



AN EVALUATIVE STUDY TO ASSESS AND ENHANCE NURSING FALL PREVENTION PRACTICES AMONG NURSES IN APOLLO HOSPITALS, BANNERGHATTA ROAD, BANGALORE

¹M.DHATCHAYANI, ²N.PRADEEPA, ³Lt Col SUBBA RAO KANAKATTE SUMA

¹Nursing officer, ²Nurse Educator, ³General Manager-Nursing

¹Department of nursing,

¹Apollo hospitals, BG Road, Bangalore, India

Abstract:

Nurses are responsible for identification of patients who are at risk for fall, and development of a plan of care to minimize risk in the hospital setting. Therefore, fall rate indicators can be positively influenced by nursing driven safety interventions using an interdisciplinary approach. An fall risk assessment and intervention strategies has been developed and implemented in our nursing practice through which our fall incidence has drastically come down, During the study period, the following parameters were followed effectively to prevent the patient fall such as, Identification of fall risk (98.31), Vulnerability sticker on (96.91), Patient education on fall prevention measures (98.31), Safety first Signboard is placed (94.1), Usage of side rails (89.88), Call bell awareness and availability within reach (100), Awareness on Grab bars (100), (interview the patient assigned), Safety belt usage during transports (92.69). Most importantly nurses were able to implement the protocol effectively and there was an improvement in prevention of patient fall as per centralized reporting system.

Keywords : Risk for fall, Reporting system.

I. INTRODUCTION

WHO has reported that falls are a major global public health problem and a leading worldwide cause of accidental or unintentional injury deaths after road traffic accidents. The estimated number of falls deaths is approximately 424 000 globally with falls responsible for 17 million disability-adjusted life years. Adults over 65 years are at greatest risk. Over one in three adults fall annually, and falls are the main cause of hip fractures and hospitalization.

Falls are the most common adverse events that are reported in hospitalized older adults, with geriatric and rehabilitation wards having the greatest incidence. Falls in hospital are associated with longer length of stay and poorer outcomes for patients. Between 30% and 40% of falls in hospital result in physical injury such as bruises, hip fractures and head injuries.

Falls are events that lead to a person coming to rest inadvertently at a lower level. Falls commonly occur in adults aged 60 years or more. India is the second most populated country, and the number of older adults is estimated to be 137 million in 2021. The number of falls among older adults is increasing with the transition in demographics over time. The pooled prevalence of falls among older adults in India is estimated to be 31%. Falls prevention assessments and interventions are informed by knowledge of the reversible risk factors for falls. They are also informed by an ability to identify and manage adult falls risk, as well as by

managing the environment and staff practices and behaviors. A better understanding of the nature of falls and the most effective strategies to prevent falls in hospital programmes is vital to keep adults safe when they are admitted to hospital. Studies to date have not been able to identify which components of falls prevention (including risk assessment and management tools) should be combined to deliver best practice management in hospitals.

Who is at risk: While all people who fall are at risk of injury, the age, gender and health of the individual can affect the type and severity of injury.

Age- Age is one of the key risk factors for falls. Older people have the highest risk of death or serious injury arising from a fall and the risk increases with age. For example, in the United States of America, 20–30% of older people who fall suffer moderate to severe injuries such as bruises, hip fractures, or head trauma. Another high risk group is children. Childhood falls occur largely as a result of their evolving developmental stages, innate curiosity in their surroundings, and increasing levels of independence that coincide with more challenging behaviors commonly referred to as ‘risk taking’.

Gender- Across all age groups and regions, both genders are at risk of falls. In some countries, it has been noted that males are more likely to die from a fall, while females suffer more non-fatal falls. Older women and younger children are especially prone to falls and increased injury severity. Worldwide, males consistently sustain higher death rates.

Falls are a frequent, serious, and increasing public health issues that can significantly change the patients' level of functioning and quality of life. Nurses are at the front position in the efforts to prevent hospital falls. Thus, the main purpose of this study was to assess the level of nurses' practice on prevention of falls and its associated factors

RESEARCH METHODOLOGY

Population and Sample

The research design spells out the basic strategies that the researcher adopts to develop information that is accurate and interpretable. An evaluative research design was adopted for this study. In this study, convenience sampling technique was used. This research was conducted in Apollo Hospitals, BG Road, Bangalore for 3 months (September to November) with the sample size of 356.

