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Time and Other Inputs for High Quality Social Care

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TIME AND OTHER INPUTS FOR HIGH QUALITY SOCIAL CARE

Catherine Henderson

King's Fund

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Background and context of literature review

This paper reports the results of a brief review of the literature on the time and other service inputs required to provide 'high quality' or 'best practice' social care to frail older people, with and without cognitive impairment. It uses this information to produce two tables. The first table (Table 1, *see* pp 13–16) provides descriptions of service users with various levels of physical dependency and cognitive impairment. The second table (Table 2, *see* pp 17–20) lists the corresponding number and duration of social care tasks that might be received in a typical day by people within each category.

Issues with measuring 'good quality social care'

There are a number of issues to bear in mind when measuring the quality of social care. The first is the question of how 'quality' is defined. In his 2002 book, Moullin lists several approaches to defining quality:

- **transcendent** – the degree of excellence or superiority
- **product-based** – dependent on aspects of product and usually one-dimensional
- **manufacturing-based** – conformance to specification
- **consumer-based** – meeting or exceeding the customer's requirements
- **value-based** – the trade-off between affordability and excellence, that is, the balance between cost and value to the consumer.

The second issue to consider is, who should be the judge of the quality of social care? The literature reports both caregivers' and professionals' perspectives on quality. When considering the different perspectives, it is important to note that those with dementia, their caregivers, and the professionals assessing them may have different perceptions of the functional levels of the user (Zank and Frank 2002) and the quality of home care (Larsson and Wilde Larsson 1998); similarly, older people with physical impairments may report higher functional levels and lower needs for assistance than the professionals who are assessing them (Morrow-Howell *et al* 2001). Any data collected on quality therefore varies according to the particular sample of respondents. These measurement issues may affect policy-makers' judgements on the amount of time that should be spent on social care.

The third issue to consider when measuring the quality of social care is that the amount of time taken to provide social care depends to some degree on geographical location. Where carers, whether formal or informal, have to travel greater distances to reach the person requiring assistance and carry out instrumental tasks such as shopping (Innes *et al* 2005), this may contribute to a poorer quality experience of formal care in terms of reliability and continuity (Netten *et al* 2004). The fourth issue to bear in mind is that those with the most intensive service use may report the least satisfaction with formal services (Netten *et al* 2004) and indeed may be seen as having more unmet needs by professional assessors (Morrow-Howell *et al* 2001).

Relationship of time inputs to quality of bed-based care

There is a whole body of literature exploring the relationship between quality and time spent on care tasks in nursing homes. Particularly important are the outputs of a US programme of research into the appropriateness of minimum nurse staffing ratios in nursing homes. There were two phases of research culminating in reports to the US Congress, the first in 2000 (Centers for Medicare and Medicaid Services 2000) and the second in 2001 (Centers for Medicare and Medicaid Services 2001). As part of the research, one of the teams created a model to establish the 'staffing levels necessary to achieve "good" nursing facility care' (Centers for Medicare and Medicaid Services 2000, p 3-1). For the first report, the researchers used the model to examine the staffing levels necessary to allow the implementation of five care processes:

- assisting incontinent residents who are able to toilet successfully with help
- changing wet linen for incontinent residents who are unable to toilet successfully, even with help
- helping physically dependent residents and those with a low food intake to eat
- providing (physical) exercises to all residents
- providing help that enhances the residents ability to dress and groom independently.

The second report describes a further stage of modelling, which aimed to extend and improve the estimates of minimum staff required to implement these five processes. The results of the model indicated that 2.8 to 3.2 nursing aide hours per resident per day would be required to consistently provide all the daily care processes; however, this time estimate also included tasks that were not directly related to individual residents (for example, note-writing and so on). A further study by the same research team found that nursing homes with the highest staffing levels provided better care, measured in terms of the implementation of 16 care process measures, than homes with lower staffing levels (Schnelle *et al* 2004).

Although this literature search was not focused on institutional care (and it would have been difficult to apply the findings of these reports directly to the amount of care provided to an individual living at home), the estimate produced by the Centers for Medicare and Medicaid Services is potentially very useful. It provides a guideline for aide/assistant time needed to provide quality personal care for those with relatively high physical dependency. By contrast, the author could find no papers that addressed the relationship between time inputs and the quality of community or home-based care quite so explicitly.

Methods of the literature review

When conducting the literature review, the initial question posed by the author was 'what amounts of time and other service inputs are required to provide "high quality" or "best practice" social care to frail older people, with or without cognitive impairment?' However, after further consultation with the commissioners of the paper, the author refocused the search primarily on community-based, in particular, home-based, social care.

Search strategy

Several lines of enquiry were pursued in order to identify research pertaining to the search question. These included searching electronic databases, checking reference lists of articles as they were retrieved, and carrying out internet searches (using Google as the search engine), which involved visiting the websites of UK research units that specialised in social and health services research.

Searches were conducted on the following databases: CINAHL database 1982–2005/6, Allied and Complementary Medicine (AMED) database 1985–2005, BNI 1994–April 2005, RCN journals database 1985–1996, PsycINFO 1972–2005 Part A, SIGLE 1980–2004, EconLit, PubMed, the LSE library catalogue, Health Management Information Consortium (HMIC) database and the PSSRU publications database.

Within this brief review it was not possible to examine and summarise the wider literature on quality in health care. To some extent, search terms relating to care time inputs and the quality of home care provision were based on the author's prior knowledge of the long-term care literature from the United Kingdom, Canada and the United States. The search terms used are listed by database in Annexe I (*see* pp 22–23). The literature review included only English-language references from the last 20 years. No formal quality-rating system was used to guide inclusion to or exclusion from the review. The review incorporated information from papers describing experimental and observational studies, papers reporting the results of qualitative approaches such as interviews and focus groups; as well as literature reviews. Given the difficulties inherent in defining what is 'high quality' social care, the author's strategy was to interpret the search question as broadly as possible.

The abstracts of papers generated during each search were briefly reviewed. Where the abstract appeared to be relevant to the search question, the full-text of the article was retrieved.

In the course of carrying out the search, the author scanned 204 abstracts and retrieved 68 papers, books, and reports. Twenty-eight documents proved to be of some relevance to the search question. Of these, the 18 that addressed the search question most directly were summarised in a table and then reported in more depth.

The quantitative literature sourced through the electronic searches tended to be found in journals and came mostly from the United States. When the US quantitative literature was considered in relation to the issue of quality, it was possible to organise the work into three categories: papers analysing the number of home care hours as reported by service users in terms of their reported unmet need (LaPlante *et al* 2004); papers considering the perceived adequacy or sufficiency of home care from the different perspectives of professional and user (Capitman *et al* 1997, Morrow-Howell *et al* 2001); and papers reporting on the development of instruments to measure perceptions of home care quality (Capitman *et al* 1997). In terms of Moullin's approaches to defining quality, most of the literature reviewed was concerned with 'consumer-based' or 'value-based' measures of quality, with many of the research papers focusing on user *satisfaction* with services. In addition, a number of papers examined the adequacy or sufficiency of care, and the degree to which needs for assistance were being met – all concepts that are related to quality.

The review did not focus on research from the United Kingdom that examines the amount of home care time provided without reference to quality, as this body of literature was well known to the Wanless team (for instance the ECCEP studies carried out in the 1990s (Bauld *et al* 2000)).

Evidence from the review

On the basis of the literature search, the author found that the body of literature relating to community-based care, quality and time-inputs appears to be limited. This section sets out the findings.

