NURSING HOMES: WHAT PARAMETERS SHOULD BE AUDITED?

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SUMMARY

Family physicians are main providers of medical care to nursing home residents globally. In Singapore, nursing homes are currently audited on parameters based on MOH's Guidebook on Nursing Homes and more stringent criteria if under the Framework for Integrated Health Services for the Elderly. However, our current auditing parameters are focussed on organisational and infra-structural aspects and lack emphasis on clinical and social aspects when compared to developed countries. This paper will examine the wide breadth of parameters currently used to audit quality of nursing home care in developed countries and help family physicians understand the issues involved.

Keywords: Nursing home, audit parameters, quality of care.

Introduction

In US, UK and Australia, family physicians are main providers of medical care to nursing home residents[1,2]. With Singapore's elderly population expected to increase from 7.5% in 2002[3] to 18.4% by 2030[4], the number of nursing home residents will correspondingly increase. As main healthcare providers of nursing home care, we need to understand the milieu and challenges of elderly institutionalised care[5]. Nursing homes have had a long history of inadequate quality of care and a recent UK study by Tom Fahey (Professor in Primary Care Medicine, University of Dundee) and colleagues demonstrated that it is still lacking[6]. With the global trend of governments away from direct service provision of nursing homes and towards purchasing services for citizens from private-for-profit or voluntary welfare organisations, there is greater need for auditing standards of care provided[7].

The Goal of Auditing

Auditing is a quality improvement activity used widely nowadays in many healthcare institutions to enable healthcare providers to look objectively at their work processes, identify areas for improvement and set objectives to enhance quality of care[8]. It involves comparing current observed practices with set standards and has been to shown to improve quality of care and outcomes. In a study conducted in the US comparing JCAHO (Joint Commission on Accreditation of Healthcare Organisations) accredited and non-accredited nursing homes, the former had a lower prevalence of restraint use, contractures, pressure ulcers, abuse allegations and life-safety code deficiencies[9]. JCAHO accreditation demands that nursing homes management continually audits its performance and promptly institute quality-improvement activities if performance is deteriorating or fails to attain a standard associated with good practice.

Comparing Singapore with Developed Countries

In Singapore, nursing homes are currently audited on parameters based on *A Guidebook on Nursing Homes* by the Ministry of Health and on slightly more stringent criteria if the nursing home receives funding from the Framework for Integrated Health Services for the Elderly[10]. Our current auditing parameters are focussed on administrative, organisational and infra-structural aspects such as admission criteria, building and licensing requirements, facilities and space guidelines, furniture and equipment provision and staffing norms. The guidelines mandate clinical quality assurance through monitoring bedsores, infection control, falls, nutrition, maintenance therapy, medication errors and regular doctor reviews, but does not provide specific details on auditing measures or process. Compared to US, UK and Australia, the guidelines also lack emphasis on dignity, autonomy, independence and resident-centred care. In the US, although systems vary from state to state, the emphasis is generally on a large number of specific objectively-determined measures and includes resident-centred social aspects[11]. Australia uses broad measures which are based on the residents' perceived acceptability of outcomes of care experienced by residents themselves[12]. Although criticised as subjective, the Australian system has been shown to have high reliability and validity[13], and many authors currently view resident-based outcome indicators as objective and reliable measures of nursing home performance[14]. Even in the UK, there has also been a general shift in focus from input measures (e.g. size of rooms, staffing ratios) towards quality of care issues such as privacy, dignity and resident's rights[15].

The Heterogeneity of Nursing Home Residents

When auditing a nursing home, the heterogeneity of residents needs borne in mind. Even within one nursing home, there will be great variations in the clinical issues, social needs and functional dependence among residents. For example, in most states of America, nursing homes are divided into 3 categories[1]:

1. ICF-1 (Intermediate Care Facility Type 1) which provides basic care with minimal assistance and medication administration;
2. ICF-2 which provides moderate assistance in ADLs and nursing supervision;
3. SNF (Skilled Nursing Facility) which provides maximum assistance and 24-hour supervision by a state-registered nurse.

