



Singapore Healthcare Management 2018

Removal of Ice Making Machines in Inpatient Wards

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Background

Ice is used in hospitals for a number of purposes, for example, cooling drinks, ice packs, for patients on restricted fluids and culinary purposes.

Research has implicated ice making machine in health care associated infection. Ice making machines in hospitals are often contaminated with pathogens that can cause serious nosocomial infections. Sources of contamination are seeding from mains water supply, faulty plumbing, irregular cleaning and contaminants from hands.

In year 2016, decision has been made by the senior leadership to remove all ice making machines in the inpatient wards so as to eliminate source of infection from ices making.

Method

Ice cubes are essential for some procedures. A workgroup has been formed to review and provide alternative to replace ice making from ice machines.

The workgroup has conducted survey to collate information on ice machines and the demand for ice cubes in different inpatient units. Survey result showed usage of ice cubes are mainly for treatment, transport, comfort measures and cold compress.

For Treatments, Transport & Comfort Measures (Ice cubes are required)



- Ice cubes can be made from inpatient wards' freezer instead of ice making machine.
- Ice tray with lid distributed to all inpatient units for ice making.
- The inpatient units are allowed to make ice cubes at the same time maintain the hygiene of the ice cubes.

For Comfort Measures (Fever & Phlebitis)



- Disposable cooling gel pad has been introduced to all inpatient area.
- Nurses to place disposable cooling gel pad to affected patient's body part.
- The cooling effect lasted for several hours which provide comfort effect for patient.

For Cold Compress



- Cool gel pack has been introduced and stored in the refrigerator.
- Nurses to place the cool gel pack in the disposable wash gloves and apply to patient when necessary.
- Nurses will remove the disposable wash gloves and wipe down the cool gel pack before putting it back to the refrigerator.

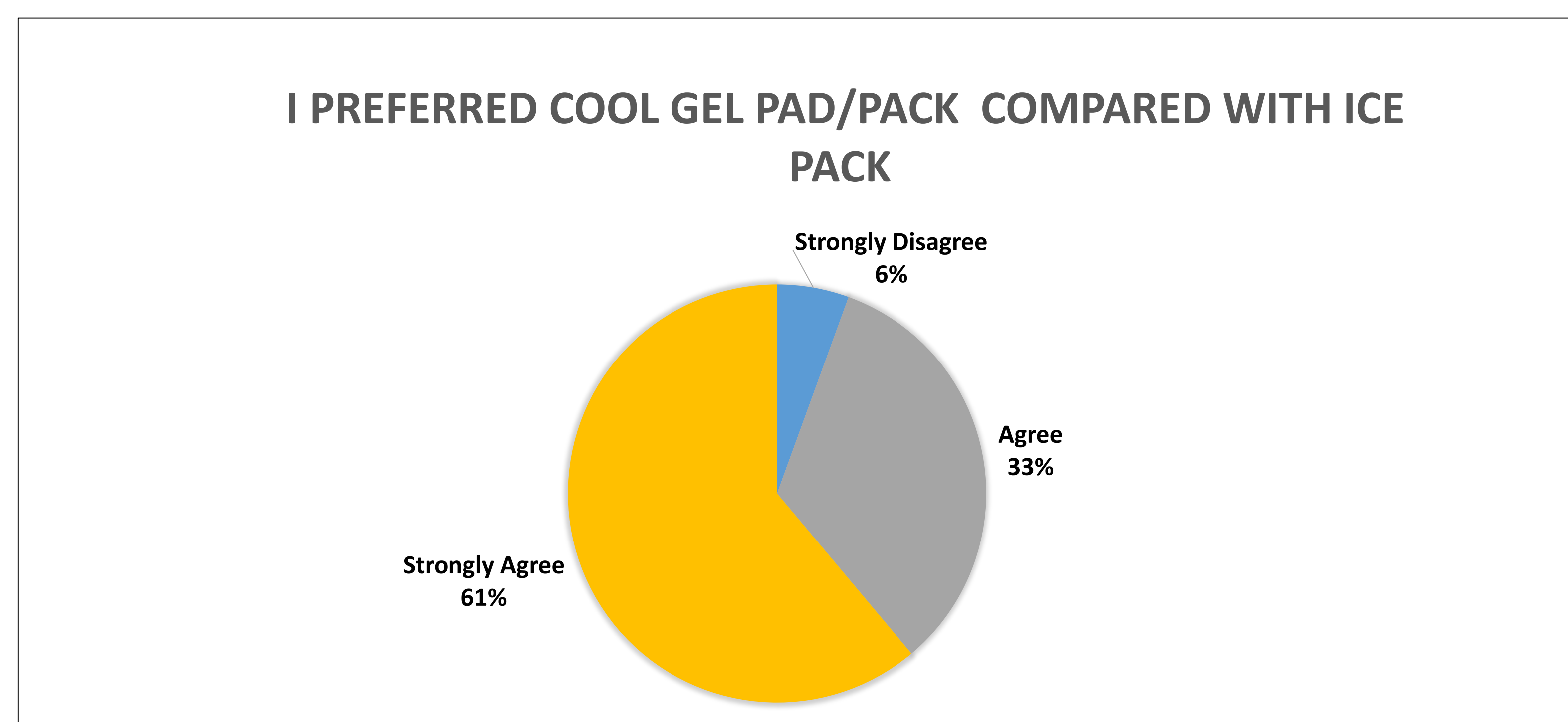
Alternative methods to replace ice making machines

Treatment	Transport	Comfort measures	Cold compress
<ul style="list-style-type: none"> • Stimulation for Speech therapy • Gastric Lavage for Bleeding Gastro intestinal tract • Total knee replacement post op care 	<ul style="list-style-type: none"> • Arterial blood gas • Serum lactate • Serum ketone 	<ul style="list-style-type: none"> • Fever • Phlebitis • Patient to drink cold water • Intravenous Potassium Chloride and chemotherapy • Ice chip to wet patient's mouth 	<ul style="list-style-type: none"> • Pain relief • Reduce swelling • RICE (Rest, Ice, Compression, Elevation) method for injury

Function of ice cubes used in hospital

Result

User feedback survey has been conducted. Survey result showed majority of staff preferred the new methods. Staff feedback the new methods are user friendly as patient will not experience dripping of water from ice pack, save time for preparation and it is also easy to apply on patient.



User feedback survey result

Based on the survey result, the workgroup has brainstorm on the alternative solutions to replace ice making machines and the usage of ice cubes. The workgroup noted ice cubes are required for treatment and transport purposes. Work processes were reviewed.

Started from February 2018, all ice making machines have been removed from inpatient wards with the new alternatives methods implemented. Removal of the ice making machine not only helps to eliminating source of contamination, but also improve the work processes of preparing ice pack for patient.