

The value of specialist clinical assessment of older people prior to entry to care homes

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Abstract

Objective: to ascertain the value of employing a specialist clinician's contribution to the assessment of older people prior to care home entry.

Design: randomised controlled trial.

Method: 256 older people at risk of care home entry were randomly allocated to either a control group, who received the usual care management assessment, or to an experimental group who, in addition, received a clinical assessment by a geriatrician or old age psychiatrist. The value of the additional assessment was evaluated by an analysis of clinical recommendations, questionnaires eliciting the views of stakeholders and research interviews with older people and their carers at initial assessment and 6 months. Data on service use and costs over 6 months and on destination at 6 and 12 months were also collected.

Results: the clinical assessment uncovered covert morbidity previously unknown to care managers particularly in respect of cognitive impairment and was adjudged acceptable to the different stakeholders involved. Those receiving the clinical assessment experienced less deterioration in their physical functioning, had less contact with nursing homes and emergency services and their carers experienced reduced levels of distress. Overall, the costs of care for those receiving the assessment were no greater with NHS costs actually lower.

Conclusions: the potential benefits in involving specialist clinicians in the assessment process include identifying previously undiagnosed conditions and enhancing care managers' decision making. Such an assessment could be provided at a modest marginal cost. The approach is fully compatible with proposals for the role of the community geriatrician and commensurate with current good clinical practice in old age psychiatry.

Keywords: *assessment, residential homes, nursing homes, community care, elderly*

Introduction

Assessment is a pivotal component to ensuring effective care delivery and is particularly important when admission to a care home is being considered. Across the developed world, not dissimilar policies have been initiated to ensure that only those with the greatest need enter residential and nursing home care. These policies rely upon the introduction of improved assessment, enhanced home care and care management [1–3]. In the UK since the community care reforms of the 1990s [4, 5], the assessment of older people prior to publicly funded placement in homes has been the responsibility of the local social services departments. Care management has developed as a mechanism for assessing those at risk and planning the care needed, including services which might obviate the need for placement [6]. Subsequent to these reforms, studies have shown the limited criteria

used in such assessments [7] and the lack of health care expertise in the assessment process [8, 9]. At the field level, there has also been disagreement amongst professional disciplines as to the appropriate scope for assessment [10] leading to the duplication of assessments and variability in assessment practices. Currently reform is directed at the integration and standardisation of assessment approaches for vulnerable older people through a single assessment process [11].

Stronger multidisciplinary assessment and, in particular, the addition of a specialist clinical component to such assessments may confer significant benefits. Evidence from three sources provides a rationale for this. The first is a tradition of work in the United Kingdom which has examined the health status of older people at the point of admission to care homes, and identified potentially treatable health conditions which might obviate the need for placement

given the proper intervention [12–14]. There has also been a tradition on a local basis of engaging specialist staff in placement decisions [15]. However, such interventions have not been systematically evaluated and in particular, they were conducted before implementation of the community care reforms, which altered the process of placement. The second is the evidence drawn from international sources that systematic specialist geriatric assessment at critical care points can have a significant impact on functional status, well being and the likelihood of entry to nursing home care [16, 17]. The third is the Australian Aged Care Reforms dating from the 1980's which, faced with similar patterns of growth as the care home sector in the UK, sought to achieve similar outcomes to the community care reforms implemented in that country [4, 5]. A key difference in Australia was the decision to give more structure to the assessment process prior to entry of an older person to a care home by prescribing a specific role for Geriatric Assessment Teams [18]. At least in the major cities, around which most of the Australian population live, these teams provide a full multidisciplinary focus to the critical decision as to whether an older person requires the level of care offered in an institutional setting. An important, if perhaps unintended consequence of the Australian reforms was the much closer involvement of secondary care services, in particular geriatric medicine, with community care provision [19, 20]. It is noteworthy by comparison the extent to which secondary health care services for older people, such as geriatric medicine and old age psychiatry, in the UK are not formally and systematically engaged in the community care reforms.

The present study sought to evaluate the impact of specialist clinician assessment for older people at the point at which care home placement is being considered. The specialist assessment was integrated into the care management assessment process in order to aid decision-making as to the appropriate level of care needed. The study has implications both for current policy and the future role of specialist old age medicine.

