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基督教聯合醫院  
UNITED CHRISTIAN HOSPITAL



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Tseung Kwan O Hospital



仁濟醫院  
Yan Chai Hospital

# The 'FREE' Bundle: An Approach to Physical Restraint Reduction Program

Lo PY (1), Lee SW (2), Wong KK (3), Chow FY (3), Leung WC (3), Choi HL (4), Kan CY (4), Chan SP (3), Wong MS (4), Chan WC (1), Cheung KC (1), Tam YY (1), Ho SM (1)

- (1) Department of Medicine and Geriatrics, United Christian Hospital
- (2) Department of Nursing Services Division, United Christian Hospital
- (3) Department of Medicine, Tseung Kwan O Hospital
- (4) Department of Medicine, Yan Chai Hospital

## Ms. LO Pak Yung

RN, BSN (Hons), MN, PRCC (Gerontological Nursing)



# Physical Restraint (PR)

## Definition

Use of **physical device** to **limit** patient's **movement**

## Purposes

- Ensure **safety** of patients and staff
- Facilitate **medical procedures and care**

## Prevalence

**12.96%** in **medical specialties**



# Challenges with PR Use

Deconditioning

Reduced mobility

Dependence on  
activities of daily  
living

Pressure injuries



Restraint should be used as  
the **last resort**

(Agens, 2013; Dunn, 2001; Hospital Authority, 2021; Nursing Council of Hong Kong, 2008; The Nursing Quality & Safety Annual Report, 2022)



# Project Aim



**Promote Physical Restraint Reduction**



# Project Objectives



## Enhance PR-Reduction Program

Introduce FREE Bundle



## Examine Patient Safety

Introduce Removal Decision Support Tool



## Raise Staff Confidence

Improve nurses' knowledge, attitude, practice (KAP)

# Project Details



## Participating Sites

### **6** acute medical wards

- UCH (S13A)
- TKOH (2B, 4A, 8A)
- YCH (13N, 14S)



## Inclusion Criteria

- Patients aged **65+**
- Acute **medical/geriatric problems**
- Currently on **PR**



## Exclusion Criteria

- Other medical problems
- No current PR use

# Project Timeline

- ★ — Pilot Period: 20 May- 16 June 2024
- 🚩 — **Establishment of Standardized Materials**  
Mid-May
- 📄 — **Educational Phase**  
Late May
- 📅 — **Implementation Phase**  
Early June
- 📋 — **Outcome Measurement & Data Collection**  
Mid-June



# FREE Bundle Overview

**F**orm development

**R**emoval Decision Support Tool

**E**ducational Talk

**E**valuation



# Pre-test Questionnaire



**K**nowledge

Understanding of  
restraint impacts



**A**ttitude

Perceptions toward  
restraint use



**P**ractice

Applied decision-  
making skills



Pre-test Questionnaire



# Educational Talk



## **15-Minute Sessions**

3 identical sessions per ward



## **Key Concepts**

Restraint alternatives and monitoring techniques



## **Practical Skills**

Decision-making using the 4Ps framework



## **Team Approach**

Collaborative assessment strategies

# Physical Restraint Removal Program (FREE Bundle)

Institute of Advanced Nursing Studies  
MSc in Gerontological Nursing  
2023/2024  
Group 7

## Pre-test

Psychogeriatric Certificate Course  
Gerontological Nursing 2023/2024 - Development and Implementation of a Physical Restraint Removal Program (FREE Bundle) for Elderly Patients: Physical Restraint Questionnaire (PRQ) Pre-test

Physical Restraint Questionnaire (PRQ)

## Outline

Pros and cons of applying physical restraints

## 01 Introduction

## Definition of physical restraint

Physical Restraint (PR) is defined as the use of a physical device or barrier to limit movement of the whole or a part of the patient's body

Hospital Activity, 2022

## Examples of physical restraint

- Review of the patient's need of continuing of physical restraint
- Documentation of the reason for ongoing need of physical restraint
- Measures to prevent or early detect potential complication

