Improving Processes of Care Delivery

Long-stay views from the hospital bed: patient perspectives of organisation of care and impact of hospitalisation

Anne Johnson, Bev Gaughwin, Natasha Moore and Rita Crane

Abstract
This study aimed to determine the perspectives of a group of patients categorised as “long-stay outliers” at a large South Australian metropolitan hospital about aspects of organisation of care and the perceived impact of long-term hospitalisation. Nineteen patients were interviewed using a semi-structured questionnaire. Eighty-nine percent of participants stated that they had no knowledge of how long they were to be in hospital. Forty-two percent indicated that they did not know when they would be discharged from hospital. This was of concern, especially considering the vulnerability of this patient group and the known benefits of patient involvement in decision making and the improvements this can make to health outcomes and early discharge. Participants indicated concern about sleep deprivation, diet, ability to return to paid employment, and missing their family as the main areas of impact of their long hospitalisation. Concerns about being discharged from hospital included: apprehension as to whether they were well enough to leave; the recurrence of infection; whether they would be able to sleep well when they got home; their recent loss of appetite and associated weight loss; mobility concerns; and what supports they would have when they were discharged home. All these issues require staff to be more patient and family-centred in their approach to preparing for discharge.


What is known about the topic?
Hospitals have been looking for ways to address issues leading to longer-than-expected patient length of stay.

What does this study add?
Few studies have considered the patient and family perspectives associated with patients with longer-than-expected hospital lengths of stay. This study provides a description of the perspectives of 19 patients.

What are the implications for practice?
The authors suggest the need for staff to understand the patient and family perspectives and incorporate more participatory patient- and family-centred care and discharge planning processes.

INCREASED DEMAND and patients requiring long-term admission have impacted significantly on access to hospitals. Patients who have longer stays than determined by casemix formulas for specific conditions are termed “long-stay outliers”. The long-stay outlier population at a large metropolitan tertiary referral hospital in South Australia had been analysed from many perspectives, but patient perspectives had not been considered. It was suggested that seeking patient perspectives on factors contributing to and associated with their length of stay may identify additional strategies to improve management of these patients and assist in understanding the impact on this patient group and their families. Patient feedback and involvement in decision making about care is a priority area for action and is strongly integrated into the safety and quality agenda in Australia being led by the Australian Council for Safety and Quality in Health Care (http://www.safetyandquality.org).

Emerging evidence supports patient participation in health, demonstrating that active patient participation in decision making in individual care leads to improvements in health outcomes and that access to quality information facilitates decision making. This supports an active role for patients and carers in managing care.

Anne Johnson, PhD, Senior Lecturer
Department of Public Health, Flinders University, Adelaide, SA.

Bev Gaughwin, Director
Department of Physiotherapy, Flinders Medical Centre, Adelaide, SA.

Natasha Moore, Senior Dietitian
Noarlunga Health Services, Adelaide, SA.

Rita Crane, Patient interviewer for project
Adelaide, SA.

Correspondence: Dr Anne Johnson, Department of Public Health, Flinders University, GPO Box 2100, Adelaide, SA 5001. anne.johnson@flinders.edu.au
study was to provide a long-stay outlier patient perspective into the organisation of care and the impact of their long-term hospitalisation.

**Method**

**Patient interviews**

Information was collected by semi-structured individual face-to-face interviews during the hospital admission (see Box 1 for the list of questions asked). An experienced consumer interviewer (R.C) was employed to conduct the patient interviews. Notes were taken during the interviews and additional information was added after the interviews to ensure comprehensive records were made of each interview.

Hospital inpatients with a length of stay between 14 and 30 days were identified over a 9-day period in March 2003 from a daily list of long-stay outliers produced by the hospital’s Department of Clinical Epidemiology. Length of stay of between 14 and 30 days was specified as it was the hospital definition, at that time, of a “long-stay outlier”. The month of March was selected for this study as it was a specified period of time which would be compatible with other clinical epidemiological studies related to the long-stay outlier issue which were being conducted by the Department of Clinical Epidemiology.

Potential participants were selected according to the following inclusion criteria.

