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Essay

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Osayomwanbo Osaheni, Obehi Aituaje Akoria, Darlington Ewaen Obaseki

Corresponding author: Osayomwanbo Osaheni, Anesthesiology Department, University of Benin Teaching Hospital Benin City, Edo State, Nigeria. osaheni44@gmail.com

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Implementing the elderly-friendly hospital initiative in the intensive care unit with a review of policy and practice

Osayomwanbo Osaheni[1,&], Obehi Aituaje Akoria[2], Darlington Ewaen Obaseki[3]

[1]Anesthesiology Department, University of Benin Teaching Hospital Benin City, Edo State, Nigeria, [2]Internal Medicine Department, University of Benin School of Medicine and Geriatrics Team Lead, University of Benin Teaching Hospital Benin City, Edo State, Nigeria, [3]Pathology Department, University of Benin Teaching Hospital Benin City, Edo State, Nigeria

[&]**Corresponding author**

Osayomwanbo Osaheni, Anesthesiology Department, University of Benin Teaching Hospital Benin City, Edo State, Nigeria

Abstract

Aging is an unavoidable part of life. Every human must go through the aging process. A decline in organ function is a part of the aging process that leads to various health-related challenges. These healthcare challenges may require critical care. The uniqueness of the aged population needs to be considered to provide adequate and satisfactory care befitting this subset of clients seeking critical care. Using the elder-friendly approach, improved care tailored to meet the demands of increased organ support can be achieved in the intensive care unit.

Essay

The specific onset of aging is uncertain and this has made the definite cut-off for the elderly difficult. It is generally agreed that the elderly consist of humans above 60 years of age [1]. This is the retirement age for civil servants in Nigeria. Although this definition is not synonymous with the point at which there is a marked decline in physiological function, it provides a global definition of the elderly for better communication. Associated with aging is a reduction in physiological functions. This could impact negatively the state of physical, mental, and emotional well-being even in the absence of ill health [2]. Conversely, illness can overstretch the health status of the elderly patient. If elderly patients´ physiological needs are not taken into consideration during their care, there could be far-reaching adverse financial implications, and individual and family stress. The older person´s self-esteem, self-determination, and independence could also be seriously affected.

Elderly patients are more likely to need in-hospital and intensive care unit care than others. About 12.6% of the patients admitted into the intensive care unit of the University of Benin Teaching Hospital, Nigeria are elderly [3]. One-third of the frail elderly patients admitted into hospital lose their ability to perform activities of daily living [4,5]. The implication for policymaking is to proactively develop elder-friendly intensive care units that will cater to the elderly population [6]. Intensive care is an expensive project. Ideally, if the resources are available, there should be a geriatric-specific intensive care unit that is fully oriented toward caring for elderly patients. Nevertheless, the orientation of health workers within any Intensive Care Unit (ICU) towards the provision of an elder-friendly environment will no doubt improve the chances of wholesome recovery [6].

Policy targets for elder-friendly intensive care units: for appropriate policy implementation, the framework, guidelines, and challenges that could mitigate the implementation of policies, especially in low-resource settings need to be reviewed.

Framework review: setting up a successful elder-friendly initiative for ICUs requires a holistic approach. Although there is no specific framework or guideline for implementing elder-friendly initiatives in the intensive care unit some recommendations exist that could be adapted to suit the care for the critically ill elders [7]. For example, the Hospital Elder Life Program (HELP) focuses on the prevention of delirium, functional decline in hospitalized older adults, early mobilization, and cognitive function. The Nurses Improving Care for Health-system Elders (NICHE) program framework concentrates on improving communication, and staff education. The comprehensive design model described by the Acute Care for Elders (ACE) model also exists. Person-centered care focuses on the patients and their individualized needs. Weaving these frameworks of care closely within existing guidelines is essential in implementing senior intensive care units in low-income settings [8-13] (Figure 1).

Incorporation of guidelines: other aspects to consider in the implementation of elder-friendly ethos in intensive care units is a review of existing guidelines or recommendations on key care areas like the holistic care of the elderly. Holistic

management of elderly syndrome entails regular comprehensive assessment of both the cognitive, psychomotor, and psycho-social functions to identify potential, actual needs or risks; provide emotional support, and encourage participation with environmental consideration. Environmental considerations would include, for example, adequate lighting, noise reduction, and clear signage [14]. Early mobilization is necessary; equally important is the need for the elderly to have adequate sleep. This can be done by deliberating integrating care provided by multiple practitioners in such a way that frequent interruptions are reduced. Guidelines for mobility and rehabilitation will include speech therapy for early functional recovery.

