Hospice and ESRD: Knowledge deficits and underutilization of program benefits

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Hospice and ESRD: Knowledge Deficits and Underutilization of Program Benefits

Kimberly F. Thompson  
Jaya Bhargava  
Roberta Bachelder  
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The mortality rate for individuals with end stage renal disease (ESRD) continues to remain elevated in the United States. Information in the latest report by the U.S. Renal Data System (USRDS) (2007) reflects that individuals with ESRD 20 years of age and older have an eight-fold mortality risk when compared to the general population, decreasing only slightly to seven-fold at age 65 and beyond. Regional variation exists, with the eastern U.S. having higher mortality rates in both the general Medicare population and specifically, the ESRD population. Patients with ESRD are increasingly older and present for treatment with more co-morbid conditions. This is a population that clearly would benefit from hospice services. No studies on utilization and referral to hospice programs by providers of ESRD services have been conducted.

Although hospice care for dying patients on dialysis has been recommended in clinical practice guidelines and policy statements of professional nephrology organizations, only a minority of dying patients on dialysis currently receive hospice services. This retrospective qualitative study investigated a variety of factors contributing to the low referral rate for patients with end stage renal disease (ESRD). Interviews (N = 338) were conducted with dialysis facility professionals (RN staff nurses, social workers, nurse managers) in ESRD networks 1, 5, and 12 using a standardized telephone survey. The sample (N = 448) consisted of patients who discontinued dialysis and died between September 2005 and February 2006. The study illuminated a striking variation by discipline in the understanding of Medicare ESRD benefits and Medicare hospice benefits as they apply to patients with ESRD. Social workers were more knowledgeable that patients on dialysis were eligible for the Medicare hospice benefit while continuing dialysis with a non-kidney-related terminal diagnosis than RN staff nurses or nurse managers (79% of social workers, 64% of nurse managers, and 48% of RN staff nurses were knowledgeable [p < 0.001]). Nurses were significantly more likely than social workers to be uncertain about the process of hospice referral (28% of nurse managers, 17% of RN staff nurses, and 9% of social workers [p < 0.001]). Additionally, the study found that depending on geographic region, hospice programs varied in accepting patients who wish to continue dialysis treatment. This study identified multiple barriers to referral to hospice care of patients with ESRD who are dying. It illustrates that hospice organizations, dialysis facilities, and dialysis unit nurses need education regarding the eligibility for Medicare hospice benefits in conjunction with a patient receiving the Medicare ESRD benefit.

Goal
To provide information about the multiple barriers to referral to hospice care for patients with ESRD who are at the end of life.

Objectives
1. Discuss the process by which health care professional disciplines were evaluated on their knowledge of hospice referral for patients with ESRD.
2. Explain the causes of knowledge deficit of hospice referral based on renal discipline, regional variations, and racial disparities.
3. Outline specific recommendations of increasing the knowledge of hospice referral in healthcare professionals, patients, and their families.

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are available. As patient-centered care is gaining momentum in all areas of health care, hospice care is a critical component for providing holistic and quality care along the life continuum to patients with ESRD.

While surveys have found that over 90% of Americans would prefer to die in their homes (The Gallup Organization, 1996), Wennberg, Fisher, Stukel, and Sharp (2004) found that approximately 50% die in hospitals and 25% die at home, and in-hospital Medicare deaths range from 16% to 55%. A study at five dialysis clinics revealed similar findings, in that 56% of the sample died in the hospital, 27% at home, and most of the balance in a skilled nursing facility (Cohen, Germain, Woods, Mirot, & Bulleson, 2005). Although culture, ethnicity, region, age, family values, customs, health disease perception, provider knowledge base, and discipline may impact utilization and referral rates, less than 50% of patients withdrawing from dialysis utilize hospice services (Murray, Arko, Chen, Gilbertson, & Moss, 2006). Reasons for the lack of hospice referral and utilization have been hypothesized to be complex and varied—lack of discussion about end-of-life care issues, particularly hospice; abrupt withdrawal from dialysis prohibiting referral; refusal by the patient or family member to accept referral recommendations; a lack of understanding of the hospice referral process by professionals; and a refusal by the hospice organization to accept patients on dialysis.

