

For patients with terminal chronic illness, does more face-to-face time with a healthcare provider decrease aggressive end-of-life (EOL) care such as ICU admission, feeding tube placement, CPR, or intubation?

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Answer: Existing evidence does not provide a conclusive answer to this particular question. While multiple prospective, randomized, controlled trials demonstrate an association between increased patient-provider contact time and decreased aggressive EOL care, interventions in those studies contain multiple confounding elements that preclude isolation of the time factor from the other elements in the interventions. There is a need for research focusing on provider-patient communication time and EOL care.

Level of Evidence for the Answer: Grade A studies of intervention packages which include face-to-face patient-provider interactions were reviewed.

Search Terms: Terminal care, palliative care, terminal illness, communication, patient-provider relations, time factors, life support care, resuscitation orders, enteral nutrition

Inclusion Criteria: Systematic reviews, meta-analyses, and comparative studies published between 2008 and the current date comparing EOL care or EOL care preferences of patients who spend more face-to-face time with a healthcare provider to those of patients who spend less face-to-face time with a healthcare provider.

Exclusion Criteria: Studies that do not report the primary outcome of interest (EOL care or EOL care preferences) or that do not measure discussion time or provide interventions that include face-to-face discussion.

SUMMARY OF THE ISSUES

Today's physician faces an aging patient population, and with it comes an increasing prevalence of life-limiting or terminal illnesses. For most of these patients, such as those with terminal cancer, end-of-life (EOL) care preferences are an important topic to discuss with the healthcare provider, yet the subject

is unaddressed the majority of the time.¹ While patients expect the physician to initiate the discussion, physicians rarely do so.¹ This is unfortunate, as talking about these issues alters clinically significant end points. Published data show that patients who recall having a conversation about EOL care preferences receive less aggressive medical care in the last week of life compared to patients who do not recall these conversations.² In turn, this has direct effects on quality of life (QOL). Patients with terminal lung cancer who receive less aggressive cancer treatment at the end of life report higher QOL than those receiving aggressive treatment.² Given the increased QOL associated with less aggressive EOL care, it is worthwhile to explore other factors that may affect a patient's attitude toward EOL care. This paper seeks to examine existing evidence to determine whether increased time spent with a healthcare provider changes a patient's EOL care preferences.

SUMMARY OF THE EVIDENCE

The literature search yielded three studies that met inclusion criteria. Gade et al³ conducted a multicenter, prospective randomized controlled trial (RCT) to examine the effects of an interdisciplinary inpatient palliative care consultative service (IPCS) on multiple outcomes in hospitalized patients with life-limiting illness. Study participants were randomized to receive either IPCS with usual care or usual care alone. The IPCS program was comprised of a palliative care physician, a nurse, a hospital social worker and a chaplain who met as a team with each patient and, when possible, the patient's family to assess the patient's needs and specifically address multiple topics including advance directives and EOL care preferences.³ There was no set number of visits between the patient and the IPCS after the initial visit, and any variation in number of visits was not discussed. Six months after enrollment, there was no difference in the overall number of hospital readmissions between the study groups, but patients randomized to receive both IPCS and usual care had significantly fewer intensive care unit (ICU) stays on readmission compared to the patients who received usual care alone (12 versus 21, $p = 0.04$).³ Thus, the additional visits by the IPCS—a proxy for increased patient-provider face-to-face time in this study—were associated with less aggressive care as measured by ICU admission. In the context of the clinical question posed at the beginning of this

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paper, this result must be interpreted with caution as the follow-up period was brief (6 months), and the total number of ICU admissions was small. Further, it must be noted that time spent in patient-provider interactions was not specifically measured and that the content of discussion in an IPCS visit, which is structured to specifically address the topic of EOL care, may have differed from that of a usual care visit.

Temel et al⁴ conducted a prospective RCT examining the effect of early palliative care on EOL care preferences and other outcomes in patients with newly diagnosed metastatic non-small-cell lung cancer (NSCLC) in an outpatient setting. Participants were randomized to receive either early palliative care (within 3 weeks of enrollment) plus standard oncologic care or standard oncologic care alone. In the intervention arm, patients had an initial meeting with a member of the palliative care team who used a specified palliative care protocol to structure the visit, followed by at least monthly follow-up meetings thereafter until death.⁴ Patients receiving standard care could receive palliative care by request of the patient, the patient's family or the patient's oncologist; if such a request was made, the patient did not cross over to the palliative care group, nor did their palliative care provider follow the specified palliative care protocol used in the intervention arm.⁴ With the exception of one patient who died shortly after enrollment, at the time of analysis at 12 weeks all patients in the palliative care group had at least 1 palliative care visit (average: 4 visits), while only 14% of patients receiving standard care had at least 1 palliative care visit (average: 1.3 visits).⁴ EOL care was examined in the study participants who had died by the time of analysis, and aggressive care was defined as meeting any one of three criteria: chemotherapy within 2 weeks before death, no hospice care, or hospice admission 3 or fewer days prior to death.⁴ Patients receiving early palliative care were significantly less likely to receive aggressive EOL care as defined above compared to patients receiving standard oncologic care (33% versus 54%, $p = 0.05$).⁴ Thus, as in the Gade study, a greater number of visits with the palliative care team—this study's metric of increased patient-provider face-to-face time—was associated with less aggressive EOL care. This result also has the same caveat as that of the Gade study in that patients in the intervention had more face-to-face time with a provider than control patients, but it was part of a package of intervention elements during the visits. A comparison between the intervention arm participants and the subsample of the patients in the control arm who also had at least one palliative care visit would have better isolated the time component, but such an analysis was not provided.