The healthcare worker in the intensive care unit has to be aware of the potential for a fall. Beds used to care for older patients should be low and have bed rails. The floor tiles should be non-slip. Senior care management with emphasis on the "4 Ms": matters most, mobility, medications, and mentation should be considered and implemented. The use of the ABCDEF critical care bundle would also improve ICU care and outcomes for older persons: assess, prevent, and manage pain; both spontaneous awakening trials and spontaneous breathing trials, choice of analgesia and sedation; assess, prevent, and manage delirium; early mobilization and exercise; family engagement and empowerment. Frailty and agitation sedation scores assessment would also reduce delirium which is a major challenge in hospitalized older persons [8,15-19]. Palliative care principles recommendations should also be integrated to achieve elder-friendly intensive care units, especially for patients who require end-of-life care, being worked up for transfer to palliative care units. Palliative care principles include the provision of pain-free management, communication of care goals, psychosocial support, and symptomatic management of complaints [18,20]. Importantly, periodic evaluation would ensure continuous quality improvement. Regular review of care outcomes, patient and family satisfaction, and peer review of clinical care are also recommended in the guidelines. It is important to note that guidelines should gleaned, adopted, or adapted in the context of specific institutional or organizational needs and available resources. This is especially pertinent in low-resource settings.

Location of the intensive care: if possible, the intensive care should be located in an area that is easily accessible to the geriatric ward. It could actually be fashioned out of a geriatrics ward [21]. Beautifully designed attractive walls; curtains, window blinds, slip-free floors, and netted windows should be prioritized to achieve a geriatric-friendly intensive care unit. There could be colored shuttle services that convey ill older persons through smooth pavements to the unit from the emergency room or surgical suite.

Admission and nursing care in the ICU: early admission and prompt management of the elderly patient in the intensive care unit could prevent deterioration. Modified early warning scores can be an effective policy tool in triaging elderly patients who need intensive care or for monitoring daily progress in the intensive care unit. Ill senior elders (i.e. elderly patients above the age of 80 years) are a unique category with self-esteem. Some may experience cognitive dysfunction including memory loss, limited self-care, altered sleep patterns, and comorbidities. Specialized nursing care is required. One elder per nurse ratio is the least expected for adequate nursing care. The ill elder should be assisted as much as possible with understanding and patience in the performance of those routine functions that cannot be performed unaided. Assistance should be provided in such a way as to aid full recovery and return the elder to complete independence or at least to baseline functional status, if possible. Physical care that may be required includes bed baths, oral care, perineum care, pressure area care, provision of range of motion exercises, early mobilization to prevent deep venous thrombosis, care of indwelling catheters, drains care, and judicious recording of intake and output. Such care should be executed in a coordinated manner to

allow adequate time for the patient to sleep and rest. The use of nightshade in an open ICU could encourage sleep and should be considered. Engaging the elderly patient in discussion also helps maintain their mental integrity. It is important to always introduce the team member once at the bedside of the elderly patient and the procedure that is to be carried out should be explained in plain terms. The time and the day of the week should be announced every day. These interventions will help in maintaining and improving the cognitive function of elderly patients who may forget the time or day of the week with a continuous stay in intensive care where lights are on both day and night. Medication dosing should be planned with due consideration to alterations in pharmacokinetics and pharmacodynamics. Drug interactions (drug-drug, drug-disease, and drug-food) should also be proactively considered and mitigated. Every effort should be made to reduce unnecessary polypharmacy.

Communication: effective communication among team members, with the elder and family is essential. When relating with the elder, the team should that there is no hearing impairment. Every effort should be made to ensure that the elder understands the discussions. Adequate vision and hearing aids should be provided as required. Adequate time should be allowed for the senior to think things through before making informed decisions on any treatment plan. The patient and Family-Centered Care approach is integral to the holistic care of the elderly in the intensive care unit.

Family involvement: the patient and family should be involved in care, decision-making processes, care planning, and setting of treatment goals. Their preferences and values should be incorporated into all care processes. Care protocols, visit hours, personal protective wear, need for infection prevention, and cost of ICU admission should be explained during the review for admission of the elderly into the intensive care unit. Regular family conferences and updates on the progress of patients should be ensured. The family should know about long-term specialized care if necessary, and should be incorporated into how it can be provided and sustained. Arrangements to provide end-of-life support for the terminally ill elder should be made during such family briefings [22].

