On Kilimanjaro specifically, there was a trend towards increased summit success in those spending an extra night acclimatising.

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**References**


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**Experience of a rapid access blackout service for older people**

SIR—Syncope is experienced by almost half the population during a lifetime [1, 2] and accounts for significant morbidity [3–5]. The overall incidence in community-dwelling older people is reported as 6.2 per 1,000 person years, rising to 16.9 and 19.5 per 1,000 person years in men and women aged >80 years, respectively [6].

Recent studies on syncope in older patients have focussed on evidence-based approaches to syncope management within existing geriatric medicine departments [7], with only 10.4% of cases remaining unexplained. Others have described the needs for, and benefits of, rapid access syncope clinics [8, 9]. However, few have focussed upon the applicability of these units in older age groups, where studies have suggested that the importance of making a correct diagnosis may be higher and management particularly challenging with the concomitant high prevalence of comorbidity and polypharmacy [10, 11]. Furthermore, older patients have a higher incidence of cardiac causes of syncope requiring a high index of suspicion and additional expertise [3]. Some authors [8, 9] suggest that rapid access syncope services should ideally be led by either cardiologists or neurologists without mention of the potential role of geriatricians in delivering these important services [11]. Despite the holistic view inherent in geriatric medical practice, there are relatively few data to support the role of geriatri-
In 2007, the Newcastle Rapid Access FASS saw 180 new patients aged ≥65 years who presented with loss of consciousness. The mean age of this group was 77 SD (7.6) [range 65–97].

All patients are seen within 1–3 weeks of referral depending on need. Clinical information is recorded on a central database with written permission of patients. This is anonymously stored with permission from the Caldicott Guardian and Data Protection Officer from our institution for use for audit and service development. Details of this database have been published elsewhere [19].

Consecutive patients aged ≥65 years referred with syncope and seen in the FASS in 2007 were retrospectively identified from the database. Demographic data, investigations, time to diagnosis and ultimate diagnosis were reviewed in all cases from both the database and medical notes.

In line with recent descriptions of syncope services across all age groups, ultimate diagnosis was broadly grouped into cardiac, non-cardiac, neurological, psychological and unexplained [1, 2].

Details of time of initial assessment in the FASS and time to diagnosis were determined from review of the database and medical notes.

Results

In 2007, the Newcastle Rapid Access FASS saw 180 new patients aged ≥65 years who presented for the first time with loss of consciousness. The mean age of this group was 77 SD (7.6) [range 65–97].

When classified according to the recommended criteria, only 7.5% of the total group referred with blackouts remained undiagnosed at the time of census. The majority of patients were found to have a blood pressure cause for their symptoms (Table 1), with 37% (66/180) of the total

### Table 1. Diagnostic categories of older patients attending a specialist syncope service for older people

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>(N)</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-cardiac/blood pressure (BP)</td>
<td>102</td>
<td>57%</td>
<td></td>
</tr>
<tr>
<td>Situational syncope</td>
<td>2</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Cough</td>
<td>2</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Related to culprit medication</td>
<td>11</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Vasovagal syncope</td>
<td>66</td>
<td>65%</td>
<td></td>
</tr>
<tr>
<td>Orthostatic hypotension</td>
<td>21</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Permanent pacemaker</td>
<td>11</td>
<td>38%</td>
<td></td>
</tr>
<tr>
<td>Related to culprit medication</td>
<td>2</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Aortic stenosis</td>
<td>4</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Bradycardia pt declined PPM</td>
<td>2</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Tachycardia</td>
<td>3</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>Heart failure</td>
<td>29</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Permanent pacemaker</td>
<td>11</td>
<td>38%</td>
<td></td>
</tr>
<tr>
<td>Related to culprit medication</td>
<td>2</td>
<td>7%</td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
<tr>
<td>Tachycardia</td>
<td>3</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>Neurological (Neuro)</td>
<td>21</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Benign paroxysmal positional vertigo</td>
<td>4</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Gait disorder</td>
<td>11</td>
<td>52%</td>
<td></td>
</tr>
<tr>
<td>Epilepsy</td>
<td>6</td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>Falls</td>
<td>9</td>
<td>44%</td>
<td></td>
</tr>
<tr>
<td>Drop attack</td>
<td>3</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Head injury</td>
<td>1</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Psychogenic</td>
<td>1</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td>Unexplained</td>
<td>14</td>
<td>7.5%</td>
<td></td>
</tr>
<tr>
<td>Related to culprit medication</td>
<td>2</td>
<td>7%</td>
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<td>4</td>
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<td>7</td>
<td>24%</td>
<td></td>
</tr>
</tbody>
</table>

PPM, permanent pacemaker.
group of >65-year-olds presenting with blackouts having a
diagnosis of vasovagal syncope.

