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GERIATRIC NURSES HOME VISITS: CONSIDERATIONS FOR EVALUATING IMMOBILE OLDER PATIENTS IN THE COMMUNITY

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ABSTRACT:

The increase in ageing requires the planning and provision of medical services to older people across functional abilities, ranging from independent to immobile patients. The considerations for evaluating immobile older patients during geriatric nurse's home visits are provided. Home visits have been shown to be effective in reducing functional decline, reduce admission to residential care and improve survival in younger-old patients. It requires a comprehensive geriatric assessment approach, with interventions provided for issues identified during the home visit. The home visit assessment requires systematic handover and discussions between healthcare professionals. The Identification, Situation, Background, Assessment and Recommendation (ISBAR) tool is recommended for handover. Screening for common geriatric conditions including malnutrition, delirium, falls, pressure injuries and pain should occur during the home visit. The Malnutrition Universal Screening Tool (MUST) can be used to identify patients who are malnourished. The Confusion Assessment Method (CAM) is a useful tool to identify delirium during home visits, which requires further clinical evaluation to diagnose the underlying trigger or illness. Risk factors from the Braden scale should be identified to minimise risk of pressure injuries, as well as routinely checking the buttock, sacrum and heels of dependent older people during home visits. Pain should be assessed and treated. Medication reconciliation should also be performed to assess for compliance.

Keywords: Geriatric Assessment; Geriatric Nursing; House calls; Malnutrition; Pain

INTRODUCTION:

The increase in ageing requires health services to consider provision of medical services to older people across functional abilities, ranging from independent to immobile patients. A tertiary hospital in Brunei identified that older

patients admitted under geriatric medicine had a high burden of co-morbidities, dementia and poor functional status [1]. Patients discharged from hospital who are highly dependent for activities of daily living have a high one-year mortality rate of up to 43% [2].

Comprehensive geriatric assessment and multidisciplinary interventions are necessary, in addition to community support services to manage dependent patients. Palliative and supportive care services should also be provided through a continuum of care; from primary health care, specialist services, as well as community and home-based care [3]. Due to strong family values locally, family members are often involved in care of these patients; hence caregiver support interventions are also required.

In Brunei, other than primary care services, community-based services are nurse-led, consisting of Geriatrics Home Visits (GHV), Palliative Home Visits (PHV) and Home Based Nursing (HBN). GHV focus on immobile older patients who require comprehensive geriatrics assessment. PHV visits provides palliative and supportive care at home, with an emphasis on symptom assessment and treatment. HBN are mainly involved in management of nasogastric feeding tubes, indwelling catheters and wounds, particularly pressure injuries.

A meta-analysis showed that home visits were effective in reducing functional decline, preventing the need for nursing home admission and improved survival in the younger-old patients. This survival benefit was not seen in the older patients aged 80 years and older [4]. Interventions during the preventive home visits required multi-dimensional geriatric assessments and multiple follow-up home visits. A stratified randomized

trial in Switzerland confirmed the benefit of home visits, with delayed onset of disability in older people, reduced nursing home admissions and health cost savings for patients aged 75 years and older [5]. These interventions consisted of annual multi-dimensional assessments, quarterly follow-up home visits by nurses who collaborated with geriatricians to provide recommendations, as well as nursing health education and monitoring of adherence to recommendations. However, beneficial effects were related to the home visitor's performance in conducting the visits. In this review, an assessment approach for evaluating immobile older patients is provided, with a focus on nursing home visits for geriatrics patients.

Comprehensive Geriatric Assessment:

A comprehensive geriatric assessment (CGA) is the mainstay for management of complex older people. It enables the clinician to identify as many risk factors and reversible causes for functional decline, then proceed to formulate a management plan for the problem list. In a randomized controlled trial, gerontologic nurse practitioners provided annual in-home CGA for people living in the community aged 75 years and older. This intervention led to delayed development of disability, required assistance with basic activities of daily living and admission to residential care; at a cost of USD\$6000 for each year of disability-free life gained [6]. For community-living frail older

people, CGA-based individually targeted interventions improved mobility and the ability to walk 400 metres [7]. In older people discharged from hospital, applying CGA in combination with a post-discharge home intervention by an interdisciplinary team was associated with shorter hospital readmissions, reduced nursing home placements, improved functional capacity and reduced health care costs without improvement in survival [8]. Thus, CGA is essential for improved outcomes for community living frail older people, or those recently discharged from hospital.

However, there are challenges in applying CGA-based interventions in the community. CGA, formulation of problem lists and providing interventions are time consuming, requires multidisciplinary expertise and patient compliance to interventions. A randomized-controlled trial on frail community dwelling people applied CGA and interventions including medication adjustment, exercise prescription, nutrition support, physical rehabilitation, referrals to social workers and medical specialties. Although there was some benefit with CGA and subsequent intervention, the inability to complete CGA and poor compliance with intervention in participants contributed to less favourable outcomes [9].