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In Singapore, nursing home beds are divided into 4 categories based on the score of their Resident Assessment Form (RAF), with the staff to resident ratio for each category increasing with the functional dependency and psychiatric needs of each resident[10]. Generally, institutions which provide care for RAF Category 1 residents are usually termed *sheltered homes* while those caring for RAF Category 3 and 4 residents are called *nursing homes*. However, it is not uncommon to find a nursing home which caters to all 4 categories of residents. Thus, we must recognise that nursing home residents form a very heterogenous group with wide-ranging needs. The extent which the needs of each *individual* resident are met should be borne in mind when auditing a long-term care institution.

Defining Good Quality Care

Key players in nursing home provision include private-for-profit and voluntary organisations which directly provide nursing home care, professional associations, government ministries, statutory boards, elderly advocacy groups and residents themselves. Hence, it is no wonder that auditors face political difficulties when gaining agreement among key players when defining minimum standards and objective audit measures of good quality care which should have high validity and reliability. The setting of standards for good quality of care in nursing homes is also controversial because it also depends on the existing standards of healthcare and other social, cultural, political and economic factors. For example, in developing countries, limited resources result in regulatory measures of nursing homes often being limited only to input measures such as basic cleanliness, fire safety and equipment provision, with little emphasis on patient-centred care.

Parameters for Auditing

The parameters which one should look into when auditing a long-term care institution for dependent elderly can be broadly divided into 4 categories:

1. Clinical parameters
2. Social parameters
3. Organisational parameters
4. Infra-structural parameters.

As this paper is written for family physicians, it will focus mainly on clinical and social parameters and briefly on relevant areas of organisational and infra-structural parameters.

1. Clinical Parameters

In 1992, the Royal College of Physicians of London created guidelines and systematic appraisal measures to audit quality of care in long-term institutions called the CARE (Continuous Assessment Review and Evaluation) Scheme, which was later revised in 1998 to incorporate improvements gleaned from experience on its use[16]. It sets the standards of care expected of nursing homes and provides information sheets, assessment scales and actual forms to audit both the facility and resident[8]. This scheme is more advanced than the US Resident Assessment Instrument which only aims to provide a standardised, comprehensive and reproducible assessment for monitoring and reimbursement purposes and does not set audit standards[17]. The CARE Scheme focuses on the "giants of geriatric medicine" including dementia, depression, disability, urinary and faecal incontinence, medication errors and pressure sores, as well as social aspects like resident autonomy. The ensuing discussion on clinical parameters is based on the CARE Scheme and other parameters gleaned from additional sources.

Dementia

Residents with dementia should be clearly diagnosed and their level of cognitive functioning assessed and reviewed regularly using validated methods (e.g. Abbreviated Mental Test [AMT]). Delirium should be distinguished from dementia because the former is a medical emergency and management is different. Residents with dementia should be screened for challenging behaviours and psychological symptoms like depression. The Brief Agitation Rating Scale is a checklist of possible behavioural and psychological symptoms of dementia (BPSD) like hitting, grabbing repetition and wandering[18]. This should help staff to identify possible contributing causes of agitation and target appropriate management modalities for such patients who usually require a higher level of supervision[19,20]. Caution should be exercised with use of neuroleptics and they should be used sparingly and reviewed regularly. Restraint by pharmacological and physical means should be avoided as far as possible. Surveillance and protection of demented patients should be balanced with respecting their autonomy and dignity. The nursing home should have a philosophy of positive care for older people with dementia. Nursing home environment for demented residents should be secure, quiet and designed to allow the ambulant resident to wander safely.

Depression

Depression is common among long-term residents, affecting up to 50% of residents[21]. It is often undetected or neglected although it increases the likelihood of death[22]. Hence, it is important to recognise, assess, treat and prevent depression. Staff should be aware that unusual behaviour such as removing clothes and screaming may be caused by depression[23]. Special attention should be given to demented residents who exhibit weight loss, loss of appetite, increased agitation and restlessness as depression can co-exist. Screening for depression may be achieved through use of the Geriatric Depression Scale (GDS)[24]. The treatment of depression should not only involve anti-depressant medication but also include psychological care, social stimulation, recreation programmes, emotional support and exclusion of correctable causes of depression. It is also important that suicide intent assessment be done as specialist inpatient treatment may be required.