Data Collection Procedure & Instruments

Data collection was done to:

1. Identify practice compliance in fall prevention protocols through a checklist among staff nurses

Criteria for Sample Selection-

Inclusion Criteria- All staff nurses working in wards of Apollo hospital, BG Road.

Exclusion Criteria-

- i. All staff nurses working in ICU, OT, Day-care and ER of the hospital.
- ii. Any staff who resigns during the study phase.

ANALYSIS AND INTERPRETATION

Table: 1.1 PERCENTAGE DISTRIBUTION OF GENDER AMONG STAFF NURSES

Gender	Frequency	Percent
FEMALE	324	91.00
MALE	32	9.00

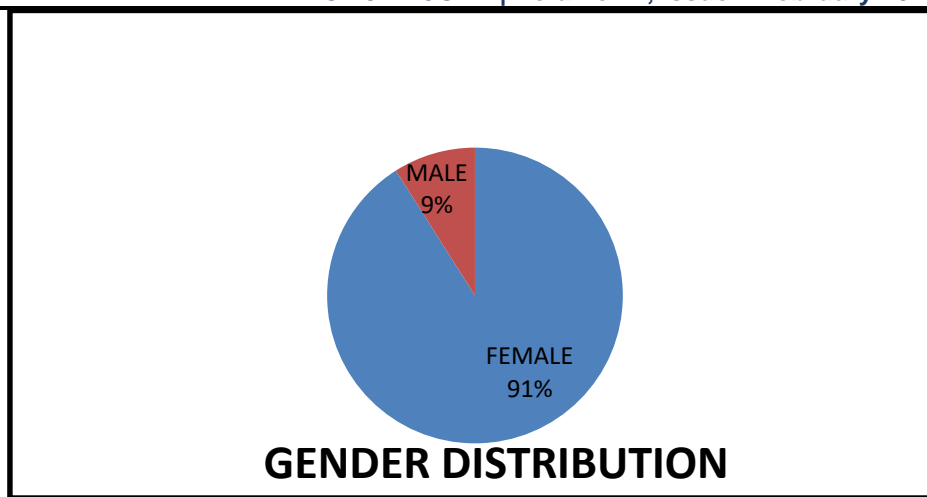


Figure 1 revealed that most of the nurses were females 91% and male's nurses were 9%

Table: 1.2 PERCENTAGE DISTRIBUTION OF QUALIFICATION AMONG STAFF NURSES

Qualification	Frequency	Percent
BSC	313	87.90
GNM	43	12.10

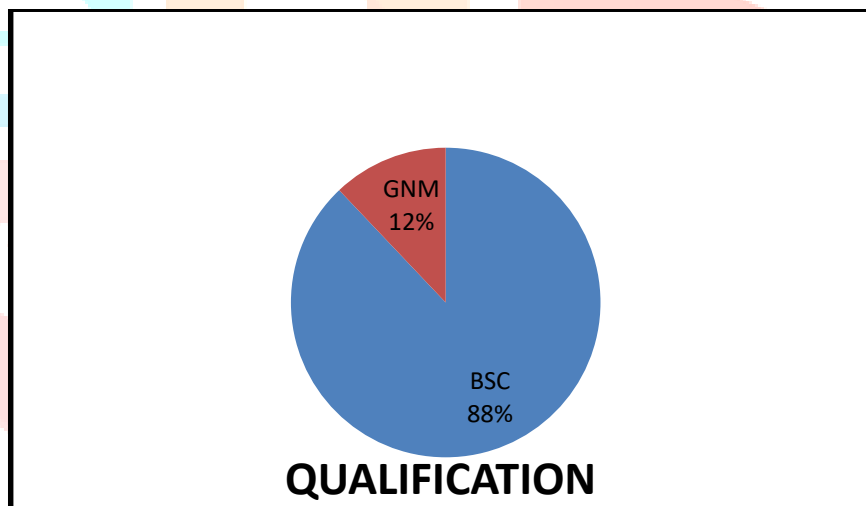


Figure: 2 revealed that most of the nurses were BSc 88% and GNM nurses were 12%

Table: 1.3 PERCENTAGE DISTRIBUTION OF DESIGNATION AMONG STAFF NURSES

Designation	Frequency	Percent
Nurse Associate	64	18.00
Staff Nurse	252	70.80
Senior staff Nurse	40	11.20