Materials and methods

Setting and subjects

The study was conducted within two social services areas: the City of Manchester and in part of the Macclesfield borough of Cheshire (populations recorded as 404,861 and 151,590 respectively in the 1991 census, including comparable proportions, 21% and 22% of older people aged over 60 years). According to recent deprivation indices, Manchester was ranked 6th and Macclesfield was ranked 296th in the country on a multiple index of deprivation [21]. In both areas, teams of care managers arranged care for older people referred to the social services department. In both areas, an additional assessment of the service user by a district or community psychiatric nurse was deemed necessary before a care home or complex home care package could be approved. Both areas had access to the full range of health and social care services including hospital, day care and treatment services.

Participants were drawn from referrals to the social services teams for older people who were being assessed or

re-assessed for substantial levels of care, usually with active consideration for residential or nursing home placement. Referrals took place between July 1998 and November 2000. In Manchester during the year prior to the study, April 1997–March 1998, 869 older people were placed in nursing and residential homes on a long-term basis. Forty-five per cent of these were placed from the community. For the same period in east Cheshire, 179 older people were similarly placed in care homes on a long-term basis, with again a similar proportion originating in the community. These proportions would appear to be a little higher than national figures [22]. Subjects were excluded on the basis of agreed criteria to ensure that they could be legitimately viewed as clients of the social services teams, undergoing the statutory assessment and that they were considered as possible candidates for permanent care home placement (Appendix 1). The trial was approved by the local research ethics committees.

Methods

The study was a randomised controlled trial of the impact of the additional clinical assessment versus the usual assessment by care managers. Eligible subjects were referred to the research team and were randomised into either the experimental group, who received the clinical assessment or a control group, who received the usual care management assessment. All referrals were discussed with the care manager involved with each case who provided a copy of the relevant social services assessment documentation. All subjects were visited at home or other suitable establishment (such as a day centre) to establish consent. For those identified as receiving the clinical assessment, the research team made contact with a participating clinician of the speciality relevant to the older person's condition requested by the care manager, either a geriatrician or old age psychiatrist. Wherever possible, a clinician was selected within the older person's geographical area who would probably be responsible for any treatment required if continuing consultant care was identified. All clinicians conducting the assessments were specialists in geriatric medicine or old age psychiatry operating at consultant or specialist registrar level.

Each clinical assessment was undertaken as a domiciliary visit, following receipt of standard referral information supplied by the care manager with a special standardised reporting process to the social services department. The assessment intervention included assessment as to cognitive function, mood and activities of daily living using standardised scales [23–25] together with a brief physical examination and took about an hour to complete. The reporting procedure to care managers incorporated basic demographic information concerning the client and carer, a diagnosis of their condition and indication of prognosis in the short term (3 months) and longer term (1 year), an outline of the older person's care needs and recommendations including treatment options. A copy of each assessment was sent to the older person's general practitioner to ensure the appropriate flow of information to relevant health personnel. Where appropriate, the study clinicians were encouraged to liaise directly with the general practitioner.

The opinions of different stakeholders to the process were evaluated by means of a postal questionnaire sent to each of the three groups of professionals participating in the study: specialist clinicians, care managers and general practitioners. For care managers and general practitioners the questionnaire was specific to each older person who was assessed, enquiring about its specific utility whereas for the clinicians it provided an overview of the assessment model.

Subjects in both groups were interviewed by researchers at baseline assessment (T1) and 6 months (T2) using a range of outcome measures. These included cognitive function (Standardised Mini Mental State [23]), depression (Geriatric Depression Scale [24]), physical functioning (Barthel [25]), behaviour (CAPE Behaviour Rating Scale [26]), quality of care (Need Shortfall Rating [20, 27]), health and functioning (SF 36 – Short Form [28]), social networks (Lubben [29]), service satisfaction (CSQ-8 [30]) and quality of life (Life Experiences Checklist [31]). Informal carers of the older people were also identified and interviewed, whenever possible, at both periods. The measures administered to carers included a version of the Social Behaviour Assessment Schedule [32] modified for use with the carers of older people [20], the General Health Questionnaire (GHQ-12 [33]), and a relative satisfaction scale based upon the CSQ-8 [30].

