Communication Skills Training for Dialysis Decision-Making and End-of-Life Care in Nephrology

Jane O. Schell,*† Jamie A. Green,‡ James A. Tulsky,*†§ and Robert M. Arnold*†

Summary
Nephrology fellows often face difficult conversations about dialysis initiation or withdrawal but are frequently unprepared for these discussions. Despite evidence that communication skills are teachable, few fellowship programs include such training. A communication skills workshop for nephrology fellows (NephroTalk) focused on delivering bad news and helping patients define care goals, including end-of-life preferences. This 4-hour workshop, held in October and November 2011, included didactics and practice sessions with standardized patients. Participants were nephrology fellows at Duke University and the University of Pittsburgh (n=22). Pre- and post-workshop surveys evaluated efficacy of the curriculum and measured changes in perceived preparedness on the basis on workshop training. Overall, 14% of fellows were white and 50% were male. Less than one-third (6 of 22) reported prior palliative care training. Survey response rate varied between 86% and 100%. Only 36% (8 of 22) and 38% (8 of 21) of respondents had received structured training in discussions for dialysis initiation or withdrawal. Respondents (19 of 19) felt that communication skills were important to being a “great nephrologist.” Mean level of preparedness as measured with a five-point Likert scale significantly increased for all skills (range, 0.5–1.14; \( P < 0.01 \)), including delivering bad news, expressing empathy, and discussing dialysis initiation and withdrawal. All respondents (21 of 21) reported they would recommend this training to other fellows. NephroTalk is successful for improving preparedness among nephrology fellows for having difficult conversations about dialysis decision-making and end-of-life care.


Introduction
Communication between physicians and patients is an essential component of nephrology care, yet many nephrologists receive little training in communication. Nephrologists care for an aging and medically complex population for whom the burdens of dialysis may outweigh potential benefits. These patients suffer the worst outcomes, yet they are often unprepared for these setbacks and undergo aggressive care at end of life (1–3). Fundamental communication skills are needed in nephrology to assist with treatment decision-making and preparation for the end of life.

Recent research suggests physician communication is inadequate. Data have shown that patients with stage 3–5 kidney disease have variable knowledge about treatment modalities, including the risks and benefits of the treatments (4). Further, patients with kidney disease report infrequent end-of-life conversations with their nephrologists (5). As a result, these patients are often unprepared for end-of-life decision-making. Compared with other illnesses, such as cancer and heart failure, dialysis patients are more likely to be hospitalized and undergo aggressive treatments and are less likely to receive hospice services in the last month of life (3).

Effective communication has been shown to improve how patients adjust to their illness and prepare for end of life. Patients with metastatic cancer who had an end-of-life discussion with their oncologist were less likely to receive intensive care at the end of life and more likely to use palliative care and hospice services. These benefits extended to their caregivers, who experienced fewer depressive symptoms and less regret after the patient’s death (6).

These data serve as an opportunity for nephrologists to improve physician-patient communication. Communication skills training in other specialties have been shown to improve physician communication behaviors (7–9). Interest in improving communication skills within nephrology fellowship is growing, yet fellows receive little formal communication training (10). Addressing this need will be especially important because communication was recently highlighted by the American Society of Nephrology, which named shared decision-making as one of the five areas physicians and patients should address (11).

This article describes the design, content, and evaluation of NephroTalk, a communication skills workshop developed to assist nephrology fellows with difficult conversations about starting and forgoing dialysis.

Materials and Methods
Workshop Educational Principles and Setting
NephroTalk was designed as a half-day workshop for nephrology fellows at Duke University, Durham, North Carolina (October 2011), and the University of Pennsylvania; Durham, North Carolina; Renal-Electrolyte Division, University of Pittsburgh School of Medicine, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania; Center for Health Services Research in Primary Care, Veterans Affairs Medical Center, Durham, North Carolina; Section of Palliative Care and Medical Ethics and Palliative and Supportive Institute, University of Pittsburgh School of Medicine, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania.

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Pittsburgh, Pittsburgh, Pennsylvania (November 2011). The goal of the workshop was to increase fellows’ preparedness in having difficult conversations surrounding end-of-life kidney care. The curriculum was modeled after OncoTalk, a successful communication skills program with previously documented efficacy in the fields of oncology, palliative care, and geriatrics (12–14). The OncoTalk teaching model, designed from the educational literature, incorporated brief “how-to” didactics, specific skills demonstration, and fellows’ skills practice with opportunities for observation and feedback (15). These principles were adapted for NephroTalk using communication scenarios common to nephrology.

The workshop was located on campus but was outside of the care-giving environment. This setting was meant to create an environment in which good communication was valued and fellows felt supported in learning and practicing new skills. Arrangements were made in advance for coverage of fellows’ clinical responsibilities to optimize a low-stress learning environment.

**Workshop Overview and Curriculum**

The workshop was divided into two sessions, each addressing common communication scenarios in nephrology: delivering bad news and defining goals of care when the patient is doing poorly. These two communication scenarios have been identified in the literature as challenging and anxiety-provoking for physicians (16,17). Nephrologists frequently encounter both of these scenarios as they care for patients throughout the kidney disease trajectory. Each session included an overview didactic presentation with faculty role-play demonstration, followed by small-group skills practice (Box 1).