ESRD networks are quality improvement oversight agencies contracted by the Centers for Medicare and Medicaid Services (CMS) and collect data from ESRD providers for the purpose of program management. Three ESRD networks (NW1, NW5, and NW12) undertook a retrospective qualitative study, based upon historical research methodology, to identify barriers in the ESRD community impeding hospice utilization and referral. This article presents study findings regarding renal professionals’ understanding of Medicare hospice benefits as they apply to patients with ESRD and racial and regional utilization of hospice services, and makes recommendations for consideration by the renal community to improve access to hospice for patients with ESRD (geographically, NW1 includes Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, and Vermont; NW5 includes the District of Columbia, Maryland, Virginia, and West Virginia; and NW12 includes Iowa, Kansas, Missouri, and Nebraska).

Methodology

Research Design

ESRD NWs 1, 5, and 12 developed a universal, structured, interview tool to assess hospice utilization and barriers related to referral. The interview instrument consisted of open and closed-ended questions to elicit subjective perspectives of ESRD facility professionals on patients recently deceased in their unit. It sought to illuminate facility staff members’ understanding of events associated with the patients’ discontinuation of dialysis, the staff members’ definition of discontinuation or withdrawal from treatment, assessment of hospice use, referral to and acceptance of hospice care, and knowledge of Medicare hospice eligibility benefits concurrent with ESRD benefits.

The interview schedule was pilot tested with 12 facilities, specifically assessing the tool’s reliability and validity. The interview tool was found credible for this type of study design because interviewers in the pilot study deemed that questions addressed issues of the study. Patient Services Coordinators and/or Quality Improvement Directors of each ESRD network conducted the telephone interviews after staff from NW1 provided standardized training for the interview process.

Study Sample

In the three networks, the CMS death notification forms (Form CMS-2746) were examined for deaths occurring between September 1, 2005, and February 28, 2006. Answering “Yes” to question 13 (“Renal replacement therapy discontinued prior to death?”) on the CMS death notification form served as the criteria for generating the patient sample. All facilities that submitted forms meeting the above criteria were identified. From those identified, a pool of facilities was selected for interviews, with a selection bias to allow over-sampling of African-American patients and to include small facilities. Because small facilities report fewer deaths, all small facilities (patient census of 45 or less) were included in the pool of facilities to be interviewed to increase the number of unique facilities and professionals. All facilities reporting the death of African-American patients were included in the pool of facilities to be interviewed to over-sample African-American patients. Over-sampling of African Americans was believed to be necessary because even though African Americans experience ESRD at rates higher than other races, according to Unruh et al. (2004), African Americans bear a disproportionate burden of ESRD, and withdrawal and discontinuation of dialysis occurs one-half to one-third the rate of whites (ESRD Patient Registry [Standard Information Management Systems, SIMS]) (Leggat, Swartz, & Port, 1997). Information from the CMS Medical Evidence Report, Entitlement to Medicare and/or Patient Registry (Form CMS2728), was used to identify African-American decedents from the above sample. This over-sampling technique allowed for a statistically significant representation of African-American decedents. Because Caucasian and African-American patients amounted to 98% of the patient sample and the numbers of other races were too small to allow meaningful comparisons, analysis by race was limited to these two populations. Random number generation method was used on the remaining patient sample, and one-third of the facilities associated with those patients were included in the pool of facilities to be interviewed. Two hundred seventy-four facilities associated with the deceased patients...
(n = 448) were included in the final pool of facilities to be interviewed. ESRD patient demographic details were obtained from the ESRD Network SIMS database.

Facility renal professionals (such as registered nurses [RNs] staff nurses, social workers [SWs], and nurse managers) most familiar with the patient’s death responded to interview questions. Results were recorded on the interview tool and forwarded to NW1, where aggregate data were compiled, tracked, and assimilated using a Microsoft Access® database. Interviewee responses were subjected to external (nephrologists serving on committee for this special project) and internal (ESRD network staff) review to ensure the authenticity, genuineness, and accuracy.