Data on service use throughout the 6-month period was collected from the older people, carers and social services staff. From this information, costs were comprehensively measured according to a well-developed methodology [34, 35]. This included the costs of social services and NHS inputs and the ‘social’ costs incurred by carers and the older people themselves, in terms of personal consumption and housing costs. The destination of the older person, in terms of whether they remained at home, were admitted to residential or nursing care, entered hospital or died, was also collected at 6 and 12 months from referral. Details and dates of death were confirmed from death certificates.

Statistical analysis

The required number of cases was estimated using a power calculation based upon the assumption that 80% of cases would enter long-term care and that a clinical assessment could reduce this placement rate by 20%. Given this, a sample size of at least 244 would be required to provide an 80% chance of detecting an effect on placement rates. This figure was of course contingent upon the number of admissions and the degree of targeting taking place, both of which may vary according to budgetary influences [36].

At baseline, frequency data between the groups were compared using chi-square (corrected for continuity where appropriate) or Fisher’s exact test for small numbers of expected cases. Student’s *t*-test was used to compare interval data between the groups. A comparison of assessments and recommendations by care managers and specialist clinicians was made using McNemar’s test to compare paired, non-parametric, dichotomous variables. Changes in outcome over time were compared using analysis of variance, with comparisons being made between change scores (T2–T1) in each group. Numbers of service contacts were compared

using Student’s *t*-test to test for differences in mean service contacts between the groups. The various categories of costs incurred by both groups were compared using the Mann Whitney U-test for non-parametric data, as cost data were not normally distributed. A probability value of $P < 0.05$ was taken as statistically significant in each case.

Results

Subjects

Overall, 310 older people were referred to the study. Fifty four older people were excluded from the study at referral for the following reasons: refusal to take part (28; 52% of exclusions); undergoing hospital treatment at referral (13; 24%); dying before clinician assessment (5; 9%); already receiving specialist assessment from a clinician (6; 11%); self funding admission to a care home (1; 2%); and found to be financially responsible to an adjoining local authority (1; 2%). The study therefore consisted of 256 older people (average age 82 years, SD = 7.5) and of these 129 were recruited to the experimental group and 127 to the control group. Figure 1 outlines the design of the study with numbers recruited at each stage. There was no difference in demographic characteristics between those recruited and those not.

There were no differences between experimental and control groups in baseline characteristics, except that controls had larger social networks and a lesser degree of social disturbance (Table 1). Baseline scores on many of the standardised measures indicated a group broadly comparable to those entering care homes [22, 26, 37, 38].

Needs identified and clinical recommendations

The most prevalent problem identified by specialist clinicians in the assessments was cognitive impairment (50%), followed by depression (21%) and osteoarthritis (17%). Comparisons between social services assessment documentation and the clinicians’ assessments revealed a significant number of conditions previously unknown to the care managers involved, particularly in respect of cognitive impairment (Table 2).

Clinicians made some form of recommendation for each problem identified with the exception of three cases with problems of osteoarthritis and visual impairment (where only periodic review was felt necessary), fractured femur and hip (where social problems predominated) and personality disorder (where the patient was reluctant to engage in treatment). Overall, only 19 recommendations (15% of those receiving the clinical assessment) specifically advocated admission to a care home with most recommending some form of community care or active treatment. There were no differences in the type of recommendation by speciality. There was a significant relationship between recommendation as to placement and eventual admission to a care home. Seventy-three per cent of recommendations for whom residential or nursing home care was recommended were eventually placed in care homes at 6 months. At 12 months, 77% of those recommended for admission were eventually placed in residential or nursing home care (Table 2).