Community programs that provide CGA annually resulted in a constant number of therapeutic and preventive recommendations made annually (Mean 11.5 per subject annually). Adherence to intervention depended

on type of recommendations, referrals to physicians compared to non-physicians or community services or recommendations involving self-care activities [10]. It also requires support and buy-in from primary care physicians to improve effectiveness of community based CGA programs. A study showed that primary care physicians who cooperated with nurse practitioners for CGA and interventions had fewer years in practice, were more likely to discuss the program and see benefits from patients. This was also more likely to predict patient adherence to intervention recommendations [11].

Assessment Approach for CGA in Dependent Geriatrics Patients in the Community:

The geriatrics nursing assessment form incorporating CGA used in Brunei is included as an Appendix in this paper. It incorporates use of the ISBAR approach to support handover by geriatrics nurses to geriatricians in a weekly case conference to develop a comprehensive management plan for dependent geriatrics patients in the community. ISBAR stands for Identification, Situation, Background, Assessment and Recommendation, which is a tool that facilitates systematic handover of the correct information between healthcare professionals. It has been shown to be a reliable and effective communication tool to promote patient safety, and found to be acceptable and easy to use [12, 13].

A problem list should be formulated prior to the home visit based on the patient's clinical notes so that the visiting geriatrics nurses can consider and prioritise aspects of assessment to plan interventions. In addition to asking regarding presenting complaints and concerns from patients and caregivers, the mnemonic SPICES can be applied as a screening tool. SPICES stands for Sleep, Problem with eating and drinking, Incontinence, Confusion, Evidence of Falls and Skin breakdown. A cohort study of frail hospitalized older adults found that almost all patients met at least one SPICES criteria; with the sum of SPICES significantly correlated to age and other measures of vulnerability, comorbid conditions, depression and predictive of adverse events [14]. For a home visit assessment, it serves as an aide memoire for review of systems, which if affected, will require further evaluation to consider underlying causes and contributors. For example, if an older person has sleep issues, it would be worthwhile to systematically enquire regarding contributing factors. For example, a patient may need to be treated for cardiac failure if a person wakes up with breathlessness or frequency of passing urine at night, resulting in poor sleep. Pain affecting sleep is of sufficient severity to warrant further investigations. Positive somatic complaints should be followed-up with assessments towards a diagnosis and a management plan, which should include a non-pharmacological component, such as sleep hygiene practices.

Evaluation of an older person in the community should also screen for the following common problems: malnutrition, delirium, falls, pressure injuries and pain.

Malnutrition:

Malnutrition is common among older people, with the majority of older people who are malnourished living in the community (93%) [15]. Malnutrition may be a cause or consequence of illness, and has a detrimental effect on disease risk, progression, prognosis, complications, and delayed recovery [16]. Once identified, early intervention with oral nutritional supplements and dietary counselling resulted in increased dietary intake and improved quality of life.

A study demonstrated the importance of malnutrition screening among older people, where implementation of the Malnutrition Universal Screening Tool (MUST) showed a high incidence of malnutrition, with more than half of geriatrics inpatients having a body mass index (BMI) below 20 kg/m² [16]. The MUST has been shown to be easy to use and applicable to different patient groups in hospital, outpatient clinics and in the community [17]. Patients are flagged as at risk for malnutrition if they have a low BMI, unplanned weight loss in the past three to six months or if they have acute illness and will likely have minimal nutritional intake for more than five days. These patients should be

proactively identified and interventions planned to avoid worsening functional decline.

Delirium:

Delirium is an acute state of confusion that represents a medical emergency. It is a manifestation of acute illness, including infections, and requires diagnosis and treatment of the underlying problem. The Confusion Assessment Method (CAM) is a useful approach for identifying delirium across multiple settings [18]. It usually involves scoring a person's cognitive function during formal cognitive testing. The CAM criteria for delirium are: acute onset and fluctuating course, inattention and either disorganized thinking or altered level of consciousness.

However, education and bedside training is required, with the diagnosis to be confirmed according to formal Diagnostic and Statistical Manual of Mental Disorders (DSM) criteria [19]. A study found that when nurses were assessed on applying CAM for assessing delirium, sensitivity was poor but had high specificity, with nurses successfully diagnosing patients without delirium in more than 90% of their observations. The main difficulties encountered were recognizing features of acute onset, fluctuation and altered level of consciousness [20].

Falls:

Falls are associated with injuries, functional decline, morbidity and mortality. Each

community visit should be used as an opportunity to screen for falls. Screening questions for falls include whether they have fallen within a year, if they feel unsteady and whether there is a fear of falls [21]. However, for dependent older people requiring assistance with mobility and transfers, falls indicate the need for caregiver training and evaluation of equipment involved during the fall. If a patient had a previous fall, further assessment is also required to identify if any injuries occurred.