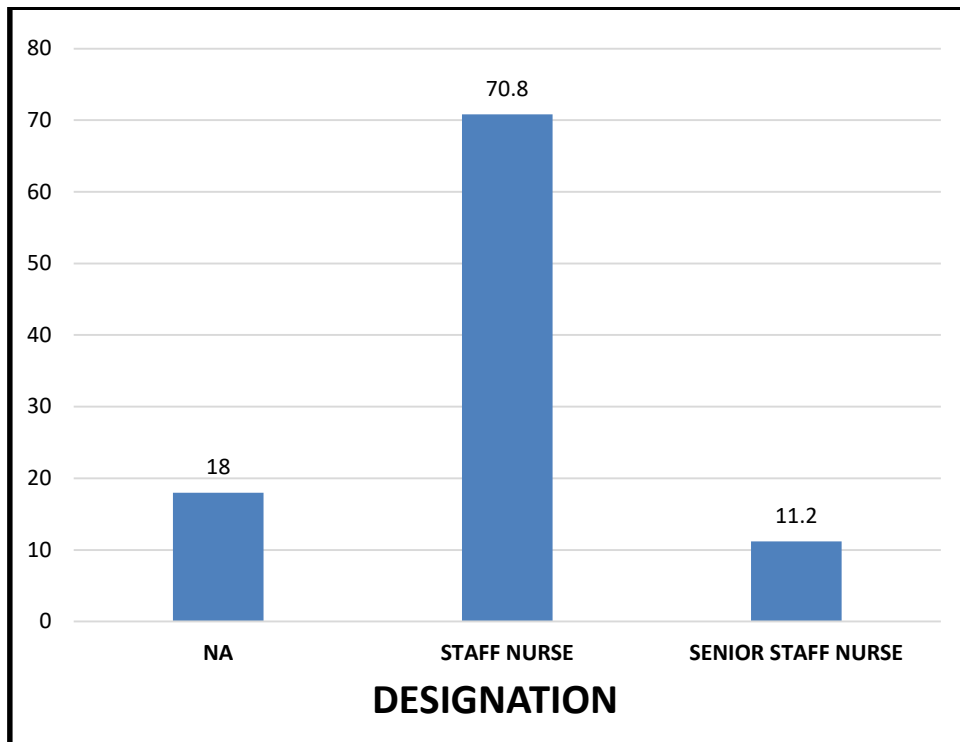


Figure: 3 revealed that most of the nurses were designated as staff nurse 70.8%

Table: 1.4 PERCENTAGE DISTRIBUTION OF SHIFTS AMONG STAFF NURSES

Shift	Frequency	Percent
E	158	44.40
M	198	55.60

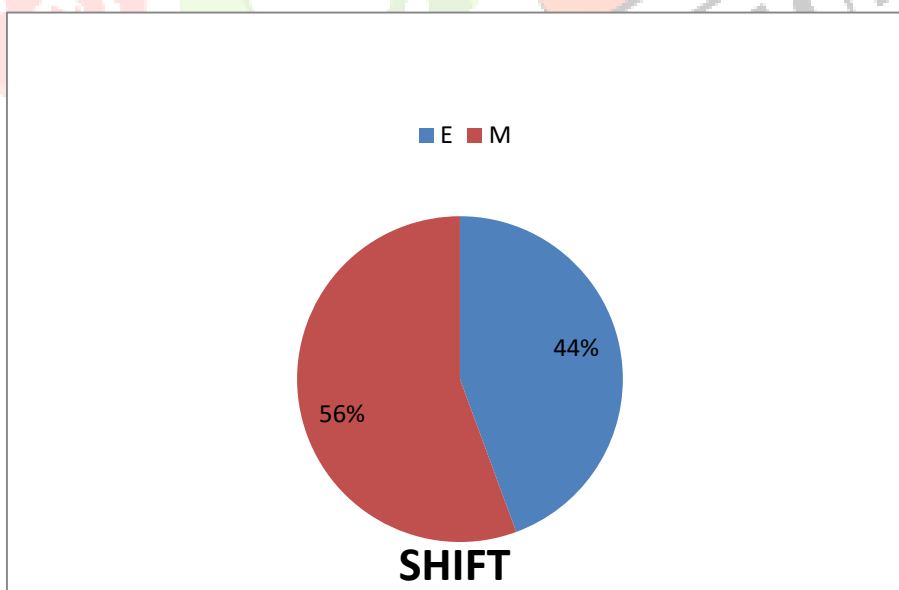


Figure: 4 revealed that majority of the staff nurses were in morning shift 56%