Hospital Activity, 2022

## 02 Guide to good nursing practice on physical restraint

## Guide to good nursing practice on physical restraint

- Best interest**  
Maintain safety and well-being of patients and others
- Least restrictive & Shortest duration**
- Proper usage**  
Properly, correctly, responsibly and safely used
- Closely monitored & Review timely**

## 03 Pros and cons of applying physical restraints

## PROS and CONS

PROS	CONS
<ol style="list-style-type: none"> <li>Prevention of fall (7)</li> <li>Ensure patient and staff safety</li> <li>Prevent treatment</li> </ol>	<ol style="list-style-type: none"> <li>Dehydration</li> <li>Choking</li> <li>Excitatory and skin problems</li> <li>Loss of strength and mobility</li> <li>Incontinence</li> <li>Aphasia</li> <li>Confusion</li> <li>Depression and fear</li> <li>Serious injuries including fractures from falls</li> </ol>

Guid & Hunt, 2018

## 04 Trial Removal of Physical Restraint Project (FREE Bundle)

## Objectives

- To enhance knowledge on minimising the use of physical restraint
- To strengthen the nursing staff's confidence, willingness, and awareness of physical restraint removal
- To ensure patients' safety in physical restraint application

## FREE Bundle

- F** Form: For documenting patients' readiness after PR removal
- R** Removal: Decision support tool
- E** Educational: Campaigns for nursing staff
- E** Evaluation: Of nursing staff's belief on PR application

## F Form

- Inclusion criteria
- Criteria for trial removal of physical restraint
- Fill in every shift, until 48hrs after trial removal of PR score
  - Review patient by 4P every shift
  - Physical restraint status

## Trial removal of physical restraint

- On improvement of the circumstances that warranted the restraints
- When there is concern with the restrained site
- Applied alternative measures
- Review and evaluate every shift until 48 hours of restraint removal
- By connecting with the patient
- When family are present

## Alternative Measures



Hospital Authority, 2021

## Alternative Measures



Hospital Authority, 2021

## Alternative Measures



Hospital Authority, 2021

## Alternative Measures



Hospital Authority, 2021

## Alternative Measures



Hospital Authority, 2021

## R Removal Decision Support Tool



Derek, 2018

## E Education campaign for nursing staff



+

## E Evaluation of nursing staff's competency on physical restraint application



Lee et al., 2021

## Post-test



Post-test

Physical Restraint Questionnaires (PRQ)

+

05

Survey



## Survey



Survey

<https://www.surveymonkey.com/s/physical-restraint>

+

06

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## Thank you!

Do you have any questions?



## Patient safety is our ultimate goal

# Removal Decision Support Tool

## **P**osition

Assess comfort  
and alignment

## **P**ossessions

Ensure items  
within reach



## **P**otty

Address toileting  
and hydration

## **P**ain

Assess pain level

## **4Ps of rounding**

# Documentation Form

## Patient Assessment

Assess inclusion criteria

## Trial Eligibility

Record PR reduction rationale

## 4Ps Evaluation

Track proactive rounding results

## PR status Review

Document PR status every shift

 Removal of PR for 48 hours counted as **SUCCESSFUL**

**Trial Removal of Physical Restraints for Elderly Patients Form**

**Inclusion Criteria :**  
 \*Patient ≥ 65 years old and on physical restraint  
 \*Fill in this form **ONLY** when Trial Removal of Physical Restraint Starts

Please Stick HN Label

**PART I- Reason(s) for Trial Removal of Physical Restraints** Date of Trial: \_\_\_\_\_ Time: \_\_\_\_\_

\*Removal of Physical Restraint for **48 hours** counts as **SUCCESSFUL** → **END** this chart  
 \*Reapplication of Physical Restraint **within 48 hours** counts as **UNSUCCESSFUL** → **END** this chart and refer back to Use of Physical Restraint Observation Record Form  
 \*Please  where appropriate

Improvement of the circumstances that warranted the restraint  
 Bedside supervision is available (E.g. Family or caregivers are present)  
 Patient contract  
 Condition changes in restrained site  
 Alternative measures are applied (E.g. Fall alarm pad is applied)  
 Others (Please specify: \_\_\_\_\_)

