Comparison of long-term care in an acute care institution and in a long-term care institution

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Abstract

Background: Acute care hospitals in Quebec are required to reserve 10% of their beds for patients receiving long-term care while awaiting transfer to a long-term care facility. It is widely believed that this is inefficient because it is more costly to provide long-term care in an acute care hospital than in one dedicated to long-term care. The purpose of this study was to compare the quality and cost of long-term care in an acute care hospital and in a long-term care facility.

Methods: A concurrent cross-sectional study was conducted of 101 patients at the acute care hospital and 102 patients at the long-term care hospital. The 2 groups were closely matched in terms of age, sex, nursing care requirements and major diagnoses. Several indicators were used to assess the quality of care: the number of medical specialist consultations, drugs, biochemical tests and radiographic examinations; the number of adverse events (reportable incidents, nosocomial infections and pressure ulcers); and anthropometric and biochemical indicators of nutritional status. Costs were determined for nursing personnel, drugs and biochemical tests. A longitudinal study was conducted of 45 patients who had been receiving long-term care at the acute care hospital for at least 5 months and were then transferred to the long-term care facility where they remained for at least 6 months. For each patient, the number of adverse events, the number of medical specialist consultations and the changes in activities of daily living status were assessed at the 2 institutions.

Results: In the concurrent study, no differences in the number of adverse events were observed; however, patients at the acute care hospital received more drugs (5.9 v. 4.7 for each patient, $p < 0.01$) and underwent more tests (299 v. 79 laboratory units/year for each patient, $p < 0.001$) and radiographic examinations (64 v. 46 per 1000 patient-weeks, $p < 0.05$). At both institutions, 36% of the patients showed anthropometric and biochemical evidence of protein-calorie undernutrition; 28% at the acute care hospital and 27% at the long-term care hospital had low serum iron and low transferrin saturation, compatible with iron deficiency. The longitudinal study showed that there were more consultations (61 v. 37 per 1000 patient-weeks, $p < 0.02$) and fewer pressure ulcers (18 v. 34 per 1000 patient-weeks, $p < 0.05$) at the acute care hospital than at the long-term care facility; other measures did not differ. The cost per patient-year was $7580 higher at the acute care hospital, attributable to the higher cost of drugs ($42), the greater use of laboratory tests ($189) and, primarily, the higher cost of nursing ($7349). For patients requiring 3.00 nursing hours/day, the acute care hospital provided more hours than the long-term care facility (3.59 v. 3.03 hours), with a higher percentage of hours from professional nurses rather than auxiliary nurses or nursing aides (62% v. 28%). The nurse staffing pattern at the acute care hospital was characteristic of university-affiliated acute care hospitals.

Interpretation: The long-term care provided in the acute care hospital involved a more interventionist medical approach and greater use of professional nurses (at a significantly higher cost) but without any overall difference in the quality of care.

Résumé

Contexte : Les hôpitaux de soins actifs du Québec doivent réserver 10 % de leurs lits aux patients qui reçoivent des soins de longue durée et attendent un transfert à un établissement de soins de longue durée. On croit en général que cette mesure est

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inefficace parce que les soins de longue durée coûtent plus cher dans un hôpital de soins actifs que dans un établissement réservé aux soins de longue durée. Cette étude visait à comparer la qualité et le coût des soins de longue durée dans un hôpital de soins actifs à ceux d'un établissement de soins de longue durée.

Méthodes : On a procédé à une étude transversale simultanée portant sur 101 patients à l'hôpital de soins actifs et sur 102 patients à un établissement de soins de longue durée. Les deux groupes ont été jumelés de près selon l'âge, le sexe, les soins infirmiers requis et les principaux diagnostics. On a utilisé certains indicateurs pour évaluer la qualité des soins : le nombre des consultations de médecins spécialistes, des médicaments, des analyses biochimiques et des radiographies utilisés; le nombre d'événements indésirables (incidents à déclaration obligatoire, infections nosocomiales et plaies de pression); et les indicateurs anthropométriques et biochimiques de l'état nutritionnel. On a déterminé les coûts du personnel infirmier, des médicaments et des analyses biochimiques. On a procédé à une étude longitudinale sur 45 patients qui recevaient des soins de longue durée à l'établissement de soins actifs depuis au moins cinq mois et qui ont été ensuite transférés à l'établissement de soins de longue durée, où ils sont demeurés au moins six mois. Dans chaque cas, on a évalué le nombre d'événements indésirables, le nombre de consultations de médecins spécialistes et les changements des activités de la vie quotidienne aux deux établissements.