Greer et al⁵ extended the follow-up period of the Temel et al study from 12 weeks to 18 months after enrollment. Data from the patients who had died by the time of analysis were included; data from the small number of patients who transferred care to an outside institution were excluded. The authors found that patients randomized to receive early palliative care were less likely than their counterparts in the usual care group to receive aggressive EOL care such as chemotherapy within 60 days of death (52.5% versus 70.1%, $p = 0.05$).⁵ Those receiving early

palliative care were also more likely to be enrolled in hospice earlier—measured as more than 1 week prior to death—than were those receiving usual care (60.0% versus 33.3%, $p = 0.004$). This corroborates on a longer time scale the results demonstrated in the study by Temel et al, but again differences between groups in patient-provider face-to-face time were not measured.

CONCLUSION AND DISCUSSION

While interventions which include increased patient-provider face-to-face time are associated with decreased aggressiveness of EOL care, the interventions also included other elements such as a specific communication strategy that differs from the norm. It is clear that early specialty palliative care results in less aggressive EOL care than later referral. Early palliative care may also have additional benefits. Gade et al, for example, found that early palliative care patients reported greater satisfaction with their care than did usual care patients,³ and Temel et al found that not only did early palliative care patients report greater mood and quality of life than controls, they also had a longer median survival.⁴ Studies like these are important because they examine modifiable factors that influence QOL and over which the provider has direct control. Many primary care physicians, however, may not have access to specialty palliative care services. This makes generalizable information all the more valuable, and it would be helpful for future research to examine mechanisms by which early specialty palliative care may lead to better outcomes so that primary care providers may use this information to achieve similar benefit for their patients in the primary care setting.

Several qualitative studies have been conducted to determine what exactly occurs in a specialty palliative care visit that may differ from the content of a visit with a different specialist. For example, Spoon et al⁶ conducted a small study to compare time expenditure of medical oncologists versus palliative care physicians. They found that while the two specialties divided their time in a near-equal manner (about 33% with patients, 20% working in teams, 10% communicating with other providers, etc.) and spent an equal number of hours on clinical duties during the study period, the average time spent with each patient was significantly longer for palliative care physicians than for medical oncologists.⁶

There may also be some evidence that face-to-face contact with a physician produces different results than other modes of contact. In the Project ENABLE II RCT by Bakitas et al,⁷ patients were randomized to receive either usual care plus regular, structured, palliative care telephone conversations with advanced practice nurses, or usual care alone. Advance care planning and EOL care preferences were specifically discussed in the telephone conversations. The results are somewhat familiar: patients in the intervention arm reported greater QOL and better mood compared to controls; however, there was no difference in aggressive EOL care between groups as defined by days in the ICU.⁷ This may suggest that face-to-face time in particular—not simply increased total communication time—is linked to less aggressive EOL care, or it may simply be that

other measures of aggressive care differed between groups but were unmeasured by the authors.

The common thread among the Gade, Temel and Bakitas studies is that patients had more contact time with providers, and the providers specifically addressed EOL care. While these elements appear to affect clinically significant end points, other factors have been shown to modify their effects. Maciejewski and Prigerson⁸ found that one such modifier was emotional numbness. Patients who reported having an EOL care discussion were assessed by questionnaire (Prolonged Grief Disorder scale), and those who reported feeling emotionally numb regarding their illness were much more likely to receive aggressive EOL care, and in a dose-dependent fashion, than those who did not report emotional numbness.⁸ Similarly, Kao et al found by survey in Taiwan that patients with terminal cancer who were aware of the terminal nature of their illness were more likely to sign a do not resuscitate (DNR) order than were those who were not aware of their poor prognosis.⁹

Perhaps by specifically initiating EOL care discussions earlier in the course of a terminal illness and then following up on it, patients gain additional time to process the information. This extra time may allow patients to develop a better understanding of their own illness; to find other coping strategies rather than emotional numbness; and to understand the limitations of treatment and the morbidity associated with aggressive EOL care such as cardiopulmonary resuscitation (CPR), intubation and mechanical ventilation. Further research is needed to tease apart which modifiable factors contribute to patients' QOL and EOL care preferences—which have been associated with QOL—while dealing with terminal illness so that all patients with terminal illness, not only those with access to specialty palliative care services, may benefit.

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