Home-based care and quality

First to be considered are those papers that relate formal and informal carers' time-use to home care quality. Several studies have investigated unmet needs for assistance with activities of daily living (ADLs) among disabled people who are resident in the community (Tennstedt *et al* 1994, Desai *et al* 2001, Lima and Allen 2001). With one exception (LaPlante *et al* 2004), these studies do not identify how many hours of particular services would need to be provided to meet such needs. The study by Laplante and colleagues analysed the data from the Disability Follow Back Survey, 1994 and 1995, to estimate perceived unmet need for personal assistance services in ADLs and instrumental ADLs (IADLs), as well as the associated shortfall in hours and adverse consequences resulting from lack of help. Overall, those needing help with two or more ADLs and reporting unmet needs received 56.2 hours of help per week and were estimated to need 16.6 extra hours of help per week. Within this category, those living alone and needing help with two or more ADLs had 24.1 hours per week with needs for an estimated 18.7 additional hours per week (confidence intervals (CI): 12.3–25.1); whereas those living with others and needing help with two or more ADLs received 66.1 hours but were estimated to need an additional 16.0 hours per week (CI: 7.7–24.4) – a relative shortfall of 19.5 per cent. The authors of the study remark that: 'People who live alone and have unmet needs fare worse than people with unmet needs who live with others, and both groups are more likely than those whose needs are met to experience adverse consequences, including discomfort, weigh loss, dehydration, falls, burns, and dissatisfaction with the help received.' (LaPlante *et al* 2004, p 598)

There have been a number of studies reporting the levels of community services received by those with dementia and the associated costs (Banerjee and Macdonald 1996, McNamee *et al* 2001, Kavanagh and Knapp 2002, Schneider *et al* 2002, Wolstenholme *et al* 2002, Robinson *et al* 2005) but these do not report on whether the intensity of the services and the hours received are adequate for quality care. A paper by Philp and colleagues (1995) relates tangentially to the provision of 'adequate' care, reporting service receipt by older people with dementia as reported by their caregivers, compared to a matched group of older people without dementia. As part of this study, the researchers asked caregivers how many hours of support a week they would like from three generic service types: personal care, help with housework, and relief from supervising the older person. The group of caregivers to those with dementia expressed a need for a median of 3 (inter-quartile range (IQR): 0–4) hours a week relief from supervising the person with dementia, whereas the comparison group expressed a need for a median of 0 hours (IQR: 0–0).

Likewise the dementia caregivers expressed a need for 3 hours of help weekly with practical housework (IQR: 0–7) versus 0 hours (IQR: 0–4) in the comparison group, and 0 hours (IQR: 0–3) help with personal care versus 0 hours (IQR: 0–0) in the comparison group. The caregivers to people with dementia had significantly greater expressed need than those in the comparison group for these three types of support service. Philp and colleagues note that while 34.3 per cent of the dementia caregivers group expressed a need for one hour or more of daily help with supervision, and 20.4 per cent expressed a need for the same level of assistance with housework, less than 1 per cent (1/108) requested this level of help for personal care. The paper also reports the number of contacts that caregivers and those they were caring for had with various services and the hours of service they received. In the dementia caregivers' group, the use of services such as 'sitting' and home help was significantly greater. Approximately 13 per cent of dementia caregivers had had contact with a sitter service in the last month, receiving a mean of 6.7 hours of service in the last month (the paper did not report the median). Considering the number of sitter hours and the expressed need for a median of three more hours of this service per week could give a rough measure of the number of hours per week required for an adequate supervision service.

A potential strategy for estimating quality time use for formal care would be to use a measure of informal carer time as a proxy measure. This measure would be predicated on the assumption that an informal carers' time allocation to these activities necessarily indicates good quality care. A paper by Bartholomeyczik and Hunstein (2004) focuses on the time spent on assistance with specific personal care tasks by informal carers, using a time-motion methodology. The authors note that the assumption made by the devisors of the German Long-term Care Insurance programme – that informal carers will take much longer in carrying out such tasks than nurses would – does not generally hold (with the exception of feeding). On average the informal carers did not take any longer carrying out activities than the insurance guidelines for assessment's recommended time norms for specific tasks. However, the authors note that they had a low response rate, which limits the external validity of the study. They also note that the carers in the sample may have had more experience and skill and taken less time than might normally be the case. The paper does not present information on the average age of the care recipients or their levels of disability.

Adequacy and sufficiency of home-based care

According to a paper by Proctor and colleagues (2000), the adequacy of home care is one factor determining whether hospital discharge for patients with congestive heart failure will be successful in preventing readmission (other factors are self-rated health and medication compliance). In a related paper (Morrow-Howell *et al* 2001), the same authors examine the sufficiency of home care from the perspectives of both the care recipients and professionals, where sufficiency of care is measured as a rating from 1–4, where 1 is 'without help at most times' and 4 is 'always has enough help'. The authors conclude that: 'In general, recipients rate the amount of care as more sufficient than compared with how professionals rate it.' Analysis of the data showed no significant relationship between the care recipients' ratings and the number of home care hours provided. Among the (nursing) professionals, higher amounts of formal care were associated with lower sufficiency ratings. Only the characteristics of informal care were related to sufficiency of care irrespective of rater. Whether the care recipient lived with their carer and the health status

of the carer were important predictors of sufficiency ratings from both perspectives. Care recipients rated the sufficiency of care for ADLs and IADLs (medication management, shopping, bathing, housekeeping and money management) higher than the nurses assessing them. Nurses gave higher sufficiency ratings for transport support than did the recipients of care. The two groups' ratings of the sufficiency of help with grooming, dressing and meal preparation did not differ significantly.

User experiences, satisfaction and person-centred care

There is an extensive body of English-language qualitative literature on users' experiences of home care and their levels of satisfaction from the United States and Canada, Sweden and the United Kingdom. Most of the UK papers that were eventually located were not indexed by the majority of the bibliographic databases,[1] because they had been published in the form of reports rather than journal articles.

The UK literature on home care does address the issue of quality. These studies identify a number of factors that contribute to the quality of home care: the attitudes and training of staff; the responsiveness of care to the needs of recipients; and the reliability of the care. Although these studies judge quality in terms of the perceptions of users, carers and providers rather than objective outcomes, their findings are extremely consistent. Most of the studies included in the literature review were purely qualitative (Patmore 2001, Raynes and Joseph Rowntree Foundation 2001, Patmore 2004, Patmore 2005), but a couple employed mixed methods (Sinclair *et al* 2000, Curtice *et al* 2002) and one was quantitative (Netten *et al* 2004).

Through user focus groups, one relatively small-scale study (Henwood *et al* 1998) identified that quality home care service meant: staff reliability; continuity of care; staff's kindness and understanding; their cheerfulness or demeanour; their competence in specific tasks; their flexibility in responding to the needs or requirements of care recipients; and their knowledge and experience of the needs and wishes of the service user.

Research conducted by the Social Policy Research Unit at York University on person-centred home care, which was reported in two articles focusing on quality (Patmore 2001, 2004), gives the following examples of good quality-practice and poor-quality practice.

Good quality practice

- An independent sector home care manager described that although 45–60 minutes was allowed for a morning care visit, it was possible to accomplish the required tasks in 30–35 minutes, leaving 10–15 minutes for quality time to wash up or have a cup of tea or a chat.
- The researchers found that some providers would do pet care and extra cleaning, find plumbers/handymen for people and change light bulbs (although there were other providers that forbade this).

Poor quality practice

- In some local authorities, providers said the visit lengths commissioned were so short that no spare time could arise.

- Sometimes home care staff left visits before the allotted time was up, and this was sanctioned by the purchaser, since this showed that the visit length could be reduced.
- Care managers might purchase care time for activities such as leisure outings for younger adults with physical disabilities, learning disabilities or mental health problems or for children and families, but they would not do so for older people.
- The practice of making 6pm 'put-to-bed' calls.

In the final report of the study, the authors give a number of guidelines for promoting flexible person-centred care. These include providing visits of sufficient length to promote flexible care, and purchasers directly commissioning interventions that promote quality of life for customers, such as escorted outings and assisted walks to improve mobility (Patmore 2005).