Multidisciplinary care, physiotherapy, health education: a multidisciplinary team made of health care professionals including the intensivist, geriatrician, physiotherapist, internist, and nurses is needed in caring for elders. One nurse to a ventilated patient is required [23,24]. The elderly usually have diverse systemic manifestations of aging that require collaboration of team members in care provision. For example, the elderly patient may have comorbidities that require the coordinated input of various medical specialists. The physiotherapist should be involved early in patient care. Enteral feeding is a preferred option for feeding whenever possible. However, the unconscious elderly patient may require nasogastric feeding. The nutritionist and dentist should be involved in feeding and oral care. The elderly patient could be on multiple therapies. Education about the use of mobile applications and mobile sensors that can monitor physical exercise, sense and report health indices like blood pressure, and pulse rate, and provide reminders on drug adherence should be provided while in the unit and before transfer out of the unit [9].

Training of staff: regular training of health workers is necessary to provide desired orientation and quality care. Training can be in the form of updates, seminars, clinical meetings, ward reviews, and peer reviews of performance.

Challenges: implementing elder-friendly initiatives in critical care units in low-resource countries could be challenging. Accessing health care could be daunting because of transportation costs, long distances to health care facilities, absence of motorable roads, out-of-pocket payments for health services, etc. This is amidst negative stereotypes of cultural perceptions and social

norms about the sick elderly. The elderly patient is often undervalued in some communities. Cultural and communication gaps also create delays in older persons accessing prompt care. For example, their ill health may be attributed to evil forces or spiritual misdemeanors, possession by evil spirits that require exorcism and prayer rather than critical care. Most elders no longer work. They usually cannot provide resources for their own regular care, not to talk about intensive unit care, which could be a huge bundle of healthcare costs for seniors. Some elders may not be able to access their meager retirement funds, which often lag behind inflation. Thus, many are absolutely at the mercy of their children, if they have any, family members or other Good Samaritans, who themselves have other pressing life challenges. Furthermore, navigating the healthcare system requires multiple processes that are tiring and strenuous for the elderly patient. Points of payment, laboratory investigations, consultation rooms, and pharmacies are wide apart and energy-sapping to transverse [25-27].

Underfunding because of limited or poorly allocated resources leads to inadequate infrastructure, staffing, and medical equipment. Specialized beds, assistive devices, monitoring, and other equipment required for the care of older persons are largely lacking. Training of healthcare personnel on care for the elderly is usually not considered a priority. Health facilities may lack comprehensive care, protocols, and guidelines for the elderly in the critical care unit. Data on geriatric care outcomes, guidelines, and protocol implementations are not available. Nevertheless, the potential solutions may lie in public-private partnerships, collaboration with international donors and funding agencies, prioritizing the training of healthcare and allied personnel in elder care, and consciously investing in improving infrastructure with the goal of deliberate inclusion of the elderly in healthcare improvement efforts [12,18,20,27-30]. These challenges are summarized in Table 1 below.

Conclusion

Up to a quarter of the patients requiring intensive unit care in hospitals are elderly patients with unique physiological and healthcare needs. In order to meet these needs, a policy-guided orientation of ICU care is needed. These policies should integrate the physiological needs of the patient with their daily care in an elder-friendly service delivery approach that makes the intensive unit care a pleasant and safe environment for the elderly ill patient.

Competing interests

The authors declare no competing interests.

Authors' contributions

Osayomwanbo Osaheni: conceptualized, did a literature search, and drafted the manuscript. Obehi Aituaje Akoria was involved in the conceptualization, and review of the draft manuscript while Darlington Ewaen Obaseki was involved in the conceptualization, revision, and final approval of the manuscript for publication. All the authors have read and agreed to the final manuscript.