Résultats : Au cours de l'étude simultanée, on n'a observé aucune différence quant au nombre d'événements indésirables, mais les patients à l'hôpital de soins actifs ont reçu plus de médicaments (5,9 c. 4,7 pour chaque patient, $p < 0,01$) et ont subi plus d'examens (299 c. 79 unités de laboratoire/année pour chaque patient, $p < 0,001$) et d'examens radiographiques (64 c. 46 pour 1000 semaines–patients, $p < 0,05$). Aux deux établissements, 36 % des patients ont montré des signes anthropométriques et biochimiques de dénutrition protéique et calorique; 28 % des patients à l'hôpital de soins actifs et 27 % de ceux de l'établissement de soins de longue durée présentaient une faible saturation sérique en fer et en sidérophiline, compatible avec une carence en fer. L'étude longitudinale a montré qu'il y avait plus de consultations (61 c. 37, $p < 0,02$) et moins de plaies de pression (18 c. 34, $p < 0,05$) à l'hôpital de soins actifs qu'à l'établissement de soins de longue durée. Il n'y avait pas de différence entre les autres éléments de mesure. L'année-patient coûtait 7580 $ de plus à l'hôpital de soins actifs, ce qui est attribuable au coût plus élevé des médicaments (42 $), à la plus grande utilisation d'analyses de laboratoire (189 $) et surtout aux coûts plus élevés du personnel infirmier (7349 $). Dans le cas de patients qui avaient besoin de 3,00 heures de soins infirmiers/jour, l'hôpital de soins actifs a fourni plus d'heures que l'établissement de soins de longue durée (3,59 c. 3,03 heures), et un pourcentage plus élevé d'heures d'infirmières professionnelles que d'heures d'infirmières auxiliaires ou d'aides infirmières (62 % c. 28 %). Les tendances de la dotation en personnel infirmier à l'hôpital de soins actifs étaient caractéristiques des hôpitaux de soins actifs affiliés à une université.

Interprétation : Les soins de longue durée dispensés à l'hôpital de soins actifs comportaient une démarche médicale plus interventionniste et une plus grande utilisation des infirmières professionnelles (à un coût beaucoup plus élevé) sans toutefois entraîner de différence globale dans la qualité des soins.

Acute care hospitals in Quebec are required to devote 10% of their beds to patients requiring long-term care who are awaiting transfer to an appropriate long-term care institution. Frequently the number of such patients exceeds 10%, which reduces the number of beds available for patients requiring acute care. A common argument against this arrangement is that it is inefficient because it is more costly to provide long-term care in institutions devoted to acute care than in those devoted to long-term care. But why should this be? Long-term care patients in acute care hospitals have been treated for their acute illnesses and are in stable condition but require care for chronic illness at a level that cannot be provided at home. Each patient recommended for this

type of care is assessed by a long-term care team and, if deemed eligible, is moved to the long-term care unit while awaiting transfer to a long-term care institution. In Quebec the standardized process for evaluating such patients involves the completion of a "classification par type en milieux de soin et services prolongés" form (classification by types of program in extended care and service facilities; CTMSP). This form provides a detailed description of the patient's medical, functional and social support status, based on input from physicians, nurses and social workers familiar with the patient. It is submitted to the Ministry of Health and Social Services, where it is "scored" to estimate the nursing care required (hours per day); on the basis of the score and other pertinent information, the patient is assigned to a specific long-term care institution. In theory, patients in acute care hospitals awaiting transfer are in the same state as they will be after the transfer and therefore require and should receive the same level of care in both institutions. If the same level of care is provided, the cost of care should be the same, regardless of the setting. To obtain some insights into the relative costs of care, we compared the level of medical care, the quality of care and the direct costs of care received by long-term care patients in an acute care hospital and in a long-term care institution.

