# Prioritizing ambulatory care sensitive hospital admissions in England for research and intervention: a Delphi exercise

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Aim: The aim of this study was to prioritize hospital admissions for ambulatory care sensitive conditions (ACSCs) and interventions for future research and implementation. Background: Initiatives aimed at reducing hospital admission need to be targeted at those patients who could avoid admission to hospital, either by prevention, earlier detection and treatment, or by the provision of alternative types of care. Admissions for ACSCs should ideally be prevented by care provided outside hospital. Methods: The study used a modified Delphi method to elicit the views of an expert panel. The Delphi process comprised two rounds and used a Web-based questionnaire. Participants were purposively sampled and comprised primary and community care clinicians, emergency clinicians and commissioning managers. Quantitative data were analysed to produce descriptive statistics. Qualitative data were analysed using content analysis. Findings: A total of 36 participants responded to both rounds of the Delphi survey. The condition given top priority was dementia, not currently a widely recognized ACSC or a national priority. The proportion of admissions that could be avoided by provision of care outside hospital was the most important factor in deciding which conditions to prioritize. Access to rapid response nursing and social care at home, intermediate care beds and mental health crisis teams were identified as key interventions to reduce admissions. Analysis of qualitative data showed several themes underlying clinical decisions to admit potentially avoidable admissions.

In conclusion, the conditions selected by the panel for prioritization showed some concordance with the National Health Services' priorities in this area; but the condition given top priority by the panel – dementia – is not currently a national priority. The panel showed a high degree of consensus around interventions that might lower the rate of avoidable admissions. The highest rated interventions involve the direct delivery of rapid access care in the community.

Key words: Delphi study; hospital admission; prevention; primary health care

Received 19 January 2009; accepted 24 July 2009; first published online 10 September 2009

## Introduction

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Admissions to hospital are an increasing source of pressure on health service resources in the UK and other countries (Roland *et al.*, 2005;

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Purdy et al., 2009). Unplanned admissions to hospital are those which are neither planned nor from a waiting list. They represented 36.7% of hospital admissions (4659054 emergency admissions) in England in 2005–06 (NHS Information Centre, 2008). There is a projected 42% rise in emergency admissions for ambulatory care conditions in the UK by 2028 (Dr Foster Intelligence, 2006).

Initiatives aimed at reducing hospital admission need to be targeted at those groups of patients who could avoid admission to hospital, either by prevention, earlier detection and treatment, or by the provision of alternative types of care. Admissions for primary or ambulatory care sensitive conditions (ACSCs) should ideally have been prevented by the provision of care outside hospital (Billings et al., 1993). Hospitalization for ACSCs, also called preventable hospitalization, has been examined extensively as an indicator of the accessibility and overall effectiveness of primary health care (Agency for Health Care Quality and Research, 2001; Laditka, 2006). The concept of ACSCs differs from that of inappropriate hospitalization, which may result from any condition that is not necessarily preventable or manageable in the community (Gertman and Restuccia, 1981). The original concept of ACSCs was derived in the USA; the concept has been adopted and adapted for use in other health care systems with differing demographics and levels of access to primary care (Sanderson and Dixon, 2000; Caminal et al., 2004; NHS Institute for Innovation and Improvement, 2006).

As of now, there are a number of schemes being implemented in the UK to develop services that prevent hospital admission, including the introduction of clinical guidance aimed at reducing ambulatory emergency admissions (NHS Institute for Innovation and Improvement, 2006; 2007). In the community setting, community matrons and specialized (Evercare) nurses have had mixed success (Murphy, 2004; Gravelle et al., 2007). Case-finding has been based on identifying patients with repeated emergency admissions as a marker of high risk of future admissions, but the utility of this approach has been questioned (Roland et al., 2005; Billings et al., 2006).