**Research Ethics**

Institutional Review Board (IRB) approval was obtained from Baystate Medical Center in Springfield, MA, in addition to clearance from the Office of Management and Budget (OMB), Executive Office of the United States President. ESRD networks are required to obtain OMB approval prior to the initiation of special studies approved by CMS.

**Statistical Analysis**

Chi-square analyses for categorical variables were conducted using the Statistical Package for the Social Sciences (SPSS), version 12.0.1. A generalized linear model was used to analyze for differences in the referral to hospice and acceptance of hospice referral by ESRD network and race (OMB), Executive Office of the Office of Management and Budget (OMB), Executive Office of the United States President. ESRD networks are required to obtain OMB approval prior to the initiation of special studies approved by CMS.

**Results**

**Characteristics of the Study Sample**

Interviews were conducted with renal professionals from 274 distinct facilities associated with 448 deceased patients. Of the 448 deceased patients, 139 were from NW1, 160 from NW5, and 149 from NW12. Table 1 shows the distribution of patients, facilities, and professionals in the study by network. The interviewers were instructed to conduct the interview with the renal professional in each unit who knew the most about the decision making that preceded the patient’s death. Some-times the same social worker, nurse manager, or RN staff nurse was interviewed regarding two or three patient deaths from the same facility; therefore, the number of distinct professionals is less than the total number of patients with whom interviews were conducted. Caucasians constituted 326 (74%) of the deceased patients in the sample, African-Americans 106 (24%), and other races 2%.

Of the patients who died after discontinuing dialysis, the over-sampling strategy in the first sample resulted in 32% of African-American patients and 26% of Caucasian patients in ESRD NW1, 46% of African-American patients and 29% of Caucasian patients in ESRD NW5, and 42% of African-American patients and 28% of Caucasian patients in ESRD NW12.

**Hospice Referral, Utilization, And Knowledge of Availability Of Services**

While 448 patients had died after discontinuation of dialysis, SWs, RN staff nurses, or nurse managers were aware of a discussion about hospice referral with the patient or family for less than half (48%) of these patients. Social workers were significantly more likely than RN staff nurses or nurse managers to know if a discussion about hospice had occurred (54% vs. 52% vs. 42% respectively, p = 0.02). For 36% of patients, their healthcare professionals (RN staff nurses, SWs, and nurse managers) were unsure if a hospice discussion had occurred, and for 16%, the healthcare professional knew that it had not.

Of the 48% of the patients (211) for whom the interviewees indicated that the possibility of hospice care was discussed with either the patient or the patient's family, 76% (160) agreed to hospice referral and 24% declined hospice referral. Of the 211 patients referred to hospice, for 22 patients (5%) it was known that hospice had made acceptance into the hospice program conditional on stopping dialysis.

Collectively across the three ESRD networks, 92% (311/338) of the unique respondents were aware of hospice availability in the patient’s area of residence. The remaining 8% were either unaware of the services available or knew services were not available. By ESRD networks, NW1 was the highest, with 99% of its unique interviewees knowledgeable of community hospice programs, followed by NW12 with 93% and NW5 with 89% (p = 0.043).

**Knowledge Deficit by Renal Discipline**

Striking variation among disciplines was found when assessing the level of understanding of the Medicare hospice benefit as it applies to patients on dialysis covered by Medicare’s ESRD benefit. The results in response to the question, “Can a Medicare patient with a sec-

