PHYSICIAN PRACTICE IN THE NURSING HOME: EXPLORING NEW MODELS

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Nursing homes (NHs) play an increasingly vital role within the health care continuum. Physicians who practise in this setting, however, often lack credibility despite having a significant impact on quality of care. This article seeks to highlight physician workforce issues related to NH care with a focus on training, medical staff organization, and quality. In this report, NHs refer to both long-term care (LTC) homes and other institutions for persons with disabilities, such as complex continuing care hospitals (CCC).

While there is no question that the Canadian population is aging, there has been some debate about the health of the elderly and their need for LTC services. Increasing obesity has tempered previous declines in disability, presaging increasing numbers of older adults with significant physical and functional limitations.[1] These trends, as well as an ever-increasing prevalence of dementia, will, according to some estimates, call for an additional 400,000 LTC beds by 2038.[2] Even now, almost a third of adults 85 years and over reside in nursing homes,[3] and 25% of all deaths occur in NHs.[4]

Interestingly, there is a lack of consensus that this rising tide of older adults will have a significant negative impact on health care in Canada. On one side are the crisis proponents, most notably Foot,[5] who argue that the future growth in older adults will create major increases in health care expenditures that are unlikely to be sustained given the current funding rates. On the other side are the theorists[6,7] who argue that the growth in health care costs and government expenditures due to the increased numbers of older adults will be manageable and will result in only modest increases in the gross domestic product (GDP) devoted to health care. Most of the projected increased costs are due to other factors (e.g., costly new drugs, growing public expectations, investment in more health technology). An important corollary to their argument is the need to develop new technologies and integrated health care systems (as discussed below) that bring about greater productivity and efficiencies.

NHs have become a critical component of the health care continuum and are often key to successful transitions. This is reflected, in part, by the diversity of the population served. In the United States, 20% of all admissions to NHs have a length of stay less than 3 months, reflecting short-term rehabilitation, while almost 45% have stays less than 12 months.[8] Further, in the United States, discharge to an LTC facility is the second most common type of discharge from acute hospitals.[9] In Ontario, 17% of residents are discharged from CCCs back to acute hospitals within the first 90 days from admission. Further, the acute hospital is a frequent discharge destination for NH residents, ranging from 34% in the Yukon Territory to 89% in Manitoba.[10] In many jurisdictions, alternative level of care (ALC) bed days and emergency department (ED) wait times are inextricably linked to NH bed availability. Increasing emphasis on person-centred care and performance-based reimbursement highlight the role of the NH within the continuum.

As NH residents have become increasingly frail over the past one to two decades, suffering from multiple physical and cognitive decrements, the quality of care delivered to these individuals remains inconsistent and generally suboptimal throughout North America.[11–13] Of the many variables that impact quality, the caregiving workforce is among the most powerful. This is seen most clearly in the relationship between nurse-to-resident ratios, educational level, and quality of care.[11–14] Unfortunately, the ratio of nurses to residents remains relatively low in Canada compared with those in the United States.[12] In most countries, including Canada, few licensed caregivers have attained undergraduate or graduate training in geriatrics. The fact that 23.5% of Medicare beneficiaries in the United States admitted to an LTC institution are readmitted within 30 days speaks to both quality and resource gaps.[9] Estimates are that 40–78% of these admissions are potentially preventable.[15] In British Columbia, 25% of all deaths among residents in free-standing residential care facilities still occur in the hospital.[16]

While the link between the nursing workforce and

Table 1. Physician Responsibilities in the Nursing Home

• Comprehensively assess each resident and assist in care plan development and coordination
• Ensure the highest practicable well-being of each resident
• Implement treatment to enhance or maintain function and avoid accidents
• Respond in a timely and appropriate fashion to a change in function
• Physically attend to each resident consistent with provincial/federal guidelines
• Ensure appropriate and timely diagnostic tests and freedom from unnecessary drug use
• Optimize the resident's ability for self-determination
• Determine each resident's decision-making capacity while establishing advance directives

Table 2. A Model for Nursing Home Physicians

Commitment, conceptualized as a percentage of the physician's practice devoted to NH care and the amount of time, on average, spent per NH patient encounter
Physician NH practice competency, defined by specialized training and experience necessary to handle the complex medical care in a highly regulated, interdisciplinary care context that is the contemporary NH
Organizational structure, reflects the cohesive integration of the medical providers into the culture of the facility

NH = nursing home.

quality is clear, relatively little is known about the physician workforce in NHs. Estimates, both in the United States and Canada, are that 20–25% of primary care physicians care for NH residents.[17,18] In Ontario, the majority of residents are attended by family physicians, many of whom have limited training in the care of the elderly. While it is estimated that physicians currently spend 70% of their time with older adults, the medical school curriculum devoted to geriatrics is less than 1%. The rather limited supply of geriatricians (211 per 2007 data) is far below the projected minimum number of 538 needed to respond to the growing number of older adults in Canada.[19]