The Delphi method is an exercise in group communication, comprising the elicitation of consensus among experts who do not meet and remain anonymous throughout the process (Jones and Hunter, 1995). The method aims to develop

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consensus between experts over two or more rounds of deliberation, using questionnaires, on the assumption that combining the expertise of several individuals will provide more reliable results than consulting one or two individuals. The second round includes feedback of the group results from the first round, for further choices and comment by the expert panel. The use of a Delphi technique to assess face and content validity of a proposed set of ACSCs in Spain has previously been described (Caminal *et al.*, 2004).

The aims of this research were: (i) to establish which ACSCs should be prioritized for further research, and (ii) to determine what interventions could be used to reduce hospital admissions and prioritize these for future research and implementation.

#### Methods

We used a questionnaire-based two-stage modified Delphi method to elicit the views of a panel of expert participants, representative of primary care, commissioning and relevant emergency care clinicians.

The Delphi process was conducted in three primary care trusts (PCTs), one primary care research collaborative, two out-of-hours (OOH) cooperatives and two acute hospital National Health Service (NHS) trusts in England. Participants included general practitioner (GP) principals and non-principals, community matrons, out-of-hours and emergency clinicians, admitting hospital clinicians in accident and emergency and PCT commissioning staff. A purposive sampling strategy was used to ensure a representative sample of these groups. Estimates of the appropriate size of Delphi panels vary in the literature. This depends upon the nature of questions to be asked of the panel and the diversity of expertise or opinion likely to be expressed by panel members. Earlier research has shown that a panel of 20 experts provides a robust estimate in a Delphi exercise (Akins *et al.*, 2005).

Participants were invited to participate by email invitation. Potential respondents were identified by NHS trust accident and emergency (A&E) managers, PCT managers, Primary Care Research Collaborative and OOH GP cooperative administrators, who forwarded an email invitation on behalf of the study team. The Delphi process used a

Web-based questionnaire tool, which allows individual respondents to complete questionnaires Online through a unique login (Surveymonkey.com; http://www.surveymonkey.com). Reminders were sent at four weeks, using organizational contacts, to those participants who had not responded. Invitations to complete the second round of questionnaires were circulated by email; a reminder was sent at four weeks. Responses were anonymized and all data were handled in accordance with institutional data-protection guidance.

The purpose of the Delphi was to prioritize ACSCs and interventions that might prevent admissions for further research and evaluation. The content of the questionnaires was based on information from a literature review to identify conditions considered to be ACSCs, and analysis of hospital admissions in England using Hospital Episode Statistics (HES) to identify the most common ACSCs.

The review of the literature to identify ACSCs included searches of the Medline, Cinahl, Embase, AMED, Cochrane collaboration and DARE databases, using the terms ambulatory/primary care sensitive, ambulatory/primary care sensitive conditions, ambulatory/primary care sensitive hospital admissions as keywords. We searched the Internet using the same search terms. We also hand-searched the reference lists of all sources we identified, and contacted experts in the fields of both research and health policy and public health. The original search date was October 2006, with an updated search in November 2007 (Purdy et al., 2009).

All ACSCs identified in papers and sources found by the literature review were documented. Disease codes were recorded from these papers and sources where possible. Disease codes identified were either WHO International Classification of Diseases (ICD) codes or Healthcare Resource Groups (HRGs) v3.5 created by the Casemix service of the Department of Health in England (NHS Information Centre, 2007; World Health Organization, 2007). Disease codes were then standardized to ICD10 codes. This was achieved using manual conversion from ICD9 and the NHS Information Centre's Online HRG v3.5 Explorer for conversion from HRG codes (NHS Information Centre, 2007; New Zealand Health Information Service, 2008).