There was no difference between these diagnostic groups
in terms of age at presentation or sex.

Importantly, the principal diagnosis in 11% of the patient
group was related to gait and balance abnormalities and falls,
abnormalities that might not be conventionally considered as
part of the routine assessment performed by those seeing
patients with blackouts.

Although the time to diagnosis was considerable in some
patients (Figure 1), there were differences between the diag-
nostic groups, with time to diagnosis being longer in the
group found to have a cardiac cause for their symptoms
and quickest in the group presenting with falls, though this
difference did not reach statistical significance (Figure 1).

Discussion

Our results show the benefits of the Newcastle model for the
investigation and management of syncope in older individ-
uals. The comprehensive, multidisciplinary nature of our
service clearly pays dividends in terms of the number of diag-
noses made in our patients, with a 92.5% diagnostic rate.

Conventional services in all ages report positive diagnostic
rates between 60 and 90%, with up to 40% of older patients
undiagnosed despite extensive investigation [6, 20–22],
though Ungar and colleagues [7] report a similar diagnostic
rate in geriatric in- and out-patient settings. Similar diagnostic
rates in patients with unexplained drop attacks have been re-
ported [19]. It is important to note the importance of a
comprehensive falls assessment in this patient group given
the overlap in presentation between falls and syncope [23].

There are several key differences in our service compared
to many others [1, 3, 9, 24]. The first is that our falls and syn-
cope service is run by clinicians with a specific interest and
expertise in the multidisciplinary needs of older people. We
believe that this is a significant benefit when compared to
similar services run by single-organ specialists in, for example,
cardiology and neurology. Secondly, our service is physician-
led; some syncope services, particularly in the UK, are led by
triage nurses. It is possible that adoption of a nurse-led service
is related to a perception that this will be better value for
money. Recent studies examining nurse-led endoscopy clinics
suggest that this may not be the case [25]. In addition, while
there is a vital role for allied professionals in syncope services
for all age groups, it is particularly important that older pa-
tients have a thorough medical review as part of the
evaluation process, given their atypical presentations [26],
complex comorbidity and polypharmacy. The comprehensive
medical and geriatric medical evaluation all our older patients
receive in tandem with an evidence-based approach to syn-
cope investigation [3, 12] is the keystone of our service and
the source of our high diagnostic rate. We believe that this
is important because of the significant morbidity [4] and mor-
tality [27] associated with syncope in older people. Adopting
the Newcastle Rapid Access FASS clinic model may also have
financial benefits. Our unit has previously demonstrated dra-
matic reductions in bed days per year for the diagnostic
categories comprising syncope and collapse, compared to
other teaching hospitals in the UK [10]. This translates into
significant savings in emergency hospital costs.

Vasovagal syncope is an important diagnosis to consider
in older people, and often presents atypically, making a diag-
nosis based on history, clinical examination and basic
investigations more difficult than in younger patients [26].
We have a low threshold for tilt table testing in the appro-
priate context [12], which may account for our high
diagnostic yield. Our reliance upon symptom reproduction
in tandem with characteristic haemodynamic changes is vital
in this context and effectively excludes false positivity as the
source of our high diagnostic rate. Tilt table testing may be
under-utilised in other syncope units.

In our cohort of older patients with syncope, there were
considerable numbers of non-syncope-related symptoms
such as falls and gait and balance abnormalities. While these
are clearly not causes of true syncope per the definition
above, older patients may present with non-specific 'collapse'
or 'blackouts', which with further multidisciplinary assess-
ment have different root causes than an initial non-
specialist review might suggest. It might be argued that ger-
iatricians are less likely to diagnose cardiological or
neurological abnormalities in those presenting with black-
outs. This seems unlikely given that our figures are comparable to those from previously published data from a
range of centres [7]. This suggests that blackout specialists
with a geriatric medical background do not miss the cardio-
logical and neurological disorders but do pick up a wide range
of complex problems including falls and syncope risk factors
including visual and cognitive impairment and gait disorders.
As a result, our service is value added, providing high-quality,
evidence-based patient-centred care.
Key points

- The comprehensive, multidisciplinary syncope service for older people has high diagnostic rates.
- Vasovagal syncope is a frequent cause of blackouts in older people.
- Syncope services led by geriatricians have advantages for older people.

Conflicts of interest

None of the authors has any conflict of interest. All authors have read and approved the final version of this manuscript.

References

1. Fitzpatrick AP, Cooper P. Diagnosis and management of patients with blackouts. Heart 2006; 92: 559–68.