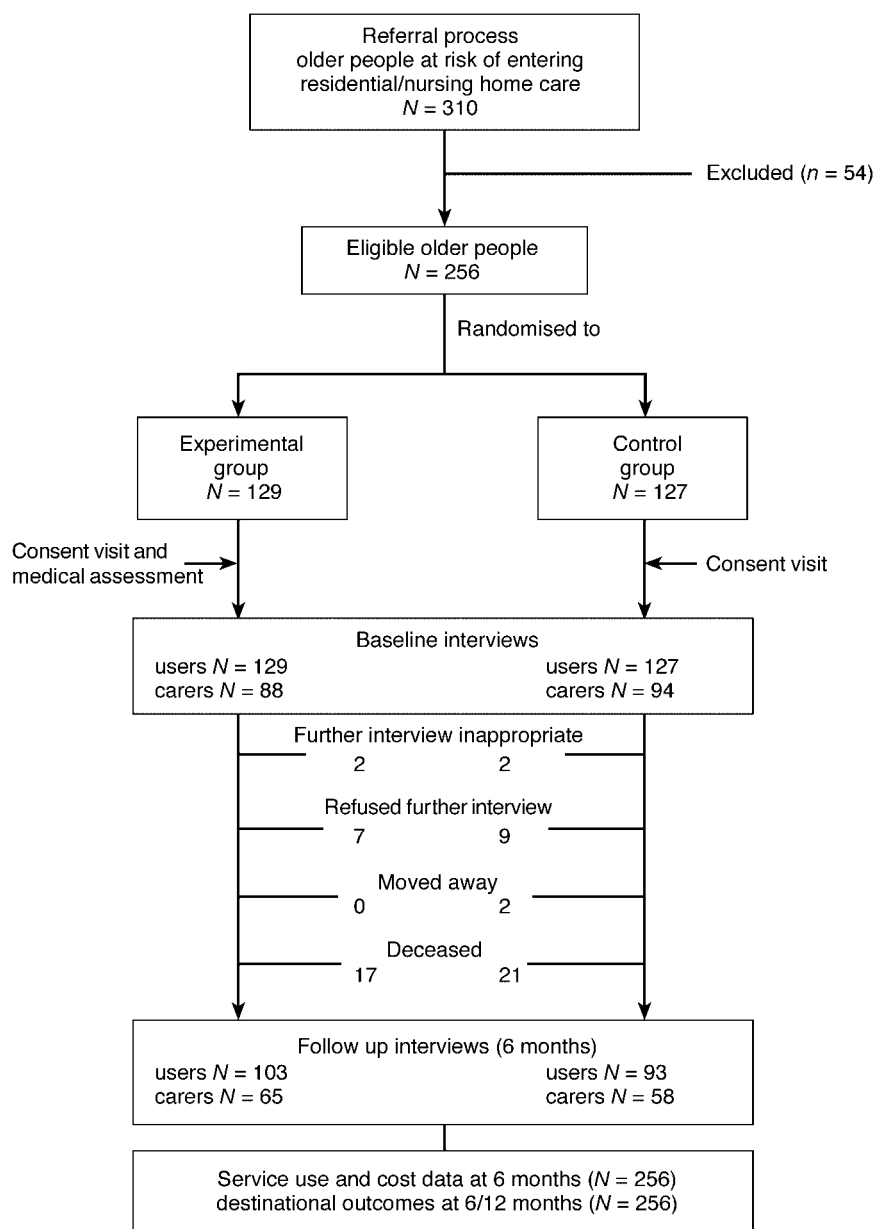


Figure 1. Study design.

Views of stakeholders

One hundred and twelve questionnaires were sent to care managers of which 89 were completed (response rate 80%). In a majority of cases (63%), care managers found the clinical assessment contained new information. It was useful in planning care so as to make additional referrals (61%), to enable the older person to remain at home longer (46%), to provide enhanced access to a care home where necessary (39%) and to support the decision to provide extra funding for enhanced community services or care home placement (28%). One-hundred and seven questionnaires were sent to general practitioners of which 63 were completed (response rate 59%). General practitioners stated that the assessment provided new information in 37% of cases and was valuable in 12% of cases. Nineteen questionnaires were sent to

participating specialist clinicians of which 14 were completed (response rate 74%). Overall, specialist clinicians saw the assessment as valuable with the majority (75%) not being surprised at the range of medical needs uncovered.

