

# Keep Calm. Stay Warm. A Quality Improvement Initiative to prevent Surgical Site Infection (SSI) through Perioperative Temperature Management.

Nur-in Mohammad RN, Chief Nurse Fellow



## Background

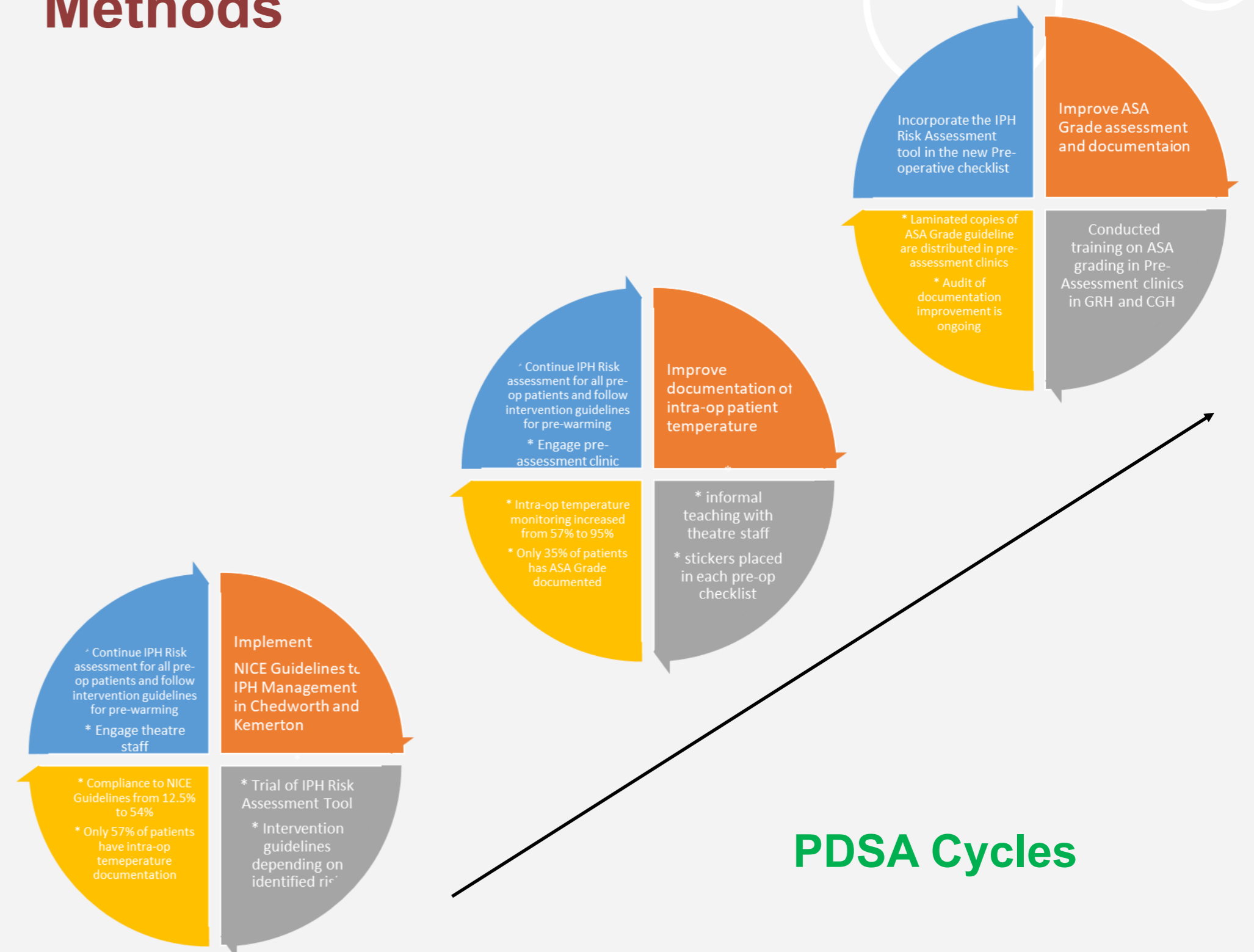
A **surgical site infection (SSI)** is an **infection** that occurs after **surgery** in the part of the body where the **surgery** took place. SSIs are the 3<sup>rd</sup> leading cause of hospital acquired infections. It affects both the patient and organisation. The impacts to the patient include, but not limited to, prolonged hospital stay, negative effect on quality of life due to losing of job while in the hospital or being treated, morbidity and mortality. Treatment of SSIs are also a huge financial burden to the organisation amounting to approximately £10,000 per patient. This cost includes extended length of hospital stay, antibiotics, and further surgeries.

