



# Why older patients of lower clinical urgency choose to attend the emergency department

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## Key words

emergency department, geriatric, patient perspective, survey.

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## Abstract

**Background/Aims:** To examine non-clinical factors associated with emergency department (ED) attendance by lower urgency older patients.

**Methods:** An exploratory descriptive study comprising structured interviews with lower urgency community-dwelling patients aged  $\geq 70$  years presenting to a tertiary metropolitan Melbourne public hospital ED. Demographical and clinical characteristics, self-reported feelings of social connectedness, perceived accessibility to primary care, reason for attending ED were measured.

**Results:** One hundred patients were interviewed: mean age 82 years, 56% female, 57% lived alone; 73% presented during business hours, 58% arrived by ambulance, 80% presented for illness, and 65% were discharged home within 48 h. Fifty-six per cent of patients reported feeling socially disconnected, comprising 49% living alone compared with 65% who lived with their spouse/family. All patients attended a regular general practitioner, 31% reporting regular review appointments. Thirty-five per cent reported waiting times  $>2-3$  days for urgent problems; 59% stated accessing care 'after hours' without attending ED as difficult, with 20% having attended ED 3-6 times in the previous 12 months. Reasons for attending ED were referral by a third party, difficulty with accessibility to primary care, patient preferences for timely care and fast-track access to specialist care.

**Conclusions:** Most older patients of lower clinical urgency presented to ED because of perceived access block to primary or specialist services, alongside an expectation of more timely and specialised care. This suggests that EDs should be redesigned and/or integrated community-based models of care developed to meet the specific needs of this age group who have growing demand for acute care.

Demand for emergency department (ED) services has risen by 55% across metropolitan Melbourne over the decade to 30 June 2009.<sup>1</sup> The biggest rise in presentations is by patients aged  $\geq 70$  years. This impacts greatly on acute hospital services, as older patients present with more complex clinical conditions, consume more resources, have longer ED stays, are more likely to be admitted and have longer hospital stays.<sup>2</sup> As this older proportion of the population continues to rise, there will be a persistent increase in demand for emergency care and hospital admission unless practical strategies to manage this demand are put in place.

Among this older cohort is a group of lower urgency that could possibly be treated elsewhere.<sup>3</sup> A variety of

reasons for why they present to ED has been speculated, including reduced accessibility to primary care, social fragmentation of the extended family and increased expectation for timely care; however, these are yet to be quantified.<sup>4</sup> These non-clinical factors are not captured by the usual information collected at the time of ED presentation or by administrative data. As this is not a well-researched area, we aimed to ascertain if factors such as accessibility to general practitioners (GP) and social isolation contribute to older community-based patients of lower clinical urgency and their decision to attend ED.

## Methods

### Study design and setting

An exploratory study of 100 patients attending the Alfred Hospital's ED was conducted using a structured interview

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from June to August 2011. This interview format was chosen because the frenetic nature of an ED does not provide the environment for a more open-ended format. The Alfred is a tertiary metropolitan Melbourne public hospital comprising 8 trauma/resuscitation bays, 17 ED and 8 fast-track cubicles, 12 emergency short-stay beds, plus additional capacity with 2 plaster/procedure rooms and corridors. There are ~55 000 ED presentations per year. Interviews were conducted on weekdays between the hours of 0800 and 1730. These hours were chosen as they overlap with availability of primary care services as an alternative source of healthcare. Approval for this study was granted by the Human Research Ethics Committees of the Alfred Hospital and Monash University.

### Participants

Eligible patients were community-dwelling aged  $\geq 70$  years; with lower clinical urgency, defined as patients triaged as Categories 3–5 on the Australasian Triage System (ATS) of five categories; determined by emergency physicians as part of their standard ED care to be medically stable and capable of partaking in the interview; and who provided informed consent. The ATS is a hospital-based ED scale used by specifically trained and experienced nurses for rating clinical urgency to ensure that patients are seen in a timely manner.<sup>5</sup> Exclusion criteria included patients from residential nursing care facilities, non-English-speaking patients without family members to act as interpreters and patients in distress. Interviews were conducted in ED after the patient's initial medical care needs were addressed.

