Out-of-hours palliative care: what are the educational needs and preferences of general practitioners?

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ABSTRACT

Objectives Offering genuine choice to patients over place of care and death requires the provision of high-quality palliative care 24/7. This study examines the confidence of out-of-hours general practitioners (GPs) in symptom control and end of life prescribing, and identifies their educational needs and preferences in order to inform recommendations for future education.

Methods A self-completion postal survey was designed and sent to 1005 GPs working for an independent provider of out-of-hours services across England. Quantitative data were analysed using descriptive statistics and non-parametric tests.

Results 203 (20.3%) GPs completed the survey questionnaire; 13.3% (n=27) worked exclusively out-of-hours. Confidence in assessing palliative care emergencies (42.8%, n=87: ‘not so confident’ or ‘not at all confident’), managing symptoms in non-cancer patients (39.4%, n=80) and prescribing a new syringe driver (39.0%, n=79) was lowest. Lower confidence was associated with infrequent exposure to palliative patients (p<0.05) and lack of training in palliative care (p<0.05); 12.8% (n=26) had never received formal training. Educational preferences were closely associated with confidence (p<0.0005); the topics above were most requested. E-learning was the preferred method (67.5%, n=137). 82.1% (n=165) believed training focused on out-of-hours work would be beneficial.

Conclusions We identify that confidence in key palliative care competences is severely lacking. Educational strategies to address this concern must be targeted at GPs preferences for content and mode of delivery. Regular e-learning is favoured, but should be blended with other approaches that promote engagement including out-of-hours themed workshops and case discussion. Specialist palliative care services should engage with out-of-hours providers to support education.

INTRODUCTION

Studies examining end of life preferences in the UK, Europe and the rest of the world suggest most people express a wish to be cared for and to die at home if high quality care can be provided. While the proportion of home deaths in the UK has risen over recent years, only 21% of all deaths occur in this setting. If patients are to be offered genuine choice over their place of care and death, access to care and support 24-h a day, 7 days a week is required. UK national policy supports efforts to meet patients’ preferences, highlighting the importance of well planned and organised out-of-hours (OOH) arrangements with end of life care training for all health and social care staff. Organisational challenges are recognised to impact on patient care in this setting: poor information transfer, discontinuity of patient care, and limited access to support services and medication have been highlighted in the recent literature. Little, however, is known about the knowledge and skills of OOH practitioners and how best to deliver educational support.
the week that falls outside normal working hours. A recent study identified poorly controlled pain was the most frequent reason for patients with cancer to seek OOH primary medical care. The risk of hospital admissions increases when symptom control and carer support are inadequate. Patients and carers have expressed the fear of an inappropriate hospital admission as a barrier to accessing support. A small percentage of all contacts, their healthcare needs are recognised to be complex. Guidance recommends the provision of 24/7 specialist palliative care services, but input is largely based on telephone advice from on call specialists and varies significantly across the UK.

Educational preferences
It is challenging for GPs to keep their palliative care knowledge and skills up-to-date. GPs provide medical care to patients in their last year of life at home, but, overall, they see few palliative patients. Common requests for education among GPs include symptom control, communication skills, syringe driver use and bereavement care. Education is largely led by hospices and other specialist palliative care services. Other initiatives have included the Macmillan GP Facilitator Programme, where GPs with experience and an interest in palliative care worked in their localities with the aim to enhance skills. Evidence on how educational preferences vary according to working context is limited. A qualitative study of nine GP sessions in the OOH setting in Wales highlighted a lack of basic background palliative care knowledge. The importance of improving education and support to OOH practitioners is recognised with the need for further research identified in a national scoping exercise by the National Institute for Health Research; to date there has been no evaluation of educational preferences of GPs working in this particular setting.

Aims
This survey set out to examine, for the first time, the perceived confidence of OOH GPs in symptom control, end of life prescribing, communication skills, and to identify their educational needs and preferences in order to inform recommendations for future educational programmes.

METHODS

Study design
A structured self-completion postal survey.

Setting and participants
The survey questionnaire was sent to all 1005 GPs employed by an independent provider of OOH services across England covering the following geographic areas: Buckinghamshire, East Sussex, North Essex, East Hampshire, London, North Somerset, Suffolk, Surrey, Warwickshire, West Sussex and Worcestershire.