- Adult (18 years or older)
- Inpatients of the hospital between 14 and 30 days post admission
- Well enough to be interviewed and deemed cognitively aware by ward staff directly involved in their care
- Able to understand the purpose of the study and provide informed consent.

Exclusion criteria included patients who were:

- In the critical care unit
- In the psychiatric ward or admitted with a psychiatric condition
- Awaiting nursing home placement following assessment
- Unable to communicate.

Responses from the 19 interviews were collated for each question. Thematic analysis techniques were employed where key themes were identified in the data and used to categorise the results. Thematic analysis was initially conducted by the research assistant and further refined by the researchers.

**Results**

A total of 19 participants (13 females and 6 males) were recruited and interviewed within a 3-week period commencing 11 March 2003. Box 2 shows the demographic data of the patients, which was extracted from case notes. The average age was 72.9 years, (range, 25–92 years). The average

<table>
<thead>
<tr>
<th>Interview questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>We are interested in your views about your stay at this hospital during your current admission and whether anything could have been done differently, in your opinion, to facilitate you leaving this hospital earlier.</td>
</tr>
<tr>
<td>You are now at day _______ of your admission. Have you been told when you will be leaving this hospital?</td>
</tr>
<tr>
<td>How long did you expect to be staying in hospital this admission?</td>
</tr>
<tr>
<td>If your stay is longer than expected, what do you think were the reasons for that occurring?</td>
</tr>
<tr>
<td>How do you feel about the length of time you have had to stay in this hospital for this admission? (eg, is it too short, too long or just right)?</td>
</tr>
<tr>
<td>If the length of time was too long, when would you have preferred to leave hospital?</td>
</tr>
<tr>
<td>If you have been given a time that you will leave hospital, and consider the length of time to be too short, when would you prefer to leave hospital?</td>
</tr>
<tr>
<td>Has your stay in hospital affected you in any way? Yes/No</td>
</tr>
<tr>
<td>If so, how have your been affected?</td>
</tr>
<tr>
<td>Has your stay in hospital affected your family in any way? Yes/No</td>
</tr>
<tr>
<td>If so, how has your family been affected?</td>
</tr>
<tr>
<td>Where would you prefer to go when you leave this hospital?</td>
</tr>
<tr>
<td>Where do you expect to go when you leave this hospital?</td>
</tr>
<tr>
<td>Do you have any particular concerns about leaving hospital to this destination? Yes/No</td>
</tr>
<tr>
<td>If so, what are they?</td>
</tr>
<tr>
<td>What help will you (or your family or carers) need to ensure you are cared for safely when you leave this hospital?</td>
</tr>
<tr>
<td>Has this been organised for you yet? If not, why do you think this hasn’t happened yet?</td>
</tr>
</tbody>
</table>
length of stay (LOS) at the time of interview was 19.37 days (range, 15–27 days).

**Reasons for admission**

Participants were admitted to the hospital for a variety of reasons (see Box 2). Four participants were admitted for injuries sustained after a fall, three of these with fracture injuries and one with infection of a wound sustained in a fall that occurred a week before admission. Two participants were admitted for acute on chronic renal failure.

**Location of patients**

Only 26% (n = 5) of the participants had stayed in the one ward during their hospital stay to the time of interviewing. On average, participants were subjected to 2.26 ward changes up to the time of the interview. One participant was moved eight times to four different wards. However, this was due to deterioration in condition and the need to transfer to the critical care unit and then the high dependency unit. Forty-two percent of participants (n=8) were transferred to the convalescence ward before discharge.

**Expected length of stay**

When asked how long they expected to be staying in hospital, 89% (n = 17) stated they did not know. The two participants that provided a time frame indicated that they initially expected to be in hospital for only a couple of days or up to 1 week. A predicted stay of 6 weeks was indicated in the case notes of the 92-year-old patient interviewed with a subtrochanteric fracture of the right femur, but, when asked, she stated she did not know how long she expected to be in hospital. In all, 42% (n = 8) indicated that they did not know when they were due to be discharged from hospital.

