Southcare Geriatric Flying Squad: an innovative Australian model providing acute care in residential aged care facilities

Shikha Jain, Peter N. Gonski, Jeanettte Jarick, Sandra Frese and Sheena Gerrard

Southcare, Aged and Extended Care, The Sutherland Hospital, Sydney, New South Wales, Australia

Abstract

This study reviews the outcomes of a model developed to improve the quality of care of residents living within residential aged care facilities (RACF). The Southcare Geriatric Flying Squad saw a total of 640 acute unwell RACF residents over an 18-month period. Of these, 578 (90.3%) were managed in the RACF avoiding emergency department. Referrals can be made by GP, geriatricians or RACF registered nurse after obtaining GP consent. The model provides comprehensive assessment within 2-4 h of referral. Diagnostic testing and management is provided in the RACF with close follow-up and monitoring until the acute episode is resolved. Facilitated direct admission either to public or private hospital is arranged if deemed necessary. Exclusion criteria for GFS include conditions requiring urgent investigations or if the patient is critically unwell and cannot wait 2-4 h, for example, shock, suspected cardiac chest pain, neurological events including stroke or seizures and an acute bleeding episode. Also excluded are major injuries or suspected fracture post-trauma and surgical conditions, such as an acute abdomen, needing urgent imaging and surgical consultation. The model is designed for the patient or family to not wait 2-4 h and for a palliative approach to care, they may be referred to the service for symptom management regardless of the GFS exclusion criteria.

Southcare, Aged and Extended Care, The Sutherland Hospital, Sydney, New South Wales, Australia

Keystone words

Residents aged care facilities, Geriatric Flying Squad, hospitalisation, emergency avoidance.

Correspondence
Shihka Jain, Southcare, Aged and Extended Care, The Sutherland Hospital, 126 Karrara Road, Miranda, NSW 2228, Australia
Email: shihka.jain@health.nsw.gov.au

Received 11 February 2017; accepted 21 July 2017.

Fig. 1. Geriatric Flying Squad (GFS) referral flowchart.

Over the 18-month period, GFS saw 640 patients, of which 578 (90.3%) were managed at the RACF and did not require emergency transfer for that acute episode. Without GFS involvement, all of these patients would have been sent to ED. Only 35 (5.5%) of patients required transfer to ED (Fig. 2) after being seen by GFS. For the other 27 (4.2%) GFS facilitated direct admission to a medical ward at either the public or private hospital depending upon bed availability, the patient's level of insurance cover and or patient or family preferences. Terminal palliative care process. All RACF in the area utilised the service during the study period.
was provided to 116 (18%) patients. The median number of days patients stayed on the service was 4 days (range 1-22 days).

The mean age was 86 years with a female preponderance (male 257; female 363). The five most common reasons for referral were respiratory symptoms, delirium, sepsis, dehydration and acute symptom management in a palliative/terminal care setting. The median response time was 103 min from the time of referral (range 5-390 min). The GP nurse attended the initial assessment in 67% (n = 629) of cases with the majority of these assessments occurring in the week in consultation with the public hospital on-call geriatrician. Where the GP nurse attended the initial assessment, a follow-up review by the GP geriatrician was provided in 40% of cases (n = 172). The geriatrician did not review the remaining 60% of patients as they had either improved significantly or died.

The interventions provided included intravenous fluids and antibiotics (25%, n = 160), subcutaneous fluids (32%, n = 203), oral antibiotics, analgesics, medication review, carer/device care and palliative symptom management. Most patients required multiple interventions simultaneously. The GPS team managed infection and maintenance of intravenous cannula. All intravenous drugs, fluids and equipment/consumables were obtained from the local public hospital.

The treatment provided in the RACF was well tolerated with less than 1% intervention-related complications, such as local swelling, erythema infusion site or skin rash post-intravenous antibiotic administration. No patients required transfer to hospital for treatment-related complications.

An additional 77 referrals were declined during 1 July 2015 to 31 October 2015 (Table 1). The GPS reviewed 13 of the 77 patients within 2 weeks of initially declining the referral. The reasons for review included abnormalities on investigations done by the GP or ongoing concerns from the nursing staff or GP.

<table>
<thead>
<tr>
<th>Number of referrals not seen</th>
<th>Reasons for not seeing referred residents</th>
<th>Advised action plan</th>
<th>Sent to hospital post-GPS referral</th>
<th>Sent by GPS within 14 days of initial referral</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>Subacute or chronic problem and does not require urgent review</td>
<td>Refer to usual GP or after hours (Pharmacist appropriate investigations)</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>20</td>
<td>Palliative care plan already in place</td>
<td>Refer to GP</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>Follow-up requested post ED</td>
<td>Refer to GP</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Too acutely unwell/need hospital-based management</td>
<td>Transfer resident to emergency/direct admission</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>GP unable to source medications</td>
<td>Medication/consumables supplied by GP allowing GP to continue managing patient</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Els, emergency department; GPS, Geriatric Flying Squad; GP, general practitioner; RACF, residential aged care facilities.

Discussion

There are several models of care nationally and internationally,1,1 which aim to reduce hospitalisation for older adults or focus on their early discharge from hospital. Most of the models have a clinical nurse consultant or nurse practitioner as the team leader and focus on chronic issues of community dwelling older adults. The GPS is led by a geriatrician and focuses on improving quality of care of patients in RACF.

These patients are extremely frail with significant multi-morbidities requiring repeated hospitalisations and are especially prone to hospital-acquired complications.1 This indicates significant cohort benefits from interventions aimed at managing their acute problems in the RACF avoiding hospital transfer where possible. A service led by a specialist geriatrician. The GPS aims to address these factors by providing rapid assessment and management plan within and after hours, ongoing education to nursing staff and engaging families and RACF in advance care planning.

Studies suggest that 25-46% of RACF residents present to hospital frequently in the last 6-12 months of their life.19 Almost 50% of these hospitalisations are potentially avoidable.18 Of all the patients seen by the GPS, 18% received palliative care either after a trial of treatment or as the first line management following an acute deterioration. This reduced unnecessary transfer of these patients to hospital for terminal care and enabled them to stay in familiar surroundings during their last days of life.

Limitations of this study include the lack of a control group as it is unknown whether the patients that were managed in the RACF would have had different outcomes in the hospital setting. The regional focus of the study in an area with a high Caucasian (90%) population may impact on the transferability of the model to other culturally diverse or rural populations. This study only captured data related to a geriatrician-led model and whether a similar model led by nurse practitioner or GP would achieve comparable outcomes could be a focus for further study.

In summary, the study found that the service may have diverted emergency presentations for 90.3% of the referred acutely unwell patients by offering rapid assessment and management, choice in place of treatment and level of interventions.

Key factors impacting on service uptake and utilisation included establishing relationships with all stakeholders (patient/family/RACF/GP/hospital), effective communication, flexible individualised patient management plans and availability of point-of-care equipment and consumables. This model of care can be successfully transferred to other areas with comparable outcomes if these key factors are addressed.

References

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