Methods

Hospitals

The acute care hospital selected for study is a 600-bed general hospital with some tertiary-level services. The long-term care service has 101 nonpsychiatric beds divided into 3 nursing units of 25–40 beds each. Patients are assigned to nursing units on the basis of bed availability. The long-term care institution selected for the study has 9 nursing units of approximately 35 beds each, for a total of 300 beds. To a degree, patients are assigned to nursing units on the basis of the amount of nursing care required and the principal diagnosis; consequently, there is a rough gradation of the nursing units from one where patients require minimal or custodial care to one where patients require intensive care and supervision. These institutions were chosen for our comparison in part because a significant number of patients in the acute care hospital are transferred to the long-term care facility for permanent placement; this allowed us to conduct both a concurrent and a longitudinal study.

Study design

Two complementary studies were carried out: a concurrent cross-sectional study, in which we compared different groups of patients over the same period, and a longitudinal study, in which we assessed one group of patients in the different settings at different times. This study was approved by the research ethics committee at each institution.

For the concurrent study, patients in the 2 institutions were compared during July 1996; the short study period minimized the effect of patient turnover. For this type of comparison, the features that may influence the variables of interest must be similar in the 2 groups. From a preliminary survey we determined that 3 of the nursing units at the long-term care facility had patients with mean CTMSP scores very similar to the mean score of the total long-term care population at the acute care hospital. Because the combined population of the 3 units at the long-term care facility (102 patients) and the population at the acute care hospital (101 patients) were also similar in terms of other important attributes (Table 1), they were therefore appropriate for the concurrent study.

For the longitudinal study, we identified 45 patients who were transferred from the acute care hospital to the long-term care facility between Apr. 1, 1993, and June 1, 1997, and who had spent 5 months or more at each institution, excluding the first month after transfer. Information on patient status was extracted from the medical records for equal periods of time immediately before the

Table 1: Characteristics of the patient populations in the concurrent study of long-term care provided in an acute care and a long-term care institution in Quebec

Characteristic	Acute care hospital *n = 101*	Long-term care hospital *n = 102*
Demographic characteristics		
Mean age (and SD), yr	85.4 (6.6)	84.9 (8.1)
Sex, % male	33	37
CTMSP rating of mean nursing hours/day (and SD)	3.00 (0.83)	2.99 (0.69)
Mean length of stay,* days (and SD)	201 (14)	938 (31)
Prevalence of major diagnoses, % of population		
Dementia (all forms)	59	53
Parkinson's disease	13	12
Cerebrovascular syndrome (e.g., stroke residua, TIA)	30	32
Other CNS disorder (e.g., mental disorders, degenerative diseases)	6	10
Cardiac disorder	43	37
Renal disorder	8	6
Diabetes	24	18
Musculoskeletal disorder	20	27
Neoplasm	7	13
Peripheral vascular disorder	6	8

Note: SD = standard deviation; CTMSP = classification by types of program in extended care and service facilities; TIA = transient ischemic attack, CNS = central nervous system.
*Length of stay in the long-term care unit before the concurrent study began. SD is based on a Poisson distribution (confirmed by a distribution plot).

transfer (at the acute care hospital) and beginning 1 month after the transfer (at the long-term care facility). The month immediately after transfer was excluded because for such patients a change in locale may be associated with a temporary deterioration in health status and function.[1,2] Five months was selected as the minimum stay to ensure a long enough period for comparison and a large enough group of patients.

For both studies, the intensity of medical care was evaluated by determining the numbers of medical specialist consultations, drugs used, and biochemical tests and radiographic examinations performed.

Despite the development of minimum data set requirements to provide information on patients in nursing homes[3] and general agreement on the relevant domains of care and the importance of outcomes rather than processes of care,[4] there are no established methods to measure quality of care. Because of a lack of understanding and definition of "good" care, studies on quality of care have focused on the avoidance of "bad" care.

We chose to assess the quality of care by measuring commonly accepted clinical indicators from the minimum data set requirements[5,6] for which data were available in the medical charts of patients at both hospitals. We used 4 specific clinical indicators plus nutritional status. We obtained from patient charts information about "reportable" events, such as the number of incident reports for falls or injuries and the number of medication errors. For nosocomial infections, a physician's written diagnosis or a diagnostic urine culture along with the prescription for an antibiotic were taken as evidence of urinary tract infection; a written report of physical findings and diagnosis or a diagnostic chest radiograph were taken as evidence of pneumonia. We recorded the frequency of pressure ulcers rated by the nursing staff on a 4-step scale of severity.[7] Deterioration in activities of daily living (ADL) was measured using a procedure modified from Rudman and colleagues:[5] a 1-step decrease in autonomy in any of the ADL categories was given a score of –1 and an increase a score of +1. These values were summed to provide a change-in-ADL score (see Appendix 1 for details on rating ADL status). To evaluate nutritional status, loss of soft tissue was determined by standard anthropometric measurements: triceps skin-fold thickness, mid-arm circumference, mid-arm muscle cross-sectional area and body mass index.[8]