To identify admissions for ACSCs, we undertook a retrospective cross-sectional study using a subset of the Hospital Episode Statistics (HES) covering the South West of England Strategic Health Authority (NHS Information Centre, 2008). The HES dataset covers all admissions, in England, to NHS hospitals for a financial year. Duplicate records were removed based on matching of: HES ID number, date of admission, episode order, episode start date, episode end date and the primary diagnosis. Admission was defined as first episode for a general emergency admission not resulting from a transfer from another hospital trust. Admissions were identified as ACSCs based on the full set of ICD10 codes derived from the literature review. Counts of admissions were derived based on the ICD10 codes. Costs of admission were based on length of stay (number of bed days) and the NHS Tariff 2005–06 (Department of Health, 2006). All the ACSCs were then ranked according to the resource impact of the condition. The top 12 ACSCs, in terms of resource use in South West England, were included in the Delphi study questionnaire.

Interventions for ACSCs were identified by literature review and from national and local NHS policy and initiatives (Dr Foster Intelligence, 2006; NHS Institute for Innovation and Improvement, 2006, 2007).

Questionnaires were pre-piloted and then piloted in a sample of nine primary and secondary care clinicians and managers to assess clarity, content and face validity. The Delphi panel was asked to prioritize a proposed set of ACSCs for further research and implementation of interventions. The Delphi panel was also asked to identify primary care variables (eg, provision of chronic disease clinics or intermediate care beds) that may be associated with higher or lower rates of avoidable admissions for ACSCs.

The questionnaires were analysed using Microsoft Excel to provide statistical data, namely descriptive statistics, median and interquartile range (IQR). The quantitative data from the first round of questionnaires were analysed and the results (median and IQR) fed back in the second round. Free text comments were analysed by hand using a framework analysis (Pope et al., 2000). One investigator (SP) undertook this analysis, whereas two other investigators (CS and DS) read all the free text comments and commented on the analysis. Some first-round suggestions for interventions to reduce avoidable admissions were included in the second round. The original questions remained unchanged in both rounds.

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Permission for the study was granted by the local Southmead Research Ethics committee.

#### Results

# Response rate

There were 79 initial email responses to relevant healthcare professionals in the participating organizations. We estimate there were around 300 potential recipients of the emails. In all, 60 people provided contact details and indicated willingness to participate in both rounds of the Delphi. Three respondents did not provide a useable email address. Therefore, 57 invitations for the second round of the Delphi survey were sent. Two participants were unavailable, of whom one was on long-term leave and one was no longer available at the email address provided; therefore 55 people were available for both rounds of the Delphi. In all, 36 out of 55 responses were received (65.45% response rate).

# **Delphi panel respondents**

Table 1 shows the characteristics of the respondents. Participants responding 'other' to job roles comprised emergency care clinicians, community care managers and primary care clinicians.

## Views of the Delphi panel

Respondents were asked what proportion of admissions from a list of the most common and costly unplanned hospital admissions could be avoided by improving the quality and range of primary care services available (eg, by providing short-term 24-hour nursing care at home, home IV (intravenous) medication, or immediate access to diagnostic testing). The panel showed a high degree of consensus around the possibility of preventing admissions for the following conditions: dementia, chronic obstructive pulmonary disease (COPD), kidney and urinary tract infection, cellulitis, abscess and phlebitis, chest infection, pneumonia and influenza in adults and congestive heart failure (CHF) (Table 2). Responses to this question were very similar in round one and two, apart from CHF, which had a median score of 3 (IQR 2 to 3) in the first round and a median of 4 (IQR 3 to 4) in the second round.

The panel were also given information on the resource impact of admissions for the conditions

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Table 1 Characteristics of Delphi panel respondents

Job role <sup>a</sup>	n (%)
GP (in hours)	9 (24)
GP (in and out-of-hours)	6 (16)
Community matron	10 (26)
PCT/PBC commissioning	4 (11)
Consultant in emergency medicine	2 (5)
Other primary, community, emergency care and PCT roles	7 (18)
Total	36
Job experience Length of time in current role Number of half day sessions worked per week in current job role	Median (IQR) 4 (12) 8 (3)
Gender	n (%)
Male .	14 (39)
Female	22 (61)

GP, general practitioner; PCT, primary care trust; PBC, practice based commissioning; IQR, interquartile range. <sup>a</sup> One respondent described three job roles.

in South West England (number of admissions × average tariff cost for those admissions) and then asked to rank them as a priority for future research (Table 2). The top six ranked conditions were identical to the top six in the first question.

