# Strategies of preventing pressure injury in the operating room

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# 1. Background/Problem/Objective

The incidence of pressure injuries among surgical patients in our hospital was as high as 1.10%. This project aimed to establish a comprehensive preventive intervention to avoid occurrences of pressure injuries and improve the quality of care.

#### 2. Methods/Intervention

In this study, we identified and classified numerous major root causes and risk factors. Several countermeasures are implemented, as follows:

Risk assessmen  A "High-risk Group Assessment Form" was designed to evaluate the risks of pressure injuries before surgery.

Risk control

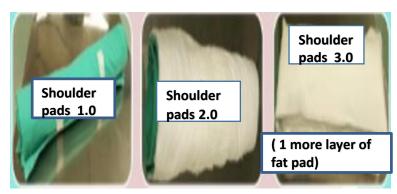
 Provide preventive medical dressings or patches to high-risk crush injury groups.

Personnel training

 Multiple education courses and training workshops for care teams, and proficiency performance audits in using prevention dressing.

Medical intervention

 We reevaluated and updated preventive pressure injury dressing patches and also provided updated equipment and appliances.



The combined operation time is extended by 4-15hours. Another countermeasure 2: further evolution of shoulder pad 3.0

# 3. Results (of valuation)

The improvement outcomes were observed as follows:

- (1) The proficiency evaluation of the operating room staff in preventing pressure injuries was increased from 48% to 100%.
- (2) The assessment of professional performance in utilizing preventative dressing is 100%.
- (3) During January 1, 2013 and March 31, 2024, the incidence of pressure injuries among operating room patients decreased from 1.10% to 0.08%, a significant reduction of 83.63%.







Preventive foam dressing for both shoulders



Enhanced protection for areas prone to crushing

#### 4. Conclusions/Lessons learned

It is an extremely effective approach for assessing patient risk before surgery, and providing different medical dressings for different individuals may reduce the likelihood of pressure injury. In the future, we aim to integrate this strategy into the "E-surgery system" to streamline the surgical workflow.

### 5. Relevance to HPH

This is an evidence-based action in which we investigate the patient's medical history to identify root causes. To eliminate possibility of pressure injury, several preventative and appropriate measures were established. Team resource management (TRM) collaboration can efficiently improve patient safety and reduce workload of nurses dealing with surgical pressure injuries.