Disability

The nursing home should adopt a focus on minimising disability and handicap. Assessment of disability in a standardised format may be achieved with the Barthel ADL Index or the Functional Independence Measurement (FIM) instrument[25]. Aids, adaptations and environmental modifications that help overcome disability should be used to maximise independence. Common disabilities that are often not recognised include visual[26] and hearing[27] disabilities and aids like spectacles, large print books, and hearing aids are a great help in improving quality of life. An elderly-friendly environment is an aspect very amenable to auditing and attention should be paid to sufficiently wide corridors, use of ramps, handrails, appropriate height for beds and chairs, bathroom adaptations and adequate lighting. It is also important that underlying health problems that may cause disability be identified and treated as far as possible. Nursing staff should encourage residents to be physically independent within reasonable safety limits and those with rehabilitation potential should receive professional functional therapy.

Urinary incontinence

The nursing home should have a philosophy of promoting urinary continence and not just incontinence management. The prevalence of incontinence in nursing homes is about 30 to 50%[28]. The average incontinent patient requires about one hour of nursing time daily and this represents 83% of the cost of urinary incontinence, 13% being laundry and 4% pads and equipment[29]. Treatable causes for incontinence should be examined for and managed accordingly. Conservative measures such as absorbent garments and beds pads may be required if incontinence is intractable. Indwelling catheters and penile sheaths should only be used with clear valid indications because of their associated increased risk of urinary tract infections and balanitis respectively. Incontinent residents should be within easy reach of a toilet, en-suite facilities or a commode with adequate privacy.

Faecal incontinence

Similarly to urinary incontinence, the nursing home should also have a positive philosophy of promoting faecal continence. Management involves identifying causes for faecal incontinence and they include faecal impaction, medications and uninhibited defaecation (due to cognitive impairment or neurogenic causes)[30,31]. Relief and prevention of constipation is the management for faecal impaction and judicious review of medications that can cause constipation or diarrhoea should also be done. Treatment for uninhibited defaecation includes a prompted bowel programme or a constipating regime with twice weekly enemas. Environmental measures to promote faecal continence are similar to those for urinary incontinence.

Optimising Medication

Over-prescribing of unnecessary drugs and under-prescribing of appropriate drugs are common problems in nursing homes. The over-use of inappropriate drugs is a waste of resources and leads to medication iatrogenesis, especially among frail older people[32]. Conversely, under-use of appropriate medication like anti-depressants deprives older people of effective treatment. Polypharmacy is another unique problem and drugs that were intended to be given for a limited period have been known to be over-prescribed because the drug was not stopped on time (e.g. neuroleptics, antibiotics, steroids). As day-to-day management of medical conditions is left to nursing staff, medication reviews often only occur when carers notice side-effects or find the medication list too long[33,34]. Regular medication review is the cornerstone of long-term care prescribing and should be done in a systematic, consistent and individualised manner. The process should involve training of nursing staff, a focus on judicious use of psychotropic and sedative medication and ideally pharmacists[35].

Falls

Nursing homes should have a philosophy of preventing and managing falls. Falls are a leading cause of death and hospitalisation among older people. It can also increase disability and socially limit an older person. Fall management involves assessment of multiple precipitating risk factors for falls (e.g. postural hypotension, sedative use, impaired vision, etc) and correcting amenable causes to reduce the risk. In particular, attention should be paid to encouraging regular exercise, judicious psychotropic drug and restraint use, creating a safe environment, hip protectors and appropriate osteoporosis management. Fall prevention should involve multi-factorial interventions[36].

Pressure Sores

The philosophy of nursing homes on pressure sores should be first prevention, then management. Unfortunately, pressure sores are common in nursing homes. Preventing pressure sores involves detecting residents at risk of developing pressure sores with use of risk assessment scales like the Norton scale[37]. Alternating pressure mattresses and pillows have been touted as cost-effective measures in pressure sore prevention[38,39] but they cannot be compared to the effectiveness of regular turning and the promotion of mobility and activity. Nutritional support, staff education and adequate staffing ratios are important aspects when auditing pressure sore management.