### Interview instrument

The structured interview tool was developed (see Appendix I) using questions from publicly available surveys on health service utilisation<sup>6–8</sup> and included the Duke Social Support Index, a validated questionnaire of social interaction, support and connectedness.<sup>9</sup> This method was chosen to reduce any potential for bias to be introduced by the interviewer. With regard to questions focusing on reasons for attending ED and access to care, additional commentary was obtained from patients. Interview questions were reviewed by a panel of emergency physicians and allied health professionals and tested for face validity with a sample of 10 eligible patients. Interviews were conducted by an experienced allied health professional researcher.

### Outcome measures

Main outcome measures included reasons for choosing ED for the current clinical condition, reported accessibil-

ity to primary care and self-reported feelings of social connectedness. Demographical, clinical and discharge information were also collected from the medical record.

### Data analysis

Data from closed-ended questions were coded and entered into a de-identified database for analysis using Stata 11 (StataCorp, College Station, TX, USA). Additional comments were transcribed verbatim during the interviews. These narratives were independently reviewed and collated using a qualitative thematic framework<sup>10</sup> by two members of the research team (JL and CS), with the assistance of NVivo 9.1 software (QSR International Pty, Ltd, Doncaster, Vic., Australia). An independent physician (PL) categorised the responses separately. Emerging findings were discussed, and themes were negotiated and agreed upon. Interpretations were checked by the research team comprising emergency clinicians and epidemiologists.

### Results

A total of 100 interviews of 125 eligible patients was completed during the 9-week study period, equating to an 80% recruitment rate. Table 1 describes the demographical and clinical characteristics associated with the ED attendance. The average age was 82 years, with 56% female. Seventy-three per cent presented during business hours (on weekdays between 0900 and 1700), 58% arrived by ambulance, 50% were triaged as ATS 3 presenting with an illness (80%) or fall-related injury (20%), and 65% discharged home from hospital within 48 h. The majority of ambulance arrivals (62%) were discharged home. Sixty-five per cent of patients were discharged directly home within 48 h of arrival, and 38% who arrived by ambulance were admitted or transferred to another hospital.

### Social support

Overall, 56% of patients reported feelings of being socially disconnected. These feelings comprised 66% feeling dissatisfied with their level of social interaction with others, and 35% dissatisfied with the level of social support from family and friends. Of the 43 patients not living alone, 28 resided with their spouse, 14 with adult children and family, and one with a group of international student boarders.

Of the patients not living alone, 65% still reported feelings of social disconnectedness compared with 49% of patients who lived alone. These feelings were underpinned by dissatisfaction with levels of social interaction

**Table 1** Demographical and clinical characteristics associated with ED presentation

| Mean age – years (median, range)   | 82 years (82 years, 70–100 years) |
|--|-----------------------------------|
|  | No. of patients (95% CI)          |
| Age group  |                                   |
| 70–74 years  | 16 (9–24)                         |
| 75–79 years  | 18 (11–27)                        |
| 80–84 years  | 32 (23–42)                        |
| 85–89 years  | 21 (14–30)                        |
| 90–94 years  | 9 (4–16)                          |
| 95–100 years   | 4 (1–10)                          |
| Gender – female  | 56 (46–66)                        |
| Residential area (within 17 km)  | 83 (74–90)                        |
| Pensioner  | 86 (78–92)                        |
| Living status – alone  | 57 (47–67)                        |
| Independently mobile   | 46 (36–56)                        |
| In receipt of a care package   | 36 (27–46)                        |
| Referral source  |                                   |
| Self/family/friends  | 62 (52–71)                        |
| General practitioner/specialist  | 25 (17–35)                        |
| Other health worker  | 9 (4–16)                          |
| Bystander  | 4 (1–10)                          |
| ED arrival time  |                                   |
| After hours (Sun–Fri 1800–0745)  | 27 (19–37)                        |
| Business hours (Mon–Fri 0800–1800)   | 73 (63–81)                        |
| Arrival mode   |                                   |
| Ambulance  | 58 (48–68)                        |
| Private car/taxi   | 35 (26–45)                        |
| Public transport   | 7 (3–14)                          |
| Clinical urgency – ATS category  |                                   |
| 3  | 50 (40–61)                        |
| 4  | 41 (31–51)                        |
| 5  | 9 (4–16)                          |
| Clinical reason for presentation   |                                   |
| Injury (fall-related)  | 20 (1–29)                         |
| Illness (e.g. dizziness, unsteady on feet, abdominal pain, constipation, back pain, epistaxis, back pain, shortness of breath, chest pain) | 80 (71–87)                        |
| Onset of presenting problem  |                                   |
| Previous 48 h  | 47 (37–57)                        |
| 2–3 days   | 16 (9–25)                         |
| ≥7 days  | 37 (27–47)                        |
| Final disposition from ED  |                                   |
| Home   | 65 (55–74)                        |
| Admission to hospital  | 29 (20–39)                        |
| Hospital transfer  | 4 (1–10)                          |
| Respite care   | 2 (0–7)                           |

