



Preventing unnecessary delay for high-risk surgical patients to receive pressure injury preventive measures

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Introduction

Surgical patients are prone to developing hospital-acquired pressure ulcers (HAPU). However, it is well-recognised that HAPU is avoidable.¹ Preventing HAPU involves accurate and ongoing risk assessments for early implementation of preventive measures. It is vital to reduce the incidence of hospital-acquired pressure ulcers (HAPU) among surgical patients.

Objective

To prevent unnecessary delay in receiving alternating air-mattress among surgical patients who are at high-risk of pressure injury.

Methodology

Evidence-based improvement project

Setting: Singapore General Hospital (SGH)

Study period: December 2017 to April 2018

All surgical patients were assessed using the **Surgical Pressure Ulcer Risk Score (SPURS)** tool before operation (Table 1)(Table 2).

Table 1: Risk stratification for SPURS: low, moderate and high risk groups.

Low risk	0-3
Moderate risk	4-5
High risk	6-14

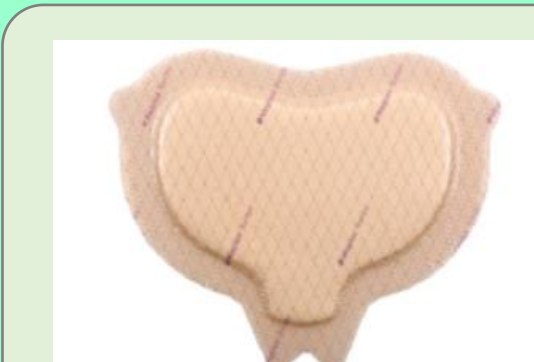
Table 2. SPURS predictive factors and their assigned scores

Predictive factors	Score
Age ≥ 75yrs	2
Female	1
ASA score ≥ 3	2
BMI < 23	1
Pre-operative Braden score ≤ 14	2
Anaemia	2
Respiratory disease	3
Hypertension	1

High risk patients will receive:



1. SPURS identifier on wrist tag



2. Prophylactic foam dressing (sacral and heel)



3. Alternating pressure mattress before operation

Results

425
high-risk
patients

Not all patients receive
appropriate preventive
measures

Receive air-mattress only
12-24 hours post-operatively

Reasons for delay :

- Air-mattress could only be delivered during office hours;
- Presence of multiple tubings and drains; and
- Patients were in too much pain to be hoisted.

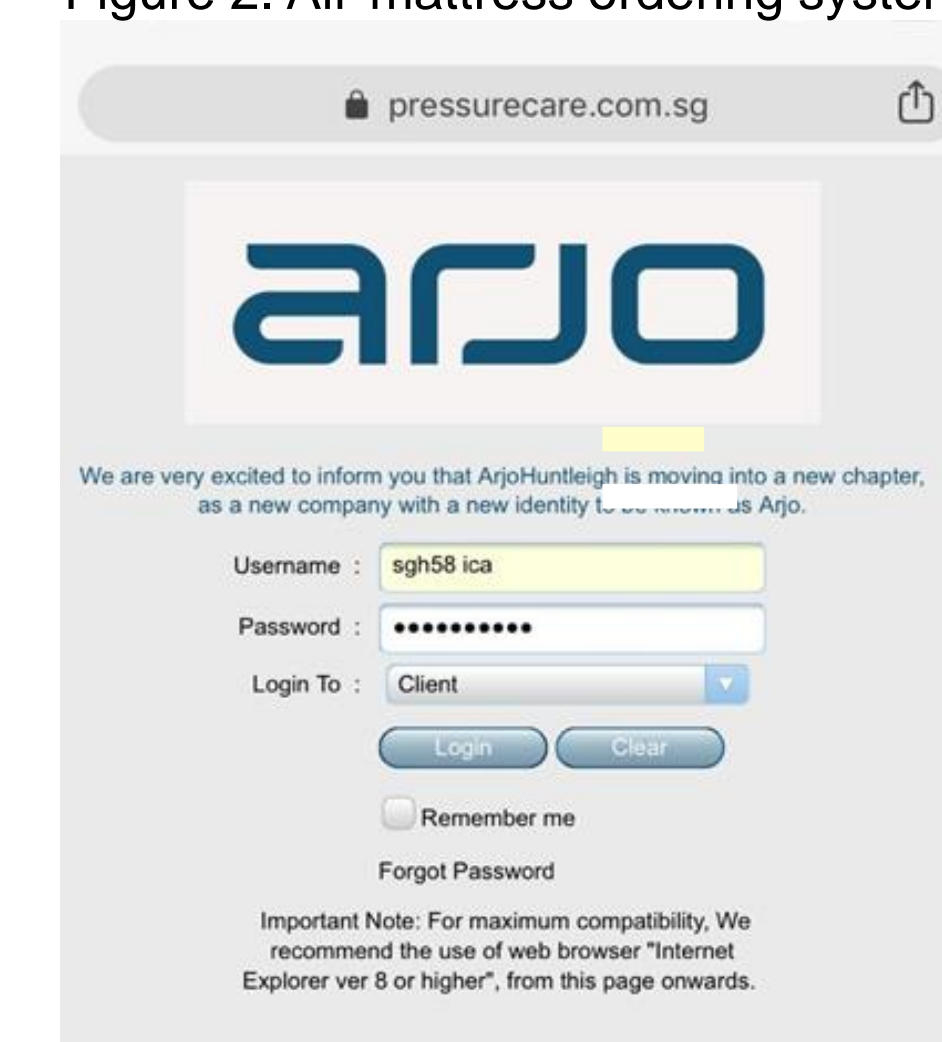
Solutions to preventing further delay:

- At least one standby air-mattress was made available in the ward.
- To date, 6 out of 17 surgical wards in SGH has a standby air-mattress (Figure 1).
- Placing order of mattress through 'arjohuntleugh' every time arjo-200 mattress is used (Figure 2).

Figure 1. Standby mattress located at ward equipment room



Figure 2. Air-mattress ordering system.



Feedback from nurses:

"The alternating air-mattress can be prepared ahead of time which reduce the need to hoist patients post-operatively."

"The availability of a standardized protocol of the activation of the arjo mattress"

Conclusion

Having a standby air-mattress for the ward has prevented unnecessary delay for patient to receive the air-mattress and reduces inconvenience for the nurses to hoist patients post-operatively.

References

1. Tschannen D, Bates O, Talsma A, Guo Y. Patient-specific and surgical characteristics in the development of pressure ulcers. Am J Crit Care. 2012;21(2):116-25.