Table: 1.5 PERCENTAGE DISTRIBUTION OF PREVIOUS EXPERIENCE AMONG STAFF NURSES

previous experience	Frequency	Percent
<1 year	340	95.50
2 - 4 years	12	3.40
>4 years	4	1.10

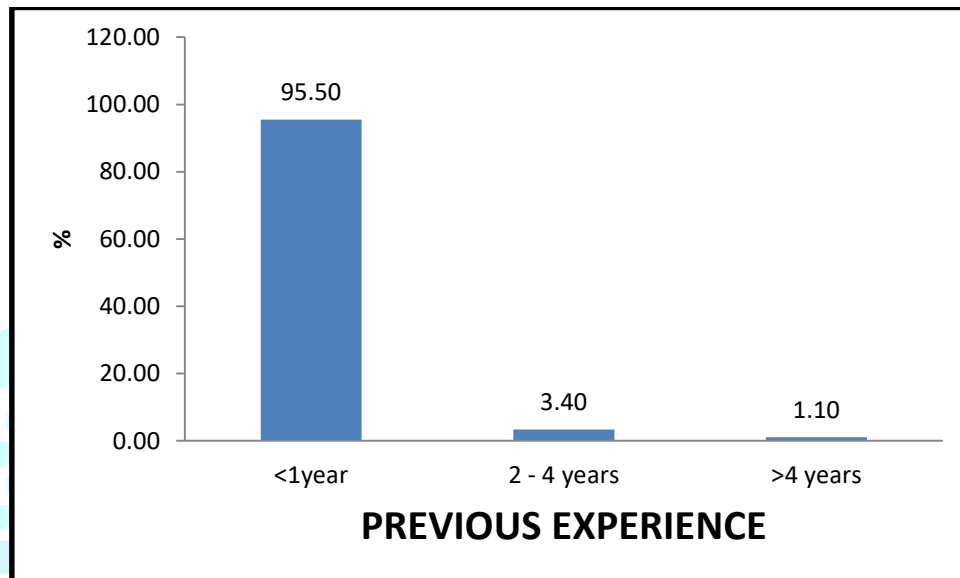


Figure: 5 denotes that majority were having less than 1 year of experience 95.50%