User and carer outcomes

Over the 6-month period, there were improvements for those older people receiving the specialist assessment (Table 3). A significant finding was the less marked deterioration in physical functioning amongst the experimental group. Carers of those receiving the specialist assessment experienced a significant reduction in distress associated with their supervision of the older person’s care needs. The frequency of two behaviours, aches and pains and indecisiveness, was also significantly reduced. Overall, distress

Table 1. Baseline characteristics

	Experimental	Control	<i>P</i> value ^a
<i>N</i>	129	127	
Demographics			
Mean age (SD)	82 (7.2)	82 (7.8)	NS
Women	96 (74%)	92 (72%)	NS
Married	18 (14%)	26 (20%)	NS
Living alone	78 (60%)	75 (59%)	NS
White ethnicity	127 (98%)	127 (100%)	NS
Mean years at address (SD)	16 (20)	16 (21)	NS
Mean Barthel Index (SD)	78.1 (16.6)	76.6 (15.2)	NS
Help needed bathing	101 (86%)	100 (81%)	NS
Help needed dressing	40 (34%)	58 (47%)	NS
Help needed toileting	19 (16%)	31 (25%)	NS
Help needed transferring	17 (14%)	28 (23%)	NS
Incontinent of urine	36 (28%)	31 (25%)	NS
Incontinent of faeces	21 (16%)	15 (12%)	NS
In bed during the day	35 (27%)	26 (21%)	NS
Problems with eyesight	13 (10%)	15 (12%)	NS
Problems with hearing	28 (27%)	22 (24%)	NS
Mean CAPE BRS total (SD)	10 (4.9)	9 (4.1)	NS
Mean CAPE BRS disability (SD)	4 (2.0)	3 (2.0)	NS
Mean CAPE BRS apathy (SD)	4 (2.3)	4 (2.1)	NS
Mean CAPE BRS communication (SD)	0.1 (0.5)	0.1 (0.5)	NS
Mean CAPE BRS social disturbance (SD)	1.5 (1.5)	1.2 (1.1)	0.01
Mean Lubben Social Network score	19 (8.4)	23 (8.2)	0.001
GDS depression case ^b	49 (39%)	42 (35%)	NS
MMSE cognitive impairment case ^c	84 (67%)	62 (54%)	NS

^aBased on chi-squared test for differences in frequencies or Student's *t*-test for differences in means.

^bThreshold for case definition GDS score >5.

^cThreshold for case definition MMSE score <24.

Table 2. Comparison of assessments and recommendations by care managers and specialist clinicians

Conditions identified in specialist assessments	Known to care manager at referral <i>N</i> (%)	Newly identified in clinical assessment <i>N</i> (%)	<i>P</i> value ^a
Cerebrovascular disease	11 (8)	4 (3)	NS
Osteoarthritis	21 (16)	11 (10)	NS
Osteoporosis	4 (3)	0 (0)	NS
Heart failure	11 (8)	3 (2)	NS
Infection	7 (5)	1 (8)	NS
Psychotic illness	3 (2)	4 (3)	NS
Incontinence	16 (12)	6 (5)	NS
Depression	17 (13)	18 (16)	NS
Cognitive impairment	48 (37)	29 (36)	0.02
Recommendations by clinicians			
	Placed at 6 months ^b <i>N</i> (% of recommendation)	Placed at 12 months ^b <i>N</i> (% of recommendation)	
Recommended for care home placement	16 (73)	17 (77)	
Recommended for enhanced community support	26 (33)	35 (44)	
Uncertain at present, recommend reassessment	10 (39)	15 (58)	
<i>P</i> value ^c	0.003	0.02	

^aBased on McNemar's binomial test for paired, non-parametric dichotomous variables.

^bIncludes those who died following admission.

^cBased on chi-squared test for differences in frequencies.

associated with the older people's problematic behaviour was reduced in the experimental group. Carer burden increased uniformly for both groups but carers in the experimental group experienced significantly more relief from social services in the context of no changes in their frequency of contact (Table 3).

