

Abstract #95202

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FRAX

Ya-Ching Liu, MBA, RN

Nursing Department, Kaohsiung Chang Gung Memorial Hospital, Kaohsiung, Taiwan

Background.

Chronic kidney disease (CKD) increase risk for fracture, however, the best method by which to identify those with CKD at high fracture risk is unknown. The World Health Organization Fracture Risk Assessment Tool (FRAX) was established to allow health providers to estimate individual 10-year probabilities of fragility-related fractures. At present, few studies have investigated hemodialysis patients via the application of FRAX. So the first purpose of this study was to analyze the characteristics of subjects with hemodialysis by using FRAX analysis.

Material and method

1. RESEARCH METHODOLOGY

A cross-sectional study will be conducted.

2.1. Study population

A total of 150 CKD on hemodialysis patients will be include; The GPower, version 3.1.2 was used to determine the minimal required sample size with an a level of .05 (5%), power of 0.95 (95%), 50% risk percentage of FRAX score in population and 65% in sample, the minimal required sample size are 145 patients(figure1).Participants will recruited at nephrology department, Kaohsiung Chang Gang Memorial Hospital. The inclusion criteria are those with CKD on hemodialysis and are a willingness to participate in the study and ability to read and provide informed consent. As this project was based on a screening program, no specific exclusion criteria were set.

2.2. Data collection and measurements

Each participant was interviewed by a well-trained research assistant to complete the structured questionnaire, which included the clinical risk factors (e.g. years of hemodialysis, a prior history of fracture, a parental history of hip fracture, use of oral GC, rheumatoid arthritis and other secondary causes of osteoporosis, current smoking, and alcohol intake 3 or more units daily) specifically for FRAX calculation tool and protections factors comprised physical activity and green tea drinking. A study flowchart of patient disposition is shown in Figure2.

2.3. Ethics statement

This study is approved by the local Institutional Review Board of Chang Gung Memorial Hospital All participants provide written informed consent to participate in this study.

2.4. Statistical analysis

Data analysis performed with statistical software of R 3.4.1. Multiple regression models are used to analyzed the relationship between hemodialysis and non-hemodialysis patients after adjusting confounders. ANOVA test and Chi-square test are used in stratification analysis to clarify the interactions between independent variables and confounders.

Expected contributions to academic research, national development and other applications.

his is the first study to investigate the role of FRAX and hemodialysis in Taiwan. The more understanding of FRAX, the more therapeutic management could be advanced. With the expected results of the study, we hope to provide a more scientific basis for clinicians and practice guideline in the treatment of hemodialysis patients with fracture risk.

Title:

FRAX

Keywords:

CKD, Dialysis and FRAX

References:

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Abstract Summary:

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Content Outline:

Chronic kidney disease (CKD) increase risk for fracture, however, the best method by which to identify those with CKD at high fracture risk is unknown. The World Health Organization Fracture Risk Assessment Tool (FRAX) was established to allow health providers to estimate individual 10-year probabilities of fragility-related fractures. At present, few studies have investigated hemodialysis patients via the application of FRAX. So the first purpose of this study was to analyze the characteristics of subjects with hemodialysis by using FRAX analysis.

First Primary Presenting Author

Primary Presenting Author

Ya-Ching Liu, MBA, RN
Kaohsiung Chang Gung Memorial Hospital
Nursing Department
Nursing supervisor
Kaohsiung
Taiwan

Author Summary: Providing healthcare workers with information on the stressors and social support of home-caregivers of heart failure As a follow-up care support for such family caregivers as clinical planning The content of the message plan basis.