**Enhancement program on spontaneous bone fracture prevention in a long term care setting**

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**Introduction**

Characteristics of infirmary residents in long term care are non-weight bearing; and bed bidden with various degrees of contracture and spasticity. They are at risk for spontaneous bone fracture. In our care setting, 840 times of diaper round and positioning are provided every 4 hours in a day for 140 infirmary residents. The incidence rate of spontaneous bone fracture was ranged from 0.86% to 1.9 % per 100 patient per year from 2010 to 2014. Our nursing team developed a pilot training program for nurses and supporting staff to prevent spontaneous bone fracture in a long term care setting two years ago. The content of the program was further enhanced in 2014. Simulation approach with video shooting and new skills were introduced. The common wrong skills were captured and the pictures will be designed as educational material “Do and Don’t Practice” for staff reference.

**Objectives**

1. Introduce new skills to handle spasticity residents during daily care procedure.  
2. Develop educational material “Do and Don’t Practice”.  
3. Refresh frontline staff the knowledge of spontaneous bone fracture.  
4. Reinforce safety skills of positioning and diaper change for high risk residents.

**Methodology**

A. Content of the program: 1.45 minutes classroom theoretical teaching 2.1.5 hours hands-on training in simulation practice room.  
B. Data collection: A pre and post design was employed. The outcome measures were (i) questionnaire score (ii) compliance rate of skills assessment
Result
Result: 26 out of 31 nurses and supporting staff were completed the enhancement program. The questionnaire score had improvement. The average compliance rate after intervention increased to 90%. Conclusion: Although the result of the program did not generate significant result, the effectiveness of the program can be evaluated by ongoing incidence rate of spontaneous fracture. As spontaneous bone fracture is one of top risks in long term care settings, the program will be further refined and continuously implemented in our hospital in order to increase staff awareness of potential risk and to strengthen their skills on handling such at risk residents.