There was no significant difference in the outcome in terms of placement of the older people at both 6 and 12 months from referral. Forty-two per cent of the assessment group and 47% of the control group were placed in care homes by 6 months (including those who subsequently died after admission). Overall, 143 (56%) older people were at

Table 3. Change in older peoples' and carers' well-being over 6 months

Measure	N	Experimental group		Control group		CI for difference		F	P value ^a
		Change (T2-T1)	Mean	SD	Change (T2-T1)	Mean	SD		
Older people^b									
Cognitive function (MMSE)	173	-0.48	4.07	-1.04	3.60	-0.34	-0.18	0.87	NS
Depression (GDS)	180	-0.84	3.38	-0.81	3.35	-1.32	-0.33	0.003	NS
Service satisfaction (CSQ-8)	149	-0.08	1.35	0.27	1.26	-0.12	0.31	2.58	NS
Lubben social network score	186	0.43	7.35	-1.91	8.72	-1.90	0.42	3.93	0.05
Level of pain (SF-36)	180	4.06	63.90	2.44	59.22	-5.85	12.4	0.03	NS
Perception of change in health (SF-36)	180	-0.33	1.35	-0.36	1.40	-0.55	-0.14	0.01	NS
CAPE BRS	194	0.14	5.00	1.11	4.37	-0.05	1.29	2.06	NS
Barthel Index	194	-2.52	13.11	-6.43	14.2	-6.41	-2.54	3.97	0.04
Quality of life (LEC)	187	-0.69	4.97	-0.94	5.11	-1.55	-0.09	0.11	NS
Quality of care – overall care shortfall (ADL)	187	-0.24	7.11	0.33	6.05	-0.91	1.00	0.35	NS
Carers^c									
Care tasks distress, supervision (SBAS)	57	-0.44	0.97	-0.13	0.82	-0.39	0.08	5.91	0.02
Problematic behaviour frequency (SBAS)									
Aches and pains	120	-0.22	0.74	0.20	1.24	0.19	0.17	5.07	0.03
Indecisiveness	120	-0.31	0.69	0.20	1.07	-0.22	0.10	9.86	0.002
Problematic behaviour distress total (SBAS)	84	-2.81	6.50	0.26	6.51	-2.69	0.14	4.68	0.03
General Health Questionnaire (GHQ 12)	110	0.38	20.45	1.54	23.0	-3.14	5.06	0.08	NS
Carer burden total (SBAS)	123	2.19	15.69	3.98	21.4	-0.24	6.41	0.29	NS
Carer distress total (SBAS)	54	-0.32	2.94	-1.62	2.26	-1.68	-0.26	3.37	NS
Frequency of social services support (SBAS)	122	1.05	1.92	0.51	2.15	0.41	1.14	2.13	NS
Relief associated with social services (SBAS)	78	0.44	0.94	-0.54	0.88	-0.26	0.15	22.2	<0.001
Satisfaction with services (CSQ-8)	118	-42.1	26.6	-38.7	21.45	-44.9	-36.0	0.57	NS

^aBased on F-test of differences in mean change scores.

^bA negative change score indicates a deterioration in functioning with the exception of depression (GDS), perception of change in health (SF-36), and CAPE BRS items where this indicates an improvement.

^cA negative change score indicates a reduction in distress or burden/relief or frequency of support.

home at 6 months with 118 (46%) remaining at home after 12 months. Fifty-three people had died by 12 months and the death rate was lower in the experimental group, although not significantly so ($\chi^2 = 0.98$; $P = 0.32$).

Service use and costs

The groups used a range of services as part of their care packages throughout the study period (Table 4). There were significantly fewer days spent in nursing home care and significantly fewer visits to Accident and Emergency amongst those in the experimental group. The comprehensive measurement of costs over 6 months revealed that, even after taking into account the additional cost of the clinician's assessment, total NHS costs were significantly lower for experimental group subjects. Total costs, including 'social cost' components, were also slightly (non-significantly) lower in the experimental group (Table 5).

