

Application of Multidisciplinary Team to Improve the Safety of Patients: Reducing the Fall Incidents of Pediatric Oncology Inpatients

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Introduction

- ❖ It's normal for children to fall frequently.
 - People always say "it's ok! it's ok! "
 - They're energetic !
 - They're curious !



- Falls with pediatric oncology patient during hospitalization have resulted in fracture, intracerebral hemorrhage, pain and other serious injuries and may lead to negative outcomes (e.g., increased length of hospital stay and increased costs)



Introduction_con't

- ❖ In Taiwan, **fall incidents in pediatric patients were most commonly adverse events** by statistical analysis of Patient-safety reporting system of Taiwan in 2019 (Taiwan Patient Safety Net, 2019), and Joint Commission of Taiwan (JCT) “listed improving patient fall incidents safety ” as the first of Taiwan Patient Safety Goal which has introduced in 2020~2021(Taiwan Patient Safety Net , 2021).
- ❖ When hospitalized, it becomes healthcare **staffs’ responsibility to keep the patient safe.**
Patients’ safety is an important dimension for enhancing the quality of health care.
The purpose of this study was to develop a program for children with cancer under the age of 18 and was to evaluate its effects in the fall prevention.

Introduction_con't

- ❖ There were 10 unexpected falls in our ward from January to December 2020 with the incidental rate of 0.13%.
- ❖ The main factors identified by data collection were (n=10):

1.children are highly curious about environment

- Falling through the gap of bedrails when picking up balls.
- Sudden turning and fast walking without notice.
- Falling because leaning on bedrails and looking for toys on the ground.

2.lack of physical activity during cancer treatment

- Falling because lack of strength in both legs.

3.lack of recognition of fall prevention by caregivers

- Children fall when bedrails aren't set properly.
- Falling because of not sitting properly on toilet (e.g. hold back urine)

4.loss of new fall prevention from nursing instrument

- Falling because children are tripped by iv stands.
- Children do not wear properly shoes.



Methods

❖Participants and Setting

- The setting of this study is at a 24-bed pediatric oncology ward in a teaching hospital in northern regional Taiwan from January to December, 2020. **The first applied instruments were based on literatures review.** Data collection were monitored and recorded in hospitalization, including demographic data (patient' s age and gender, caregiver' s age and gender, education etc), devices muscle power, etc.
- The second part is using the evaluation from “ Fall Risk Assessment Tool”** , which incorporates 33 items into 8 categories. If the evaluation score is ≥ 3 points, the patient is in high-risk group for falling.
- The third part is using a qualitative data analysis**, and data were gathered during individual semi-structured interviews from nurses, patients and caregivers.

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❖ Intervention

1. To design “Go together!” program for children

- Increased physical activities can improve muscle power and reduce the risk of fall, especially during cancer treatment. It often requires multidisciplinary evaluation and intervention. Physicians, nurses, pharmacists, and child life specialist are involved.
- We implemented non-pharmacologic treatment, such as encouraging children and caregivers walking together, asking children to participate in muscle-strengthening activities at least 60 minutes.
- Set a “ kid gifts house” to encourage children, through the child-friendly healthcare.
All points all redeemable, regardless how many times kid stay.
- The toys in the gifts house were donated by social works.



kid gifts house

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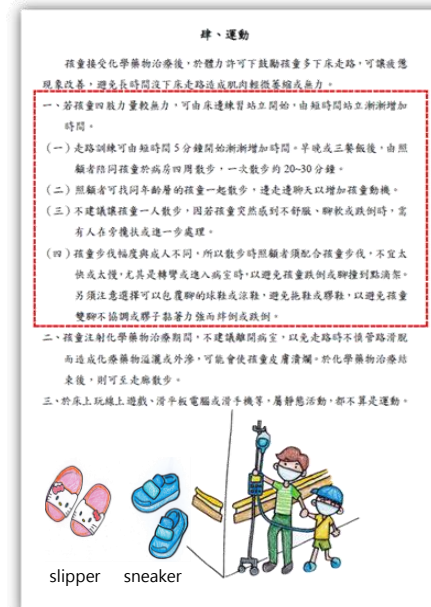
❖ Intervention

2. To increase caregivers' awareness of fall prevention

--- Caregivers should be educated about the side effects of chemotherapy, physical and cognitive developmental stage of young children etc.

3. To redesign fall prevention from nursing instrument

--- Updated information is added in instrument when teaching caregivers.



Result

- ❖ Our works to reduce the incidental rate of falls from **0.13% (10/7669) (2020/1/1~2020/12/31) to 0.03%(2/5485) (2021/1/1~2021/09/30)** after the implementation of the program. These data support the view that the fall prevention in children with cancer is associated with a better outcome of multidisciplinary team evaluation.

Conclusions

- ❖ Falling is the most common type of accident that brings damage to patients, especially in pediatric patients.
- ❖ **It is difficult to limit kids activity when their physical conditions become better.** Because **kids are highly curious and impulsive**, while their physical conditions and cognitive growth are still under development; Hence, they have **poor judgment and lack the ability to protect themselves during dangerous situations.**
- ❖ It is necessary to discuss each falling incident case by case and roll planning method of fall preventative strategies.



Thank you for your attention