One of the key elements to reduce SSI rate is to prevent patient from developing Inadvertent Perioperative Hypothermia (IPH). Patients with low core body temperature of less than 36°C are at risk of SSI and also cardiovascular diseases. Hypothermia can cause the blood vessels to constrict, reduce blood circulation and tissue perfusion, thus affecting effective wound healing.

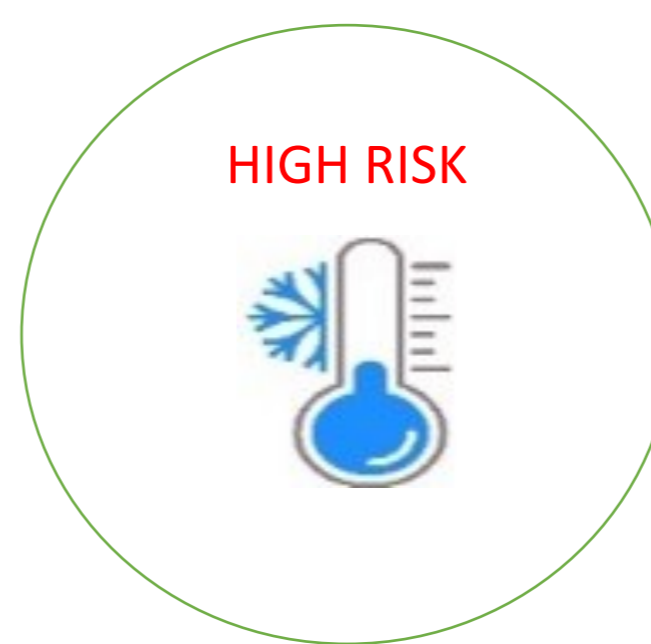