Discussion

This study indicates the value of including a specialist clinical contribution into the assessment process for older people at risk of entry to care homes. This was acceptable to the specialist clinicians, general practitioners and care managers involved. The assessment was particularly valued by care managers who lacked access to this level of information and

who reported that it aided them in their care planning decisions. Overall, general practitioners did not appear to value the information as greatly as did care managers and it is certainly possible that the unmet and unknown needs of older people described in early studies still remain evident [39]. The findings indicate improved identification of medical conditions likely to influence the outcome of care. There was also a predictive relationship between the specialist assessment recommendations and eventual outcome. For older people, those receiving the assessment needed less nursing home care, had less contact with emergency services and experienced less decline in their physical functioning. Carers experienced reduced levels of distress in relation to the older people's care needs. Overall, the assessment proved no more costly to health or social services and in fact, NHS costs were lower. These broad findings, although significant and valuable, may understate the degree of gain attributable to the intervention. It is likely that these outcomes have a cumulative effect such that the overall benefit of the specialist clinician's assessment is greater than the sum of individual findings reported here. In particular, there is a need to discover whether it is possible to identify groups for whom the specialist assessment is most appropriate where the greatest health and social care gains could be achieved. This would involve the identification and treatment of hidden morbidity as well as reducing inappropriate care home admissions. These issues will be the focus of future analyses.

Table 4. Mean number of service contacts over 6 months^a

Service ^b	Experimental group		Control group		P value ^c
	N	Mean	N	Mean	
National Health Services					
General practitioner	68	3	67	3	NS
Home nursing ^d	49	11	42	23	NS
In patient care ^e	25	31	31	25	NS
Accident and emergency	9	1	8	5	0.02
Day hospital	2	3	4	3	NS
Hospital out patient	27	2	20	3	NS
Community therapists ^f	41	2	37	2	NS
Dentist/Optician	14	1	12	2	NS
Psychiatrist domiciliary visit	6	1	3	1	NS
Social services					
Residential care admission	55	121	54	127	NS
Nursing home admission	11	58	16	96	0.05
Respite care	18	46	15	27	NS
Day centre care	28	35	21	49	NS
Home care	53	139	58	126	NS
Shopping service/cleaning	41	24	36	28	NS
Care manager	118	21	106	21	NS
Meals on wheels	29	94	38	98	NS
Community occupational therapist	2	6	3	3	NS
Adult placement scheme	1	76	0	0	N/A
Sheltered housing warden	6	54	6	41	NS
Community support worker	0	0	1	26	N/A

^aService contacts expressed in units appropriate to each service e.g. for home care, number of hours; for medical or nursing, number of visits; for hospital admission, day care or residential care, number of days.

^bContacts for those actually in receipt of services i.e. zero values are omitted.

^cBased on Student's *t*-test for differences in means.

^dIncludes community nurse, community psychiatric nurse, practice nurse, health visitor and incontinence advisor.

^eIncludes general medical, general surgical, geriatric and psychiatry in patient days.

^fIncludes physiotherapist, occupational therapist, chiropodist, dietician and speech therapist.

Table 5. Costs per week alive (figures in £ at 2000/2001 prices)

Component	Experimental group		Control group		P value ^a
	Mean	Aggregate	Mean	Aggregate	
NHS costs					
General practitioner	2	260	3	335	NS
Acute hospital care	59	7666	70	8951	NS
Professional visits	6	738	8	1000	NS
Specialist clinical assessment	3	441	0	0	<0.001
Total NHS costs (including specialist assessment)	73	9461	83	10592	0.03
Social services costs					
Residential care admission	88	11357	90	11499	NS
Nursing home admission	15	1988	33	4226	NS
Respite care	12	1496	7	889	NS
Home care	26	3365	26	3298	NS
Day care	10	1347	11	1374	NS
Care manager	18	2347	16	2068	0.001
Total social services costs	175	22619	190	24138	NS
Social costs					
Personal consumption	56	7222	54	6925	NS
Housing costs	38	4856	35	4412	NS
Informal care	18	2165	9	724	NS
Total social costs	110	14243	95	12060	NS
Total costs (service costs and social costs)	359	46323	368	46789	NS

^aBased on Mann-Whitney U-test for ranked differences between groups.

Limitations

A possible source of bias could exist resulting from the differences in social disturbance and social networks at baseline. The higher degree of social disturbance in the experimental group may reflect the greater (although not significant) degree of cognitive impairment in this group (Table 1, $P=0.70$). This may have led to service and outcome differences independent of the effects of the specialist assessment. Similarly, the larger social networks of controls may have served a protective function with regard to the risk of admission to care homes [40], thus offsetting any gain attributable to the specialist assessment in the experimental group. However, both of these effects are inherently conservative as any bias is against the probability of finding positive effects in the study.