The panel was asked to rank the most important reasons for choosing the conditions to target for future research in unplanned admissions (Table 3).

The panel showed high rates of consensus around aspects of primary or community care that would most likely lead to lower rates of admissions. The highest ranked aspects were all related to improved access to alternatives to admission such as rapid response nursing and social care or intermediate care beds (Table 4). The top five rated interventions were consistent across both rounds.

# Qualitative data

Both rounds of the Delphi survey invited comments in free text. Several themes and subcategories emerged from the analysis of these data.

Increasing care at home and in the community

The concept of increased care or support in the community was raised by many participants. The majority of the comments advocated more support being available for patients in their own

Table 2 Admissions that could be avoided by improving primary care services and ranking conditions for future research with information on resource impact

Condition	Potential to be avoided		Prioritization for future research		
	Mediana	IQR	Resource impact (£)	Median <sup>b</sup>	IQR
Dementia	4.5	4 to 5	550k	5	4 to 5
Chronic obstructive pulmonary disease	4	3.75 to 4.25	410k	4	4 to 5
Kidney and urinary tract infection	4	4 to 5	367k	4	3 to 5
Cellulitis, abscess, phlebitis	4	4 to 5	268k	4	3 to 5
Chest infection, pneumonia and influenza in adults	4	3 to 4	768k	4	4 to 5
Congestive heart failure	4	3 to 4	469k	4	3 to 4.75
Neuroses and depression	4	3 to 5	134k	3	2 to 4
Gastroenteritis in under 5s	4	2 to 4.5	45k	2	1 to 4
Angina, not requiring a procedure	3	2 to 4	784k	4	3 to 5
Atrial fibrillation or flutter	3	2 to 4	244k	3	2.25 to 4
Schizophrenia	2	2 to 3	205k	3	2 to 4
Chest infection in children	2	1.25 to 3	82k	2	1 to 4

IQR, interquartile range.

Table 3 Most important reasons for choosing conditions to target for future research

Reason to prioritize conditions	Median <sup>a</sup>	IQR
Proportion of admissions that could be avoided by interventions outside hospital	1	1 to 1
Total numbers of admissions	3.5	2 to 4
Total secondary care costs of admissions	3.5	3 to 5
Costs of initiatives to avoid admission	4	3 to 5
Disease burden in the community	4	2 to 5
Current inequities in access to treatment in socio-economically deprived or minority groups	6	3 to 6
Conditions not currently the focus of local or national initiatives to reduce admissions	6	5 to 7

IQR, interquartile range.

homes and more consistent availability of alternatives to admission on a 24-hour basis. The importance of joint working and integration between health and social care was emphasized, as was quicker access to social care:

Home care support is really helpful at keeping people at home; when the Rapid response team leave we need somebody else to give ongoing support.

(GP in-hours, B19)

Negative views of more care being provided outside hospital included concern about extra work and clinical and medico-legal risk for GP practices and OOH GPs, sometimes with a less than optimal outcome for the patient.

Appropriate care

The type of care the patient requires may not be best delivered by an acute hospital. These sorts of admissions could be avoided by more rapid

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<sup>&</sup>lt;sup>a</sup> 1 – 'few admissions could be avoided' to 5 – 'most admissions could be avoided'.

<sup>&</sup>lt;sup>b</sup> 1 – 'do not prioritize for future research' to 5 – 'prioritize for future research'.

<sup>&</sup>lt;sup>a</sup> Most important reason ranked as 1 and the least important as 7.