**PART II- Evaluate and Review** (Record at least **ONCE** per shift for 48 hours)

Date	Shift	Proactive Rounding of 4P <sup>◇</sup>	Physical Restraint Status	Sign.
	A / P / N	<input type="checkbox"/>	<input type="checkbox"/> Continue to remove physical restraint <input type="checkbox"/> Reapply with reason # ( V / H / I / M / Other: _____ )	
	A / P / N	<input type="checkbox"/>	<input type="checkbox"/> Continue to remove physical restraint <input type="checkbox"/> Reapply with reason # ( V / H / I / M / Other: _____ )	
	A / P / N	<input type="checkbox"/>	<input type="checkbox"/> Continue to remove physical restraint <input type="checkbox"/> Reapply with reason # ( V / H / I / M / Other: _____ )	
	A / P / N	<input type="checkbox"/>	<input type="checkbox"/> Continue to remove physical restraint <input type="checkbox"/> Reapply with reason # ( V / H / I / M / Other: _____ )	
	A / P / N	<input type="checkbox"/>	<input type="checkbox"/> Continue to remove physical restraint <input type="checkbox"/> Reapply with reason # ( V / H / I / M / Other: _____ )	
	A / P / N	<input type="checkbox"/>	<input type="checkbox"/> Continue to remove physical restraint <input type="checkbox"/> Reapply with reason # ( V / H / I / M / Other: _____ )	

<sup>◇</sup> 4P = Pain (How is your pain?), Position (Are you comfortable?), Potty (Do you need to use the bathroom?), Possessions (Place phone, call bell, trash, bedside table, tissues, and water pitcher within reach.)  
 # V = Violent behavior H = High risk of fall I = Interfere with medical device(s) M = Mental / cognitive impaired