The age- and sex-specific percentile distributions of Falciglia and others[9] for triceps skin-fold thickness, mid-arm circumference and mid-arm muscle cross-sectional area in elderly patients were used. Because a number of the patients were unable to stand erect, height (needed for calculation of body mass index) was estimated from leg length for all patients.[10] Laboratory markers of protein–calorie undernutrition[11–13] were serum albumin less than 35 g/L and pre-albumin less than 0.14 g/L,[11] cholesterol less than 4 mmol/L,[14] hemoglobin less than 120 g/L in men and less than 110 g/L in women,[15] total iron-binding capacity less than 45 μmol/L,[16] and total lymphocyte count less than 1.5×10^9/L.[11] Because there is no accepted comprehensive index of nutritional status, a simple scoring system was devised: for each patient, each anthropometric measurement in the fifth percentile of the normal age- and sex-specific range, a body mass index of less than 20 and each biochemical marker indicating protein–calorie undernutrition were given a rating of 1. These were summed to yield a score with a maximum of 10. A patient was considered to be undernourished if the score was 3 or higher. In addition, a serum iron level of less than 10 μmol/L combined with transferrin saturation of less than 16% was taken as evidence of iron deficiency.[17] All analyses were performed in the laboratories at the acute care hospital.

To determine the costs of care, we examined costs for nursing personnel, drugs and biochemical tests. The actual costs of nursing personnel are affected by the number of hours worked by each category of personnel employed, the seniority levels of the people employed during any given period and the number of hours paid but not worked (e.g., statutory social benefits, including vacation, and various forms of leave with pay, such as maternity leave and prolonged illness). Because seniority and hours paid but not worked are variable and uncontrollable, the actual costs of care do not provide a sound basis for comparison. Therefore, the number of hours worked and the mean hourly rate of pay for each category of personnel were used to estimate nursing costs. The numbers of hours worked per year (1995/96) were obtained from the personnel department at each institution. The hourly rates of pay for each category of staff were the same at the 2 institutions; the midpoint of the range for a given category of staff was taken as the mean hourly rate. The nurse staffing patterns of the 2 institutions were compared with those of similar metropolitan-area institutions by means of data from a recent survey of extended-care facilities[18] and with those of other university-affiliated acute care institutions by means of information provided in annual statistical reports.

Information on drug use and costs was provided by the pharmacy department of each institution for the following categories[19] of medications: antibiotics; anticoagulants; cardiac drugs; psychotherapeutic agents; anxiolytics, sedatives and hypnotics; and diuretics. The cost of laboratory tests was determined from the number of tests and the number of standardized laboratory units assigned to each type of test. For all statistical analyses, the 2-tailed *t*-test was used to compare means, the 2-tailed *z* distribution was used to compare counts and the χ^2 test was used to compare proportions.[20]

Results

Concurrent study

The patient populations were similar in terms of age, sex, nursing care requirements and major diagnoses (Table 1). There was no difference in the number of consultations, but the use of drugs, biochemical tests and radiographic examinations was greater at the acute care hospital (Table 2). There was no significant difference in the incidence rates of reportable events; the most frequent type of incident was that classified as a fall, at 36 and 38 per 1000 patient-weeks at the acute care and the long-term care institutions respectively (in the large majority of cases there was no associated injury). The incidence rates of nosocomial infections and the prevalence rates of pressure ulcers were similar at the 2 hospitals. At both institutions there were substantial numbers of patients with evidence of protein–calorie undernutrition and iron deficiency (Table 2); however there was no difference in patients' nutritional status between the 2 institutions. Loss of subcutaneous fat was widespread; 99% of patients at the acute care hospital and 96% at the long-term care facility had triceps skin thickness in the 50th percentile.