<table>
<thead>
<tr>
<th>Table 1 Characteristics of the Study Sample by Network</th>
<th>NW1</th>
<th>NW2</th>
<th>NW3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of deceased patients</td>
<td>139</td>
<td>160</td>
<td>149</td>
<td>448</td>
</tr>
<tr>
<td>Number of distinct facilities</td>
<td>83</td>
<td>102</td>
<td>89</td>
<td>274</td>
</tr>
<tr>
<td>Unique social workers interviewed</td>
<td>73</td>
<td>17</td>
<td>29</td>
<td>119</td>
</tr>
<tr>
<td>Unique nurse managers interviewed</td>
<td>20</td>
<td>81</td>
<td>58</td>
<td>159</td>
</tr>
<tr>
<td>Unique registered nurses interviewed</td>
<td>13</td>
<td>21</td>
<td>26</td>
<td>60</td>
</tr>
<tr>
<td>Total unique professionals interviewed</td>
<td>106</td>
<td>119</td>
<td>113</td>
<td>338</td>
</tr>
</tbody>
</table>
Respondents who correctly understood the Medicare hospice benefit for patients on dialysis indicated that these patients are eligible to receive both the Medicare ESRD benefit and the Medicare hospice benefit at the same time if the dialysis patient’s terminal illness is unrelated to kidney disease.

### Table 2

**Knowledge of the Patient’s Eligibility to Receive Dual Benefits with a Terminal Illness Unrelated to Kidney Disease by Discipline**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Can Receive Dual Benefits n (%)</th>
<th>Cannot Receive Dual Benefits n (%)</th>
<th>No Answer n (%)</th>
<th>Total Interviewed</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Workers</td>
<td>91 (79)</td>
<td>7 (6)</td>
<td>17 (15)</td>
<td>115</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Nurse Managers</td>
<td>105 (64)</td>
<td>18 (11)</td>
<td>41 (25)</td>
<td>164</td>
<td></td>
</tr>
<tr>
<td>RN Staff Nurses</td>
<td>28 (48)</td>
<td>12 (20)</td>
<td>19 (32)</td>
<td>59</td>
<td></td>
</tr>
</tbody>
</table>

Respondents answered the question, “Are you aware of hospice availability in the patient’s community?”

### Table 3

**Knowledge of Hospice Availability in Community by Profession**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Aware of Hospice Availability in Patients Community n (%)</th>
<th>Not Aware/Unsure n (%)</th>
<th>Total</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Workers</td>
<td>113 (98)</td>
<td>2 (2)</td>
<td>115</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Nurse Managers</td>
<td>147 (90)</td>
<td>17 (10)</td>
<td>164</td>
<td></td>
</tr>
<tr>
<td>RN Staff Nurses</td>
<td>51 (86)</td>
<td>8 (14)</td>
<td>59</td>
<td></td>
</tr>
</tbody>
</table>

Respondents answered the question, “Are you aware of hospice availability in the patient’s community?”

In addition to variation by professions, regional variation existed among the ESRD networks in knowledge of eligibility for the Medicare hospice benefit for patients on dialysis (see Tables 5 and 6). ESRD NW1 respondents were more likely to understand circumstances when a dialysis patient was eligible for both the Medicare hospice and ESRD benefits. When questioned about patient eligibility for the Medicare hospice benefit and ESRD benefit with a second terminal illness, regionally, 76% respondents in NW1 answered correctly, whereas 64% and 61% answered correctly in NW5 and NW12, respectively (p < 0.001) (see Table 5). ESRD NW12 respondents were more likely to understand circumstances when patients on dialysis were not eligible for both benefits (see Table 6).

### Racial Disparities

One goal of **Healthy People 2010** promoted by the U.S. Department of Health and Human Services (2002) is the elimination of “disparsities among segments of the population.” Variation of the racial composition exists in the three ESRD networks that participated in this study. Twenty percent of prevalent patients with ESRD are African American in ESRD NW1, 60% in ESRD NW5, and 29% in ESRD NW12. During the study period, African Americans constituted 12% of the deaths in NW1, 47% of the deaths in NW5, and 20% of the deaths in NW12. Even though African-American patients who discontinued dialysis were over-sampled in this study, they constituted a smaller percentage of the deaths due to discontinuation: ESRD NW1 – 10% (14/138), ESRD NW5 – 31% (63/157), and ESRD NW12 – 20% (29/147). Hospice care was discussed with African-American patients (or their families for them) at the same rate as Caucasian patients. There was no difference in discussion of hospice care.
by ESRD network or by race (see Table 7). Of the patients with whom hospice care was discussed, there was no difference in the acceptance of the hospice referral by ESRD network or by race (see Table 8).