ATS, Australasian Triage System; CI, confidence interval; ED, emergency department.

with others. Patients living with their spouse or adult children were 60% less likely to feel satisfied with their level of social interaction than those who lived alone (odds ratio = 0.42; 95% confidence interval (CI) 0.17–0.99,  $P < 0.05$ ). Even patients living with family made

**Table 2** Support and services received by general practitioner (GP) (patient report)

| GP support services   | Proportion of patients % (95% CI) |
|---|-----------------------------------|
| Is there one doctor/doctor's group you usually attend for your medical care | 100                               |
| Regularity of appointments  |                                   |
| As needed   | 69 (59–78)                        |
| Weekly/fortnightly  | 8 (3–15)                          |
| Monthly   | 18 (11–27)                        |
| ≥3 monthly  | 5 (2–11)                          |
| Waiting time for an urgent appointment                                      |                                   |
| Same/next day (with one of the doctors, not necessarily the patient's GP)   | 65 (55–74)                        |
| 2–3 days  | 23 (11–32)                        |
| 4–7 days  | 7 (3–14)                          |
| >1 week   | 5 (2–11)                          |
| Ease of getting medical care after hours without attending an ED            |                                   |
| Easy  | 14 (8–22)                         |
| Difficult   | 59 (49–69)                        |
| Have never needed it  | 27 (19–37)                        |
| Provision of an after hours service   |                                   |
| Provided by GP  | 9 (4–16)                          |
| Provided by a locum service   | 47 (3–57)                         |
| Did not know  | 44 (34–54)                        |
| Provision of home visits by general practice                                | 45 (35–55)                        |
| Co-payment for routine GP visit   | 22 (14–51)                        |
| Co-payment is a deterrent to seek care from GP                              | 10 (5–18)                         |
| No. ED attendances in previous 12 months                                    |                                   |
| 0   | 41 (31–51)                        |
| 1 or 2  | 39 (29–49)                        |
| 3–6   | 20 (13–29)                        |

CI, confidence interval; ED, emergency department.

comments such as 'my friends are quite elderly or have passed on', 'I keep to myself', 'I don't get out much' and 'my children are wonderful, but I don't wish to bother them as they are so busy'.

Twenty per cent of patients reported using the ED as a source of healthcare an additional three to six times in the previous 12-month period. This group comprised 10 of the 57 patients (18%) who lived alone and 10 of the 43 patients (22%) who lived with a spouse or others.

### Support and services received by the patient's GP

All patients attended a regular GP, with 31% reporting a review schedule ranging from weekly to 3 monthly appointments. As summarised in Table 2, the majority of patients (65%) reported that they could be seen the same/next day for an urgent problem; however stated, this would not necessarily be with their GP rather with