Table 2: Elements of care at the 2 institutions in the concurrent study

Element of care	Acute care hospital *n = 101*	Long-term care hospital *n = 102*
Medical practice		
Consultation requests per 1000 patient-weeks	78	68
*Medications per patient**		
Regular	5.9	4.7†
As required	4.1	3.5†
Use of biochemical tests‡		
Patients tested, %	78	47§
Standardized laboratory work units/bed, no./yr	299	79§
Radiographs, no. per 1000 patient-weeks	64	46
Adverse events		
Incidents reported, no. per 1000 patient-weeks	56	56
Nosocomial infections, no. per 1000 patient-weeks	27	24
Prevalence of pressure ulcers, % of patients	5.7	6.8
Nutritional status		
Prevalence of protein–calorie undernutrition, % of patients	36	36
Prevalence of iron deficiency, % of patients	28	27

*Regular medications were administered on a regular basis at prescribed intervals. As-required medications were administered at the discretion of the nurse, for specified indications.
†$p < 0.01$.
‡Extrapolated from data for a 2-month period.
§$p < 0.001$.

Longitudinal study

Because of the experimental design, the period of study was different for different patients, averaging 305 (standard deviation [SD] 94, range 157–474) days. The number of consultations was higher at the acute care hospital (61 v. 37 per 1000 patient-weeks, $p < 0.025$). The incidence rate of pressure ulcers was higher at the long-term care facility (18 v. 34 per 1000 patient-weeks, $p < 0.025$), but most ulcers at both institutions were of grade 1 severity (least severe). The number of reportable events (55 v. 62 per 1000 patient-weeks) and nosocomial infections (12 v. 15 per 1000 patient-weeks) and the net change in ADL scores (–7.7 v. –8.2) were not significantly different.

Costs

The hours worked by nursing personnel and the costs per bed are shown in Table 3. Because the cost of the mandatory social benefits package (18% of salary) must be added to the estimated annual difference in cost of $6228 per patient, the total annual difference was $7349 per patient or $742 253 for the 101 beds at the acute care hospital. In Table 4 the staffing patterns of the 2 institutions studied are compared with those of similar metropolitan-area institutions in Quebec. On average, acute care hospitals and long-term care hospitals provided the number of nursing care hours required according to the CTMSP score, whereas the acute care hospital under study provided about 20% more hours than required. At acute care university-affiliated hospitals, including the acute care hospital under study, professional nurses provided a greater proportion of the nursing hours than at acute care hospitals in general. The long-term care facility was similar to comparable institutions in its provision of nursing care.

For the drug categories selected, the combined annual cost per bed was $290 at the acute care hospital and $248 at the long-term care facility (antibiotics accounting for $111 and $83 respectively). For laboratory tests, the yearly costs per bed were $254 at the acute care hospital and $65 at the long-term care facility.

The total difference in costs for nursing personnel, drugs and biochemical tests per patient-year was $7580.

Interpretation

There is wide variability in the level of nursing care required by long-term care patients. Those with a CTMSP score of 2.5 or less are considered to require custodial care; those with higher scores, such as the 2 groups of pa-

tients compared in this study, have more severe degrees of illness or disability. Care for the more severely ill or disabled is organized on a "medical model"; consequently, in this study quality of care was compared on the basis of commonly used "medical" criteria, and the comparison does not reflect the psychosocial aspects of care. Patient satisfaction with care was not assessed for several reasons. First, there are a number of problems in measuring satisfaction,[21] as well as with the validity and meaning of the concept of satisfaction.[22] Second, there is general agreement that scales of satisfaction are insensitive — most studies show high levels of satisfaction regardless of the context.[23] Third, because of the high prevalence of cognitive deterioration and dementia, the information from many patients would be of questionable validity.

Overall, there was no consistent difference in quality of long-term care provided at the 2 institutions studied here. In the concurrent study the numbers of untoward events, nosocomial infections and pressure ulcers did not differ. Similarly, in the longitudinal study the numbers of nosocomial infections and of reportable incidents at the 2 hosptials did not differ significantly. However, the long-term care hosptial had a higher incident rate of pressure ulcers, a finding that may be related to the time period for which the data were collected: a program for prevention of pressure ulcers was instituted at the long-term care facility shortly before we began our concurrent study, but it was not in place during the period covered by the longitudinal study. The prevalence rates we found compare favourably with those reported in surveys of nursing homes.[7,24,25] The prevalence rates of protein–calorie undernutrition and iron deficiency were similar at the 2 institutions and were within the range of values reported by others.[26–30]

Our results show a greater use of medication and more medical specialist consultations, biochemical tests and radiographic examinations at the acute care hospital. In view of the similarities in the rates of infection, falls and deterioration in functional status, this may reflect a more "interventionist" approach on the part of physicians at the acute care hospital, rather than increased need.