Surveys from professional organizations such as the American Medical Directors Association bolster the perception of ongoing issues related to physician recruitment and retention. The fact that Canada's primary care workforce of 33,000 physicians is aging (average age of 49 years) also speaks to future shortages within the LTC sector.[20] Indeed, between 1990 and 2000, there was a 5% decline in the proportion of general practitioners providing services to LTC facilities.[21]

In 2002, a survey of 100 attending physicians in the Calgary region revealed that only 40% were satisfied or very satisfied with the practice of LTC and 60% of the total were interested in an alternative remuneration model.[22] Physicians who had been in practice less than 10 years were more dissatisfied than older physicians. Furthermore, respondents reported a 69% intention to quit practice within 5 years of the survey, and of this group only 30% were satisfied with the practice of LTC. However, physicians who visited on a weekly basis, who visited during the day, had more than 10 patients, and were in the second half of their career appeared to be more satisfied.

Dissatisfaction with LTC practice should not be attributed to a lack of role definition as this has been clearly articulated over the past several years based on regulatory mandates and professional standards.[23] Table 1 summarizes these key physician responsibilities. It has been argued that the manner in which physicians perform their role in NHs correlates directly with quality. The three physician-related factors posited as most important to optimizing quality include physician competence, physician commitment to the NH, and the extent to which the organizational structure empowers, supports, and integrates physicians into the NH[24] (Table 2).

A literature is just now emerging that is lending credence to this construct. Paralleling the evidence base that links nursing staffing levels, educational attainment, and quality,[11,12,14] physician presence in the NH, medical director certification, and nurse-physician communication have been shown to improve care.[25,26] Katz and colleagues have also recently defined dimensions of NH medical staff organization and linked them to quality measures.[27]

With clear role definitions and evidence highlighting the physician's impact on care in the NH, why does the public continue to perceive the physician as "missing in action?"[28] While some of this perception is rooted in the reality of physician shortages as discussed earlier, much of it also relates to what might be referred to as the "Dangerfield Effect," named after the late, great comedian Rodney Dangerfield, who repeatedly lamented getting "no respect." In essence, there is a lack of respect, and underappreciation, for the unique physician skills necessary to attend to the host of clinical, ethical, legal, and interdisciplinary issues that characterize the contemporary NH. This lack of respect extends to both the public and much of the leadership in medicine, in part a consequence of the continued primacy of the medical model and its hyper-focus on acute care. There remains a lack of understanding of the complexity of LTC practice and its vital role within the continuum.

Changing this paradigm will require attention to extant undergraduate and graduate training models.[29] As pointed out above, only 1% of medical school training focuses on geriatric medicine, with inconsistent exposure to LTC. Medical students and residents require meaningful exposure to NH care as well as time with physician role models. These role models can not only demonstrate the skill set necessary to practise in the NH but also highlight many of the lifestyle advantages of an LTC practice. Transforming many facilities into "teaching nursing homes" will go a long way toward improving quality, recruiting the next-generation workforce, and advancing an LTC-focused research agenda.[30] The recent awarding of three LTC Centres for Research, Education and Innovation in Ontario is a direct response to this need.

Research will likely take many directions, ranging from the impact of care guidelines to new organizational models. The case examples that follow, although somewhat different in form and outcomes, highlight the potential impact of new physician funding paradigms and may serve as a guidepost for future demonstrations.

Case History: Calgary

The need to better support medical practice and improve patient outcomes in NHs prompted the new model of patient care described below. Today, this model is operational in four LTC sites in Calgary, with a dedicated medical staff of 23 physicians partnered with seven nurse managers and providing weekly facility visits.

The perceived advantages of an alternative remuneration model

(Alternate Relationship Plan [ARP]) are that physicians have more time to interact with other team members in a collaborative fashion and provide more appropriate care. An alternative payment model also facilitates the care of complex or challenging patients by freeing physicians from the sometimes-perverse incentives of the fee-for-service system. Most importantly, it promotes interdisciplinary practice and strengthens the relationship between the physician and the rest of the team.

An alternative payment model was designed primarily to support physician practice with the intention of reintegrating physicians into the total care of the patient. Support from the LTC provider organization was sought at the design stage. At the centre of the model is a new relationship with a nurse manager (known as an associate team leader, or ATL) who would facilitate the physicians' visits. Physicians would visit once a week at a set time on the same day and meet with the ATL prior to seeing patients. They would then use the physician visit form to review the patients to be seen. This would also allow for some shared care planning and organization of the physicians' time in the facility. Prioritization would be given to those patients who were unwell, and routine clinical activities could be arranged ahead of time. It would be the responsibility of the ATL to complete the physician visit form prior to the arranged time by visiting each unit to establish concerns and priorities. In essence, the ATL and the physician would jointly plan their work for the duration of a session.

