



Service Priorities and Programmes Electronic Presentations

Convention ID: 1071

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A Quality Improvement Project to Improve and Reduce the Use of Hand Mitt Restraints in Nursing Home Residents

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Keywords:

Quality Improvement

Physical Restraint

Nursing Home

Hand Mitt Restraint

Restraint Reduction

Introduction

Improper use of physical restraints can be harmful and abusive. Hand mitt restraint is a kind of upper limb restraint commonly used in Hong Kong. In 2013, a serious incident occurred in a nursing home resident who sustained a deep laceration of the hand requiring surgical repair due to use of a wear-and-tear hand mitt restraint.

Objectives

A quality improvement project was conducted by the Community Geriatric Assessment Service (CGAS) under the New Territories West Cluster to improve the hand mitt restraint application and reduce its use in nursing home residents.

Methodology

The project was piloted in two of the nursing homes. Residents on hand mitt restraints were identified by CGAS nurses and assessment of restraints was performed by CGAS occupational therapists. Education to nursing home staff and suggestions of mittens or alternatives were provided. Residents would also be referred to CGAS geriatricians for medical assessment. Reassessment was done within 6 months.

Result

Of the 197 residents evaluated, 46 residents (23.4%) were on hand mitt restraints (mean age 82.2 ± 10.0 years). The majority were physically disabled (82.6%

chairbound/bedridden), with dementia (78.3%) or stroke (37.0%), and commonly associated with the use of nasogastric tube (32.6%) or urinary catheter (10.9%). The reasons for hand mitt restraints were risk of behavioral problem (73.9%), followed by risk of disrupting healthcare treatments (19.6%), and both reasons (6.5%). Problems in restraint application were found in 58.7% (n =27) of the residents on hand mitt restraints including use of inappropriate size, poor condition of the mitten, and improper tying of the restraint, etc. After the intervention, the number of residents on hand mitt restraints had dropped by 15.2% (from 46 to 39) and those with problems in applying the restraint had dropped by 22.2% (from 27 to 21).

The use of physical restraint in nursing homes in Hong Kong remained high. Multicomponent interventions by a multidisciplinary team can improve restraint application and reduce its use. A quality improvement program can improve care quality and reduce adverse incidents in nursing home residents.