Conclusions and Recommendations

In this study, all patients discontinued dialysis. Given that death has been shown to occur in 96% of patients on dialysis within a month of stopping dialysis (Murray et al., 2006), hospice referral would have been appropriate for most patients in this study. Furthermore, 68% of the patients in this study were terminally ill according to facility staff interviewed (answer of “yes” in response to the question, “Was the patient terminally ill?”). Nonetheless, hospice referral occurred for less than half of the study population. Of those families and patients approached with information regarding hospice services, 24% declined referral. This study illuminated knowledge deficits about the Medicare hospice benefit and hospice referral process among nephrology disciplines and the need for more end-of-life discussion with patients on dialysis, including education about the hospice benefits for patients on dialysis who are stopping dialysis.

Confusion exists when evaluating a patient with ESRD for hospice services. The confusion is multi-dimensional, with regional variation. RN staff nurses, nurse managers, and SWs have varying degrees of knowledge deficits regarding both the Medicare ESRD benefit and the Medicare hospice benefit. Hospice organizations interpret Medicare regulations differently, making discontinuation of dialysis conditional in some programs, while not a condition in others. Five fiscal intermediaries (FIs) administer the hospice benefit in the U.S. These FIs have their own local coverage decisions (LCDs) that interpret the hospice benefit in their own way. When CMS issues a national coverage decision (NCD), it may be interpreted differently by the FIs. In the case of the hospice benefit and the patient on dialysis, there has been confusion on interpretation of the hospice benefit by both FIs as well as the hospice organizations. In some hospice organizations, it is assumed (incorrectly) that the hospice benefit is not available if a patient on dialysis continues dialysis (Wright & Katz, 2007). Much of the confusion surrounds the issue of “related” diagnoses. If the terminal diagnosis for hospice is “related” to the ESRD diagnosis, then hospice and ESRD benefits cannot be paid simultaneous-

Table 4
Uncertainty of Hospice Referral Process by Discipline

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Uncertain of Hospice Referral Process n (%)</th>
<th>Other Reason for Hospice Non-Referral n (%)</th>
<th>Total</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Workers</td>
<td>10 (9)</td>
<td>105 (91)</td>
<td>115</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Nurse Managers</td>
<td>46 (28)</td>
<td>118 (10)</td>
<td>164</td>
<td></td>
</tr>
<tr>
<td>RN Staff Nurses</td>
<td>10 (17)</td>
<td>49 (14)</td>
<td>59</td>
<td></td>
</tr>
</tbody>
</table>

In response to the question, “If the patient were not referred to hospice, the reasons for lack of referral” include “Respondents were identified who selected ‘uncertain about the referral process’.”

Table 5
Knowledge of the Patient’s Eligibility to Receive Dual Benefits with a Terminal Illness Unrelated to Kidney Disease by Network

<table>
<thead>
<tr>
<th>ESRD Network</th>
<th>Can Receive Dual Benefits n (%)</th>
<th>Cannot Receive Dual Benefits/No Answer n (%)</th>
<th>Total</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NW1</td>
<td>77 (76)</td>
<td>25 (24)</td>
<td>102</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>NW5</td>
<td>75 (64)</td>
<td>42 (36)</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td>NW12</td>
<td>69 (61)</td>
<td>45 (39)</td>
<td>114</td>
<td></td>
</tr>
</tbody>
</table>

Respondents who correctly understood the Medicare hospice benefit for patients on dialysis indicated that these patients are eligible to receive both the Medicare ESRD benefit and the Medicare hospice benefit at the same time if the dialysis patient’s terminal illness is unrelated to kidney disease.