In this study we concentrated on direct costs of care; we assumed that overhead costs such as heating, electricity, cleaning and nutritional services did not differ significantly among institutions. There were small differences in cost attributable to the diagnostic procedures and the greater use of medication at the acute care hospital, but the major difference was associated with the provision of nursing care. The CTMSP score is a measure of nursing workload and thus reflects diagnosis, comorbid conditions and other factors that affect medical and nursing requirements for the individual patient; in addition it is scored by a central body, independent of the hospitals. It was therefore taken as a valid basis for our interhospital comparison of nursing-hour needs. The long-term care facility provided the number of hours of care indicated by the CTMSP ratings, whereas the acute care hospital provided

Table 4: Provision of nursing care for long-term care patients in Quebec metropolitan areas

Type of institution	Daily patient care, h/patient		Time provided by professional nurses, % of total
	Required*	Provided	
Long-term care nursing units in acute care hospitals			
Mean for Quebec[18]	3.19	3.11	22
Institution in this study	3.01	3.59	62
University-affiliated hospitals†	2.89	3.22	43
Long-term care institutions			
Mean for Quebec[18]	2.25	2.15	22
Institution in this study‡	2.99	3.03	28

*As determined by CTMSP score.
†Source: annual statistical reports of university-affiliated acute care institutions.
‡Only for nursing units included in this study (see Methods).

Table 3: Costs of nursing care at the 2 institutions for fiscal year 1995/96

Category of worker	Care provided, h/bed			Mean cost/h, $	Difference in total cost/bed,† $
	Acute care hospital	Long-term care hospital	Difference*		
Unit head and assistant	31.1	41.9	–10.8	28.00	–302
Nurse BSc	181.7	46.3	135.4	22.10	2992
Nurse RN	607.8	196.3	411.5	19.28	7934
Nurse clinician	4.8	NA	4.8	23.20	111
Auxiliary nurse	90.4	192.3	–101.9	15.36	–1565
Nursing aide	396.3	653.0	–256.7	13.12	–3372
Clerk	43.3	24.3	19.0	14.37	273
Other	15.7	2.6	13.1	12.00‡	157
Total	1371.0	1157.0	214.0	NA	6228§

Note: NA = not applicable.
*Acute care hospital – long-term care hospital.
†Difference in care provided × mean cost/h.
‡Approximate mean value.
§If employee benefits (18% of salary) are included, the total difference is $7349.

approximately 20% more hours of care than indicated. As well, the proportion of hours of care provided by professional nurses was twice as great at the acute care hospital.

In a survey of long-term care facilities in Quebec,[18] it was found that acute care hospitals and long-term care institutions both provided the number of nursing hours required, and 22% of the hours of nursing care were provided by professional nurses. In contrast, professional nurses provided 43% of the hours of care in university-affiliated acute care hospitals. In view of the similarity of the outcomes of care at the institutions studied here, one might question what benefits are obtained from having a higher proportion of hours of care provided by professional nurses. Because of financial constraints experienced by hospitals in recent years, there has been a move to replace some nurses with nursing aides;[31] this change has been controversial,[32] but there has been little investigation of its effect on patient care. Our results suggest that for long-term care the ratio of nursing assistants to nurses can be as high as 3:1 or 4:1 without any effect on the quality of care.

In the acute care nursing units of university-affiliated hospitals, 72% (SD 6%) of nursing hours are provided by professional nurses (data from annual statistical reports). The high proportion of professional-nurse hours on the long-term care units, together with greater physician involvement at the acute care hospital, suggests that there is an inappropriate carryover of patterns of care from the acute care units to the long-term care units, an example of "overmedicalization."[33] This may be an important factor in jurisdictions where long-term care is more costly in acute care hospitals.

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Appendix 1: Criteria used to determine activities of daily living (ADL) status

Activity	Rating
Feeding	Independent Requires assistance Dependent (requires feeding)
Bowel function	Continent Incontinent
Bladder control	Continent Incontinent
Mobility (transfer and ambulation)	Independent Requires supervision Requires assistance Dependent (requires turning and positioning in bed)