Deaths, Accidents & Injury

Details on deaths, accidents, injury and falls should be audited and this includes causes of deaths, types of accidents (including falls) and resulting injuries. Rates of deaths, accidents and falls should also be measured for monitoring purposes. This reflects the quality of care provided and allows detection of any disturbing rising trends. However, vigilance and integrity on the part of nursing home staff and administration are needed in reporting such events.

Hospitalisation and Discharge Rates

The hospitalisation rate of nursing home residents has also been shown to reflect the quality of care provided. In a US study, it was found that among nursing home residents who were hospitalised, 48.2% of cases could have been avoided[40]. Factors that contributed to increased hospitalisation rates included insufficient adequately-trained staff, inability of staff to administer and monitor intravenous therapy, lack of access to diagnostic services and pressure from staff and family.

Admission of residents to nursing homes need not be permanent either. In selected cases, residents receiving rehabilitation may improve to such a degree that they may be able to return to their own home. Provided that residents are discharged with the necessary home support, discharge rates may reflect positively on a nursing home's commitment to physical and social rehabilitation.

Nutrition

Malnutrition is a major problem in nursing homes and is often under-addressed[41,42]. Residents should be screened for malnutrition and the Mini-Nutritional Assessment (MNA) has been validated for this purpose[43]. Residents identified as malnourished should be reviewed by a dietician and nutritional supplementation arranged. Those identified as at risk of malnutrition should be closely monitored. The philosophy of the nursing home should be of the promotion of good nutrition and this involves addressing individual dietary needs, meeting food preferences, sufficient time feeding dependent residents, managing swallowing difficulties and creating conducive mealtime environments. The involvement of a dietician is ideal.

Infection Control

High levels of infection control are important in nursing homes to prevent spread of infectious diseases. This includes personal hygiene, food safety, environmental cleanliness and immunisation of nursing home residents, especially for influenza (which should be given annually to all institutionalised elderly) and pneumococcus (recommended once for elderly residents with respiratory conditions). Infectious disease surveillance should be carried out constantly in nursing homes to stem any outbreak early. The nursing home should have policies and guidelines for infection control practices including isolation and disinfection procedures for residents suffering from any infectious disease (e.g. herpes zoster, chickenpox, tuberculosis, SARS).

Palliative and End-of-Life Care

Many residents eventually die in nursing homes but there has been scant attention paid to the dying process and the multiple needs of the dying resident. Studies have found a lack of attention to the cultural and religious needs of dying residents as well as inappropriate and inadequate communication between healthcare providers, residents and their families[44]. It was also found that the physical environment was often not conducive to end-of-life care because of little privacy, overcrowding and noisy environments[45]. Inadequate staffing and lack of supervision are also significant organisational factors that influence quality of terminal care. The provisions for dying with dignity and comfort should be audited in any nursing home.

2. Social Parameters

Although addressing the social care of nursing home residents is traditionally not the domain of the physician, we need to pay special attention to this often neglected area as nursing homes are not just a place for medical care but also the *home* of residents, often for the rest of their lives. As physicians, we need to take their social needs and circumstances into consideration when deciding on therapy and management. The Australian government has produced a document on respecting the social needs of nursing home residents which provides a very good basis for auditing social parameters[46].

Social Independence

Residents should be enabled to achieve a maximum degree of independence as members of society. They should be encouraged and empowered to have visitors of their choice and to maintain personal contacts. They should also maintain control of their financial affairs if they are cognitively able to do so. Nursing home residents should also be allowed to move freely within and from the nursing home and be restricted only for safety reasons. Provisions should be made for residents with different religious, personal and cultural backgrounds. The independence residents enjoy should also be balanced by opportunities for them to maintain their responsibilities and obligations as citizens (e.g. voting).

Autonomy and Freedom of Choice

Each resident's right to autonomy and freedom of choice should be recognised and respected provided that it does not infringe upon the rights of others. Nursing home staff should develop policies in consultation with residents which allow the latter to make decisions and exercise choice with respect to their daily activities and running of the home (e.g. visiting hours). However, there should be an appropriate balance between residents' rights and effective management of the home as well. Residents and their representatives (eg. children) should have avenues to opine about conditions in the nursing home (e.g. resident committees) and influence nursing home policy formulation.