There may also be limitations arising from the study's apparent low power. However, in a pragmatic trial such a criticism would be inappropriate, since the overall level of admissions is set by budgetary considerations exogenous to the intervention, and the study was only designed to be in a position to influence admissions at the margin rather than at the aggregate level.

Implementation

There are a number of implementation issues to consider if the benefits indicated by the present study are to be enhanced and generalised across health and social care agencies. First, there are the factors which may inhibit collaboration and effective use of such a resource by social care staff, arising from differences in occupational culture and socialisation [41–44]. Second, there are the different patterns of demands on the time of specialist clinicians, in particular between time spent in hospital and community settings. These may make difficult the deployment of specific sessions to community based work without addressing both resource and contract issues. The possibilities of more integrated health and social care services in England, through such mechanisms as Care Trusts [45] may make this more feasible. Third, for this expensive resource, the specialist clinician assessment, to have impact upon admission rates to care homes is likely to require a more targeted approach based upon prior explication of key risk factors to identify the cases most appropriate for this intervention so that the costs of assessment do not outweigh the benefits [46].

The findings of this study are important both for current policy goals of ensuring older people's independence and more appropriate assessment and care planning [47] and for the future role of the community geriatrician [48]. The approach is also commensurate with good clinical practice in old age psychiatry, particularly its focus on multidisciplinary work [49]. A specialist clinical assessment at the point of entry to care homes is also important viewed as part of the current focus on rehabilitation [45, 50, 51]. The study is a practical demonstration of the use of a comprehensive assessment at a critical care transition in an older person's life, as now cited in current policy [11]. The present study also offers an important role for secondary care specialists in community and long term care, in a fashion analogous with changes in other countries [20].

Key points

- Since the community care reforms, there has been variability in assessment practices and a relative lack of specialist health care expertise in the assessment process.
 - Studies in the UK and elsewhere, and reforms in Australia, indicate that the addition of a specialist clinical contribution to assessments may confer significant benefits.
 - A specialist clinical assessment prior to care home placement led to benefits for older people and their carers, less contact with nursing homes and emergency services and cost savings.
 - Such specialist assessment is important in the context of current policy goals and the future role of specialist medical and psychiatric services in the community.
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Appendix I. Inclusion and exclusion criteria for participants in the study

Inclusion criteria

- Resident within the catchment areas of the social services elderly teams.
- Over the age of 60 years in Manchester and over 65 years in east Cheshire.
- Living at home in the community, either in their own home or that of a relative.
- Experiencing any physical or mental deterioration that leads the social services care manager to consider the older person for admission to a nursing or residential care home. This might include a recent unexplained history of falling, not eating, immobility, incontinence, symptoms of depression, social withdrawal, confusion or wandering.
- Actively discussed as a potential care home admission by the care manager with their team leader.

Exclusion criteria

- Self-funding entrants to a care home, not having been assessed by a care manager under the community care legislation.
 - Emergency admissions to a care home, in whose circumstance there would have been insufficient time to mobilise a research clinician if required. However, care managers were encouraged to make referrals of individuals who they considered to be of 'emergency' status, as this was a common social services' perception of an individual's situation.
 - Given the diagnosis of a terminal illness. This would not have permitted the collation of outcome data or have been appropriate for the type of medical assessment on offer.
 - Examined by a hospital based geriatrician or old age psychiatrist within the last 14 days, either at home or as part of a period of stay or attendance at hospital.
 - Having a medical condition which was being monitored by a specialist other than a geriatrician or old age psychiatrist and which was responsible for the deterioration in health.
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Vitamin B12 and folate deficiency in later life

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Abstract

Objectives: to examine the prevalence of vitamin B12 deficiency and folate deficiency in later life in representative samples of the elderly population in the United Kingdom.

Design: a population-based cross-sectional analysis of 3,511 people aged 65 years or older from three studies was used to estimate the age-specific prevalence of vitamin B12 deficiency and of folate deficiency. Vitamin B12 deficiency is