**Perceived impact of length of stay on patient**

Sixty-three percent (n = 12) of participants perceived that their length of stay in hospital had a significant impact on them. Of these twelve, three

<table>
<thead>
<tr>
<th>ID</th>
<th>LOS at time of interview (days)</th>
<th>Number of ward changes</th>
<th>Age (years)</th>
<th>Gender</th>
<th>Reason for admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25</td>
<td>2</td>
<td>92</td>
<td>F</td>
<td>Subtrochanteric fracture right femur</td>
</tr>
<tr>
<td>2</td>
<td>22</td>
<td>2</td>
<td>84</td>
<td>F</td>
<td>Seizures/burr hole brain tumour</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>3</td>
<td>78</td>
<td>F</td>
<td>Dislocated shoulder and leg pain following fall</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>3</td>
<td>82</td>
<td>M</td>
<td>Abdominal pain for investigation</td>
</tr>
<tr>
<td>5</td>
<td>16</td>
<td>2</td>
<td>87</td>
<td>F</td>
<td>Fracture distal radius &amp; ulnar following fall</td>
</tr>
<tr>
<td>6</td>
<td>26</td>
<td>3</td>
<td>77</td>
<td>M</td>
<td>Right lower lobe pneumonia</td>
</tr>
<tr>
<td>7</td>
<td>16</td>
<td>2</td>
<td>62</td>
<td>M</td>
<td>Nausea/vomiting</td>
</tr>
<tr>
<td>8</td>
<td>24</td>
<td>2</td>
<td>77</td>
<td>F</td>
<td>Cerebrovascular hemiplegia</td>
</tr>
<tr>
<td>9</td>
<td>18</td>
<td>1</td>
<td>54</td>
<td>F</td>
<td>Aspiration pneumonia and urinary tract infection</td>
</tr>
<tr>
<td>10</td>
<td>16</td>
<td>1</td>
<td>25</td>
<td>F</td>
<td>Sciatic pain/buttock pain</td>
</tr>
<tr>
<td>11</td>
<td>15</td>
<td>3</td>
<td>81</td>
<td>F</td>
<td>Right metastatic lung cancer and oesophageal mass</td>
</tr>
<tr>
<td>12</td>
<td>16</td>
<td>2</td>
<td>43</td>
<td>F</td>
<td>Infected defibrillator wound site</td>
</tr>
<tr>
<td>13</td>
<td>19</td>
<td>2</td>
<td>72</td>
<td>F</td>
<td>Chronic obstructive pulmonary disease exacerbation</td>
</tr>
<tr>
<td>14</td>
<td>23</td>
<td>2</td>
<td>84</td>
<td>F</td>
<td>Bowel obstruction</td>
</tr>
<tr>
<td>15</td>
<td>27</td>
<td>8</td>
<td>74</td>
<td>F</td>
<td>Small bowel obstruction</td>
</tr>
<tr>
<td>16</td>
<td>18</td>
<td>1</td>
<td>88</td>
<td>F</td>
<td>Skin tear left leg</td>
</tr>
<tr>
<td>17</td>
<td>20</td>
<td>2</td>
<td>76</td>
<td>M</td>
<td>Acute on chronic renal failure</td>
</tr>
<tr>
<td>18</td>
<td>15</td>
<td>1</td>
<td>83</td>
<td>M</td>
<td>Diarrhoea for investigation</td>
</tr>
<tr>
<td>19</td>
<td>15</td>
<td>1</td>
<td>66</td>
<td>M</td>
<td>Acute on chronic renal failure</td>
</tr>
</tbody>
</table>

Average 19.37 2.26 72.89 6M/13F

LOS = Length of stay; M = male; F = female.
identified disturbed sleep and tiredness. One of the participants stated that they “couldn't sleep because of ward noise”. Two other participants stated they missed their family, while two felt that their diet had affected them, one due to having to adjust to nasogastric feeds and the other not being happy with the meals. One participant was concerned that he would not be able to return to paid employment due to his age and the impact of two recent long stays.

