

Project Title

Key Transformation Initiatives in Reducing Inpatient Falls

Project Lead and Members

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Organisation(s) Involved

Ang Mo Kio Thye Hua Kwan Hospital

Healthcare Family Group Involved in this Project

Allied Health, Nursing

Applicable Specialty or Discipline

Physiotherapy, Rehabilitation Therapy

Project Period

Start date: Jan 2022

Completed date: Dec 2022

Aims

- Mitigate risk factors that attribute to therapy-related falls and non-fall related skin injuries
- Reduce the total number of unassisted falls by at least 50% in year 2022 compared to previous year 2021.

Background

See poster appended/ below

Methods

See poster appended/ below

Results

See poster appended/ below

Conclusion

See poster appended/ below

Project Category

Care & Process Redesign

Value Based Care, Safe Care, International Patient Safety Goals

Training & Education

Learning Approach, Team Based Learning, Learning Culture

Keywords

Fall Prevention, Physiotherapy, Patient Safety, Therapy, Team Learning.

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Key Transformation Initiatives in Reducing Inpatient Falls.

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INTRODUCTION

Falls among hospital inpatients are a common concern. The average falls incidences in Ang Mo Kio-Thye Hua Kwan Hospital was noted to be 0.7 per 1000 patient-days. Injuries due to falls can hinder patients' recovery, increase healthcare costs and increase length of stay in a hospital. Therefore, inpatient falls is an important patient safety and public health concern.

Therapy Services (TS) embarked upon an inpatient work transformation initiative with aims to:

1. Mitigate risk factors that attribute to therapy-related falls and non-fall related skin injuries
2. Reduce the total number of unassisted falls by at least 50% in year 2022 compared to previous year 2021.

METHODOLOGIES

In our study, a fall is any event that results in a patient coming to rest inadvertently on the ground, floor or other lower level. It includes the unplanned or unintentional lowering of the patient to the ground. Non-fall-related skin injuries may include abrasions, skin tear, or bruises.

To aid our understanding on the main contributing factors for current falls incidences and skin-associated injuries during therapy, thematic analysis of all qualitative therapy-related Hospital Occurrence Reports (HORs) in year 2021 were conducted.

2 main themes emerged:

1. Internal Factors

Sub themes: Patients' physical mobility, functional status, mental state, skin integrity related to age, medical diagnoses, and comorbidities.

2. External Factors

Sub themes: Ineffective manual handling of patients, suboptimal choice of prescribed activities, equipment use and environmental setup.

While these internal factors are mostly non-modifiable, or requires long-term efforts to yield results, targeting the external factors can lead to immediate positive effects, hence the committee implemented four interventions with the goal of rapid Improvement:

1. Monthly Equipment Maintenance Day
2. Loaning of footwear
3. Quarterly educational sessions to staff
4. Weekly reminder messages to promote staff adherence

Post implementation, all falls and skin injuries HORs between January to December 2022 were collected. Extraneous variables such as caregiver-related injuries and HOR that occurred outside therapy sessions were excluded. A mixed-method evaluation was conducted to determine if the interventions had yield positive outcomes in reducing falls and skin-associated injuries.

RESULTS

In year 2022, TS incurred a total of 11 HORs falls and skin associated injuries combined, demonstrating a 26.7% reduction in total number of HOR incidences as compared to year 2021. Both assisted and unassisted fall incidences fell by 40% and 80% respectively (Fig. 1), which further suggest improvement in staff practices and more optimal use of equipment and environment during therapy implementation. Falls resulting in injuries had also reduced significantly by 75%, thus suggesting that staff are quicker to respond and adapt while assisting a falling individual safely onto the ground or lowered surface.