During visits, the ATL and the physician would round on each unit and meet with the professional staff, usually the registered nurse/licensed practical nurse, to further review concerns on the physician visit form and identify new problems. Planned clinical activity would include the assessment and treatment of intercurrent medical problems, admissions, three monthly medication reviews, annual physical examinations, meeting with residents and families, medication reconciliations, the review of antipsychotic medication, care conferences, and shared care planning with the unit staff, allied health staff (occupational therapy, physical therapy, clinical pharmacy, social work, nutrition), and health care aides.

The physician would be paid on a sessional basis for hours spent providing care in the facility. No fee-for-service billing could be used except for work outside of the visits such as phone calls out of hours or call-back visits to the centre.

The principles of the alternative payment plan were laid out and interest was sought from the existing medical staff. Eight physicians expressed interest and an informal assignation of "ARP physician" was used with each participating physician. There was regular communication to the group regarding progress and updates as well as regular informal meetings to discuss planning. The physicians continued to use the fee schedule until the ARP was finally approved in July 2008. A process of gradual conversion of medical staff to ARP status was possible over the intervening 6 years through attrition and the ability to assign to chosen attending physicians (i.e., there was usually no physician in the community to follow new admissions). By this time, there were 12 family physicians (mostly new physicians as the original group retired or lost interest) who were being paid at the hourly provincial rate on a sessional basis. Physicians chose how many hours a week they wished to work, and a rough formula of seven patients per sessional hour was used to calculate patient censuses based on the wishes of each physician. Physicians chose which sites they worked out of and which day of the week they would be available to round on their patients. From the outset, physicians were encouraged to consider taking on at least a half-day a week. Physicians signed an individual service agreement and were free to return to fee-for-service at any time. Physicians would provide their own on-call service during the day (with Primary Care Network on call after hours and on weekends and statutory holidays). Physicians made their own arrangements during vacations. Physicians usually saw only their own patients during rounds, but could asked to see their colleagues' patients if deemed necessary by staff. One physician provided skin and wound consultation to the group. Development funding through the Medical Services Development Innovation Fund (MSDIF) was approved for 3 years to assist in the implementation of the model, for quality improvement activities (fall and fracture prevention and hospital transfers), and for the hiring of a project manager.

Since implementation, there have been quarterly physician meetings where operational issues and quality improvement activities are discussed as well as planning for future growth and development. A mailing list Listserv-type is active and keeps the physicians up to date

Table 3. The ARP Model

Workforce Indicators
• 90% ARP physician coverage (542 of 602 beds)
• Approximately 10 minutes of physician time per resident per week
• Physician demographic shift (63% female [originally 100% male]); 69% overseas trained; 73% under age 50 years (originally 75% over 50 years)
• 50% increase in number of attending physicians since July 2008 (currently 24 physicians)
• 50% increase in the number of patients under the care of an ARP physician
Satisfaction
• Universal acceptance by physicians and staff
• Physicians agree or strongly agree with the statement "physicians embrace the mandate of the ARP"
• 90% of physicians agree or strongly agree with the statement "a positive difference is being made to patient-centred care"
• 100% of physicians agree or strongly agree with the statement "physicians seek the recommendations of the ATL"
Clinical Indicators (12 months up to April 2011)
• 10% reduction in restraint use: 23 to 20.8% (13 patients)
• 22% reduction in wounds: 8.5 to 6.6% (11 patients)
• 7% reduction in anxiolytic utilization: 23 to 21.5% (9 patients)
• 20% reduction in transfers to hospital: 1.8 to 1.4 /1,000 RD (80 transfers)
• 49% decrease in hip fractures: 12.9 to 6.6/100,000 RD (13 fewer hip fractures)
• 66% reduction in "other" fractures: 14 to 4.7/100,000 RD (20 fewer "other" fractures)
• 19% decrease in discharges due to death: 0.86 to 0.7 /1,000 RD (34 fewer deaths)
• 5% increase in antipsychotic use: 18.8 to 19.8%
• 15% increase in patients on ≥9 medications: 60.9 to 62%

ARP = Alternative Relationship Plan; ATL = associate team leader; RD = resident days.
Sources: Data from minimum data set quality indicator panels, pharmacy provider data, and routine self-reported indicator data on transfers, fractures, falls, and deaths.

on all clinical and relevant administrative developments. A dashboard of 11 selected quality indicators is distributed every quarter and on an annual basis to the physicians for discussion. Two continuing education initiatives have arisen from the group: a practice-based small group (PBSG) and a journal club with an emphasis on the practice of LTC medicine. The Alberta Medical Association and Alberta Health and Wellness oversee the project, and quarterly and annual progress reporting are conditions of the agreement (as well as "shadow billing" the fee schedule). An LTC ARP Intercare Physician Evaluation report in February 2010 sought to document improvements in care; these are highlighted in Table 3.