Data collection
Since no validated questionnaire to match the study objectives and population of interest existed, a new questionnaire was designed. The structure and content was informed by an extensive literature review, existing questionnaire schedules that have examined the views of GPs in relation to palliative care, and the views of key experts who have undertaken previous work in this field. The questionnaire was piloted among a convenience sample of doctors with similar characteristics to the study population (n=12). Questions were closed with predefined tick box answers. Questions covered GPs’ confidence in palliative care competences including symptom control, prescribing and communication skills, their educational needs and preferred educational methods. In addition, personal and professional demographic data were collected. The questionnaire was anonymous and mailings were managed by the independent provider. Strategies to maximise the response rate were incorporated and included a freepost envelope and a second reminder mailing.

Questionnaire available in online supplementary appendix 1.

Ethical approval
Ethical approval was obtained from the King’s College London Research Ethics Committee (BDM/11/12-67). Completion and return of the questionnaire was taken as expressed consent to participate.

Data analysis
Returned questionnaires were assigned a unique identification number and data entered on to a statistics software programme (SPSS Statistics 20) using predefined codes. Specific codes were used for missing values. All data were checked and cleaned. Quantitative data were collated and analysed using descriptive statistics. Non-parametric statistical tests were used to compare groups and explore relationships between variables; $\chi^2$ for categorical variables and Mann–Whitney U for continuous variables. p Values were significant where $p \leq 0.05$.

RESULTS
Overall, 203 GPs completed and returned the postal questionnaire (response rate 20.3%). Three blank questionnaires were returned as the intended recipient was no longer at the address or ineligible. Basic respondent characteristics are presented in table 1, with comparison to the England GP workforce.

In total, 39.4% (n=80) of respondents were GP principals working OOH sessions. Over half of
respondents (55.1%, n=112) were working an OOH session once a week or more and 96% (n=195) were working once a month or more. A palliative patient was seen OOH on a weekly basis by 19.7% (n=40), but 5% (n=10) were seeing a palliative patient only once a year or less. Previous experience of working in a hospice or specialist palliative care service was indicated by 16.3% (n=33).

GPs working exclusively OOHs
Overall, 13.3% (n=27) of respondents were working OOH sessions only; all of these had previously worked in-hours as a GP in the UK. GPs working exclusively in the OOH setting were significantly older (U=1265, p<0.0005) and had been working OOH significantly longer (U=1721.5, p=0.018).

Confidence to deliver palliative care
GPs were asked to indicate their confidence in 13 palliative care competences covering symptom control, communication skills and end of life prescribing (figure 1). The areas of greatest confidence were managing pain with analgesics other than opioids (94.1%, n=191, ‘confident’ or ‘very confident’), constipation (90.7%, n=184), communication about end of life issues (87.2%, n=177), nausea and vomiting (87.2%, n=177) and managing pain with opioids (86.7%, n=176). The areas of least confidence were assessing palliative care emergencies (42.8%, n=87, ‘not so confident’ or ‘not at all confident’), managing symptoms in non-cancer patients (39.4%, n=80) and prescribing a new syringe driver (39%, n=79). Three GPs stated they were ‘very confident’ in all areas; one was currently working at a hospice.

Confidence in assessing palliative care emergencies, managing symptoms in non-cancer patients and all prescribing competences was significantly associated with how often a palliative patient was seen OOH, with greater confidence observed in those with more frequent exposure (p<0.05, see online supplementary appendix 2). There was no significant difference in confidence for any area of competence when comparing those working in-hours and OOH with those working solely OOH.

Previous education
GPs were asked when, if ever, they had received formal palliative care education or training. In total, 21.7% (n=44) had received education before starting GP training, 51.7% (n=105) during their time as a GP trainee, 49.8% (n=101) through their in-hours work and 40.9% (n=83) through their OOH work. Overall, 12.8% (n=26) had never received formal palliative care training. A lack of any past training in palliative care was not significantly associated with working arrangements, age, years of experience or country of qualification. Respondents who had received education as a GP trainee were significantly younger (U=2763.5, p<0.0005) than those who had not. GPs who had received no education at all were significantly less confident in 10 of the 13 competences examined, including all four prescribing competences: converting opioids (U=1239.5, p<0.0005); prescribing anticipatory medications (U=1053, p<0.0005); prescribing a new syringe driver (U=1325.5, p<0.0005); adjusting an existing syringe driver (U=1395.5, p=0.001).

