Hassle Free
In Maintaining Cold Chain

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Polyclinics
SingHealth

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Background

Temperature monitoring is a critical component in maintaining vaccine cold chain. Fridge temperature recording is done twice daily, in the morning before clinic start operation and end of the day.

Large number of vaccines are ordered to support the high volume of vaccination at Tampines Polyclinic. During loading and transferring of vaccines, the nurse has to open the fridge door wide and arrange several packets of vaccine on the fridge shelves.

This led the fridge temperature to spike up, showing an erratic temperature recording. The fridge shelves looked messy, potentially may cause a vaccine mix-up.

Problem Statement

- Erratic temperature recording on 24hours temperature recording graph.
- Potential risk for break in cold chain.

Aim

✓ To maintain the temperature of the pharmaceutical fridge between 2-8 degrees Celsius during loading and transferring of vaccine.

✓ To minimise hassle in handling vaccine.

Methodology

Study
Studied current processes in loading and transferring of vaccine.

Plan
Analyze the processes for vaccine collection and loading of vaccine.

Intervention 1:
The room temperature was turned down to create a colder environment before opening the fridge door.
This prevented gush of hot air into the fridge, causing a spike in temperature.

Intervention 2:
Sourced for-big plastic containers that fit into the fridge vaccines were placed on the plastic containers and load into the fridge.
This reduced the number of times nurses needed to open the fridge door wide.

Do
Explore possible reason for temperature spike.

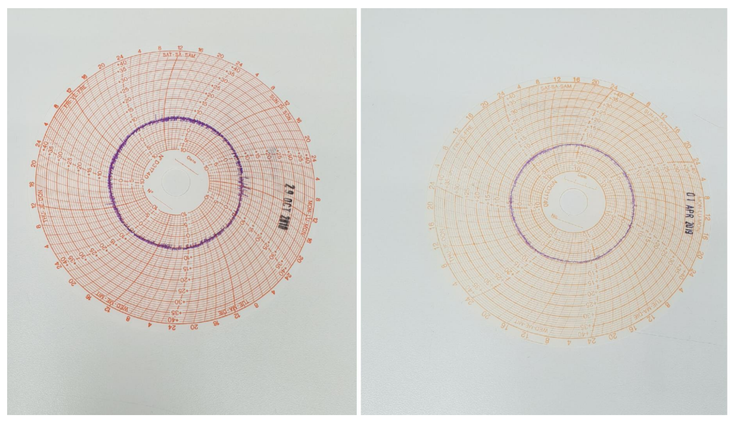
Act
Source for big plastic container that can fit into fridge.
Create a cooler room temperature

Before | After

Result

- The 24hour temperature recording chart showed no spike in temperature after implementation of the new process.
- Product quality is maintained.
- Nurses experience less hassle in loading and arranging vaccines in the pharmaceutical fridge.

Before | After



24 hours Temperature Graph

Conclusion

The pharmaceutical fridge temperature recording chart was maintained at the recommended temperature between 2-8 degrees Celsius at all times.
Nurses saved time spent on arranging the vaccines on the fridge shelves.

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