Pressure Injuries:

A study among medical inpatients indicated a high prevalence of pressure injuries up to 20.4%, necessitating actions to improve risk assessment, preventive interventions and management of pressure injuries [22]. The most common sites were the buttock, sacrum and heels, which should be routinely checked during community visits. Risk factors for developing pressure injuries should be identified and minimized. The Braden scale is a useful tool that may be used during patient assessment, and considers the following risk factors: sensory perception, moisture, activity, mobility, nutrition, as well as friction and shear. A multicenter study evaluating the validity and reliability of the Braden scale showed that the original Braden scale was reliable with sufficient sensitivity and specificity [23]. Age was also an important risk factor, with sensory

perception, friction and shear as highly predictive risk for developing pressure injuries. For community visits, a study assessing the validity of the Braden scale found that a cut-off score of 19 provided the best sensitivity. It was recommended that initial assessment of pressure injury risk for older people should begin on entry into home health care, weekly reassessments for the first four weeks, and then alternate week reassessments until day 62. Reassessment may be appropriate at each 62-day recertification period for active caseload patients, depending on their condition and frequency of home visits [24]. For patients discharged from hospital, pressure injury assessment and management from hospital to the community should be integrated, with community nursing follow-up and caregiver training to emphasise prevention of pressure injuries [25].

Pain:

Pain is another common complaint among older people, which is associated with poor outcomes. Pain assessment should be performed routinely during community visits; as dependent older people are vulnerable to under-treatment of pain. There are multiple tools available to assess pain severity, including the Numeric Rating Scale (NRS), Visual Analogue Scale (VAS), Pictorial Pain Scale (PPS), and Verbal Descriptor Scale (VDS). These tools have been shown to be valid and acceptable for use in older people

[26]. For patients with severe cognitive deficits, other approaches to assessment, particularly observational methods may be required.

In our clinical practice, the Face, Legs, Activity, Cry and Consolability (FLACC) tool and Faces Pain Scale Revised (FPS-R) tool appear applicable for non-communicative patients. The FLACC tool grades five criteria with scores from zero to two, with the scale scored between zero to ten (0 – no pain, 10 – severe pain). For example, a person's face with occasional grimacing or frowning scores one point, while a constant quivering chin with a clenched jaw scores two points for the Face criteria. This tool has been shown to be useful in non-communicative patients in intensive care and patients unable to self-report their pain [27-28]. This tool also appears to have test-retest reliability and validated in non-English countries, including Korea [29].

The FPS-R requires patients to choose which face represents their level of pain. In a study of cognitively impaired minority adults, African-Americans, Hispanics and cognitively impaired participants preferred the FPS-R over other pain assessment tools [30]. However, this scale is often used incorrectly, where nursing staff do not ask patients regarding the intensity of their pain when the patient is capable of self-reporting [31].

Medication Review:

The community visit is an opportunity for medication reconciliation. Geriatrics nurses

should have a medication list from clinical records and compare with medications available at the person's home. Patients may take over-the-counter medications, herbal or complementary and alternative medications, that may not be volunteered during consultations. Based on the amount of medications available at home, it is also possible to identify non-compliance with treatment. For patients with recurrent admissions, there is a risk of medication error, or accumulation of medications at home due to the tendency to prescribe regular medications on discharge [32]. It is also useful to reiterate to patients the indications for medications and any planned changes to medication prescriptions.

CONCLUSION:

For older patients who are immobile and fully dependent, geriatrics home visits are essential for assessment and management of these patients. These visits should incorporate a CGA approach, and screening for malnutrition, delirium, falls, risk of pressure injuries and pain.

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APPENDIX: Geriatric Medicine Nursing Home Visit Assessment Form

Home Visit By:			
Referred by:			
Date / Time of Visit:			
Address:			
Contact Number:			
INTRODUCTION			
Patient Name:			
Patient Identifier:			
Date of Birth:			
SITUATION			
Reason for Home Visit:			
BACKGROUND			
Problem List:			
NG tube / PEG:	Yes / No	Date Changed:	
Urinary Catheter / Suprapubic:	Yes / No	Date Changed:	
Wound	Yes / No		

Medication List:				
No	Name of Medication	Dose	Route	Check with Patient Supply (Comments)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

ASSESSMENT			
History:			
Fulmer SPICES Assessment	Yes	No	Remarks
Sleep Disorder			
Problem with Eating and Drinking			
Incontinence (Bladder / Bowel)			
Confusion			
Evidence of Falls			
Skin Breakdown (Wounds)			

Pain Assessment: Verbal Descriptor Scale / FLACC Behaviour Assessment Scale					
0	2	4	6	8	10
No Pain	Mild	Moderate	Severe	Extreme	Worse Pain
Examination:					
Vital Signs	Temp:	BP:	HR:	Sats:	Glucose:
Examination Findings: (muscle tone, wounds, swallowing)					
Medication Review: (Compliant / Non-Compliant)					
RECOMMENDATIONS:					
Advice Given:					
Health Education:					
Medications:					
Follow-Up:					
Carer / Family in Attendance:					
Signature:					