Case History: British Columbia

Responding to pressures similar to those experienced in Calgary, the model introduced through Fraser Health was implemented in two phases. The first phase was introduced in 2007 in the town of Surrey in response to the relocation of an extended care unit that had been co-located with acute care and was to be transferred to a new site. In addition, there was a new build of a contracted facility. The total number of beds was approximately 300, one third of which were additional beds to the system.

A group of nine family physicians were engaged in the discussions. They were all experienced family physicians with an interest and expertise in residential care.

The features of the model were that this group was to provide care for all of the residents within the two facilities. They would make regularly scheduled weekly visits to their residents and attend care conferences on their own residents, although this could be delegated to the site medical director where this was not possible. The physicians would maintain their admitting privileges to the local acute care hospital and would follow up their residents who were transferred to the acute care hospital and facilitate an early return to the residential facility. Further, participating physicians would respond to urgent and semi-urgent issues in a timely manner and would make site visits where appropriate in addition to their regularly scheduled weekly site visits. The group of nine would provide a 24/7 on-call service for all of the residents and would not delegate this to other physicians. They would meet on a monthly basis with administrative and clinical staff of the facilities to discuss areas of common interest and concern, including educational topics. Two of the nine physicians would serve as site medical directors. The physicians would be paid a monthly stipend that would recognize the increased time commitment and support that they were providing for the individual residents and the facilities.

The success of this enhanced service was to be measured by various performance and quality indicators, which would include but not be limited to family/resident/staff satisfaction surveys; a reduction in the unscheduled transfer rate to emergency rooms; a reduction in the number of medications per resident; a reduction in the length of stay of residents who were admitted to acute care; a reduction in the drug-drug interactions; and improvement in communication between physicians and staff and among physicians. While most of these outcome measures are in the process of being collected, a significant reduction (50% of the health authority average) in unscheduled transfers to acute care has already been demonstrated!

The second phase was introduced in 2011 and involved two different geographical locations within the health authority (White Rock and Abbotsford). Each was linked with the respective division of family medicine and involved the coverage of approximately 800 beds. It was an agreement between the Ministry of Health, the health authority, and the division of family practice.

A group of family physicians from within each division agreed to provide enhanced coverage for all of the residents within their geographical location. These physicians were all experienced family physicians with a prior interest and expertise in residential care. Each physician undertook to make regularly scheduled weekly visits to one of the facilities in the area; the group provided a 24/7 backup rotation for all residents that would operate where the attending physicians could not be reached within 30 minutes or where they indicated they were unavailable to make a site assessment. The group would retain acute care admitting privileges at the local hospital and would arrange admissions and follow-up while in acute care and discharge back to the facility. Efforts would be made to ensure that communications were maintained with the attending physician if that individual was unable to admit a resident. They would hold monthly meetings to discuss common issues and provide an educational forum. The physicians would be paid on a monthly basis that would recognize the number of residents covered in the geographical area and their on-site time commitment to individual facilities.

Outcome measures included a reduction in the number of unscheduled transfers to the emergency department, a reduction in the number of residents on nine or more medications, and a satisfaction survey for staff and for family physicians in the geographical area served. Similar to the model implemented in phase one, outcome measures are currently being collected; initial feedback from staff in the participating residential facilities has been very positive. In addition, early trends point to a significant decrease in unscheduled transfers to acute care.

Key Points

Nursing homes (NHs) play an increasingly important role in our health care continuum.
Recent declines in age-related disability might slow or even reverse because of the increase of obesity in our society, further increasing the need for NHs.
How the NH physician workforce is organized and remunerated can have major impacts on the quality of care for residents.

Conclusions

The models described above demonstrate how a change in medical staff organization can significantly impact care. These improvements are presumably linked not only to physician attributes (i.e., commitment and competence) but also to enhanced communication between physicians, nurses, and other professionals delivering care throughout the continuum. Successful physician engagement in the care team in NHs requires a clear understanding by all of the value

and role of the attending physicians. The support of medical and facility leadership is essential in articulating such vision and goals of care. Integration of the physicians into the culture of each facility guarantees shared priorities and a care delivery system that is truly patient centred.

It is hoped that future demonstration projects will continue to explore how to effectively integrate physicians into NHs. Such efforts will not only enhance overall quality but will also go a long way to garnering the "respect" that is so clearly needed to cement professional credibility and attract a dedicated workforce.

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