Educational preferences
GPs were asked to choose as many areas as they wished from a list of topics based largely on the palliative care competences examined (table 2). Over half of GPs expressed a preference for education in three areas: palliative care emergencies (61.6%, n=125), symptom control for non-cancer patients (54.7%, n=111) and using a syringe driver (53.2%, n=108). Educational preferences were closely associated with confidence (p<0.0005, see online supplementary appendix 3); the areas above correspond with the three competences where least confidence was expressed.

GPs working OOH only were less likely to want education on symptom control for non-cancer patients ($\chi^2(1)=3.91$, p=0.048) than those also working in-hours; there were no other significant differences in the preferences of those working solely OOH.

GPs were asked their preferred educational methods, ticking as many as they wished from a list of ten. E-learning modules were the favoured method (table 3). In total 82.1% (n=165) indicated education sessions in palliative care specific to the OOH setting would be of benefit.

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Table 1 Respondent characteristics with comparison to England GP workforce

<table>
<thead>
<tr>
<th>Gender</th>
<th>Respondents n=203 (%)</th>
<th>England GPs* n=35 415 (%)</th>
<th>$\chi^2$ Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>109 (53.7)</td>
<td>19 124 (54.0)</td>
<td>$\chi^2(1)=0.008$</td>
</tr>
<tr>
<td>Female</td>
<td>94 (46.3)</td>
<td>16 291 (46.0)</td>
<td>p=0.931</td>
</tr>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;30</td>
<td>1 (0.5)</td>
<td>390 (1.1)</td>
<td>$\chi^2(4)=10.51$</td>
</tr>
<tr>
<td>30–39</td>
<td>75 (36.9)</td>
<td>9456 (26.7)</td>
<td>p=0.033</td>
</tr>
<tr>
<td>40–49</td>
<td>59 (29.1)</td>
<td>11 474 (32.4)</td>
<td></td>
</tr>
<tr>
<td>50–59</td>
<td>53 (25.6)</td>
<td>10 447 (29.5)</td>
<td></td>
</tr>
<tr>
<td>60–69</td>
<td>16 (7.9)</td>
<td>3187 (9.0)</td>
<td></td>
</tr>
<tr>
<td>70+</td>
<td>–</td>
<td>390 (1.1)</td>
<td></td>
</tr>
<tr>
<td>Country of qualification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>147 (72.4)</td>
<td>27 482 (72.6)</td>
<td>$\chi^2(1)=3.14$</td>
</tr>
<tr>
<td>Non-UK</td>
<td>56 (27.6)</td>
<td>7933 (22.4)</td>
<td>p=0.076</td>
</tr>
</tbody>
</table>

*England GP workforce data from 2011.25

GP, general practitioner.

DISCUSSION

This survey has identified essential educational needs and learning preferences among OOH practitioners in relation to the delivery of palliative care in the community. Its strengths include a design that allowed data to be collected from GPs working in many different geographic areas across England. The questionnaire development was carefully considered and thorough. However, there are a number of limitations that affect the generalisability of the findings presented.

First, the response rate was low despite a number of steps taken to maximise response following a review of the literature. While the importance of palliative care is well recognised, the reality is that it forms only a small part of GPs’ work in this setting, limiting the salience of the survey questionnaire, and therefore the likely willingness to respond. The findings may reflect the views of OOH GPs with a specific interest in palliative care. Second, returned questionnaires highlighted the fact that the database used to access this GP population was not fully up-to-date, which is

