Using Death Rounds to Improve End-of-Life Education for Internal Medicine Residents

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Abstract
While internal medicine interns provide much of the care to patients dying in the hospital, few report that they have received adequate training in end-of-life care.

Purpose: To address this perceived lack of training, we undertook a study to evaluate Death Rounds as an educational tool in end-of-life care and to address the emotional needs of trainees providing care to dying patients.

Design: We used a behavioral interventional study using a pre-post study design.

Participants: The study included all internal medicine interns at the University of Washington (n = 62) during the academic year 2007–08. Interns from the 2006–07 academic year (n = 64) received the survey and served as the control group.

Intervention: Death Rounds, a one-hour session dedicated to discussion of emotional reactions to patient death.

Main Measures: We used a 14-item electronic measure with questions directed toward the impact of perceived insufficient end-of-life care and the role of Death Rounds in resident education.

Key Results: Results are drawn from a total of 39 surveys completed by the intervention group, for a response rate of 63%. Seventy-four percent (29) felt that Death Rounds contributed to their education in end-of-life issues. Seventy-two percent (28) reported that Death Rounds was “somewhat” or “very” helpful in improving their comfort with discussing end-of-life issues. Ninety-seven percent (38) of participants thought that having an opportunity to discuss the emotional aspects of patient death should be included in their training.

Conclusions: This study suggests that learning to deal with the strong emotions that arise in the care of dying patients is an important part of physician training. Death Rounds provides an opportunity to explore these emotions with colleagues in a supportive environment and is a valuable addition to the resident curriculum.

Introduction
INTERNAL MEDICINE INTERNS provide much of the care for patients dying in the hospital setting. Despite this, many report inadequate training in end-of-life care.¹ This inadequacy may result in decreased quality of care delivered to dying patients and increased resident stress and anxiety. Such stress may ultimately lead to physician burnout²³ and decreased quality of care provided to all patients.⁴

In a national survey,⁵ the majority of residents in internal medicine, family medicine, and surgery reported that they received no formal training in end-of-life care. Those who had participated in such teaching stated that it was, overall, of poor quality. It also is worth noting that 40% of residents in this survey reported that they were not prepared to deal with their own feelings about patient death. A lack of formal training in end-of-life care results in residents who feel ill-prepared to address the emotional issues that arise in caring for dying patients.

Surveys⁶ of physicians following patient death show that many report a moderate to strong emotional impact from patient death. In a study⁷ of emotionally powerful patient deaths, many trainees reported that the most powerful deaths occur during their intern years. Interns describe needing more emotional support than senior physicians, and most residents manage the emotions that arise following a patient death alone, or rely on talking with their peers, rather than an attending physician.

A previous study in the critical care literature⁸ described a novel intervention for addressing resident emotions in response to patient death. Death Rounds, a monthly session in the intensive care unit (ICU), gave residents a formal opportunity to discuss emotional reactions to patient death. The majority of residents surveyed found these sessions to be an important part of their rotation and recommended that that such sessions be included in all ICU rotations.

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As a result, Death Rounds was adopted in a limited fashion during the medical intensive care unit rotation at the University of Washington’s county hospital, Harborview Medical Center. However, not all interns were exposed. We expanded the scope of Death Rounds to include all interns on the in-patient medical services at the University of Washington Medical Center (UWMC). We hypothesized that Death Rounds would be viewed as an important part of the clinical experience and as a valuable educational tool, and that the addition of Death Rounds would improve interns’ perceived proficiency in end-of-life care. By adding Death Rounds to our program, we also aimed to address the emotional needs of interns caring for patients at the end of life.

**Methods**

**Study design**

We conducted a behavioral interventional study using a pre-post study design. This study was exempted from Institutional Review Board review by the University of Washington Human Subjects Division.

**Participants**

All internal medicine interns (n = 62) during the academic year 2007–08 on rotation at the University of Washington Medical Center (UWMC) were eligible to participate. UWMC is a 450-bed academic hospital in Seattle, Washington, that serves as one of three main teaching hospitals for the University of Washington. Interns from the 2006–07 academic year (n = 62) served as the control group.