# Post-test Questionnaire



**K**nowledge

Understanding of  
restraint impacts



**A**ttitude

Perceptions toward  
restraint use



**P**ractice

Applied decision-  
making skills



Post-test Questionnaire

# Staff Survey



## Motivation

Consideration of alternatives



## Awareness

Willingness and confidence  
of PR reduction



## Support Tools

Effectiveness of removal  
decision support tool



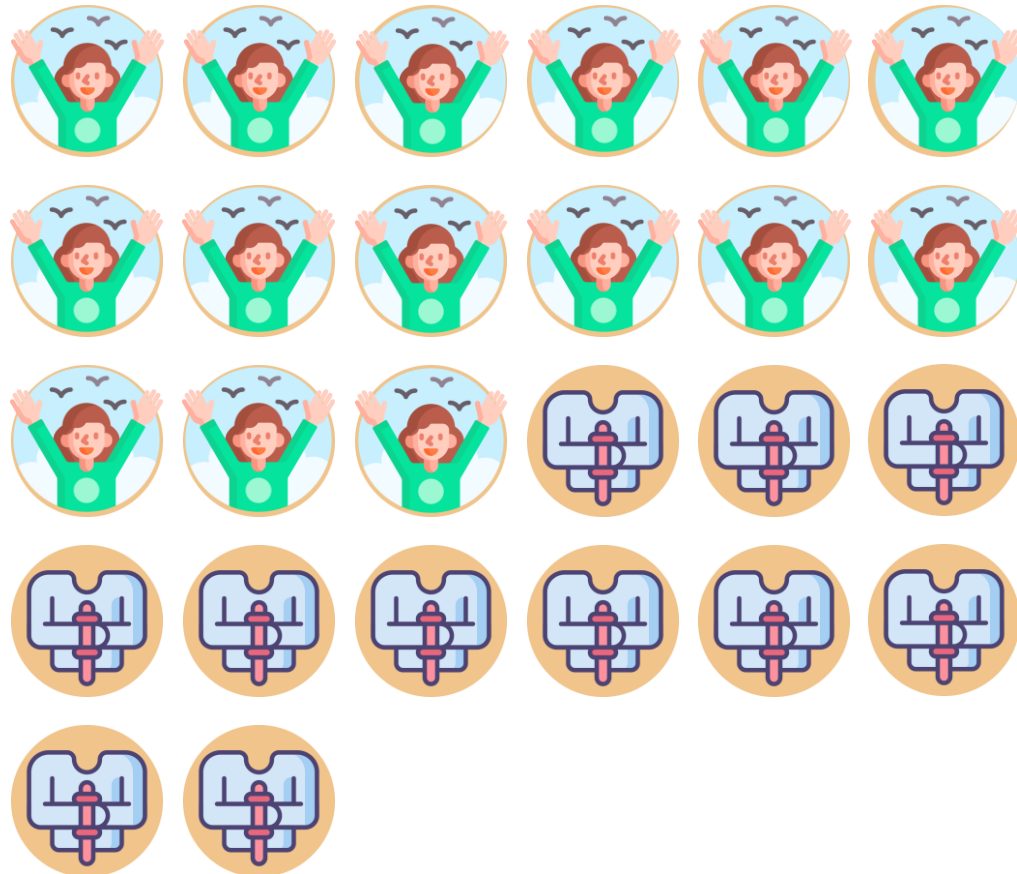
## Education

Value of training sessions



Survey

# Initial Pilot Results



26

Patients

Total participants recruited

15

Successful

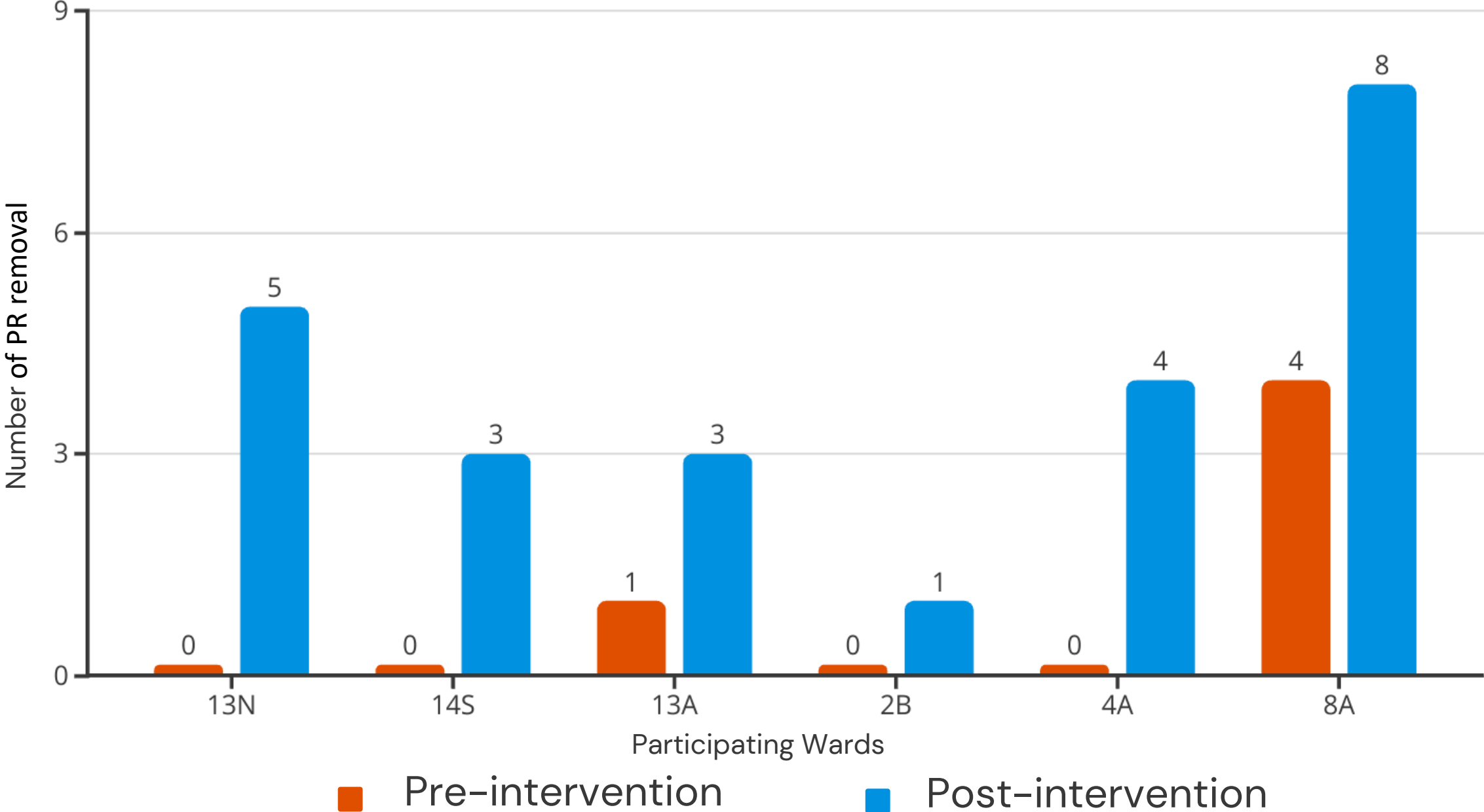
Restraints safely removed

60%

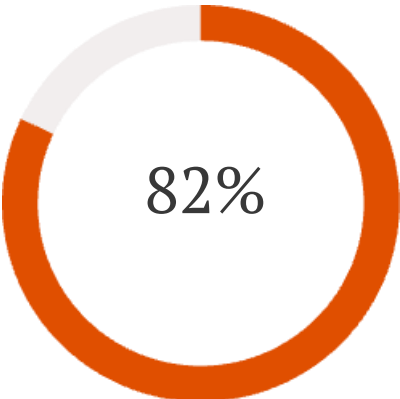
Success Rate

Overall effectiveness