Another study of home care (Sinclair 2000) produced similar findings. The authors identified a number of features that allowed home care services to give a quality service despite financial and bureaucratic constraints. These were:

- sufficient time to carry out tasks properly, and related to this, flexibility in carrying out requested tasks
- familiarity between carer and client (because the carer is a regular visitor and knows the client's routines) and, related to this, a smooth performance by the carer
- team-working, with carers setting up for the next visit and co-ordinating with each other
- carers working with informal carers and the client to distribute tasks so that the client's needs are met – sharing shopping with the client's friends/family, negotiating evening put-to-bed visits with the client's relatives.

Other types of activities identified as helpful were helping with finances, summoning doctors, helping clients to walk or get into the bath, accompanying clients to hospital and the doctor's surgery.

Raynes' and the Joseph Rowntree Foundation's (2001) interviews of service users in Manchester identified a number of factors that were important in promoting quality in home care services. These were: continuing the existing range of services, including the provision of personal care, domestic help and equipment for independence; allowing carers to do the tasks that older people want them to do, particularly, domestic tasks; providing information about services; ensuring continuity of services; ensuring the reliability and dependability of services; providing responsive services; providing training for carers; and increasing the quantity of services when needed. One quote stands out particularly: 'one man over the age of 80 was quite specific in saying that he wanted "a bathing service, three or four times a week at least".' However, as Twigg (2000) points out, some older people have not had frequent baths all their lives. She also makes the point that a bath is not the same as a shower and has different implications for time and quality, as a shower can feel rushed.

The Personal Social Services Research Unit at the University of Kent carried out a User Experience Survey extension study, with 20,592 home care recipient respondents. This led to the development of four measures of quality, based on questionnaire items from the extended study. The four indicators that best reflected service users' experiences were service quality, positive carer characteristics, negative carer characteristics and outcomes (such as being comfortable) (Netten *et al* 2004). Preparatory research for the project included a literature review and an exploratory study of service users and providers to

examine what aspects of quality of home care are of importance to older people (Netten and Francis 2004). In this paper, the authors succinctly summarise the literature reviewed by saying:

> *In the specific field of home-care quality, a variety of characteristics, or domains, that are most valued by those in receipt of domiciliary care have been identified by a number of observers. These include continuity of direct care staff so that service users and care workers can form trusting relationships (Edebalk* et al *1995), communication about changes in who is coming and when (Raynes* et al *2001), flexibility of the service in recognition of users' fluctuating needs (Henwood et al 1998), reliability (Qureshi* et al *1998), staff attitudes (Sinclair et al 2000, Qureshi and Henwood 2000) and skills or competence of care workers (Raynes* et al *2001).*
> (Netten and Francis 2004, p 292)

Their preparatory study confirmed the dimensions of home care quality identified in the literature cited above as being 'of key importance to older service users, particularly reliability, staff attitudes and continuity' (ibid, p 302).

A study of domiciliary support in Scotland by Curtice and colleagues (2002) found that service users' experiences fell into four scenarios:

- **'the perverse incentive'** – funding-led assessments and fragmented service delivery
- **'so far and no further'** – funding-led assessments within an integrated service system
- **'a lottery'** – needs-led assessment in a fragmented service system
- **'a person-centred service' scenario** – needs-led assessment supported by an integrated service system with shared goals.

The last scenario comprised such elements as: respect for the older person's preferences; consideration of quality of life within the assessment; the availability of independent advocacy; flexible services to meet specific needs; quality-driven care; information-sharing; and partnership with older people and families.

Care management was thus reported to be an important means of assuring person-centred, quality social care. The authors observe that care managers lacked the autonomy to manage budgets and therefore to manage care flexibly and to offer choices to service users and their carers. Sinclair and colleagues (2000) found that although care management might have the potential to improve the quality of care provision, this potential was not being realised. For example, although it might be hoped that care managers would flexibly purchase the most suitable service rather than assessing for need based on the services available like home care organisers, '[u]nfortunately this danger had not apparently disappeared with the introduction of care management. It was hard to imagine that the needs of old people fell so neatly into half hourly or hourly packages with which they were provided.' (Sinclair *et al* 2000, p 30)

Preferences for quality in home-based care for people with dementia

There were only a few papers that even peripherally related this topic to time requirements; these were relatively small-scale qualitative studies focusing on users' and carers' experiences in rural Scotland (Innes *et al* 2005) and north London (Aggarwal *et al*

2003) and on the perspectives of home care users with dementia on quality of care compared to that of their carers (Larsson and Wilde Larsson 1998). A study exploring community care outcomes of importance using focus groups of people with dementia and their caregivers found that a 'key outcome for people with dementia was maximising a sense of autonomy' (Bamford and Bruce 2000).

Summary

The literature located during the search on the amount of time and other inputs associated with good quality social care was found to be limited. Given the time limitations of the search, it is possible that a more extensive search, particularly of as yet unpublished research, might have located some further information.

More literature was found on establishing the characteristics of good-quality social care using qualitative methods, with time being one of several contributing factors.

One possible means of deriving the necessary information might have been to use LaPlante's methodology (LaPlante 2004) for estimating the hours needed to meet all needs associated with activities of daily living on a UK survey dataset if one could be located that contained all the variables required to construct this.

Inputs for 'quality' home-based social care

Following the literature review, two tables were constructed. The first (Table 1, *see* pp 13–16) describes 24 different scenarios that are intended to reflect the progression of ADL loss among older people with physical disability and/or cognitive impairment at increasing degrees of severity, whereby the first ADLs to be lost are dressing and personal hygiene, and the last ADLs to be lost are bed mobility and eating (Morris *et al* 1999).

The second table (Table 2, *see* pp 17–20) suggests the appropriate amount of quality home-based care for each of the 24 scenarios given in Table 1. It is based on information from three sources: the literature review above; literature relating resource use to behavioural problems of service users; and the professional experience of the author.[2]

The scenarios in Tables 1 and 2 are organised in terms of the degree of physical dependency and cognitive impairment. They are grouped according to six categories of dependency and four categories of cognitive impairment. The six categories of dependency reflect:

- a need for help in five or more PADLs including all transfers (the inability to transfer represents a breakpoint in the range of care required, substantially increasing the time required to provide care and possibly the number of carers needed)
- a need for help in five or more ADLs, not including chair, bed and toilet or commode transfers
- a need for help in two to four ADLs, not including chair, bed and toilet transfers
- a need for help in one PADL as well as bathing
- a need for help in one PADL or bathing
- no PADL dependency/help with IADLs only.

The four categories of cognitive impairment are:

- no cognitive impairment
- mild cognitive impairment
- severe cognitive impairment
- severe cognitive impairment with risk factors present.

The reason for distinguishing between severe cognitive impairment and severe cognitive impairment with risk factors present is that in the professional experience of the author, the presence or absence of behaviour-related risk factors is an important determinant of need for 24-hour supervision and therefore resource use.

The literature suggests that people with cognitive impairment are at greater risk of institutionalisation than those without cognitive impairment (Kavanagh and Knapp 1999), but there appears to be mixed evidence on the role played by behavioural problems and risk behaviours associated with cognitive impairment in increasing resource use within

community-dwelling populations. Some studies found that behavioural problems are significantly associated with an increase in the use of community services (Robinson *et al* 2005) and with an increase in health and social care costs (Kavanagh and Knapp 2002), while another found that the problems created for the carer by the behavioural problems of the person with dementia are a predictor of institutionalisation (Philp *et al* 1997). However, one longitudinal UK study found that measures of behavioural disturbances, such as aggression and wakefulness, had no impact on the independent associations between cognitive impairment, physical dependency and the hazard of being admitted to long-term care within their model (Wolstenholme *et al* 2002).