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Table and figure

Table 1: challenges of implementing elder-friendly intensive care unit in low resource setting and suggested solutions

Figure 1: elderly friendly implementation framework

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Table 1: challenges of implementing elder-friendly intensive care unit in low resource setting and suggested solutions

Challenges	**Possible solutions**
Communication	Training and retraining of healthcare and allied staff on effective communication using adopted/adapted tools available tools.
Multidisciplinary care	Continuous emphasis on teamwork is necessary. The various internal medicine specialists, surgeons, anesthetists, physiotherapists, dieticians, etc. have to work harmoniously. This can be achieved by continuous focus of the team's attention on working together for the patient's good.
Funding	Collaboration with donor organizations and private-public partnerships is required.
Access to health facilities	Development and provision of appropriate technology for emergency medical service network. Community efforts targeted at road maintenance will help in improving the life span of built roads. Social support for older persons' transportation to and from healthcare facilities.
Infrastructure development	Provision of sidewalk frames, walking aids, and bed rails through donors and government special interventions. Mixed patient intensive care should be considered where health care resources can be shared.
Staffing and training	Increase in training of health workers with a focus on the challenges of the elderly in all training schools, clinical updates, continuous professional education programs, and workshops. Training of geriatric specialists. Increase advocacy for training of health care personnel in elder care.
Out-of-pocket payment for healthcare	Provision of functional, broad-based health insurance schemes that specifically target the elderly. Universal healthcare coverage.
Difficulties in healthcare record retrieval	Use of alternate power systems like solar and electronic record systems. Improvement in internet access, connectivity, and facilities.
Protocol development	A review of existing guidelines and treatment modalities in the light of local contexts and available resources is essential.
Data management	Encourage training in the conduct of proper research, data gathering, and sharing

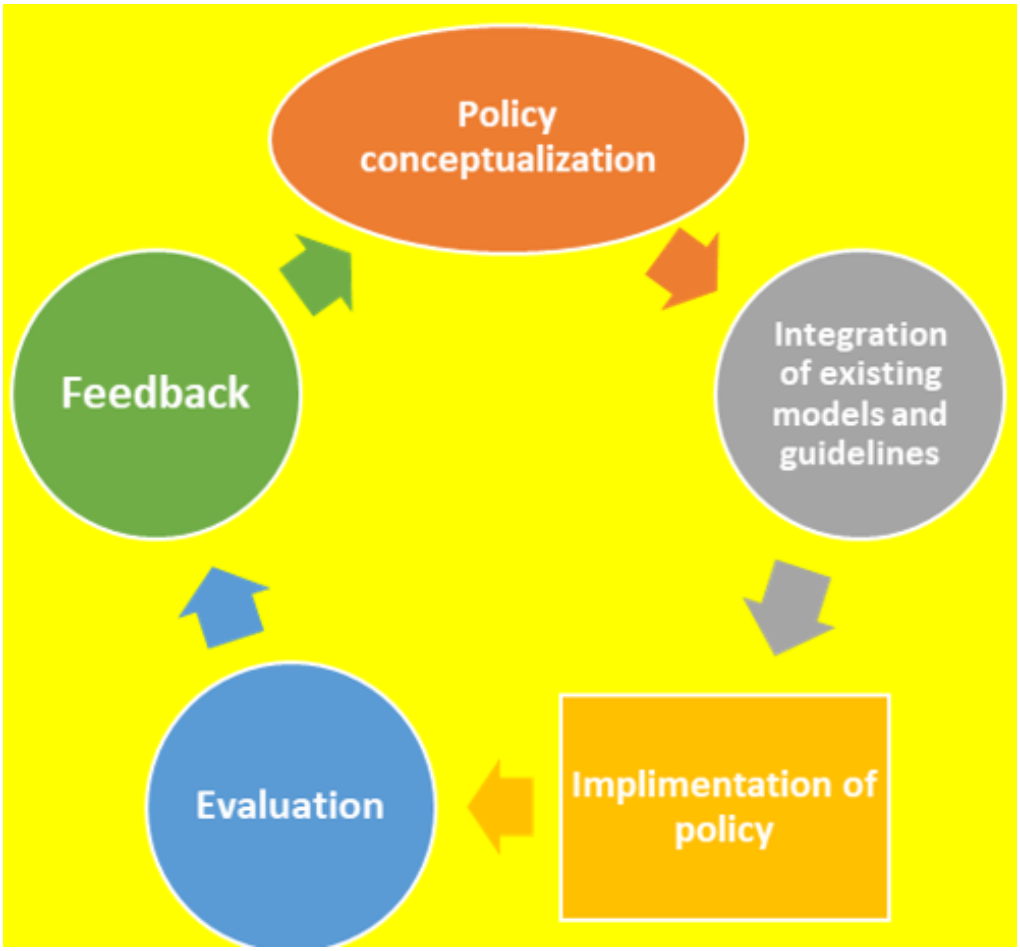

Figure 1: elderly friendly implementation framework