**Table 3** Primary themes underpinning ED attendance

| Theme   | Definition  | Examples of patient quotations  |
|---|---|---|
| Difficulty with accessibility to primary care | Unavailability of the general practitioner (GP)<br>Difficulty accessing a timely appointment<br>Co-payments associated with GP consultation   | <ul style="list-style-type: none"> <li>• <i>He wouldn't come when my son called him, so we called '000'</i></li> <li>• <i>Well, the GP was closed and we would have had to wait for the locum. But the message machine said to dial '000'. If it was a week day I would have gone to him (GP)</i></li> <li>• <i>The ED is quicker than getting an appointment with the GP</i></li> <li>• <i>I had a sore back for a few days, and I thought it would go away. I called my GP and he said to come here</i></li> </ul>  |
| Patient/family preferences for care           | Waiting time for next available GP appointment unacceptable<br>Patient perceptions of role of primary care<br>Dissatisfaction with GP Preference not to use the rostered locum service<br>Institutional preference for specialist hospital care<br>One-stop shop/convenience factor | <ul style="list-style-type: none"> <li>• <i>I got worse over the last couple of days. I called my GP, but couldn't wait until today's appointment with him, so I came here last night</i></li> <li>• <i>The Alfred is the most suitable as the GP is only for routine problems</i></li> <li>• <i>My GP only looks at my finger. He wouldn't know what was wrong or what to do</i></li> <li>• <i>My GP isn't there on a Sunday. They don't work anymore than part-time and are always on holiday. I am not very satisfied.</i></li> <li>• <i>Emergency (ED) is quicker than getting an appointment with the GP.</i></li> <li>• <i>. . . will need an x-ray, so we came here as it is all under one roof. . . so much easier.</i></li> <li>• <i>I can see everyone I need to here. I am angry that my doctor doesn't know how to fix the problem, so I come to the Alfred – they are great. This is my hospital now.</i></li> <li>• <i>This is where you go. You don't go anywhere else; the GP diagnoses the wrong stuff.</i></li> </ul> |
| Referral by a third party                     | Referral by a GP, specialist, health professional or bystander  | <ul style="list-style-type: none"> <li>• <i>I fell in the street, and someone called the ambulance</i></li> <li>• <i>I had just come out of hospital. . . I fainted at lunch with my girlfriends. . . someone called the ambulance. . .</i></li> <li>• <i>I woke up in the morning and couldn't move. . . my neighbour (a nurse) checked on me at 6 pm as she usually does, and I was still stuck in bed, so she called '000'</i></li> </ul>  |
| Fast-track access to specialist care          | Referral for specialist services or hospital admission  | <ul style="list-style-type: none"> <li>• <i>I wasn't getting anywhere with my outpatient appointment, so my GP said let's try going to the ED and see if that speeds it up. . . and it did!</i></li> <li>• <i>My doctor did blood tests. . . the results came back yesterday. . . he rang me to say he had called for an ambulance and it was on its way to bring me to hospital</i></li> <li>• <i>I saw my specialist before, and he said I had a chest infection and had to come to Emergency. . . now they are going to admit me</i></li> <li>• <i>My bowels have not been open for 10 days, so my GP sent me here</i></li> </ul>  |

another GP within the practice. Fifty-nine per cent stated access to 'after hours' medical care without attending an ED would be difficult; however, 48% were aware their practice offered an alternative 'after hours' service including a locum service.

### Themes underpinning ED attendance

Exploration of responses to questions about (i) why the ED was chosen for the current problem and (ii) the support and services received by GP, exposed several themes and subthemes underpinning reasons for ED attendance. Primary themes included difficulties with accessibility to primary care (21%), referral by a third party (22%), patient or family preferences for care (24%), or fast-track access to specialist care (33%). These

themes are defined in Table 3 with examples of patient quotations. During the interviews, several secondary themes emerged from comments made about the support and services provided by GP; about why the ED was considered an alternative source of healthcare, including unavailability/dissatisfaction with GP appointment waiting times, patient perceptions about the GP's role and dissatisfaction with the GP; convenience of the ED as an alternative source of healthcare; and institutional preference to attend a hospital for the current condition. These subthemes are outlined in Table 4.

### Discussion

In the context of continuing demand for hospital-based emergency healthcare principally driven by older

**Table 4** Associated subthemes underpinning ED attendance

| Associated subthemes   | Frequency |
|--|-----------|
| Primary care   | 58        |
| Unavailability of GP   | 21        |
| Waiting time for next available appointment unacceptable       | 17        |
| Preference not to use rostered locum service                   | 3         |
| Patient perceptions re: role of GP                             | 5         |
| Dissatisfaction with GP  | 11        |
| Costs associated with GP consultation                          | 1         |
| Specialist care  | 65        |
| Patient/family referral for specialist care                    | 4         |
| GP/specialist/health professional referral for specialist care | 28        |
| Ambulance triage for specialist care                           | 33        |
| Health awareness   | 29        |
| Presenting condition   | 9         |
| Patient knowledge of own disease                               | 6         |
| Recent hospital discharge                                      | 9         |
| Public health awareness  | 5         |
| Institutional preference                                       | 46        |
| Preference for specialist care in a hospital                   | 29        |
| One-stop shop/convenience factor                               | 17        |
| Total  | 197       |

GP, general practitioner.

people,<sup>1</sup> this study affords us with an understanding of the motivation of an older cohort of patients of lower clinical urgency to use the ED as a source of healthcare. In addition, it presents interesting insights into this group of older patients' perspectives about the support and services provided by their GP and an expectation for timely care. The study also provides information about diminished levels of social interaction underpinning feelings of being socially disconnected within a cohort of older patients seeking healthcare at an ED. To our knowledge, this is the first such study to seek older emergency patients' opinions.