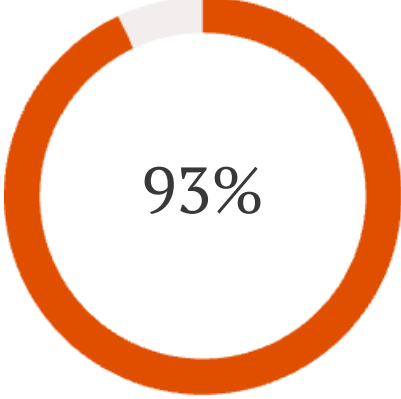
# Restraint Removal Outcomes



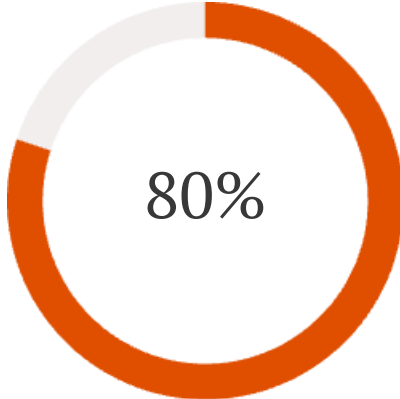
# Staff Survey Results



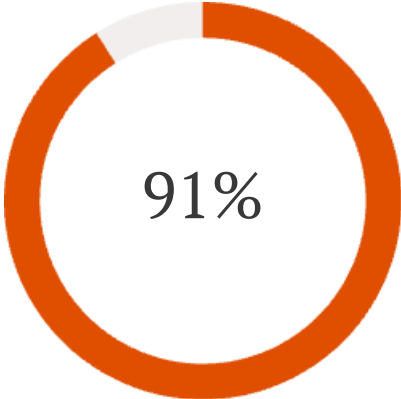
Increased Motivation



Raised Awareness



Useful Support Tools



Informative Education



# KAP Improvements



## **K**nowledge

Pre-test score: 6.88

Post-test score: 7.47

**8.56% Improvement**



## **A**ttitude

Pre-test score: 16.91

Post-test score: 17.66

**4.43% Improvement**



## **P**ractice

Pre-test score: 22.58

Post-test score: 24.70

**9.39% Improvement**

# Service Enhancement Outcomes



Promoted PR Reduction



Improved Mobility



Enhanced Monitoring



Preserved Patient Dignity



Boosted Staff Competency