**Table 2** Preferred topics for palliative care education

<table>
<thead>
<tr>
<th>Topic for education</th>
<th>Number of respondents n=203 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palliative care emergencies</td>
<td>125 (61.6)</td>
</tr>
<tr>
<td>Symptom control for non-cancer patients</td>
<td>111 (54.7)</td>
</tr>
<tr>
<td>Using a syringe driver</td>
<td>108 (53.2)</td>
</tr>
<tr>
<td>End of life care pathways</td>
<td>89 (43.8)</td>
</tr>
<tr>
<td>Breathlessness</td>
<td>85 (41.9)</td>
</tr>
<tr>
<td>Opioid prescribing</td>
<td>84 (41.4)</td>
</tr>
<tr>
<td>Agitation and confusion</td>
<td>77 (37.9)</td>
</tr>
<tr>
<td>Nausea and vomiting</td>
<td>47 (23.2)</td>
</tr>
<tr>
<td>Communication skills</td>
<td>43 (21.2)</td>
</tr>
<tr>
<td>Other analgaesics</td>
<td>37 (18.2)</td>
</tr>
<tr>
<td>Constipation</td>
<td>32 (15.8)</td>
</tr>
<tr>
<td>Other</td>
<td>14 (6.9)</td>
</tr>
</tbody>
</table>

**Table 3** Preferred methods for education

<table>
<thead>
<tr>
<th>Method of education</th>
<th>Number of respondents n=203 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-learning modules</td>
<td>137 (67.5)</td>
</tr>
<tr>
<td>Workshops with other GPs</td>
<td>110 (54.2)</td>
</tr>
<tr>
<td>Case discussion</td>
<td>104 (51.2)</td>
</tr>
<tr>
<td>Study days</td>
<td>97 (47.8)</td>
</tr>
<tr>
<td>Multiprofessional workshops</td>
<td>92 (45.3)</td>
</tr>
<tr>
<td>‘Learning on the job’</td>
<td>89 (43.8)</td>
</tr>
<tr>
<td>Lectures with other GPs</td>
<td>83 (40.9)</td>
</tr>
<tr>
<td>Multi-professional lectures</td>
<td>47 (23.2)</td>
</tr>
<tr>
<td>Reflective practice</td>
<td>44 (21.7)</td>
</tr>
<tr>
<td>Books/journals</td>
<td>24 (11.8)</td>
</tr>
<tr>
<td>Other</td>
<td>7 (3.4)</td>
</tr>
</tbody>
</table>

GP, general practitioner.
likely to have had an impact on response. GPs may not have been reached due to inaccurate addresses, may not have been actively working OOH or may not have been carrying out home visits in this setting, limiting the relevance of the survey. Third, comparison of responders to the England GP workforce was performed, but comparison to all GPs registered with the OOH service was limited by a lack of available data. Full assessment of non-response bias was therefore not possible.26 Given the preference for e-learning, an electronic version of the questionnaire may have generated a higher response.

A number of important issues were, nevertheless, identified by this survey:

**GPsworking exclusively OOHs**

This subgroup of GPs has not previously been studied. They were significantly older and more experienced, and had all previously worked in-hours as a GP in the UK. A qualitative study of OOH GPs regarding palliative care questioned whether GPs working exclusively OOH might have different needs due to their non-exposure to in-hours practice.10 The demographic data from this study suggest these GPs are in fact a very experienced subgroup, the majority moving to an exclusively OOH role in the latter stages of their career. No significant differences in confidence were seen when comparing those working OOH only with those also working in-hours. It is likely past experience and more frequent exposure of those working exclusively OOH compensates for their current lack of in-hours palliative care provision.

**Confidence in key competences lacking**

GPs expressed low confidence in assessing palliative care emergencies, managing symptoms in non-cancer patients and prescribing a new syringe driver. Almost 1 in 10 GPs were ‘not at all confident’ prescribing a new syringe driver and 1 in 20 ‘not at all confident’ assessing palliative care emergencies, for example, spinal cord compression, which needs to be addressed. Previous work has raised concerns about a lack of confidence in background palliative care knowledge, particularly prescribing relating to opioids and syringe drivers.11 In this study, lower confidence in syringe driver prescribing and the conversion of opioids was seen in GPs who had less frequent exposure to palliative patients OOH; infrequent involvement and subsequent deskilling are a key issue in this group.