**Intervention**

While on rotation at UWMC, interns participated in monthly hour-long Death Rounds moderated by the chief resident, with assistance from palliative care faculty. The sessions were informal and non-didactic, and occurred in place of the weekly intern report. Death Rounds took place in a conference room with participants sitting around a table. Approximately 15-20 interns were present for each session, which represented the majority of interns on service at UWMC. Attending physicians were not routinely present during these sessions.

Before a meeting, the names of all patients who had died on the medical services were collected from the hospital admissions department records of in-hospital deaths and compiled into a list by the chief resident. These names were read aloud by the moderator at the beginning of the session and were available for review by the residents. At the beginning of the session, the moderator explained that the goal of the session was to discuss emotional issues surrounding patient death, rather than specifics of medical care. During the session, interns were encouraged to discuss emotional reactions to, or other issues related to, particular patient deaths. The moderator asked open-ended questions and helped to validate emotions expressed by participants. Not all participants were discussed in each session. Participants did not take notes or attendance, and the list of patient deaths was destroyed at the conclusion of the meeting.

**Data collection**

At the conclusion of the 2006–07 academic year, (control group) interns were mailed a link to a 14-question electronic survey about their experiences with end-of-life education, including four questions related to deficiencies in training and their relationship to providing care and providers’ emotional health. Text boxes were available for participants to enter narrative comments for particular questions. An identical electronic survey was distributed to (intervention group) interns at the conclusion of the 2007–08 academic year. To preserve respondents’ anonymity, demographic information was not collected.

This survey was created by the authors based on a literature review and focus groups with residents.

**Data analysis**

Questions regarding comfort in discussing end-of-life issues and the impact of Death Rounds on education were graded on a five-point Likert scale. For the data analysis, responses were dichotomized as “comfortable” or “uncomfortable” and “helpful” or “unhelpful.” Responses were compared using the Fisher exact test and the two-tailed Student’s t test.

**Results**

A total of 39 surveys were completed from the intervention group for a response rate of 63%. This was comparable to the 59% (38/64) response rate seen in the control group. All respondents in the intervention group reported having participated at least once in Death Rounds.

**Proficiency in end-of-life care**

Eighty percent (31) of participants in this survey reported some type of end-of-life education before internship, including attending rounds, grand rounds, workshops, or engaging in role-playing. Twenty percent (8) reported that their only education had been through observing or speaking with attendings and/or residents. One respondent stated, “I feel that this type of training is something that is more effectively done one-on-one or in small groups and, unfortunately, I have never really had that opportunity, aside from interactions with upper-level residents just prior to having a hard discussion.”

The areas of end-of-life care reported to be most lacking included discussions of prognosis (69%) and advance care planning (56%). In the narrative text comments, interns noted that prognosis discussions were the “hardest” to have and that they felt unsure as a “non-specialist” about specific statistics. One respondent noted that they were “not sure how to bring it up or discuss it with patients.” Ninety percent (35) of the intervention group reported being somewhat or very comfortable discussing end-of-life issues, compared with 76% (29) of controls (p = 0.14) (Table 1).

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**Table 1. Perceived Comfort Discussing End-of-Life Issues with Patients/Families**

<table>
<thead>
<tr>
<th></th>
<th>Control percent (%)</th>
<th>Intervention percent (%)</th>
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<tbody>
<tr>
<td>2007 (n = 38)</td>
<td>76</td>
<td>90</td>
</tr>
<tr>
<td>2008 (n = 39)</td>
<td>24</td>
<td>10</td>
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Control group (N = 38), Intervention group (N = 39).
Education and quality of care

Thirty-three percent (33) of the intervention group perceived an overall decreased quality of care delivered to patients as a result of deficiencies in end-of-life education. These responses were similar to those of the control group (Table 2). One intern noted, “[Being] unable to meet patient and family goals is a huge part of care that is not met well.” As another marker of quality of care, interns were asked about avoiding patients and families. Twenty-three percent (23) of the intervention group, compared with 42% (16) of the control group (p = 0.09), reported avoidance of end-of-life discussions with patients/families as a result of insufficient education. Eight percent (3) each group reported avoiding certain patients as a result of perceived deficiencies in education. Notably, 74% (29) of respondents from the intervention group felt that Death Rounds contributed to their education in end-of-life issues (Table 3). Seventy-two percent (28) reported that Death Rounds was “somewhat” or “very” helpful in improving their comfort with discussing end-of-life issues.