On the basis of these studies, the categories used in Tables 1 and 2 are intended to reflect a likely increase in the degree of care time needed to assist those with behavioural disorders associated with dementia. Aronson and colleagues (1992) describe dementia-related behaviours requiring 'high-touch care' as including: 'inability to follow directions; need for intermittent supervision; need for management of both predictable and unpredictable behaviors; and resistance to such routine procedures as bathing, dressing, grooming and eating' (p 33). The authors observe that: 'This resistance to care is labor intensive in that it may involve a multiplicity of failed attempts and new starts' (p 33). A column has therefore been inserted in Table 2 alongside the scenarios, indicating whether there is a need for 24-hour supervision.

Table 2 also reflects the fact that quality formal social care depends on the availability of a range of adjunctive services such as day centres, lunch clubs, equipment supply, shopping services, transport and benefits advice. However the list of social care inputs in the table is not exhaustive.

The time inputs associated with each scenario were based on a relatively limited evidence base because the literature review found few studies that directly explored the association between time inputs and 'quality' care. The author therefore made some basic assumptions about the likely frequency with which particular services would be required. For example, it was assumed that services, such as home care and day care, would probably be required more than once a week or daily, whereas others, such as laundry, shopping and transport, would only be required once a week. The maintenance of equipment, such as stair and through-floor lifts, hoists and electric wheelchairs, is not included as a scheduled service in Table 2 but should probably be routinely scheduled for once a year.

The breakdown of the help needs/dependency groups were based on professional experience and on a selection of the literature on the associations between resource use and needs and the attributes of service users (the selection was restricted due to the time limitations of the exercise). For this reason the author recommended that the table inputs be tested by an 'expert panel' to ensure that the assumptions were robust. Some limited testing of this type was undertaken in the time available by the Wanless team.

TABLE 1: DESCRIPTIONS OF THE DEPENDENCY NEEDS OF OLDER PEOPLE, BY COGNITIVE IMPAIRMENT AND LEVEL OF DEPENDENCY

Level of dependency	No cognitive impairment
	Description of condition
Scenario 1	
Highest dependency: chair-bound and dependent in transfers	Wheelchair user, unable to walk. Unable to transfer without assistance of one or two people. May need hoist. Requires equipment/specialist bath and hoist with assistance of one or two people to get into bath or, alternatively, level access to shower and shower chair. May experience bladder and bowel incontinence. May wear pads at night, at all times, or be catheterised. May need assistance with feeding. Unable to do shopping, housework, laundry (all IADLs).
Scenario 2	
High dependency: 5 PADLs, can walk <2m	Needs assistance to wash body/lower limbs, dress and undress. Uses mobility aid, such as a stick, frame or manual/power wheelchair, indoors at all times. Uses mobility aid and/or transfer equipment, such as rails, sliding board, bed leaver, to transfer self. Unable to transfer from low surfaces, such as sofas, low chairs or toilets, therefore requires high armchair, toilet raise and rails/commode. Requires help and equipment to get into bath or, alternatively, level access to shower and shower chair. Either sleeps on ground floor, uses through-floor lift or lives on one level. May experience bladder incontinence. Uses commode/urinal bottle at night or at all times or, alternatively, has a catheter. Unable to prepare meals. Unable to walk outside, must therefore be pushed in wheelchair or use power wheelchair or scooter. Unable to do shopping, housework, laundry (all IADLs).
Scenario 3	
High dependency: 2–4 PADLs, can walk <10m	Experiences difficulty with washing body/lower limbs at sink and dressing lower limbs. Uses mobility aid indoors at all times. Able to transfer independently onto and off beds/chairs/sofas/toilets that are of appropriate height or have grab-rails installed; transfers self with difficulty if surfaces are low. Requires help and equipment to get into bath. Either sleeps on ground floor, uses stairlift or lives on one level. May experience occasional bladder incontinence. Uses commode/urinal bottle at night. Has difficulty preparing meals. Unable to walk outside without considerable assistance, being pushed in wheelchair, or using power wheelchair or scooter. Unable to carry shopping or do most housework except washing up.
Scenario 4	
Moderate dependency: 1 PADL in addition to bathing, mobile indoors, limited outdoors	Experiences difficulty with washing body/lower limbs at sink. Requires help getting into bath. May have difficulty transporting food around kitchen or to other rooms. Uses mobility aid outdoors. Unable to carry shopping or do heavy housework.
Scenario 5	
Low dependency: 1 PADL or bathing	Experiences difficulty with washing lower body or back thoroughly, or with bathing generally. Has difficulty carrying shopping and doing heavy housework.
Scenario 6	
No dependency: no PADLs	Generally well, fit older person. Has some difficulty with carrying heavy shopping, doing heavy housework and gardening.

continued overleaf

TABLE 1 *continued*

Level of dependency	Mild cognitive impairment
	Description of condition
Scenario 7	
Highest dependency: chair-bound and dependent in transfers	Wheelchair user, unable to walk. Unable to transfer without assistance of one or two people. May need hoist. Requires equipment/specialist bath and hoist with assistance of one or two people to get into bath or, alternatively, level access to shower and shower chair. May experience bladder and bowel incontinence. May wear pads at night, at all times, or be catheterised. May need assistance with feeding. Unable to do shopping, housework, laundry (all IADLs). Has poor memory and difficulties managing affairs, for example, loses bills. May display hoarding behaviours, such as refusing to throw away papers. Sometimes forgets to take medications.
Scenario 8	
High dependency: 5 PADLs, can walk <2m	Needs assistance to wash body/lower limbs, dress and undress. Uses mobility aid, such as a stick, frame or manual/power wheelchair, indoors at all times. Uses mobility aid and/or transfer equipment, such as rails, sliding board, bed leaver, to transfer self. Unable to transfer from low surfaces, such as sofas, low chairs or toilets, therefore requires high armchair, toilet raise and rails/commode. Requires help and equipment to get into bath or, alternatively, level access to shower and shower chair. Either sleeps on ground floor, uses through-floor lift or lives on one level. May experience bladder incontinence. Uses commode/urinal bottle at night or at all times or, alternatively, has a catheter. Unable to prepare meals. Unable to walk outside, must therefore be pushed in wheelchair or use power wheelchair or scooter. Unable to do shopping, housework, laundry (all IADLs). Has poor memory and difficulties managing affairs, for example, loses bills. May display hoarding behaviours, such as refusing to throw away papers. Sometimes forgets to take medications.
Scenario 9	
High dependency: 2–4 PADLs, can walk <10m	Experiences difficulty with washing body/lower limbs at sink and dressing lower limbs. Uses mobility aid indoors at all times. Able to transfer independently onto and off beds/chairs/sofas/toilets that are of appropriate height or have grab-rails installed; transfers self with difficulty if surfaces are low. Requires help and equipment to get into bath. Either sleeps on ground floor, uses stairlift or lives on one level. May experience occasional bladder incontinence. Uses commode/urinal bottle at night. Has difficulty preparing meals. Unable to walk outside without considerable assistance, being pushed in wheelchair or using power wheelchair or scooter. Unable to carry shopping or do most housework except washing up. Has poor memory and difficulties managing affairs, for example, loses bills. May display hoarding behaviours, such as refusing to throw away papers. Sometimes forgets to take medications.
Scenario 10	
Moderate dependency: 1 PADL in addition to bathing, mobile indoors, limited outdoors	Experiences difficulty with washing body/lower limbs at sink. Requires help getting into bath. May have difficulty transporting food around kitchen or to other rooms. Uses mobility aid outdoors. Unable to carry shopping or do heavy housework. Has poor memory and difficulties managing affairs, for example, loses bills. May display hoarding behaviours, such as refusing to throw away papers.
Scenario 11	
Low dependency: 1 PADL or bathing	Experiences difficulty with washing lower body or back thoroughly, or with bathing generally. Has difficulty carrying shopping or doing heavy housework. Has poor memory and difficulties managing affairs, for example, loses bills. May display hoarding behaviours, such as refusing to throw away papers.
Scenario 12	
No dependency: no PADLs	Generally fit older person. Has some difficulty with carrying heavy shopping, doing heavy housework and gardening. Has poor memory and difficulties managing affairs, for example, loses bills. May display hoarding behaviours, such as refusing to throw away papers.