### Social support

Over half of the cohort reported feelings of disconnect- edness, a greater proportion of patients who resided with their spouse or adult children feeling disconnected. Our finding that a greater proportion who lived with a spouse or others felt more socially disconnected than those who lived alone was not anticipated. The foundation of this feeling was reported to be diminished levels of social interaction. A possible explanation could be that older people living alone because of being widowed, divorced or never having married may have a tendency to actively seek social interaction with family, friends or the community, whereas those who live with their spouse or

reside with other family members may be less likely to seek social contact outside the home environment. In addition, older people residing with children following death of their spouse may do so because of family concern for their social well-being.

Loneliness<sup>11–13</sup> and lack of family support<sup>14</sup> have been previously linked as a risk factor for ED presentation in studies from the US. Further investigation with a comparative study is warranted to determine if social disconnectedness is associated with ED presentation by older people in an Australian cohort and whether such feelings are associated with underlying factors such as depression that may be amenable to intervention.

### Patient preferences for care

The themes that emerged underpinning the reasons for attending ED suggest the presence of patient or family inclinations for care. These included unacceptable waiting times for their own GP, GP dissatisfaction and the convenience of a 'one stop shop' that offers specialist care within an institution of high repute.

This older cohort reported reasonable accessibility to services within their primary provider's practice, the majority (88%) reporting potential for an appointment in their general practice within 2–3 days for what they perceived to be an urgent problem. However, this did not meet their expectations of timeliness of GP availability, with patients verbalising frustration with waiting times for appointments to see their individual GP. Even though the majority of patients in our study presented to ED during business hours, many volunteered their dissatisfaction that their GP worked part time or was unavailable after business hours. Of interest was their discontent about being seen by an unfamiliar doctor within their general practice, yet they were not apparently deterred by the prospect of seeking care from an unfamiliar doctor in ED.

Difficulties accessing GP has been cited by patients as the primary reason for ED presentation in other studies.<sup>13,15–18</sup> However, the 'access block' to primary care observed in this cohort appeared to be related to patient expectations for timely care with their preferred provider even though other options were available within their general practice. This could be related to a societal change in expectations for care when it is most convenient for patients or their family.

It was also apparent that there was delay in seeking healthcare by this cohort; 53% reported their medical condition having been present for more than 2–3 days, including 37% being unwell for  $\geq 7$  days. The phenomenon of 'toughing it out' before seeking care has been described previously.<sup>19</sup> This help-seeking behaviour

relates to patients hoping problems will soon resolve. In addition, it is possible that patients did not alert family members about their condition based on comments such as ‘they are so busy with their own families’. This could have delayed the choice to seek medical attention, and once family members became involved, genuine concern about such delay resulted in preference to attend hospital rather than the GP.

Preference for seeking care at a hospital with an undertone of loyalty to the institution, together with the convenience of a ‘one-stop’ specialised diagnostic facility, was a common subtheme. These factors have been cited previously as the predominant reasons for attending an ED in studies conducted in the US,<sup>19,20</sup> Canada<sup>18</sup> and the United Kingdom.<sup>21,22</sup> In addition, patient perceptions similar to that observed in this study about the role and capabilities of GP have been reported elsewhere.<sup>15</sup>

### **Fast-track referral for access to specialist care**

A proportion of patients attended ED following referral from their GP, which might be an indication of ‘access block’ to specialist care because of lengthy waiting lists in both public and private sectors. It may also suggest a desire to transfer responsibility on the doctor’s behalf either because of time pressures associated with busy general practices or medico-legal concerns about diagnosis of the undifferentiated patient.

Waiting times for elective surgery are well reported by the government,<sup>23</sup> media<sup>24</sup> and peer-reviewed literature;<sup>25,26</sup> however, details about GP or specialist consultations are not so readily available other than through professional association websites.<sup>27</sup> Although some work has commenced to reduce waiting times for GP,<sup>28,29</sup> timely access remains a problem, impacting on patients’ choice of the ED for healthcare.<sup>30–32</sup>

The patients referred to ED by a specialist were principally those discharged recently from hospital, presenting with signs of infection/complications related to procedures. This raises the question of whose responsibility it is to manage patients postprocedure, the service provider or an ED clinician who is unfamiliar to the patient, their problem or recent procedure.