**Perceived impact of length of stay on family**

Forty-seven percent (n=9) of the participants responded that they perceived their long length of stay in hospital had an adverse effect on their family. Twenty-five percent identified the effect being due to their families having to visit them in hospital. Two participants had family living at a nearby coastal town and one participant was from a distant coastal town. One participant felt that the distance to travel and the cost of visiting was an issue for her family, combined with the added pressure on her husband of also having to care for their infant.

**Discharge destination and issues**

Seventy-nine percent (n=15) of the participants preferred to go home when they left hospital, with one participant wanting to go as near as possible to her home area. Of the other three participants, two wanted to go to other hospitals nearby and one participant was not sure where she would prefer to go. Of the 15 participants that preferred to go home, 12 of them expected to go home from hospital.

Twenty-six percent (n=5) of the participants expressed concerns about leaving hospital to their expected discharge location, while 58% (n=11) had no concerns. Sixteen percent (n=3) were unsure. The participants shared no common concerns, with each concern specific to their individual situation. Participant concerns included:

- whether they were well enough to leave
- the recurrence of infection
- whether they would be able to sleep well when they got home
- their recent loss of appetite and associated weight loss
- mobility concerns, in particular managing a wheelchair and an eleven-month-old baby
- getting in and out of bed unaided, and showering
- the supports they would have when they were discharged home.

**Discussion**

**Lack of knowledge about their length of stay**

Participants were generally unable to give specific detail of factors that had resulted in their stay being longer than expected. Considering the average length of stay was just over 19 days when they were interviewed, the fact that the participants were unable to accurately predict their length of stay suggests that participants were not given information about the potential length of stay, or they were given the information at a time when they were too unwell to remember. If they were not given the information by staff, this may have been due to the fact that the length of stay was difficult to predict. It is recognised in the literature that patient participation in decision making in individual care is critical to improving health outcomes.² It was evident that patient participation in decision making about their individual care was limited or did not occur for the group of participants involved in this study. The fact that nearly half the participants seemed to have no understanding about how much longer they would be in hospital also suggests a lack of involvement in discussions and planning with regard to their discharge date and after-care requirements.

**Perceived impact of long stay on the patient**

Participants identified issues such as missing their family and tiredness due to disturbed sleep. A problem for participants who had disturbed sleep during the night was that they slept more during the day. This included meal times and therefore compromised their nutrition intake and possibly increased their recovery time.

Frequent movement of participants to different wards was evident in the study (see Box 2). In particular the convalescence ward was used as a location for a number of the participants before discharge. However, the effect of these moves on the patients and staff must be considered. The interview questions did not ask participants their thoughts on ward transfers; however this would be a useful issue
to explore in future studies. It is possible that the change of staff and environment may have a negative impact on many patients who have had to adjust to being very ill and in hospital. Staying in one ward is likely to promote a better relationship and understanding between patient and staff and minimise the stress and risks associated with changing environments. There is also the potential of an increased risk of inadequate communication between ward staff upon transfer, which brings to question the safety of patients and the risk of adverse events occurring through frequent ward changes. No literature was found to support or disprove this identified potential risk and is an area which would merit further study.

**Perceived impact of long stay on families**

The issue of visiting and travelling for families was identified by participants as the main impact on their family while they were in hospital. Three participants had families living in the country, which required travelling long distances to the hospital. The involvement of families in decision making about care and discharge was identified as a significant area of concern for participants. Patient's families are often required to make major decisions regarding care, and in some cases are involved in placement decisions. It is important that families and patients are provided with appropriate support and adequate information to make informed decisions. As emphasised by the Consumer Focus Collaboration² and a Cochrane Systematic Review,³ access to quality information facilitates decision making and supports an active role for patients and their families in managing care.

Involving families in discharge planning early in the patient's admission is vital. It appeared that these participants were often not involved in discharge planning despite being in hospital for 19 days on average. Involvement of patients and their families in discharge planning is a well known contributing factor to decreasing a paediatric patient's length of stay, and would be worthwhile investigating in an adult population where the notion of partnership in care is not as well developed as a model of care.⁴ ⁵

**Limitations**

The sample size was limited to 19 due to the funding available for the small research project to gain a snapshot of issues for some long-stay outlier patients. This research identifies issues about organisation of care and impact of hospitalisation for this particular group of patients. The results are not generalisable to all long-stay outlier patient populations, but do provide important insights into areas for more in-depth research for this vulnerable group of patients.

