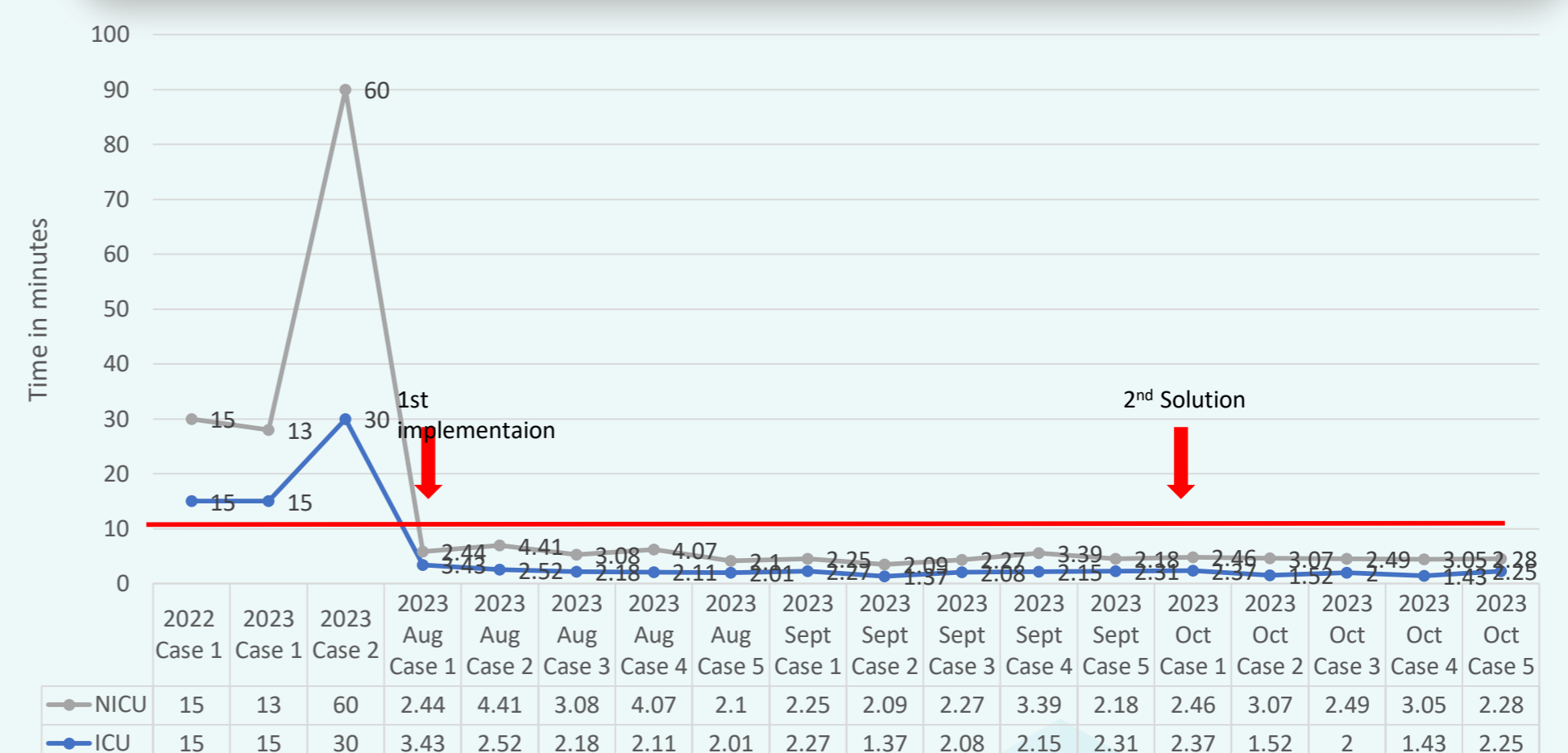
Project Aim

To **decrease** non-invasive positive pressure ventilator initiation time to **less than 10 minutes** within 2 months

Lessons Learnt

- During the trial of the intervention, the accessibility of the ventilator machine should be considered, so to assess if moving the ventilator from another room will impact the outcome
- Staff were assessed on their ability to set up the non-invasive positive pressure ventilator independently. It would be beneficial to conduct the assessment with two nurses, as it may lead to better timing

Outcomes & Impacts



- Both initiatives saw a reduction of **ICU average timing to 1.92 minutes** and **NICU average timing to 2.67 minutes**
- Holistically, both interventions have shown improvement in the work process, resulting in patients receiving earlier treatment