### **Study strengths and limitations**

This was an exploratory study that encompassed active engagement of an older cohort of patients through interview to glean an understanding about possible non-clinical factors associated with choosing the ED as a source of healthcare relative to their current medical condition, and their perspectives about the support and services provided by their GP. Conducting the interviews

at the time of ED attendance reduced recall bias. Independent coding of patient narratives into a thematic framework by two researchers in addition to the interviewer enhanced rigour with data interpretation reducing the risk of researcher bias. Thematic exhaustion was reached half-way through the analysis regarding commonality of themes and subthemes.<sup>33,34</sup> The small sample size yields confidence intervals that result in mean point estimates that should be interpreted with caution. The personal nature of the interviews is a limitation but enhanced the quality of information without the limitations of a paper-based survey reliant on literacy skills. Using commentary associated with closed survey questions is unlikely to have yielded the same results as more reliable open-ended interview structures. In particular, the opinions of less assertive respondents from this population of potentially vulnerable older people in ED are unlikely to have been captured, and the results outside of the closed questions may be unreliable.

The inclusion criteria for lower urgency necessarily relied on the ED triage process, which may have undertriaged older patients who participated in this study. Generalisability is limited by use of a purposive sample of older patients of lower clinical urgency attending an ED attached to a large metropolitan tertiary public hospital. In addition, although the interviews were conducted during working hours, 27% of interviewed patients presented to ED over a weekend or after hours, having remained in ED at the time of interview for clinical or social reasons. However, the information gathered provides the foundation for a large more generalisable study.

### **Conclusion**

This study raises issues as to whether current models of acute care are meeting the perceived needs of older patients. The majority of this cohort attended due to perceived access block to primary or specialist services, and many had preconceived ideas about expectations for timely and specialised care. This provides valuable insights about the older patient and their family’s perception of when and where they believe healthcare should be delivered. It confirms the need for the redesign of EDs and/or community-based models of care to meet the specific and growing needs of this age group for acute care.