Table 4 Aspects of primary care that would lead to lower rates of admissions

What factors will reduce admissions?	Median <sup>a</sup>	IQR
Access to rapid response nursing care at home	5	5 to 5
Access to rapid response social care at home	5	5 to 5
Access to intermediate care beds	5	4 to 5
Rapid access specialist clinics are available	5	4 to 5
Access to a mental health crisis team	5	4 to 5
Rapid access to nursing home beds in practice area for 'acute nursing home care'	5	4 to 5
Increased capacity in nursing homes for caring for acute illness among residents	5	4 to 5
Training of GPs in risk assessment and risk management	4	3 to 4
Practice run chronic disease clinics for the condition likely to cause admission	4	3 to 4.25
In hours GPs have access to 'same day' diagnostic tests with reporting (eg, bloods, radiology)	4	3.25 to 5
Patient is under the care of a community matron	4	3 to 5
Out-of-hours GPs have access to patient's GP medical records	4	3 to 5
Out-of-hours GPs have access to 'quick turnaround' diagnostic tests with reporting (eg, blood, radiology)	4	3 to 5
The patient is seen by an experienced GP	4	3 to 5
Practice is a GP training practice	3	2 to 3
Rapid access to help and support for patients with alcohol problems	3	3 to 4
Feedback on admission rates is provided to GPs	3 3	2 to 3.75
There is more than one GP partner in the practice	3	2 to 4
GPs seek a second opinion from a colleague before admitting a patient	3	2 to 4
The patient is seen 'out of hours'	1.5	1 to 2
The patient is seen by a female GP	1	1 to 2.5
The patient lives alone	1	1 to 2

IQR, interquartile range; GP, general practitioner.

access 'safe haven' beds or by more ready access to community geriatric services. The other area of appropriateness concerned the decision to actually admit the patient, which may be driven by the need to make an assessment or diagnosis rather than the need to alter the place of care. These admissions could be avoided by better access to community facilities and by service reorganization; for example:

Running a community hospital facility as a MAU [medical admissions unit] for all but life threatening conditions, hence all admissions to secondary care are triaged, and only occur if necessary.

(Emergency clinician, B17)

## Nursing homes

Comments about nursing homes focused on lack of easy access to beds:

At the moment bureaucratic processes between Intermediate Care and Social services are clumsy and unclear to people on the

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ground. The concept of an acute nursing home admission is extraordinary rather than commonplace.

(GP in-hours, A70)

Second, the management of patients in nursing homes, whose health has deteriorated, needs to be addressed, including care planning and the increased capacity to provide care to patients who become unwell.

## Decision-making by the referring clinician

The most frequent comments were about clinician decision-making related to management of risk. Some respondents emphasized the fact that most clinicians try and avoid admission if possible. Others suggested that management of risk is a very clinician-specific characteristic. The patient's presentation and therefore the level and type of risk associated, changes during the admission process.

It is important to consider the reason for hospital admission, and distinguish between

<sup>&</sup>lt;sup>a</sup> 1 – 'very unlikely to reduce admissions' to 5 – 'very likely to reduce admissions'.

patients admitted for investigation and those admitted for treatment of a known condition. There is a risk that once the diagnosis becomes known then an assumption is made that the patient didn't need to be admitted in the first place, but in fact this only becomes true once the diagnostic work-up is complete. (Emergency clinician, B26)

Two aspects of communication were highlighted: the first related to the lack of availability of information about patients to clinicians who see them without access to the GP medical records or a care plan.

Often out-of-hours GPs don't know the patients 'norm' and I feel admit on side of caution, for example, COPD sats (saturations) usually xx% when well but have had patients admitted because out-of-hours thought this was because they are ill and admitted when in fact they are always this level.

(Community Matron, A34)

Both OOH and in-hours GPs would also welcome access to diagnostic services with rapid reporting to inform their decision-making. Also highlighted was the lack of follow-up information OOH GPs receive on patients they have admitted.