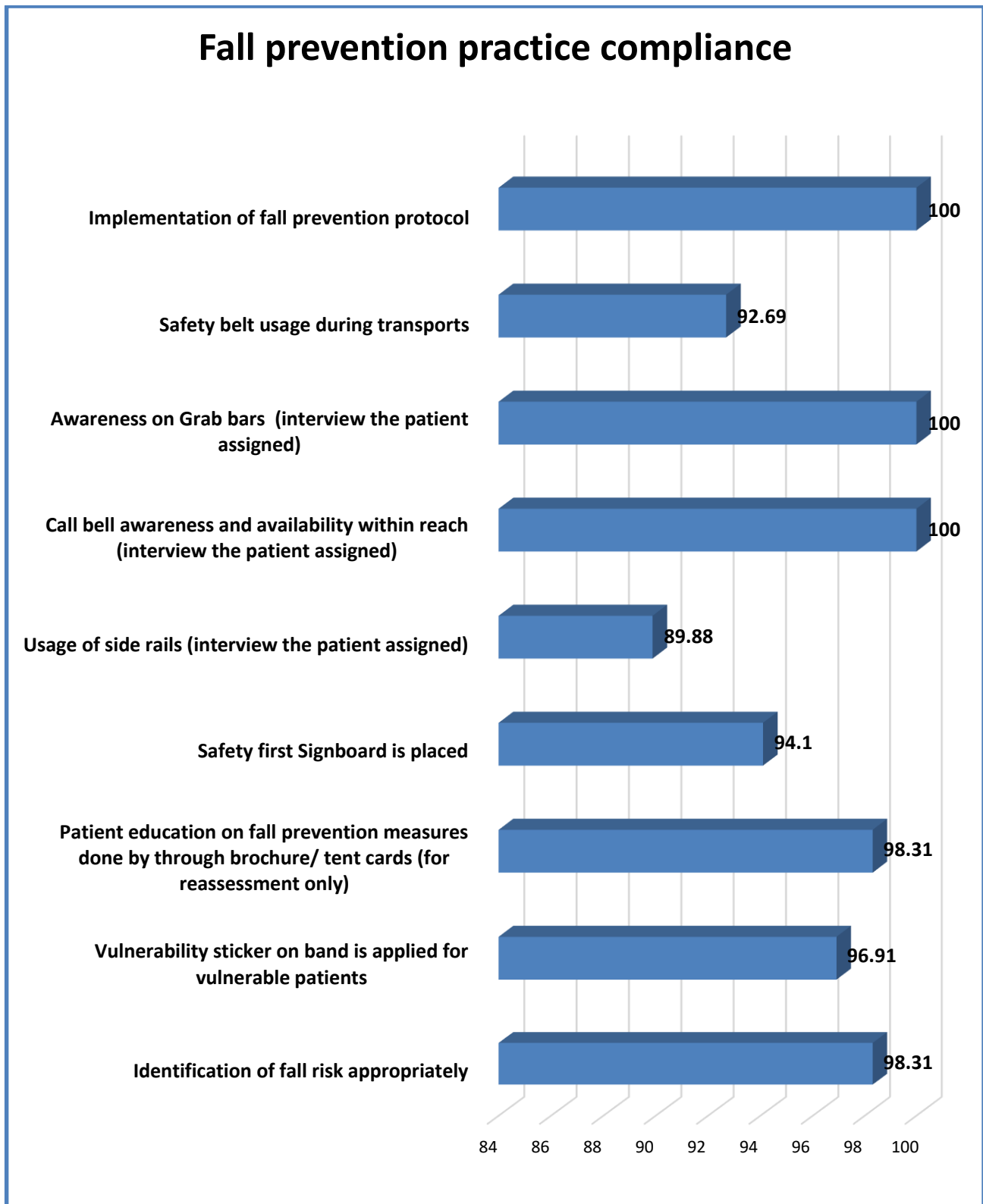
Table: 2 FALL PREVENTION PROTOCOL PRACTICE COMPLIANCE

Diagram denotes that, The hospital units fall prevention practices are same throughout the wards, with practices such as Identification of fall risk (98.31), Vulnerability sticker on (96.91), Patient education on fall prevention measures (98.31), Safety first Signboard is placed (94.1), Usage of side rails (89.88), Call bell awareness and availability within reach (100), Awareness on Grab bars (100), (interview the patient assigned), Safety belt usage during transports (92.69). Most importantly they were able to implement the protocol effectively and there was an improvement in prevention of patient fall.

Figure: 6 FALL PREVENTION ASSESSMENT TOOL & PROTOCOL:

Framework of the guidelines:

Fall Risk Stratification: a standard approach to assess an individual’s estimated level of risk for falls, in order to apply a proportionate detailed assessment and intervention according to level of risk.

Assessment: process of identifying and measuring the falls risk factors across multiple domains, using risk assessment tools

Treatment Algorithm: Intervention for high risk patients is also included in this tool, so that it would be easy for our nurses to follow.