**Conclusion**

Overall, it was evident that the participants in this study had been medically unwell and required a lengthy hospital admission because of their medical problems. In this study the participant perspectives about their experiences as long-stay outliers highlighted some key issues about organisation of care and the impact of hospitalisation which need to be considered when providing care and planning discharge for this group of vulnerable patients. The issues included limited or lack of involvement of participants in decision making; lack of knowledge about anticipated length of stay; and lack of early involvement of participants and their families in discharge planning. The perceived impact on the participants of their long stay in hospital included sleep deprivation and diet, as well as missing their family. Concerns about being discharged from hospital included: apprehension as to whether they were well enough to leave; the recurrence of infection; whether they would be able to sleep well when they got home; their recent loss of appetite and associated weight loss; mobility concerns; and what supports they would have when they were discharged home. All of these issues require staff to be more sensitive to patients' concerns and more family-centred in their approach to providing care and planning discharge.

It became apparent through this study that seeking patients' perspectives is important when exploring the problematic issue of managing long-stay outliers. The participants in this study provided valuable perspectives which contributed to identifying some issues facing the organisation of care and the impact of hospitalisation on this vulnerable group of patients. The study also identified areas of further research, such as the impact of frequent ward transfers on patients and the possible risk of adverse events occurring, and patient and family
involvement in discharge planning and the impact on length of stay in an adult patient population.

Competing interests
None identified.

References
3 Johnson A, Sandford J, Tyndall J. Written and verbal information versus verbal information only for patients being discharged from acute hospital settings to home. The Cochrane Library, Issue 4, 2003. Chichester, UK: John Wiley and Sons Ltd.

Blood transfusion prescribing in the ACT: an insight into clinical decision making

Philip J Crispin, Bethany J Crowe and Anne M McDonald

Abstract
Medical practitioners with varying levels of experience may make medical decisions in hospitals. Little is known about who is responsible for these decisions. We determined transfusion appropriateness during an audit of blood transfusion, before developing practice improvement strategies, by concurrent medical record review. The prescriber could be determined in 78% of transfusion episodes: most were specialist staff. Registrars and after-hours staff prescribed significantly fewer inappropriate transfusions. The findings have significant implications in understanding clinical decision making in the hospital setting and for the targeting of quality improvement strategies in particular.

Background
Medical decision-making in hospitals
In hospitals, each clinical team member, in conjunction with the patient, makes management decisions according to their professional discipline. Decisions about medications, infusions, investigations and

What is known about the topic?
Inappropriate decisions to transfuse patients are relatively common (16% to 35% in Australian studies). Quality of transfusion practice is related to knowledge of transfusion indications, receptivity to input from colleagues, and the practice context. Junior medical staff may be influenced by senior staff to prescribe transfusion inappropriately.

What does this study add?
Specialists made the majority of transfusion decisions in the ACT. Registrars in the major public hospital made fewer inappropriate transfusion decisions.

What are the implications?
Quality improvement initiatives in transfusion practice should be targeted to senior medical staff, because of their involvement, and because of their influence on junior staff.

Philip J Crispin, FRACP, FRCPA, Clinical Haematologist and Acting Director of Laboratory
Clinical Haematology and Laboratory, Waikato District Health Board, Hamilton, New Zealand.
Bethany J Crowe, BN, BSc, Specialist Breast Care Nurse Nursing Administration, Calvary Health Care, Jamison Centre, ACT.
Anne M McDonald, FRACP, FRCPA, Clinical Haematologist Department of Haematology, Canberra Hospital, Canberra, ACT.

Correspondence: Dr Philip J Crispin, Clinical Haematology and Laboratory, Waikato District Health Board, Pembroke Street, Hamilton, New Zealand.
Crispinp@waikatodhb.govt.nz