continued overleaf

TABLE 1 *continued*

Level of dependency	Severe cognitive impairment
	Description of condition
Scenario 13	
Highest dependency: chair-bound and dependent in transfers	Wheelchair user, unable to walk. Unable to transfer without assistance of one or two people. May need hoist. Requires equipment/specialist bath and hoist with assistance of one or two people to get into bath or, alternatively, level access to shower and shower chair. May experience bladder and bowel incontinence. May wear pads at night, at all times, or be catheterised. May need assistance with feeding. Unable to do shopping, housework, laundry (all IADLs). Has very poor memory and is unable to manage money. Displays hoarding behaviours, such as refusing to throw away papers and stockpiling food. Forgets to take medications.
Scenario 14	
High dependency: 5 PADLs, can walk <2m	Needs assistance to wash body/lower limbs, dress and undress. Needs prompting and encouragement to maintain personal hygiene. Unable to plan use of mobility aid indoors so at risk of falls or unsafe wheelchair use if unassisted. Unable to transfer from low surfaces, such as sofas, low chairs or toilets, therefore requires high armchair, toilet raise and rails/commode. Requires help and equipment to get into bath or, alternatively, level access to shower and shower chair. Either sleeps on ground floor, uses through-floor lift or lives on one level. May experience bladder incontinence. May wear pads at night, at all times, or be catheterised. Unable to prepare meals. May not eat unless prompted. Unable to walk outside, must therefore be pushed in wheelchair. Unable to do shopping, housework, laundry (all IADLs). Has very poor memory and is unable to manage money. Displays hoarding behaviours, such as refusing to throw away papers and stockpiling food. Forgets to take medications.
Scenario 15	
High dependency: 2–4 PADLs, can walk <10m	Experiences difficulty with washing body/lower limbs at sink and dressing lower limbs. Needs prompting and encouragement to maintain personal hygiene. Unable to plan use of mobility aid indoors so at risk of falls. Able to transfer independently onto and off beds/chairs/sofas/toilets that are of appropriate height or have grab-rails installed; transfers self with difficulty if surfaces are low. Requires help and equipment to get into bath. Either sleeps on ground floor, uses stairlift or lives on one level. May experience occasional bladder incontinence, particularly at night. Uses commode/urinal bottle at night or, alternatively, has a catheter. Unable to make meals or hot drinks safely but does not attempt these tasks unless prompted. May not eat unless prompted. Uses mobility aid outdoors. Does not go out unaccompanied. Unable to do shopping, laundry or most housework except washing up. Has very poor memory and is unable to manage money. Displays hoarding behaviours, such as refusing to throw away papers and stockpiling food. Forgets to take medications.
Scenario 16	
Moderate dependency: 1 PADL in addition to bathing, mobile indoors, limited outdoors	Experiences difficulty with washing body/lower limbs at sink. Needs prompting and encouragement to maintain personal hygiene. Requires help getting into bath. Unable to make meals or hot drinks safely but does not attempt these tasks unless prompted. May not eat unless prompted. Uses mobility aid outdoors. Does not go out unaccompanied. Requires assistance with shopping, laundry and housework. Has very poor memory and is unable to manage money. Displays hoarding behaviours, such as refusing to throw out papers and stockpiling food. Forgets to take medications.
Scenario 17	
Low dependency: 1 PADL or bathing	Experiences difficulty with washing lower body or back thoroughly, or with bathing generally. Needs prompting and encouragement to maintain personal hygiene. Unable to make meals or hot drinks safely but does not attempt these tasks unless prompted. May not eat unless prompted. Does not go out unaccompanied. Requires assistance with shopping, laundry and housework. Has very poor memory and is unable to manage money. Displays hoarding behaviours, such as refusing to throw away papers and stockpiling food.
Scenario 18	
No dependency: no PADLs	Needs prompting and encouragement to maintain personal hygiene. Unable to make meals or hot drinks safely but does not attempt these tasks unless prompted. May not eat unless prompted. Does not go out unaccompanied. Requires assistance with shopping, laundry and housework. Has very poor memory and is unable to manage money. Displays hoarding behaviours, such as refusing to throw away papers and stockpiling food.

continued overleaf

TABLE 1 *continued*

Level of dependency	Severe cognitive impairment: risk factors present
	Description of condition
Scenario 19	
Highest dependency: chair-bound and dependent in transfers	Wheelchair user, unable to walk. Unable to transfer without assistance of one or two people. May need hoist. Requires equipment/specialist bath and hoist with assistance of one or two people to get into bath or, alternatively, level access to shower and shower chair. May experience bladder and bowel incontinence. May wear pads at night, at all times, or be catheterised. May need assistance with feeding. Unable to do shopping, housework, laundry (all IADLs). Has very poor memory and is unable to manage money. Displays hoarding behaviours and agitated or aggressive behaviours, such as shouting or hitting out. Forgets to take medications.
Scenario 20	
High dependency: 5 PADLs, can walk <2m	Needs assistance to wash body/lower limbs, dress and undress. Needs prompting and encouragement to maintain personal hygiene. Unable to plan use of mobility aid indoors so at high risk of falls or unsafe wheelchair use if unassisted. Unable to transfer from low surfaces, such as sofas, low chairs or toilets, therefore requires high armchair, toilet raise and rails/commode. Requires help and equipment to get into bath or, alternatively, level access to shower and shower chair. Either sleeps on ground floor, uses through-floor lift or lives on one level. May experience bladder incontinence. May wear pads at night, at all times, or be catheterised. Unable to prepare meals or drinks. Will not eat unless prompted. Unable to walk outside, must therefore be pushed in wheelchair. Unable to do shopping, housework, laundry (all IADLs). Has very poor memory and is unable to manage money. Displays hoarding behaviours and agitated or aggressive behaviours, such as shouting or hitting out. Forgets to take medications.
Scenario 21	
High dependency: 2–4 PADLs, can walk <10m	Experiences difficulty with washing body/lower limbs at sink and dressing lower limbs. Needs prompting and encouragement to maintain personal hygiene. Unable to plan use of mobility aid indoors so at risk of falls. Able to transfer independently onto and off beds/chairs/sofas/toilets of appropriate height or with grab-rails installed; transfers self with difficulty if surfaces are low. Requires help and equipment to get into bath. Either sleeps on ground floor, uses stair-lift or lives on one level. May experience occasional bladder incontinence. Uses commode/urinal bottle or, alternatively, has a catheter. Unable to make meals or drinks safely but does not attempt these unless prompted. Will not eat unless prompted. Uses mobility aid outdoors. Unable to do shopping, laundry or most housework except washing up. Has very poor memory and is unable to manage money. Displays hoarding behaviours, wandering, and aggressive or agitated behaviours, such as shouting or hitting out. May be at risk of leaving gas stove on. Forgets to take medications.
Scenario 22	
Moderate dependency: 1 PADL in addition to bathing, mobile indoors, limited outdoors	Experiences difficulty with washing body/lower limbs at sink. Needs prompting and encouragement to maintain personal hygiene. Requires help getting into bath. Unable to make meals or hot drinks safely but does not attempt these tasks unless prompted. Won't eat unless prompted. Uses mobility aid outdoors. At high risk of outdoor falls. Requires assistance with shopping, laundry and most housework except washing up. Has very poor memory and is unable to manage money. Displays hoarding behaviours, wandering, and aggressive or agitated behaviours, such as shouting or hitting out. May be at risk of leaving gas stove on. Forgets to take medications.
Scenario 23	
Low dependency: 1 PADL or bathing	Experiences difficulty with washing lower body or back thoroughly or with bathing generally. Needs prompting and encouragement to maintain personal hygiene. Unable to make meals or hot drinks safely but does not attempt these tasks unless prompted. Will not eat unless prompted. At some risk of outdoor falls. Requires assistance with shopping, laundry and housework. Has very poor memory and is unable to manage money. Displays hoarding behaviours, wandering, and aggressive or agitated behaviours, such as shouting or hitting out. May be at risk of leaving gas stove on. Forgets to take medications.
Scenario 24	
No dependency: no PADLs	Needs prompting and encouragement to maintain personal hygiene. Unable to make meals or hot drinks safely, but does not attempt these unless prompted. Will not eat unless prompted. Requires assistance with shopping, laundry and housework. Has very poor memory and is unable to manage money. Displays hoarding behaviours, wandering, and aggressive or agitated behaviours, such as shouting or hitting out. May be at risk of leaving gas stove on.