Table 3

Potential measurement instruments and approaches for multifactorial falls risk assessment

Domains for assessment	Fall risk factors	Measurement/approach
Patient details	1.Age(<16 or>65)	YES-15 NO 0
	2.Language or hearing barrier	YES-15 NO 0
	3.Family support	YES-15 NO 0
Medication history	1.High risk drugs	Perform a structured medication review that entails considering deprescribing of psychotropic,

		cardiovascular and other high risk medications & high risk medications
	2.No of drugs >8	YES-20 NO 0
	3.Blood transfusion	YES-15 NO 0
Equipment's	1.Alpha bed/ On syringe pump/infusion pump	YES-10 NO 0
	2.Physical restraint	YES-10 NO 0
Airway	1.Tracheostomy/ETT	YES-10
	2.Nasal cannula/face mask	YES-5
	3.None	NO-0
Clinical	1.High risk diseases	YES-10 NO 0 (Assess by focused history taking about disease conditions symptoms, focused physical examination, measurement of vital signs and other investigations)
	2.High risk surgeries	YES-10 NO 0 (Assess by focused history taking about surgical history to the patients)
	3.Fluid restriction	YES-10 NO 0
Fall risk	1.History of fall	YES-10 NO 0
	2.Mobility aid	YES-10 NO 0 (If applicable, assess for appropriateness and proper of use of walking aid including potential mechanical deficits.
	3.Gait	Dependent 10 Independent-0 (Assess, Functional Gait Assessment. Screen for mobility problems using a structured approach)
	4.Mental status	Disoriented-15 Oriented-0

RESULTS & CONCLUSION:

Nurses hold a unique perspective as they care for patients 24/7 in the hospitals and oversee all safety precautions utilized, including fall prevention strategies. Prevention in patient falls is critical to reduce risk of injury, cost of hospitalization, prolonged length of stay, disability, and/or death. A collaborative team approach utilizing a standardized process was imperative to improve fall prevention strategies, diminish risk for injury, as well as improve nursing compliance in the wards.

During the study period, the following parameters were followed effectively to prevent the patient fall such as, Identification of fall risk (98.31), Vulnerability sticker on (96.91), Patient education on fall prevention

measures (98.31), Safety first Signboard is placed (94.1), Usage of side rails (89.88), Call bell awareness and availability within reach (100), Awareness on Grab bars (100), (interview the patient assigned), Safety belt usage during transports (92.69). Most importantly they were able to implement the protocol effectively and there was an improvement in prevention of patient fall.

References

Burns ER, Lee R, Hodge SE, Pineau VJ, Welch B, Zhu M. (2022) Validation and comparison of screening tools for predicting future falls among older adults. *Arch Gerontol Geriatr* 2022; 101: 104713.

Manuel Montero-Odasso (2022) World guidelines for falls prevention and management for older adults: a global initiative. *British geriatric society* 40: 1–36.

Meekes WM, Korevaar JC, Leemrijse CJ, Goor I (2021) A. Practical and validated tool to assess falls risk in the primary care setting: a systematic review. *BMJ Open* 2021; 11: e045431.

Montero-Odasso MM, Kamkar N, Pieruccini-Faria F et al. (2021) Evaluation of clinical practice guidelines on fall prevention and management for older adults: a systematic review. *JAMA Netw Open* 2021; 4:

Montero-Odasso MM, Kamkar N, Pieruccini-Faria F et al. (2021) Evaluation of clinical practice guidelines on fall prevention and management for older adults: a systematic review. *JAMA Netw Open* 2021; 4:

Ganz DA, Latham NK. (2020) Prevention of falls in community-dwelling older adults. *N Engl J Med*; 382: 734–43.

National Institute for Health and Care Excellence (NICE). (2019) Surveillance of fall in Older People: Assessing Risk and Prevention (NICE Guideline CG161). London: National Institute for Health and Care Excellence, 2019.

James SL, Lucchesi LR, Bisignano C et al. (2017) The global burden of falls: global, regional and national estimates of morbidity and mortality from the global burden of disease study 2017. *Inj Prev* 2020; 26: i3–11.

Lusardi MM, Fritz S, Middleton A et al. (2017) Determining risk of falls in community dwelling older adults: a systematic review and meta-analysis using post-test probability *Geriatr Phys Ther*; 40: 1–36.

Mirelman A, Herman T, Brozgov M et al. (2017) Executive function and falls in older adults: new findings from a five-year prospective study link fall risk to cognition. *PLoS*; 7