The areas of greatest confidence were managing pain, constipation, and nausea and vomiting. A systematic review of 66 studies examining how well GPs deliver palliative care identified that the proportion of GPs reporting difficulty in managing pain has improved over time.27 This survey therefore supports growing confidence in this area, which is reassuring given the high prevalence of pain reported in OOH contacts by patients with cancer.15 The majority of GPs were confident communicating about end of life issues, which may be a reflection of increased training. However, caution should be taken when inferring competence: GPs self-assessment of care provided has previously focused on their deficiencies in symptom control, while relatives have expressed concerns about GPs communication skills.27

**Educational needs and preferences**

Over 1 in 10 GPs had never received formal palliative care education or training; this was not associated with working arrangements, age or country of qualification, although these factors are likely to impact on training received. GPs who had received no education were significantly less confident in all prescribing and the majority of symptom control competences.

Educational preferences were strongly associated with perceived confidence; the most frequently requested topics corresponded with the competences where least confidence was expressed. Education in end of life care pathways and opioid prescribing was also frequently requested, as was the management of breathlessness and agitation/confusion. These reflect common presenting symptoms for patients with cancer accessing OOH medical care.15

The results build on previous qualitative work where prescribing and converting opioids, syringe drivers and the last days of life care pathway were identified as topics for education.11 A survey of in-hours GPs over a decade ago identified a frequent request for education in symptom control for non-cancer patients.19 This preference remains high with an ever increasing awareness of unmet palliative care need and inequity of access in those with non-malignant disease. Comparing the GPs in this study with the above survey, more wanted education on syringe drivers and opioid prescribing, which reflects common OOH scenarios. The number requesting communication skills training was very similar.

The most favoured method of education was e-learning, which was considered to be practical and accessible. GP preferences have changed over time; previous studies examining palliative care education date back to the early 1990s when more traditional approaches such as lectures were favoured above distance learning.28 29 This reflects advances in e-learning, although past research did not focus on OOH practitioners. A systematic review examining the effects of online educational interventions targeted at GPs found evidence of an improvement in satisfaction, knowledge and practice change, but there was little evidence for the impact on patient outcomes.30 Careful consideration of what can be taught by e-learning is needed along with recognition that e-learning for palliative care is unlikely to be effective on its own.31 In addition, e-learning requires self-discipline and motivation, which may not capture those in greatest need of education. ‘Blended’ learning solutions combining face-to-face teaching with

more technological learning platforms may provide a way forward and require formal evaluation. Further research into the site and timing of initiatives would be of benefit to maximise uptake.

CONCLUSIONS
Offering choice to patients over preferred place of care and death is fundamentally influenced by OOH provision. End of life care policy aiming to enhance choice has acknowledged this, but future service development and training must address the needs expressed by OOH practitioners. Confidence in key palliative care competences is profoundly lacking. Encouraging the uptake of education is a challenge, with palliative care representing an important, but small, component of GPs’ OOH work. Infrequent exposure lowers confidence, so regular updates are essential. E-learning is the favoured method, but is unlikely to be effective on its own. Therefore novel ‘blended’ learning strategies must be considered targeting education at GPs’ needs, both in terms of content and mode of delivery, in order to encourage engagement and ultimately impact positively on the care of patients and their families. Specialist palliative care services should engage with OOH providers to support future education.

RECOMMENDATIONS FOR FUTURE EDUCATION

► Palliative care education should be targeted specifically to the OOH setting incorporating relevant clinical scenarios that are commonly encountered.
► Priority topics include emergency presentations, symptom control for non-cancer patients, using syringe drivers and opioid prescribing.
► ‘Blended’ learning solutions should comprise e-learning and workshops/case discussion specifically for OOH GPs, and ideally led by palliative care physicians in collaboration with other specialties such as respiratory medicine, cardiology and elderly care.
► Specialist palliative care services have a key role in facilitating education, and should approach and work with OOH services, not just GP practices.
► Given infrequent exposure, regular updates are essential if knowledge and skills are to be maintained, for example, an e-learning update on opioid prescribing and conversions.
► GPs should be made aware of the national e-learning project, End of Life Care for All (e-ELCA), and a specific out-of-hours module should be strongly considered.

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REFERENCES