TABLE 2: IDEAL SERVICE INPUTS BY COGNITIVE IMPAIRMENT AND LEVEL OF DEPENDENCY

Level of dependency	No cognitive impairment	
	Level of assistance required	**Social care time inputs**
Scenario 1		
Highest dependency: chair-bound and dependent in transfers	Access to 24-hour assistance.	**Morning** 1 hour 15 mins: Wash and dress person, encouraging them to assist with upper body/face if possible, then prepare breakfast and hot drink. Help person take medication if necessary. Reposition them. Change bed linen if soiled. If shower available, shower person, encouraging them to assist with upper body if possible. If person incontinent, shower them daily. **Lunch** 1 hour: Reposition person. Make lunch and, if necessary, assist with feeding or give person time to feed themselves with adapted cutlery. Make hot drink. Take person to toilet. Reposition them. **Dinner** 1 hour: Reposition person. Feed person meal, giving them time to feed themselves with adapted cutlery. Make hot drink. Take person to toilet. Reposition them. **Evening** 30 mins: Transfer person back into bed. **Night** 15 mins: Take person to toilet/change pads and reposition. 5 mins: Reposition person again later in night. **Bathing** 4 x week, 45 mins. **IADL** 1 x week: Informal carer does main shopping. 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour: Top-up shop plus pension collection or assist person to order from mainstream private-sector shopping delivery service and unpack shopping when delivered. 1 x week, 20 mins: Assist with finances.
Scenario 2		
High dependency: 5 PADLs, can walk <2m	Access to 24-hour assistance.	**Morning** 1 hour: Wash and dress lower body and encourage person to wash and dress upper body. Make hot drink and, if possible, set up breakfast preparation so that the person can make part of the meal. **Lunch** 1 hour: Make hot drink and, if possible, set up lunch preparation so that person can make part of meal. As an alternative, lunch out as part of the day's activities. **Dinner** 1 hour: Make hot drink and, if possible, set up dinner preparation so that person can make part of meal. **Evening** 15 mins: Assist person to undress. **Bathing** 4 x week, 45 mins. **IADL** 1 x week: Informal carer does main shopping. 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour: Top-up shop plus pension collection or assist person to order from mainstream private-sector shopping delivery service and unpack shopping when delivered.
Scenario 3		
High dependency: 2–4 PADLs, can walk <10m	Access to community alarm system.	**Morning** 1 hour: Encourage person to wash upper body at sink and dress upper body. Help person make breakfast and a drink. **Lunch** 1 hour: Make hot drink and, if possible, set up lunch preparation so that person can make part of meal. As an alternative, lunch out as part of the day's activities. **Dinner** 1 hour: Make hot drink and, if possible, set up dinner preparation so that person can make part of meal. **Bathing** 4 x week, 45 mins. **IADL** 1 x week: Informal carer does main shopping. 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour 15 mins: Top-up shop and pension collection combined with any additional laundry or shopping required, or accompany person (using wheelchair, scooter or car) to the shops and post office or bank. Alternatively, 1 x week, 1 hour: Assist person to order from mainstream private-sector shopping service and unpack shopping when delivered.
Scenario 4		
Moderate dependency: 1 PADL in addition to bathing, mobile indoors, limited outdoors	Access to community alarm system.	**Morning** 30 mins: Help person wash. **Bathing** 4 x week, 45 mins. **IADL** 1 x week, Informal carer does main shopping. 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour 15 mins: Top-up shop and pension collection combined with any additional laundry or shopping required, or accompany person (using wheelchair, scooter or car) to the shops and post office or bank. Alternatively, 1 x week, 1 hour: Assist person to order from mainstream private-sector shopping delivery service and unpack when delivered, or provide person with access to shopping-assistance service (for example, group transport to supermarket).
Scenario 5		
Low dependency: 1 PADL or bathing	Access to community alarm system.	**Bathing** 4 x week, 45 mins. **IADL** 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour 15 mins: Accompany person (walking or by car) to the shops and post office or bank. Alternatively, 1 x week, 1 hour: Assist person to order from mainstream private-sector shopping delivery service and unpack when delivered, or provide person with access to shopping-assistance service (for example, group transport to supermarket).
Scenario 6		
No dependency: no PADLs	Access to community alarm system.	**IADL** 1 x every 2 weeks, 2 hours: Help with gardening. 1 x every 2 weeks, 2 hours: Assistance with heavy housework. 1 x week: Provide person with access to shopping-assistance service (for example, group transport to supermarket) or accessible public or private transport to get to shops.

continued overleaf

TABLE 2 *continued*

Level of dependency	Mild cognitive impairment	
	Level of assistance required	**Social care time inputs**
Scenario 7		
Highest dependency: chair-bound and dependent in transfers	Access to 24-hour assistance.	**Morning** 1 hour 15 mins: Wash and dress person, encouraging them to assist with upper body/face if possible, then prepare breakfast and hot drink. Help person take medication if necessary. Reposition them. Change bed linen if soiled. If shower available, shower person, encouraging them to assist with upper body if possible. If person incontinent, shower them daily. **Lunch** 1 hour: Reposition person. Make lunch and if necessary assist with feeding or give person time to feed themselves with adapted cutlery. Make hot drink. Take person to toilet. Reposition them. **Dinner** 1 hour: Reposition person. Feed person meal, giving them time to feed themselves with adapted cutlery. Make hot drink. Take person to toilet. Reposition them. **Evening** 30 mins: Transfer person back into bed. **Night** 15 mins: Take person to toilet/change pads and reposition. 5 mins: Reposition person again later in night. **Bathing** 4 x week, 45 mins. **IADL** 1 x week: Informal carer does main shopping. 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour: Top-up shop plus pension collection or assist person to order from mainstream private-sector shopping delivery service and unpack shopping when delivered. 1 x week, 20 mins: Assist with finances.
Scenario 8		
High dependency: 5 PADLs, can walk <2m	Access to 24-hour assistance.	**Morning** 1 hour: Wash and dress lower body and encourage person to wash and dress upper body. Make hot drink and, if possible, set up breakfast preparation so that the person can make part of the meal. **Lunch** 1 hour: Make hot drink and, if possible, set up lunch preparation so that person can make part of meal. As an alternative, lunch out as part of the day's activities. **Dinner** 1 hour: Make hot drink and, if possible, set up dinner preparation so that person can make part of meal. **Evening** 15 mins: Assist person to undress. **Bathing** 4 x week, 45 mins. **IADL** 1 x week: Informal carer does main shopping. 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour: Top-up shop plus pension collection or assist person to order from mainstream private-sector shopping delivery service and unpack shopping when delivered. 1 x week, 20 mins: Assist with finances.
Scenario 9		
High dependency: 2–4 PADLs, can walk <10m	Access to community alarm system. Might benefit from sheltered accommodation.	**Morning** 1 hour: Encourage person to wash upper body at sink and dress upper body. Help person make breakfast and a drink. **Lunch** 1 hour: Make hot drink and, if possible, set up lunch preparation so that person can make part of meal. As an alternative, lunch out as part of the day's activities. **Dinner** 1 hour: Make hot drink and, if possible, set up dinner preparation so that person can make part of meal. **Bathing** 4 x week, 45 mins. **IADL** 1 x week: Informal carer does main shopping. 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour 15 mins: Top-up shop and pension collection combined with any additional laundry or shopping required, or accompany person (using wheelchair, scooter or car) to the shops and post office or bank. Alternatively, 1 x week, 1 hour: Assist person to order from mainstream private-sector shopping service and unpack shopping when delivered. 1 x week, 20 mins: Assist with finances.
Scenario 10		
Moderate dependency: 1 PADL in addition to bathing	Access to community alarm system. Might benefit from sheltered accommodation.	**Morning** 30 mins: Help person wash. **Bathing** 4 x week, 45 mins. **IADL** 1 x week, Informal carer does main shopping. 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour 15 mins: Top-up shop and pension collection combined with any additional laundry or shopping required, or accompany person (using wheelchair, scooter or car) to the shops and post office or bank. Alternatively, 1 x week, 1 hour: Assist person to order from mainstream private-sector shopping delivery service and unpack when delivered, or provide person with access to shopping-assistance service (for example, group transport to supermarket). 1 x week, 20 mins: Assist with finances.
Scenario 11		
Low dependency: 1 PADL or bathing	Access to community alarm system. Might benefit from sheltered accommodation.	**Bathing** 4 x week, 45 mins. **IADL** 1 x week: Informal carer does main shopping. 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour 15 mins: Accompany person (walking or by car) to the shops and post office or bank. Alternatively, 1 x week, 1 hour: Assist person to order from mainstream private-sector shopping delivery service and unpack when delivered, or provide person with access to shopping-assistance service (for example, group transport to supermarket). 1 x week, 20 mins: Assist with finances.
Scenario 12		
No dependency: no PADLs	Access to community alarm system. Might benefit from sheltered accommodation.	**IADL** 1 x every 2 weeks, 2 hours: Help with gardening. 1 x every 2 weeks, 2 hours: Assistance with heavy housework. 1 x week: Provide person with access to shopping-assistance service (for example, group transport to supermarket) or accessible public or private transport to get to shops. 1 x week, 20 mins: Assist with finances.