Table 6
Knowledge of the Patient’s Eligibility to Receive Dual Benefits with ESRD as the Only Terminal Illness by Network

<table>
<thead>
<tr>
<th>ESRD Network</th>
<th>Can Receive Dual Benefits n (%)</th>
<th>Cannot Receive Dual Benefits n (%)</th>
<th>No Answer/Unsure n (%)</th>
<th>Total</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NW1</td>
<td>34 (33)</td>
<td>44 (43)</td>
<td>24 (24)</td>
<td>102</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>NW5</td>
<td>50 (43)</td>
<td>38 (33)</td>
<td>29 (24)</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td>NW12</td>
<td>21 (18)</td>
<td>66 (58)</td>
<td>27 (24)</td>
<td>114</td>
<td></td>
</tr>
</tbody>
</table>

Respondents who correctly understood the Medicare hospice benefit for patients on dialysis indicated that these patients are eligible to receive both the Medicare ESRD benefit and the Medicare hospice benefit at the same time if the dialysis patient’s terminal illness is related to kidney disease.
The numbers represent the number and percent by race of patients with whom hospice care was discussed per ESRD network. The percentages do not to add to 100%, as 4 patients belonging to other races were not shown here. There was no difference in the number of patients with whom hospice care was discussed by ESRD network (p = 0.80). There was no difference in the number of patients with whom hospice care is discussed by race (p = 0.62). There was no significant interaction between ESRD network and race (p = 0.28).

<table>
<thead>
<tr>
<th>ESRD Network by Race</th>
<th>Caucasian</th>
<th>African American</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>NW1 n (%)</td>
<td>59 (49)</td>
<td>5 (36)</td>
<td>64 (48)</td>
</tr>
<tr>
<td>NW5 n (%)</td>
<td>39 (43)</td>
<td>33 (52)</td>
<td>72 (47)</td>
</tr>
<tr>
<td>NW12 n (%)</td>
<td>58 (50)</td>
<td>13 (45)</td>
<td>71 (49)</td>
</tr>
<tr>
<td>Total n (%)</td>
<td>156 (48)</td>
<td>51 (48)</td>
<td>207 (48)</td>
</tr>
</tbody>
</table>

The numbers represent the number and percent by race of patients with whom hospice care was discussed per ESRD network and the percentage of patients by race that accepted hospice referral. The percentages do not add to 100%, as 4 patients belonging to other races were not shown here. There was no difference in the number of patients who accepted hospice care by ESRD network (p = 0.99). There was no difference in the number of patients who accepted hospice care by race (p = 0.99). There was no significant interaction between ESRD Network and race (p = 0.56).

<table>
<thead>
<tr>
<th>ESRD Network by Race</th>
<th>Caucasian</th>
<th>African American</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>NW1 n (%)</td>
<td>43 (73)</td>
<td>4 (80)</td>
<td>47 (73)</td>
</tr>
<tr>
<td>NW5 n (%)</td>
<td>29 (74)</td>
<td>26 (79)</td>
<td>55 (76)</td>
</tr>
<tr>
<td>NW12 n (%)</td>
<td>47 (81)</td>
<td>9 (69)</td>
<td>56 (79)</td>
</tr>
<tr>
<td>Total n (%)</td>
<td>119 (76)</td>
<td>39 (77)</td>
<td>158 (76)</td>
</tr>
</tbody>
</table>

### Table 8
**Acceptance of Hospice Referral by Patients with Whom Hospice Care Was Discussed by Race and Region**

- Increase the dialysis facility personnel’s knowledge of hospice availability in their community and the formation of relationships with hospice professionals to best serve the ESRD population.
- Enhance the knowledge of facility personnel, hospice organizations, and the renal community (patients and families) on the eligibility requirements for concurrent use of the Medicare hospice and ESRD benefits.
- Utilize a screening tool to allow for early identification of patients likely to need and benefit from hospice services.
- Obtain clarification from CMS on hospice policy regarding patients with ESRD wishing to continue dialysis while using hospice services.
- Increase the education to patients and families with regard to the comprehensive services provided by hospice to increase the acceptance rate of hospice by patients and families.

The authors and participating ESRD networks strongly encourage the provision of education to all renal disciplines through the Kidney End-of-Life Coalition (www.kidneyendoflife.org), CMS, ESRD networks, and national renal organizations. Both professionals and the community have a responsibility to ensure that holistic, optimal, end-of-life planning occurs for all persons with renal failure. Through a multi-faceted intensive educational effort, consumer knowledge can be improved, regulatory confusion can be eliminated, and hospice admission barriers can be removed.