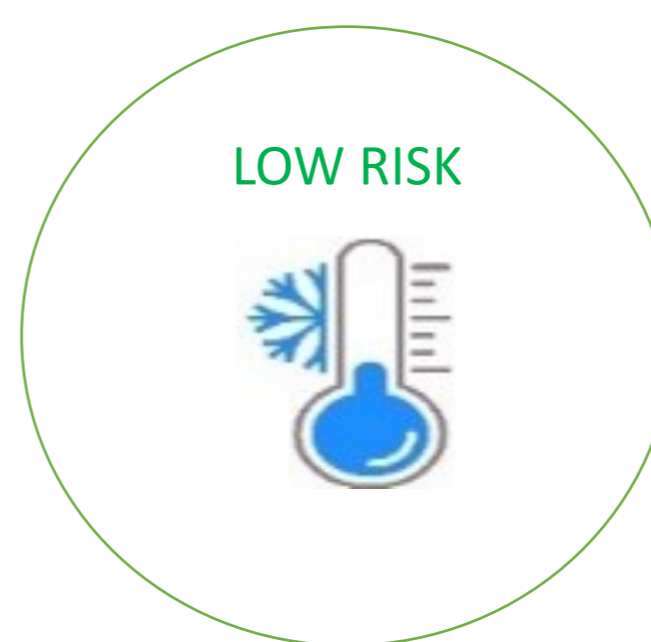
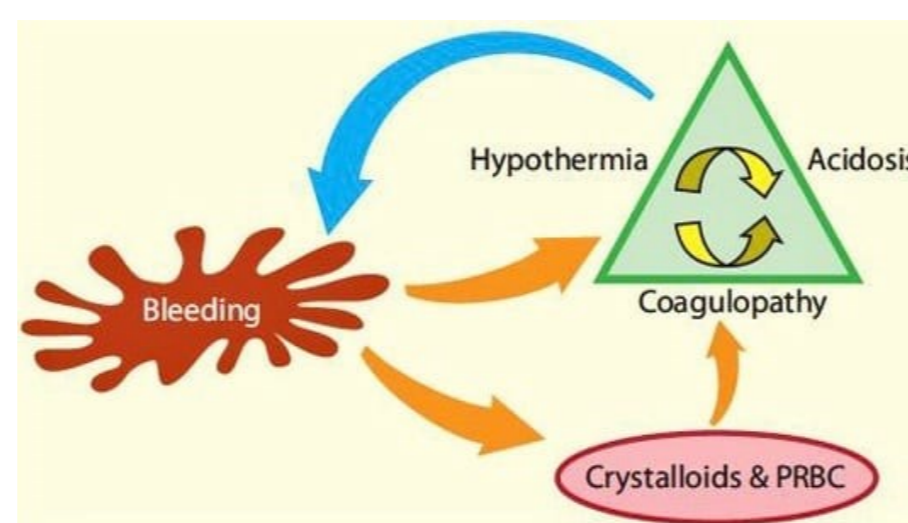
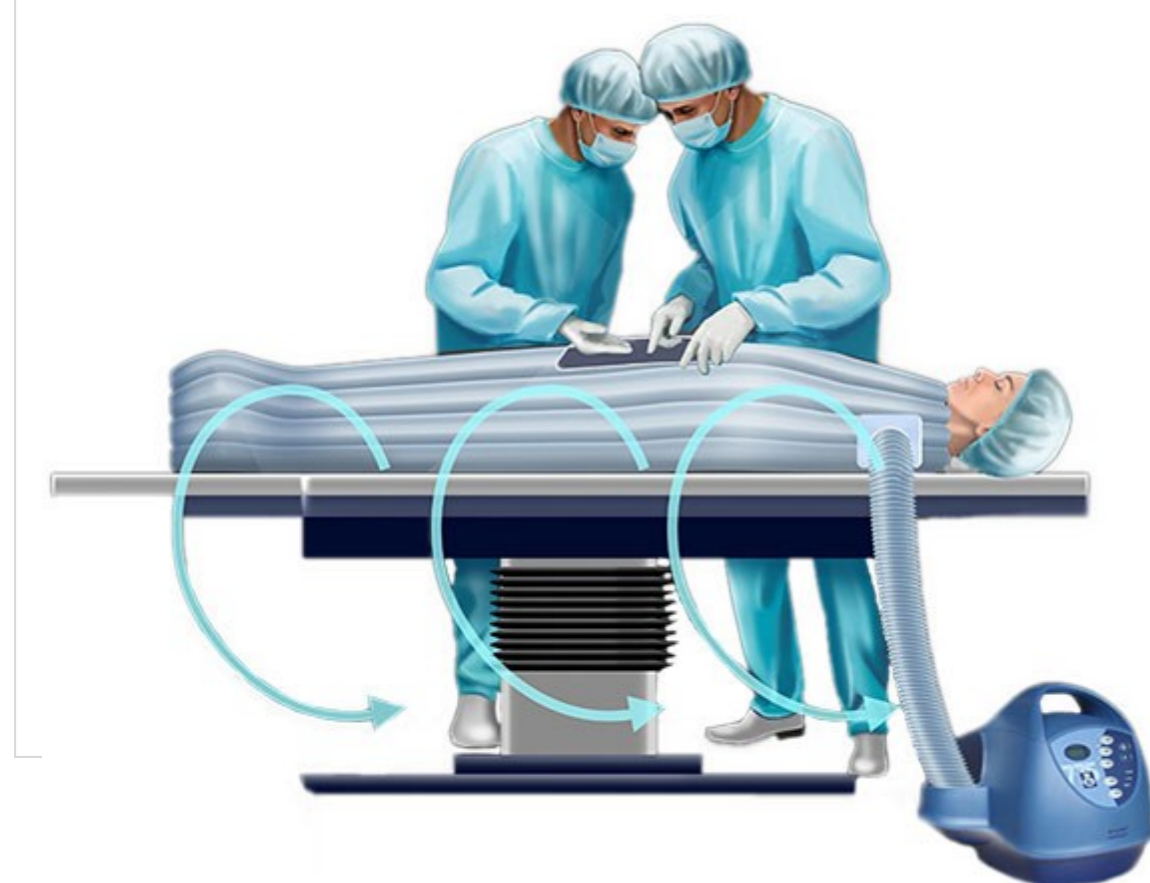
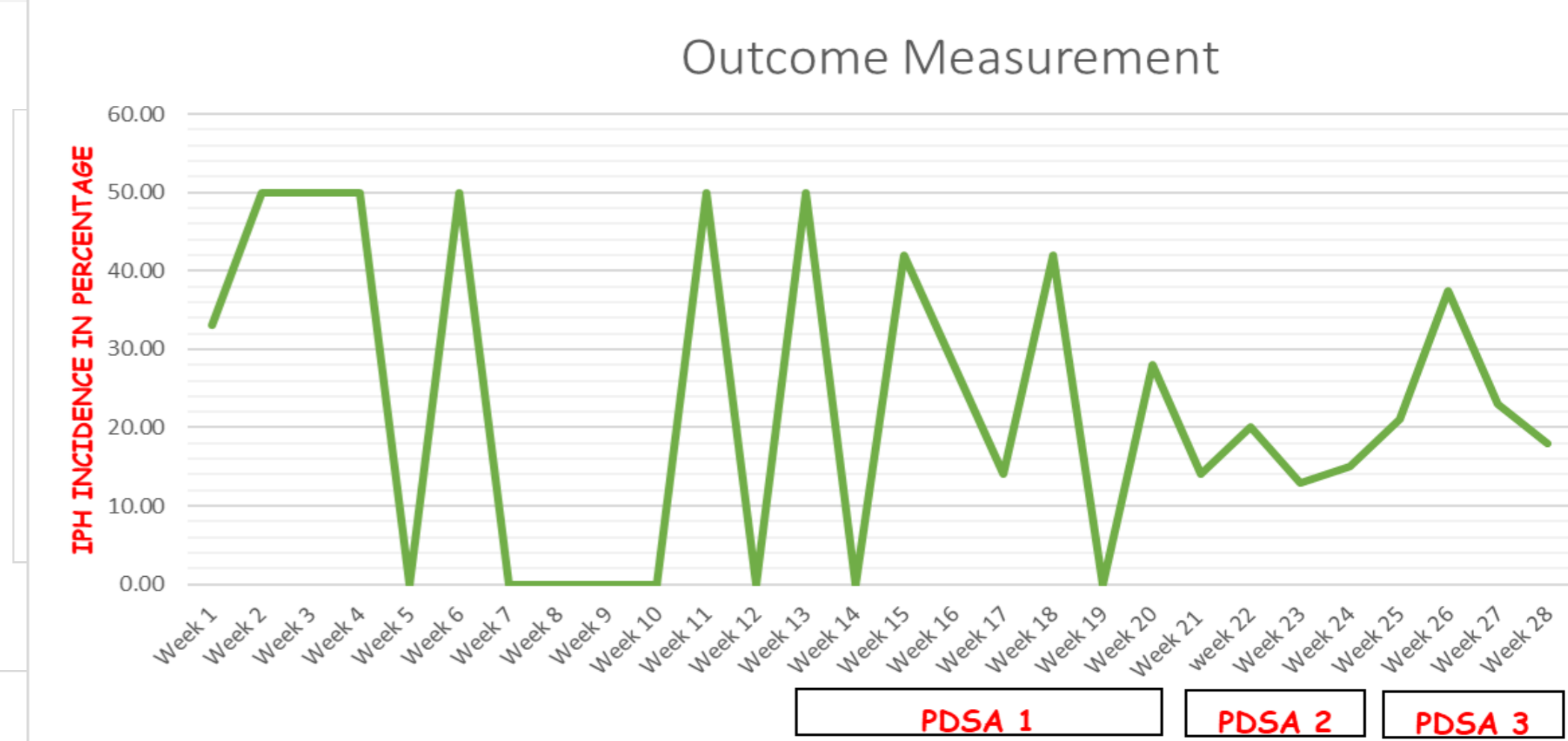
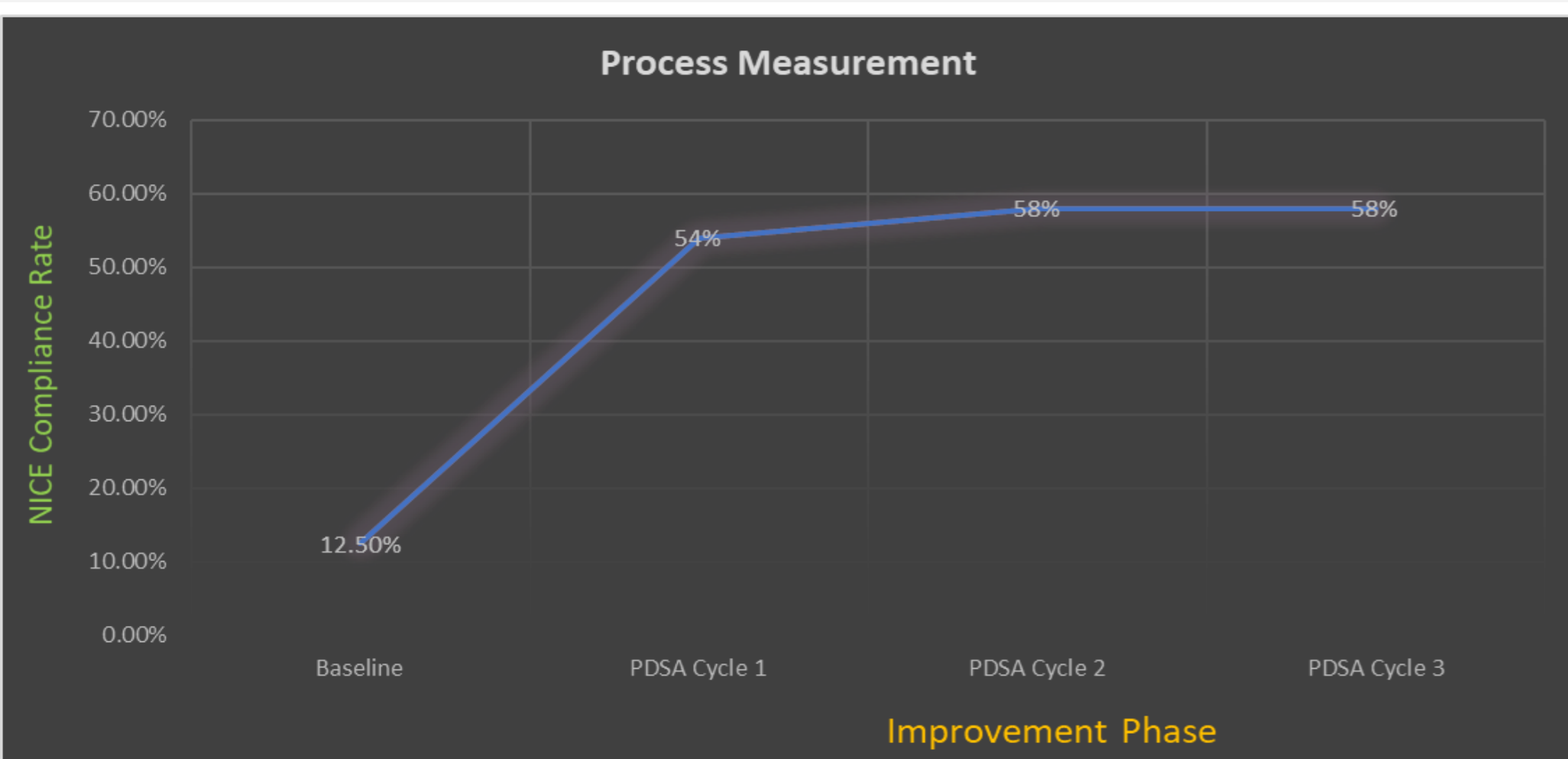
## Aim