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## References

- 1 Lowthian J, Curtis A, Jolley D, Stoelwinder J, McNeil J, Cameron P. Demand at the ED front door: ten-year trends in emergency department presentations. *Med J Aust* 2012; **196**: 128–32.
- 2 McCusker J, Bellavance F, Cardin S, Trepanier S, Verdon J, Ardman O. Detection of older people at increased risk of adverse health outcomes after an emergency visit: the ISAR screening tool. *J Am Geriatr Soc* 1999; **47**: 1229–37.
- 3 Lowthian JA, Curtis AJ, Stoelwinder JU, McNeil JJ, Cameron PA. Who are our older emergency department patients? Monash University Doctoral Thesis, 2012.
- 4 Lowthian JA, Curtis AJ, Cameron PA, Stoelwinder JU, Cooke MW, McNeil JJ. Systematic review of trends in emergency department attendances: an Australian perspective. *Emerg Med J* 2011; **28**: 373–7.
- 5 Australasian College of Emergency Medicine. Policy on the Australasian Triage Scale – P06. Australasian College of Emergency Medicine, ed. Melbourne, 2006.
- 6 Commonwealth Fund – IHP. 2010. The 2010 commonwealth fund international health policy survey. Harris Interactive, ed. New York, 2010.
- 7 Australian Bureau of Statistics. National health survey 2007–08. ABS, ed. 4363.0.55.001 – National Health Survey, Canberra, 2009.
- 8 The Australian Longitudinal Study on Women's Health. Fifth survey for women over 80 – 2008. Women's Health Australia, ed. 2008.
- 9 Powers J, Goodger B, Byles J. Duke social support index. 2004.
- 10 Pope C, Ziebland S, Mays N. Qualitative research in health care. Analysing qualitative data. *BMJ* 2000; **320**: 114–16.
- 11 Geller J, Paul J. Loneliness as a predictor of hospital emergency department use. *J Fam Pract* 1999; **48**: 801–4.
- 12 Hastings SN, George LK, Fillenbaum GG, Park RS, Burchett BM, Schmader KE. Does lack of social support lead to more ED visits for older adults? *Am J Emerg Med* 2008; **26**: 454–61.
- 13 Carret ML, Fassa AG, Kawachi I. Demand for emergency health service: factors associated with inappropriate use. *BMC Health Serv Res* 2007; **7**: 131.
- 14 Coe RM, Wolinsky FD, Miller DK, Prendergast JM. Elderly persons without family support networks and use of health services: a follow-up report on social network relationships. *Res Aging* 1985; **7**: 617–22.
- 15 Abernethie L, Nagree Y. Increased emergency department attendance: a qualitative investigation of health seeking behaviours. *Just Policy* 2004; **33**: 6–16.
- 16 Booz Allen Hamilton. Key drivers of demand in the emergency department: a hypothesis driven approach to analyse demand and supply. NSW Department of Health, ed. Sydney, 2007.
- 17 Afilalo J, Marinovich A, Afilalo M, Colacone A, Leger R, Unger B *et al.* Nonurgent emergency department patient characteristics and barriers to primary care. *Acad Emerg Med* 2004; **11**: 1302–10.
- 18 Steele S, Anstett D, Milne WK. Rural emergency department use by CTAS IV and V patients. *Can J Emerg Med* 2008; **10**: 209–14.
- 19 Koziol-McLain J, Price DW, Weiss B, Quinn AA, Honigman B. Seeking care for nonurgent medical condition in the emergency department: through the eyes of the patient. *J Emerg Nurs* 2000; **26**: 554–63.
- 20 Marco CA, Weiner M, Ream SL, Lumbrezer D, Karanovic D. Access to care among emergency department patients. *Emerg Med J* 2012; **29**: 28–31.
- 21 Land L. Patient survey city hospital Birmingham: emergency department and urgent care centre. Faculty of Health BCU, ed. Birmingham, 2009.
- 22 Field S, Lantz A. Emergency department use by CTAS Levels IV and V patients. *Can J Emerg Med* 2006; **8**: 317–22.
- 23 Australian Institute of Health and Welfare. MyHospitals. In: Australian Government, ed. 2011.
- 24 Riley R. It's a waiting game in our hospitals. *Sunday Herald Sun* 2011 May 29. Available from URL: [http://blogs.news.com.au/heraldsun/robynryley/index.php/heraldsun/comments/it\\_is\\_a\\_waiting\\_game\\_at\\_our\\_hospitals/](http://blogs.news.com.au/heraldsun/robynryley/index.php/heraldsun/comments/it_is_a_waiting_game_at_our_hospitals/)
- 25 Curtis AJ, Russell COH, Stoelwinder JU, McNeil JJ. Waiting lists and elective surgery: ordering the queue. *Med J Aust* 2010; **192**: 217–20.
- 26 MacLellan DG, Cregan PC, McCaughan BC, O'Connell TJ, McGrath KM. Applying clinical process redesign methods to planned arrivals in New South Wales hospitals. *Med J Aust* 2008; **188**(6 Suppl): S23–6.
- 27 Australian Medical Association Victoria. The hidden waiting list is hurting Victorians. AMA – Victoria, ed. Melbourne, 2006.
- 28 Knight AW, Padgett J, George B, Dato MR. Reduced waiting times for the GP: two examples of 'advanced access' in Australia. *Med J Aust* 2005; **183**: 101–3.
- 29 Knight A, Lemke T. Appointments – getting it right. *Aust Fam Physician* 2011; **40**: 20–3.
- 30 McBrien B. Emergency nurses should be careful not to neglect their patients' spiritual needs. *Emerg Nurse* 2008; **16**: 39.
- 31 McGaw AJ, Jayasuriya P, Bulsara C, Thompson SC. Accessing primary health care: a community survey of issues regarding general practice and emergency department services in an outer metropolitan area. *Aust J Prim Health* 2006; **12**: 78–84.
- 32 Siminski P, Bezzina AJ, Lago LP, Eagar K. 'Primary care' presentations at emergency departments – rates and reasons by age and sex. *Aust Health Rev* 2008; **32**: 700–9.
- 33 Bowen GA. Naturalistic inquiry and the saturation concept: a research note. *Qual Res* 2008; **8**: 137–52.
- 34 Lane S, Arnold E. Qualitative research: a valuable tool for transfusion medicine. *Transfusion* 2011; **51**: 1150–53.

## Supporting Information

Additional Supporting Information may be found in the online version of this article:

### Appendix I Interview form