### References

*continued on page 502*
Hospice and ESRD
continued from page 466


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Hospice and ESRD: Knowledge Deficits and Underutilization of Program Benefits

Kimberly F. Thompson, BSN, RN, CNN; Jaya Bhargava, PhD; Roberta Bachelder, MA, BS; Renee Bova-Collis, MSW, LCSW; Alvin H. Moss, MD

Posttest – 1.4 Contact Hours

Posttest Questions

(See posttest instructions on the answer form, on page 468.)

1. Compared to the general population, which one of the following statements most accurately describes the mortality risk of end stage renal disease patients?
   a. The mortality risk is comparable to the general population.
   b. The mortality risk is twice that of the general population.
   c. The mortality risk is four times that of the general population.
   d. The mortality risk is eight times that of the general population.

2. Which one of the following most accurately summarizes the percentage of patients withdrawing from dialysis who use hospice services?
   a. 5% to 15%
   b. 20% to 30%
   c. 40% to 50%
   d. 60% to 70%

3. In this study, which one of the following health care professional disciplines was most likely to know if a discussion about hospice had occurred with a patient on dialysis?
   a. Physicians
   b. Nurse managers
   c. RN staff nurses
   d. Social workers

4. For what percentage of deceased patients on dialysis were dialysis staff aware of whether a discussion about hospice referral had occurred with the patient or family?
   a. 32%
   b. 48%
   c. 64%
   d. 80%

5. For what percentage of patients on dialysis with whom the possibility of hospice referral was discussed did the patient or family agree to the hospice referral?
   a. 28%
   b. 44%
   c. 60%
   d. 76%

6. Which one of the healthcare professional disciplines most often knew the correct answer to the question, “Can a Medicare patient with a second terminal illness other than one related to ESRD receive both the Medicare ESRD benefit and the Medicare hospice benefit at the same time?”
   a. Physician
   b. Nurse manager
   c. Staff nurse
   d. Social worker

7. A patient on dialysis dying from a terminal illness unrelated to kidney disease is eligible for both the Medicare ESRD and Medicare hospice benefit. What percentage of RN staff nurses were knowledgeable of this dual eligibility?
   a. 32%
   b. 48%
   c. 64%
   d. 80%

8. Within a month of stopping dialysis, what percentage of patients are dead?
   a. 48%
   b. 64%
   c. 80%
   d. 96%

9. Which healthcare professional discipline was most aware of hospice availability in the community?
   a. Physicians
   b. Nurse managers
   c. RN staff nurses
   d. Social workers

10. This study found which one of the following with regard to acceptance of hospice referral by race?
    a. Caucasians were more likely to accept hospice referral than African Americans.
    b. African Americans were more likely to accept hospice referral than Caucasians.
    c. There was no difference in the acceptance of hospice referral by race found in this study.
    d. A limitation of this study is that it did not evaluate the acceptance of hospice referral by race.
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1. The objectives were related to the goal. 1 2 3 4 5
2. Objectives were met:
   a. Discuss the process by which health care professional disciplines were evaluated on their knowledge of hospice referral for patients with ESRD. 1 2 3 4 5
   b. Explain the causes of knowledge deficit of hospice referral based on renal discipline, regional variations, and racial disparities. 1 2 3 4 5
   c. Outline specific recommendations of increasing the knowledge of hospice referral in in health care professionals, patients, and their families. 1 2 3 4 5
3. The content was current and relevant. 1 2 3 4 5
4. This was an effective method to learn this content. 1 2 3 4 5
5. Time required to complete reading assignment: ___________ minutes.

I verify that I have completed this activity:
__________________________________________
(Signature)

Comments _______________________________________________
__________________________________________________________________
__________________________________________________________________

Suggested topics for future articles?_________________
__________________________________________________________________
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Note: If you wish to keep the journal intact, you may photocopy the answer sheet or access this posttest at www.annanurse.org/journal