RESULTS

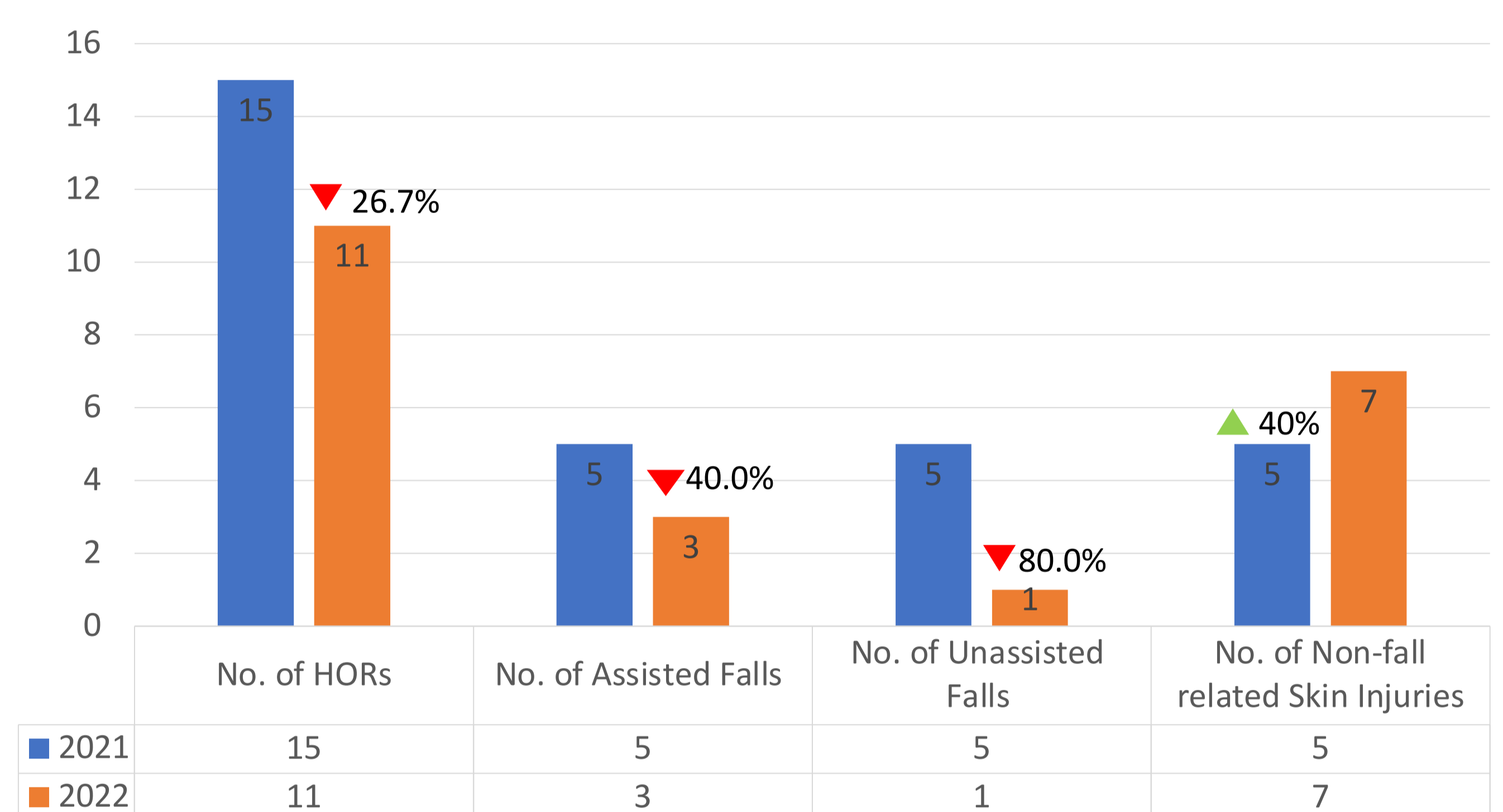


Figure 1: Analysis of Hospital Occurrence Reports 2021 vs 2022

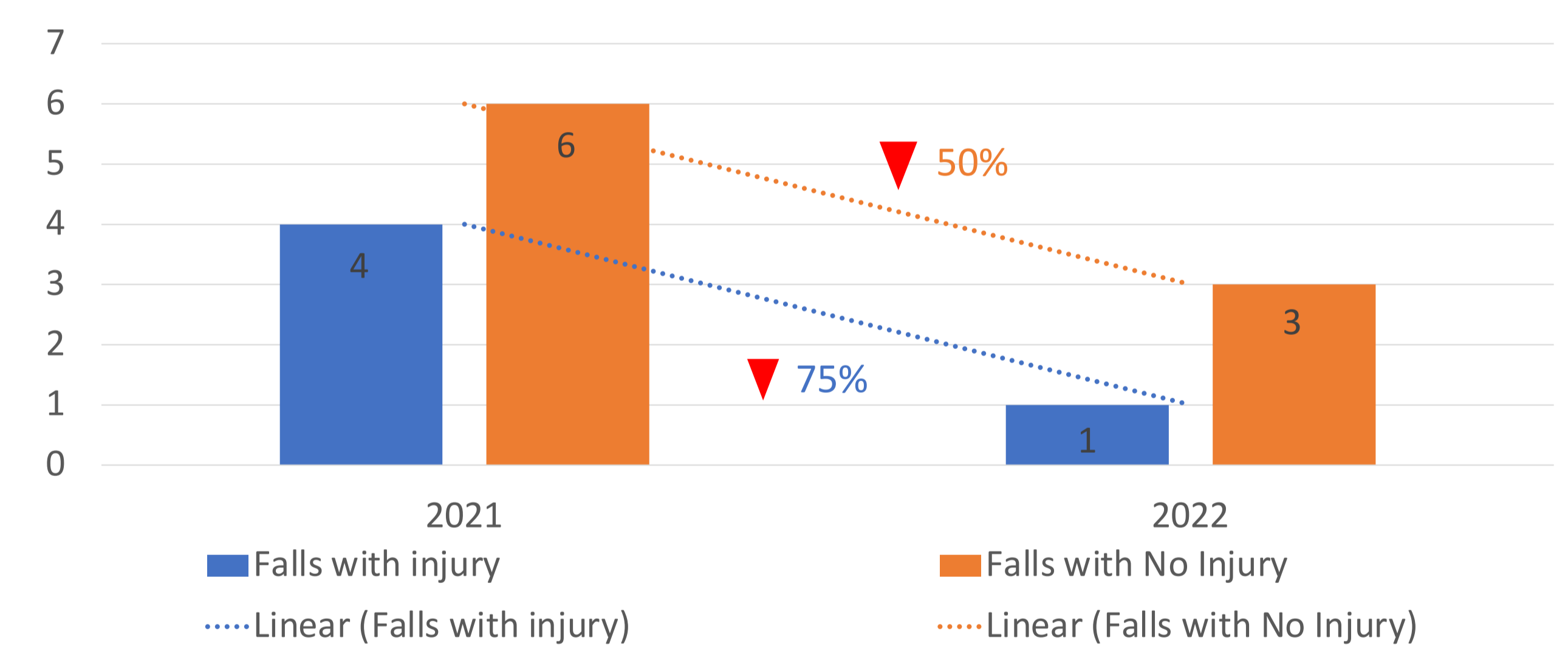


Figure 2: Falls Outcomes in Year 2021 and 2022

On the contrary, our interventions did not yield positive effects on skin injuries. Occurrence of skin injuries during therapy increased by 40% compared to year 2021 (Fig 2). Many of these injuries are associated with: (1) Comorbidities that influence a patient's skin integrity and healing, and (2) Diagnoses involving a change in cognition or mental state, that influences a patient's ability to identify and mitigate hazards appropriately. Exploration and implementation of other valued added interventions such as patient education (e.g. face-to-face talks, handouts, or improved orientation guidelines to hospital) may be useful in addressing skin injuries.

CONCLUSION

Our interventions were successful to yield positive effects as they promote a positive learning environment where staff are well engaged and motivated to prevent falls and skin injuries together as a department. When a proper communication channel is provided, staff are more vocal to share their perspectives and come up with innovative ways to address prevailing causes of HORs. Staff who are trained to identify and address falls risk can play a significant role in preventing falls and improving patient safety.