continued overleaf

TABLE 2 *continued*

Level of dependency	Severe cognitive impairment	
	Level of assistance required	**Social care time inputs**
Scenario 13		
Highest dependency: chair-bound and dependent in transfers	24-hour care at home.	**Morning** 1 hour 30 mins: Wash and dress person, encouraging them to assist with upper body/face if possible, then prepare breakfast and hot drink. Help person take medication if necessary. Reposition them. Change bed linen if soiled. If shower available, shower person, encouraging them to assist with upper body if possible. If person incontinent, shower them daily. **Lunch** 1 hour 15 mins: Reposition person. Make lunch and, if necessary, assist with feeding or give person time to feed themselves with adapted cutlery. Encourage person to eat. Make hot drink. Take person to toilet. Reposition them. **Dinner** 1 hour: Reposition person. Feed person meal, giving them time to feed themselves with adapted cutlery and prompting them to eat. Make hot drink. Take person to toilet. Reposition them. **Evening** 30 mins: Transfer person back into bed. **Night** 15 mins: Take person to toilet/change pads and reposition. 5 mins: Reposition person again later in night. **Bathing** 4 x week, 45 mins. **IADL** 1 x week: Informal carer does main shopping. 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour: Top-up shop plus pension collection. 1 x week, 20 mins: Manage finances.
Scenario 14		
High dependency: 5 PADLs, can walk <2m	24-hour care at home.	**Morning** 1 hour 30 mins: Wash and dress lower body and encourage person to wash upper body at sink and dress upper body. Make hot drink and, if possible, set up breakfast preparation so that person can participate. Encourage person to eat. Prompt/assist person to use toilet. **Lunch** 1 hour: Make hot drink and, if possible, set up lunch preparation so that person can participate. Encourage person to eat. Prompt person to use toilet. As an alternative, lunch out as part of the day's activities. **Dinner** 1 hour: Make hot drink and, if possible, set up dinner preparation so that person can participate. Encourage person to eat. Prompt person to use toilet. **Evening** 30 mins: Prompt person to use toilet. Encourage person to go to bed, assisting them to undress and brush their teeth. **Bathing** 4 x week, 45 mins. **IADL** 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour: Main shopping. 1 x week, 1 hour: Top-up shop plus pension collection. 1 x week, 20 mins: Manage finances.
Scenario 15		
High dependency: 2–4 PADLs, can walk <10m	24-hour care at home.	**Morning** 1 hour 15 mins: Encourage person to wash upper body at sink and dress upper body. Make hot drink and, if possible, set up breakfast preparation so that person can participate. Encourage person to eat. Prompt person to use toilet. **Lunch** 1 hour: Make hot drink and, if possible, set up lunch preparation so that person can participate. Encourage person to eat. Prompt person to use toilet. As an alternative, lunch out at a day centre. **Dinner** 1 hour: Make hot drink and, if possible, set up dinner preparation so that person can participate. Encourage person to eat. Prompt person to use toilet. **Evening** 30 mins: Prompt person to use toilet. Encourage person to brush teeth and go to bed. If necessary assist them to undress. **Bathing** 4 x week, 45 mins. **IADL** 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour: Main shopping. 1 x week, 1 hour: Top-up shop plus pension collection. 1 x week, 20 mins: Manage finances.
Scenario 16		
Moderate dependency: 1 PADL in addition to bathing, mobile indoors, limited outdoors	Access to community alarm system.	**Morning** 1 hour: Encourage person to wash, assisting with washing lower limbs. Encourage person to dress. Make hot drink and, if possible, set up breakfast preparation so that person can participate. Encourage person to eat. **Lunch** 30 mins: Make hot drink and, if possible, set up lunch preparation so that person can participate. Encourage person to eat. As an alternative, lunch out at a day centre. **Dinner** 1 hour: Make hot drink and, if possible, set up dinner preparation so that person can participate. Encourage person to eat. **Evening** 30 mins: Encourage person to brush teeth and go to bed. If necessary assist them to undress. **Bathing** 4 x week, 45 mins. **IADL** 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour: Main shopping. 1 x week, 1 hour: Top-up shop plus pension collection. 1 x week, 20 mins: Manage finances.
Scenario 17		
Low dependency: 1 PADL or bathing	Access to community alarm system. Might benefit from sheltered accommodation.	**Morning** 1 hour: Encourage person to wash and dress. Make hot drink and, if possible, set up breakfast preparation so that person can participate. Encourage person to eat. **Lunch** 30 mins: Make hot drink and, if possible, set up lunch preparation so that person can participate. Encourage person to eat. As an alternative, lunch out at a day centre. **Dinner** 1 hour: Make hot drink and, if possible, set up dinner preparation so that person can participate. Encourage person to eat. **Evening** 30 mins: Encourage person to undress, brush teeth and go to bed. **Bathing** 4 x week, 45 mins. **IADL** 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Main shopping. 1 x week, 1 hour 15 mins: Top-up shop and pension collection combined with any additional laundry or shopping required, or accompany person (walking or by car) to the shops and post office or bank. 1 x week, 20 mins: Manage finances.
Scenario 18		
No dependency: no PADLs	Access to community alarm system. Might benefit from sheltered accommodation.	**Morning** 1 hour: Encourage person to wash and dress. Make hot drink and, if possible, set up breakfast preparation so that person can participate. Encourage person to eat. **Lunch** 30 mins: Make hot drink and, if possible, set up lunch preparation so that person can participate. Encourage person to eat. As an alternative, lunch out at a day centre **Dinner** 1 hour: Make hot drink and, if possible, set up dinner preparation so that person can make part of meal. Encourage person to eat. **Evening** 30 mins: Encourage person to undress, brush teeth and go to bed. **IADL** 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Main shopping. 1 x week, 1 hour 15 mins: Accompany person (walking or by car) to the shops and post office or bank. 1 x week, 20 mins: Manage finances.