Emotional health

Forty-one percent (16) of the intervention group reported increased stress related to insufficient palliative care education, while 23% (9) reported symptoms of depression and/or burnout. One respondent noted, “Early in internship, I think that those discussions were very stressful.” Another said, “[It is] difficult to share these feelings with non-physicians,” while another stated, “Part of the problem is lack of education, part is also that residents often do not have time to have these long discussions with patients.”

Table 3. Reactions to Death Rounds

<table>
<thead>
<tr>
<th>Percent (%)</th>
<th>yes (n = 39)</th>
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<tbody>
<tr>
<td>Death Rounds provided an opportunity to discuss emotions surrounding patient death.</td>
<td>92</td>
</tr>
<tr>
<td>Opportunity to discuss emotional aspects of patient death should be included in training.</td>
<td>97</td>
</tr>
<tr>
<td>Death Rounds added to my end-of-life education.</td>
<td>74</td>
</tr>
<tr>
<td>I recommend Death Rounds to fellow residents.</td>
<td>90</td>
</tr>
</tbody>
</table>

Intervention group (N = 39).

Discussion

Interns arrive on the wards with variable levels of training in end-of-life care. For some, their only exposure to end-of-life care has come from practices modeled by colleagues or more senior physicians. As a result, trainees report deficiencies in multiple areas, including communication about prognosis and advance care planning. Although it did not specifically address these issues, Death Rounds did present a non-didactic forum for discussing issues that arise in caring for patients at the end of life.

Several studies9–14 have looked at how to teach end-of-life care skills to trainees, but few have looked at how to incorporate training in management of the emotional impact of patient death. Participants were asked about the role of Death Rounds in their education, with three-quarters responding
that it contributed to their education in end-of-life care. Although not perceived by all as a teaching session, Death Rounds may also contribute to the “hidden curriculum” of end-of-life care. This is reinforced by the finding that the majority of respondents felt that Death Rounds improved their comfort with end-of-life communication.

We hoped that, with the addition of Death Rounds, we might see an improvement in reports of quality of patient care delivered. Although it did not reach statistical significance, our study does show a trend toward decreased avoidance of end-of-life discussions with patients and families, and improved comfort with communication at the end of life.

It has been argued that physicians cannot provide high-quality care at the end of life until they become comfortable with their own emotions about death.15 Becoming comfortable with these emotions may also help to mitigate some of the feelings of stress, depression, and burnout reported by participants in our study.

Death Rounds presents a novel approach to exploring the emotional issues related to patient death. In this era of work-hours limitations, Death Rounds provides an opportunity for reflection that can easily be incorporated into the established resident curriculum. As demonstrated in our study, the concept of Death Rounds is well-received by trainees and felt to be an important addition to their training.

Our study has several limitations. First, the small sample size limits the power to detect true differences between study groups. The low response rate may introduce bias, since interns who chose to complete the survey may be different from non-responders. Some interns in the control group may have participated in Death Rounds during their ICU rotations at our county hospital, leading to exposure misclassification. Finally, the study design limits our ability to detect change or to infer causality.

Conclusions

Although providing end-of-life care is an important part of the job of an internal medicine intern, many continue to report a lack of adequate education in this area. Such deficiencies contribute to perceptions of stress and depression, which may adversely affect the quality of care delivered to patients. Learning to deal with the strong emotions that arise in the care of dying patients is an important part of physician training. Until now, many were left to deal with these emotions alone. Death Rounds provides an opportunity to explore these emotions with colleagues in a supportive environment, and is perceived by interns as a valuable addition to their training. Our study suggests that Death Rounds should be adopted as a standard part of the resident curriculum.

Acknowledgments

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Author Disclosure Statement

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References


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