## Patient factors

The patient's housing and physical environment and social situation have a significant bearing on the decision to admit, as do carer burden and the family situation. Patient understanding of their health and how to manage it, plus their understanding of how to use the health care system were highlighted as important issues. Patient education was suggested around use of GP and A&E services, plus making information available about when to attend services and who else to go to for advice.

Spending more time with patients to ensure good understanding of their disease process and importance of being compliant with medication. Helping the patient to help themselves, to recognise exacerbations and seeking help early on.

(Emergency clinician, A33)

The particular condition a patient is suffering from can affect the decision to admit. Several conditions were highlighted as being particularly difficult to manage, with high burdens of care and little support. Included in this group were palliative care, Parkinson's disease, mental health problems and substance misuse.

## Hospital factors

Hospital services could be improved to reduce avoidable admissions. One aspect of this was improved communication between primary and secondary care and between hospitals and community matrons. A second theme was around care pathways and improving coordination of care provided to patients. The third theme was around triage in A&E, with suggestions that GPs could be involved with this process.

I think if all self referrals to A&E could be triaged by experienced GP then many currently admitted could be managed in the community.

(GP in- and OOH, A69)

## **Discussion**

# **Summary of findings**

The panel showed a high degree of consensus in selecting admissions that are potentially avoidable. The prioritized groups of conditions were dementia, COPD, kidney and urinary tract infection, cellulitis, abscess and phlebitis, chest infection, pneumonia and influenza in adults and CHF. These are the same conditions that were prioritized for inclusion in future research on avoidable admissions. Admissions for mental health conditions and for children were given low priority for future research and were not identified as potentially avoidable.

The panel was unanimous in identifying the proportion of admissions that could be avoided by provision of care outside hospital as the most important factor in deciding which conditions to prioritize. This was followed by resource impact on the NHS in terms of admission numbers and cost of admission, and initiatives to avoid admission. Health care need, inequalities and lack of national initiatives in the disease were accorded much lower priority.

The panel showed complete consensus in prioritizing access to services such as rapid response nursing and social care at home as the

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initiatives most likely to reduce avoidable admission. Access to intermediate care beds, rapid access specialist clinics and access to mental health crisis teams were also identified as key interventions to reduce admissions, with a highlevel of consensus. Nursing homes were also seen as important in reducing avoidable admissions, with rapid access to nursing home beds in the practice area for 'acute nursing home care' and increased capacity in nursing homes for caring for acute illness among residents also showing high degrees of consensus.

Service organizational factors formed the next level of priority. Chronic disease clinics, care by a community matron, access to 'same day' diagnostic tests and OOH access to medical records were included in this group. There were also two GP factors in this group: the impact of training in assessing and managing risk and the experience of the GP. Other GP factors such as whether the practice is a training practice, the number of partners, second opinion from a colleague, and feedback on admission rates were rated around the middle of the scale, with little effect on avoidable admissions.

# Strengths and weaknesses of the study

Methodology

The validity of the Delphi method as a tool for gathering the views of a group of experts is not universally accepted (Jones and Hunter, 1995). We pre-piloted and piloted the questionnaire with a group of participants from very similar backgrounds to the main panel. The questionnaire content was based on previous research into unplanned hospital admissions and on a literature review. Questionnaire response formats followed a standard approach and were amended where appropriate after pre-piloting and piloting.

Referring and triaging clinicians and those who commission services to reduce admissions were invited to participate. The majority of respondents were GPs (17 out of 36). However, community matrons made up a substantial subgroup (11). The number of emergency-care staff was small (four); this is explained in part by the difficulty accessing emergency clinicians at one acute trust.

The advantages of the Delphi method include the opportunity to elicit the views of a panel of

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busy experts in an efficient manner, with minimal respondent burden. Unlike a focus group discussion, all participants have equal opportunity to express their views and particular personal or professional views do not dominate the discussion. Consensus methods such as the Delphi also lend themselves well in identifying and measuring uncertainty in health services research (Jones and Hunter, 1995).