# Next Steps: Working Together Across Disciplines



## Doctors

Review medicines, minimize monitoring devices



## Physiotherapy

Improve patient mobility, prevent falls



## Occupational Therapy

Enhance patient's ADL and cognitive condition



## Family Support

Learn about care, help during changes

# Conclusion



## **Reduced Restraint**

by FREE Bundle



## **Filled Practice Gaps**

by 4Ps Removal Decision Tool



## **Enhanced KAP**

via educational talk



## **Safeguarded Patient Safety**

throughout process

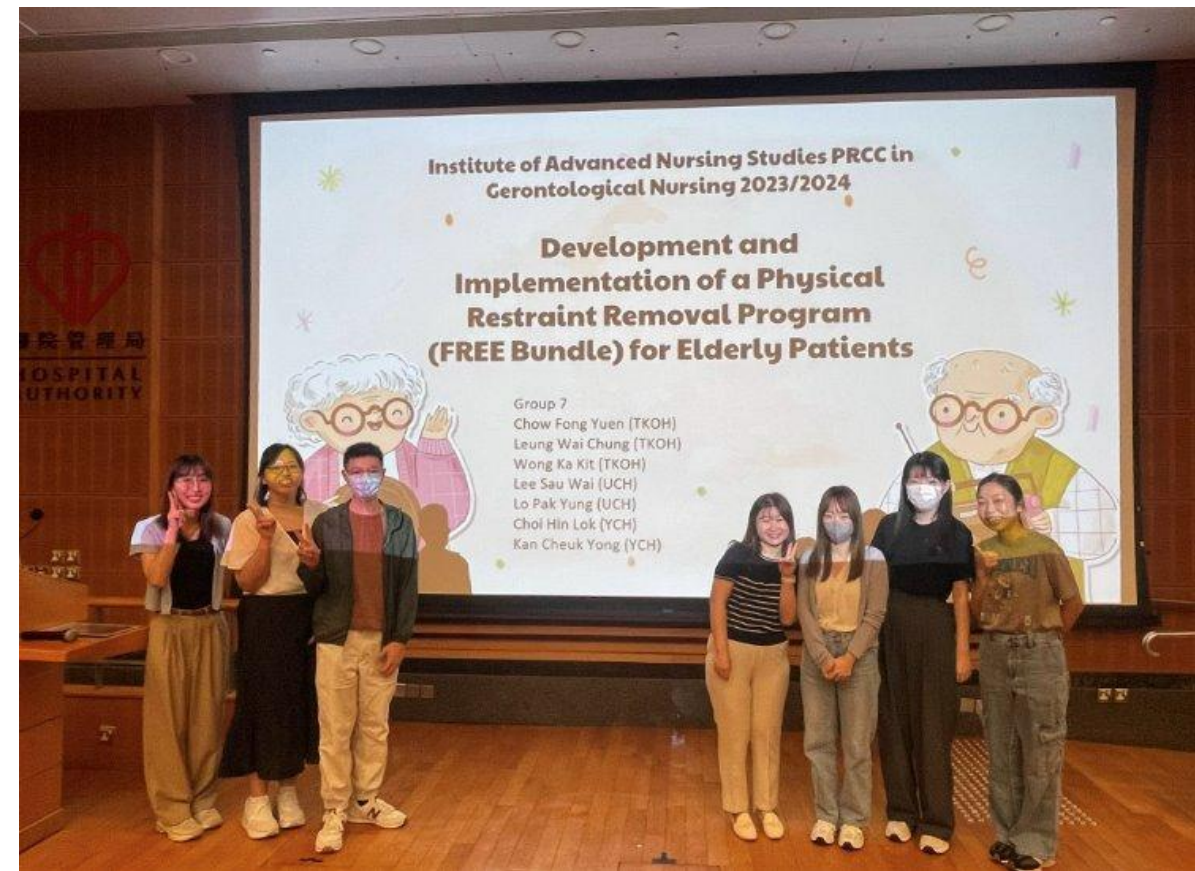


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# Thank You for Your Attention



Contact

[lpy382@ha.org.hk](mailto:lpy382@ha.org.hk)



Questions

Open for discussion



Resources

Materials available