Home-Like Environment

The nursing home's design, furnishings and routines should resemble the individual resident's home as far as reasonably possible. This aspect is not concerned with counting how many pictures hang on the walls but rather with whether residents have their pictures on their walls if they want them

there, and equally, whether they do not have pictures on their walls if that is what they want[47]. Creating and maintaining a home-like environment should be balanced with policies which enable the resident to feel safe and secure.

Privacy and Dignity

The privacy and dignity of nursing home residents should be respected by all staff. Private property of residents should not be taken, lent or given to other people without the owner's permission. Residents should perform all their private activities, especially bathing, toileting and dressing, in private. Nursing home practices should also support the resident's right to die with dignity, pain-free and in the company of loved ones.

Variety of Experience

Residents should be enabled to participate in a wide range of activities appropriate to their interests. The nursing home should actively find out each resident's preferred hobbies and pastimes and empower them to remain involved in them according to their personal choice. However, with dependent elderly, the range of possible activities will be limited by their disabilities. Nevertheless, activities involving music, exercise, relaxation, pets, reminiscence, religious observance and verbal games can still be done by older persons with functional impairments.

3. Organisational Parameters

Although organisational parameters usually fall under the responsibility of the nursing home administrator, the physician is often involved in the admission process, functional assessment of residents and staff management.

Appropriateness of admission

The appropriateness for admission to a nursing home should also be audited. Residents who are transferred to a nursing home with unstable medical problems or without adequate transfer of care should be identified and reasons for inappropriate transfer analysed. The transfer process and referral screening process should be audited. Poor communication and cooperation between nursing home and referring agencies are common causes.

Admission Criteria and Process

With limited national resources and nursing home beds, ensuring that residents admitted to nursing homes are suitable and really in need of institutionalisation is an important aspect of audits. Residents admitted should meet admission criteria such as a physical or mental disability that requires long-term daily nursing care which a caregiver, if available, is unable to provide. The admission process should also be audited on whether the nursing homes unfairly refuse patients in need of institutional care, on the basis of being unwilling to meet needs perceived to be excessively intensive or demanding (e.g. residents with parenteral feeding tubes, colostomies or bedsores), despite possessing adequate resources.

To reduce the fear and uncertainty associated with entering residential care, older persons themselves should be involved in the decision to enter long-term care. Another measure to reduce relocation stress is the involvement and cooperation of all parties (including the older person) in planning and preparing for the move, and having a key worker when the new resident arrives at the nursing home[48].

Functional Categorisation of Residents

Residents in nursing homes should be assessed to determine their physical and psychological needs. It is important to audit the accuracy and consistency of functional categorisation of residents because it determines the staff-to-patient ratio required to provide good quality care. Functional assessment is also the basis of identifying residents with rehabilitation potential and for obtaining a baseline to monitor any future deterioration so that early intervention can be instituted.

Professional Staff Management

The nursing home should maintain an adequate level of staffing and professional skills required. The ideal ratio of staff to residents should be based on a functional categorisation that is objectively supported by a time-motion study to determine the amount of time and degree of skill required to provide good quality care[49]. Nursing home residents should have access to all members of the multidisciplinary team and the provision of each professional should meet pre-determined staffing ratios and qualifications. A good nursing home should also be committed to continuing training and development of staff at all levels.

4. Infra-Structural Aspects

Besides being disabled-friendly, a nursing home should be audited for its standards of sanitation, lighting and ventilation. The nursing home should comply with the prevailing MOH guidelines issued under the Private Hospitals and Medical Clinics (PHMC) Act which specify minimum provision of facilities, furniture, clinical and rehabilitation equipment and minimum standards for space norms, rehabilitation aids, fire safety and medication storage.

CONCLUSION

The audit process is a useful tool in promoting high quality care in nursing homes. To be effective, it needs to comprehensively audit aspects that have been shown to improve quality of care based on evidence-based research and good practice recommendations. With family physicians being the main provider of medical care in nursing homes, becoming better informed about the auditing process can empower us to improve the quality of life and standard of care provided for its residents.

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