To increase compliance to Inadvertent Perioperative Hypothermia (IPH) NICE Guidelines in Chedworth and Kemerton Day Surgery Units by 30 % within 6 months.

## Methods



PDSA Cycles



### Inadvertent Perioperative Hypothermia (IPH) Risk Assessment Tool

Risk factors for IPH	Tick
ASA Grade 2 and above	
Undergoing combined general and regional anaesthesia	
Undergoing major or intermediate surgery	
Age more than 75 years	
Low BMI less than 20	
1 or below LOW RISK 2 or above HIGH RISK	

### INTERVENTION GUIDELINES

LOW RISK	HIGH RISK
<ul style="list-style-type: none"> <li>Measure and document baseline core body temperature, retake an hour before transfer to theatre.</li> <li>Provide two blankets.</li> <li>Advise patient to keep warm and inform nurses/HcAs when feeling cold.</li> </ul>	<ul style="list-style-type: none"> <li>Measure and document baseline core body temperature, retake an hour before transfer to theatre.</li> <li>Start active warming using Bair hugger 30 minutes before transfer to theatre.</li> </ul>

Note: If patient's body temperature is below 36°C, start active warming IMMEDIATELY, regardless of the risk for IPH.

Inadvertent Perioperative Hypothermia NICE 2018

## Next Steps

- IPH Risk assessment will be part of the new Pre-operative Checklist
- Education/ training pack about SSI and Perioperative warming
- Include importance of warming in patient's letters/leaflets.
- Incorporate perioperative temperature management in the updated Hospital policy

## Temperature Working Group

- Kayzia Bertman
- Cathryn Braithewaite
- Kate Mennie
- Steve Lewis
- Jan Wilcox

- Catrin Day
- Helen Bailey
- Andrew Chikwanha
- Dr. Sock Koh
- Liz Bruce