continued overleaf

TABLE 2 *continued*

Level of dependency	Severe cognitive impairment: risk factors present	
	Level of assistance required	**Social care time inputs**
Scenario 19		
Highest dependency: chair-bound and dependent in transfers	24-hour care at home. If aggressive behaviours are present, two carers may be needed for personal care tasks.	**Morning** 1 hour 30 mins: Wash and dress person, encouraging them to assist with upper body/face if possible, then prepare breakfast and hot drink. Help person take medication if necessary. Reposition them. Change bed linen if soiled. If shower available, shower person, encouraging them to assist with upper body if possible. If person incontinent, shower them daily. **Lunch** 1 hour 15 mins: Reposition person. Make lunch and if necessary assist with feeding or give person time to feed themselves with adapted cutlery. Encourage person to eat. Make hot drink. Take person to toilet. Reposition them. **Dinner** 1 hour: Reposition person. Feed person meal, giving them time to feed themselves with adapted cutlery and prompting them to eat. Make hot drink. Take person to toilet. Reposition them. **Evening** 30 mins: Transfer person back into bed. **Night** 15 mins: Take person to toilet/change pads and reposition. 5 mins: Reposition person again later in night. **Bathing** 4 x week, 45 mins. **IADL** 1 x week: Informal carer does main shopping. 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour: Top-up shop plus pension collection. 1 x week, 20 mins: Manage finances.
Scenario 20		
High dependency: 5 PADLs, can walk <2m	24-hour care at home.	**Morning** 1 hour 30 mins: Wash and dress lower body and encourage person to wash upper body at sink and dress upper body. Make hot drink and breakfast. Encourage person to eat. Prompt/assist person to use toilet. **Lunch** 1 hour 10 mins: Make hot drink and lunch and encourage person to eat. Prompt/assist person to use toilet. **Dinner** 1 hour 10 mins: Make hot drink and dinner and encourage person to eat. Prompt/assist person to use toilet. **Evening** 40 mins: Prompt person to use toilet. Encourage person to go to bed, assisting them to undress and brush their teeth. **Bathing** 4 x week, 45 mins. **IADL** 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour: Main shopping. 1 x week, 1 hour: Top-up shop plus pension collection. 1 x week, 20 mins: Manage finances.
Scenario 21		
High dependency: 2–4 PADLs, can walk <10m	24-hour care at home.	**Morning** 1 hour 30 mins: Encourage person to wash upper body at sink and dress upper body. Make breakfast and drink. Encourage person to eat. Prompt person to use toilet. **Lunch** 1 hour 10 mins: Make hot drink and lunch. Encourage person to eat. Prompt/assist person to use toilet. As an alternative, lunch out at a day centre. **Dinner** 1 hour 10 mins: Make hot drink and dinner and encourage person to eat. Prompt person to use toilet. **Evening** 30 mins: Prompt person to use toilet. Encourage person to brush teeth and go to bed. Assist them to undress and get into bed. **Bathing** 4 x week, 45 mins. **IADL** 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour: Main shopping. 1 x week, 1 hour: Top-up shop plus pension collection. 1 x week, 20 mins: Manage finances.
Scenario 22		
Moderate dependency: 1 PADL in addition to bathing, mobile indoors, limited outdoors	24-hour care at home.	**Morning** 1 hour 15 mins: Encourage person to wash, assisting with washing lower limbs. Encourage person to dress. Make breakfast and hot drink. Encourage person to eat. **Lunch** 40 mins: Make hot drink and lunch. Encourage person to eat. As an alternative, lunch out at a day centre. **Dinner** 1 hour 10 mins: Make hot drink and dinner. Encourage person to eat. **Evening** 30 mins: Encourage person to brush teeth and go to bed. Assist them to undress and get into bed. **Bathing** 4 x week, 45 mins. **IADL** 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Cleaning. 1 x week, 1 hour: Main shopping. 1 x week, 1 hour: Top-up shop plus pension collection. 1 x week, 20 mins: Manage finances.
Scenario 23		
Low dependency: 1 PADL or bathing	24-hour care at home.	**Morning** 1 hour 15 mins: Encourage person to wash, assisting with washing lower limbs. Encourage person to dress. Make breakfast and hot drink. Encourage person to eat. **Lunch** 40 mins: Make hot drink and lunch. Encourage person to eat. As an alternative, lunch out at a day centre. **Dinner** 1 hour 10 mins: Make hot drink and dinner. Encourage person to eat. **Evening** 40 mins: Encourage person to undress, brush teeth and go to bed. **Bathing** 4 x week, 45 mins. **IADL** 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Main shopping. 1 x week, 1 hour: Top-up shop plus pension collection. 1 x week, 20 mins: Manage finances.
Scenario 24		
No dependency: no PADLs	24-hour care at home.	**Morning** 1 hour: Encourage person to wash and dress. Make hot drink and, if possible, set up breakfast preparation so that person can participate. Encourage person to eat. **Lunch** 40 mins: Make hot drink and, if possible, set up lunch preparation so that person can participate. Encourage person to eat. As an alternative, lunch out at a day centre. **Dinner** 1 hour 10 mins: Make hot drink and, if possible, set up dinner preparation so that person can make part of meal. Encourage person to eat. **Evening** 40 mins: Encourage person to undress, brush teeth and go to bed. **IADL** 1 x week, 1 hour: Laundry. 1 x week, 1 hour: Main shopping. 1 x week, 1 hour 15 mins: Accompany person (walking or by car) to the shops and post office or bank. 1 x week, 20 mins: Manage finances.

Notes

[1] CINAHL, ALLIED AND COMPLEMENTARY MEDICINE DATABASE, BNI, RCN journals database, PsycINFO Part A, Econlit or PubMed

[2] The author's professional experience was acquired through working as an occupational therapist in a variety of Health and Social Services settings in Ontario, Canada and in England between 1991 and 2001.

Annexe

Databases searched

CINAHL database 1982–2004, 2004–2005/06
ALLIED AND COMPLEMENTARY MEDICINE DATABASE 1985–2005/07
BNI 1994–May 2005
RCN journals database 1985–1996
PsycINFO 1972–2001 Part A
SIGLE 1980–2004
EconLit
PubMed
HMIC database
LSE catalogue

Search terms

The following search terms were used for the CINAHL database 1982–2004, 2004–2005/06, the ALLIED AND COMPLEMENTARY MEDICINE DATABASE 1985–2005/07, BNI 1994–May 2005, the RCN journals database 1985–1996, PsycINFO 1972–2001 Part A and SIGLE 1980–2004, and were also converted for use with EconLit:

1. personal care
2. activities of daily living
3. time*
4. (time use) or (time utilisation)
5. staffing
6. (home near care) or ((home aide) or (homemaker) or (domiciliary care) or (HOME-CARE))
7. quality
8. #7 and #6
9. recommend*
10. (activities of daily living) or (personal care)
11. #4 and #8
12. #9 and #6
13. #3 and #6
14. #10 and #13
15. #13 and #7
16. (ENOUGH) or (SUFFICIENCY) or (ADEQUACY)
17. #16 and #8

The following search terms were used for PubMed:

1. activities of daily living
2. time and motion studies
3. care*

4. caregiver*
5. time factors
6. quality
7. home next care
8. adequa*
9. #2 or #5
10. #3 or #4 or #7
11. #9 and #10
12. #11 and #1
13. #6 or #8
14. #12 and #13

The following search terms were used for the HMIC database:

1. home
2. care
3. quality

The following search terms were used for the LSE catalogue:

1. home care
2. social care
3. home
4. quality

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