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HIP PROTECTORS IN FRACTURE PREVENTION IN OSTEOPOROTIC PATIENTS – A STUDY OF USER COMPLIANCE

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Introduction

Hip fractures as a result of falls are very common in the elderly population. However the group at most risk are elderly

patients with a history of osteoporosis because of low bone density and fragility. In addition to drug therapy there are other non-invasive methods for fracture prevention. One such method uses a hip protector which is underwear garments with sewn-in or removable pads which are positioned over the greater trochanter. The hip protectors are designed to shunt or absorb the force of a fall. There is significant academic and clinical evidence outlining studies undertaken to date on the use of hip protectors and the efficacy of these products. Most studies have as one of their main conclusions the issue of patient and user compliance with the use of hip protectors. A further compliance survey was carried out to establish the factors influencing low user compliance with hip protectors in an elderly population with an history of osteoporosis.

Material and Methods

For the compliance survey two questionnaires were designed, one for elderly people living in care facilities or their own homes and one for medical staff. The questionnaire for elderly people contained 26 questions relating to the medical condition of the patient as well as acceptability of hip protectors. The version for medical staff contained 20 questions relating to awareness of hip protectors.

Both of the questionnaires were designed in consultation with the medical personnel in Mid-Western Regional Hospital, Limerick, Ireland and St. Camillus Hospital, Limerick, Ireland and Ethics Approval for this survey was received from HSE Ethics Research Committee at Mid-Western Regional Hospital, Limerick, Ireland.

A group of 130 patients with high risk of falling and hip fracture and previously diagnosed with osteoporosis were interviewed and asked to fill out the questionnaire. All individuals were provided with information about hip protectors and advised to wear them. This information was provided by physiotherapists during hospital visits.

A meeting of a group of 25 medical staff including physiotherapists and junior doctors was arranged. Hip protector efficacy and compliance was described and they were

asked to fill out the questionnaire.

Results

The study confirmed poor user compliance with hip protectors due to

- high cost
- difficulty with putting the device on
- discomfort when wearing it including skin irritation and sweating.

Conclusions

Hip protectors were found to be effective but uncomfortable. Information from this study may be useful in the design of improved hip protector devices.