## Comparison with other studies

We found only one other Delphi study in this topic area (Caminal et al., 2004). This study focused on the identification of admissions that are ambulatory care sensitive, that is, that ideally should have been prevented by the provision of care outside hospital. There is relatively little published work on the views of clinicians on avoidable admissions. Most studies are very quantitative in nature and have used routine sources of data (Reid et al., 1999; Saxena et al., 2006). However, certain initiatives such as practice-based diabetic clinics and other chronic disease clinics that have been demonstrated as being effective in reducing referrals for admission, were identified by the panel as important (O'Donnell, 2000; Saxena et al., 2006). We found no previous studies on the effectiveness of rapid access services generally in reducing admissions for ACSCs. However, rapid access chest pain clinics have been shown to reduce emergency admissions (Dougan et al., 2001). Care by a community matron was perceived by the panel to be associated with a decreased likelihood of admission, this is more positive than previous evaluations (Murphy, 2004; Gravelle et al., 2007). Recent research has highlighted that there is a wide degree of variation in referral rates for GPs working in OOH, even when population characteristics are accounted for (Rossdale et al., 2007). This study suggests that training in risk assessment and management may be important. These factors require further exploration.

## Implications for clinicians and policymakers

The Delphi study has produced some interesting findings in terms of the priorities that clinicians and managers gave to the conditions that should be studied to try and identify ways to reduce avoidable admissions. COPD, kidney and urinary tract infection, cellulitis, abscess and phlebitis, chest infection, pneumonia and influenza in adults and CHF are already recognized ACSCs and are the focus of NHS wide initiatives to reduce admissions. The identification of admissions for dementia as a priority is more surprising and particularly interesting and informative. Dementia is not widely recognized as an ambulatory care sensitive admission unlike most of the other conditions included in the study, although it is included as an NHS priority (NHS Institute for Innovation and Improvement, 2006). Original discussions about the inclusion of a condition as an ACSC included the following criteria: (1) existence of prior studies; (2) hospitalization rate of at least 1/10000 or a 'risky health problem' (an important health problem or a condition with a burden of co-morbidity worsening the prognosis); (3) clarity in the definition and coding of diagnoses; (4) hospitalization potentially avoidable through PHC, considering age, gender and type of care; and (5) hospitalization necessary when the health problem occurs (Solberg et al., 1990; Weissman et al., 1992). Emergency rates of admission for dementia in England were 2.42/10 000 in 2005-06 and recent work on definition of ACSCs suggests that dementia meets the third and fifth criteria (Purdy et al., 2009). According to the findings of this study, clinicians and health care professionals consider that admissions for dementia are potentially avoidable. Dementia therefore meets four of the five original criteria for an ACSC but we could not identify any previous research studies that explored dementia as an ACSC.

A recent report to the Alzheimer's Society in the UK highlighted the rapidly increasing prevalence and social and economic costs of dementia (Alzheimer's Society, 2007). Although there are policies aimed at improving care for older people, such as the National Service Framework for Older People, these do not specifically address the issue of avoidable admissions for dementia (Department of Health, 2001).

#### **Future research**

The Delphi study has suggested priorities for research and for interventions to reduce avoidable admissions. The study highlights the potential importance of access to alternatives to admission, investigations and community 'medical assessment unit' type facilities. This information is particularly relevant in light of the recent review of the NHS, which emphasizes the provision of more healthcare facilities in the community setting (Darzi, 2008).

## Conclusions

The conditions selected by the panel for prioritization showed some concordance with national NHS priorities in this area, but the condition given top priority by the panel – dementia – is not currently a national priority. The panel showed a high degree of consensus around interventions that might lower the rate of avoidable admissions. The highest rated interventions involve the direct delivery of rapid access care in the community.

# **Acknowledgements**

This study was funded as part of a Medical Research Council Clinician Scientist Fellowship, awarded to SP. The authors would like to thank the South West Public Health Observatory for access to HES data, and the respondents to the Delphi exercise.

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