**Delivering Bad News.** The first session focused on delivering bad news. Fellows were introduced to two communication skills: giving information using an Ask-Tell-Ask model and responding to emotion using the NURSE acronym (Box 2) (18). These two skills were chosen for their broad application in giving information and responding to a patient’s emotion (19). The fellows then had the opportunity to practice these skills in an out-patient case with a simulated patient who recently experienced worsening kidney disease while in the hospital for an elective coronary bypass surgery.

**Defining Goals of Care.** The second session addressed eliciting care goals and end-of-life preferences when a patient is not doing well. Fellows were encouraged to use open-ended “big picture” questions to better understand the patient’s functioning before the clinical decline and also to assess what the patient or family hoped for in the future (Box 3). By gaining an understanding of these “big picture” goals, we demonstrated how a nephrologist could offer a treatment recommendation based on the patient’s goals and preferences. Fellows were then introduced to a third communication skill for addressing unrealistic goals using “wish” statements (Box 2).

We further addressed the potential for conflict when provider and patient or family goals do not align. Strategies for addressing conflict included recognizing and understanding the conflict and, in turn, negotiating a treatment plan. The treatment plan included time-limited trials with clinical milestones and follow-up meetings to assess whether these milestones had been achieved (20). The fellows then had the opportunity to practice eliciting care goals and making a recommendation in an intensive care unit setting with a simulated family member of the patient from session 1.

**Overview Presentations**

Each 30-minute overview presentation occurred in a large group setting before the practice sessions on delivering bad news and defining goals of care. Their purpose

<table>
<thead>
<tr>
<th>Box 1. Communication skills workshop curriculum: overview presentation and skills practice</th>
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<tbody>
<tr>
<td><strong>Session</strong></td>
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<tr>
<td>Giving bad news</td>
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<tr>
<td>Defining goals of care</td>
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</table>
Box 2. Core communication skills emphasized during the workshop

<table>
<thead>
<tr>
<th>Giving information: Ask-Tell-Ask</th>
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<tbody>
<tr>
<td>Ask (assess understanding): “What have the doctors told you about your kidney function?”</td>
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<tr>
<td>Tell (After learning what the patient knows, the physician can better tell the information in a way that addresses patient concerns and needs)</td>
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<tr>
<td>Ask (check understanding): “To make sure that I explained things well, can you tell me what you understand from what I just said?</td>
</tr>
<tr>
<td>Responding to emotional concerns: NURSE acronym</td>
</tr>
<tr>
<td>Name the emotion: “You seem worried”</td>
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<tr>
<td>Understand the emotion: “I see why you are concerned about this”</td>
</tr>
<tr>
<td>Respect: “You have shown a lot of strength”</td>
</tr>
<tr>
<td>Support: “We will get through this together”</td>
</tr>
<tr>
<td>Explore: “Tell me more”</td>
</tr>
<tr>
<td>Responding to unrealistic goals: “Wish” statement</td>
</tr>
<tr>
<td>“I wish things could have gone differently too”</td>
</tr>
</tbody>
</table>

Box 3. Framework for defining care goals when patients are not doing well

<table>
<thead>
<tr>
<th>Invitation to assess readiness to have conversation:</th>
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<tbody>
<tr>
<td>“Can we talk about how things have been going?”</td>
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<tr>
<td>Using open-ended “big picture” questions to assess care goals and preferences:</td>
</tr>
<tr>
<td>“What is life like outside the hospital?”</td>
</tr>
<tr>
<td>“What is most important to you now?”</td>
</tr>
<tr>
<td>“What are you hoping for?”</td>
</tr>
<tr>
<td>Outline barriers to decision-making:</td>
</tr>
<tr>
<td>“As you think about the future what worries you the most?”</td>
</tr>
<tr>
<td>Propose a plan that meets the patient’s goals:</td>
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<tr>
<td>“Now that I understand your situation, can I make a recommendation?”</td>
</tr>
<tr>
<td>Reassure your commitment:</td>
</tr>
<tr>
<td>“I’ll stick with you through this”</td>
</tr>
</tbody>
</table>

was to highlight the core communication skills that should be used to accomplish each task, including specific language and examples. For example, in the bad news session, fellows were given specific words to recognize and respond to emotion: “This must be hard” and “I too had hoped things would go differently.” In the session for defining goals of care, fellows were encouraged to explore patients’ care goals and end-of-life preferences when making a recommendation about care plans. Specific language suggested included: “What has life been like outside the hospital?” and “What was most important to you/your family member?”

At the conclusion of the didactics, a faculty role-play demonstrated these skills, giving the fellows the opportunity to visualize the skills in real-time. Fellows were then able to name the specific skills portrayed by faculty, further reinforcing the content previously covered.

Skills Practice. After each overview presentation, fellows were divided into small groups of five to six members each for skills practice using standardized patients. Fellows had an opportunity to be a practicing fellow or an active observer. After hearing the case background, the practicing fellow participated in the clinical scenario with the simulated patient, and the active observer fellows were encouraged to provide feedback to the practicing fellow. The ratio of learner to facilitator (approximately one facilitator per six fellows) provided a balance of intimacy, comfort, and focused learning (21). Standardized patients received 2 hours of training before the workshop, with opportunities to discuss the goals of the encounter and the specific communication learning opportunities involved (Box 1). They were taught how to accurately portray each role and provide useful feedback to the practicing fellow.

For each practice session, the facilitator followed a reflective, process-oriented framework that began with identifying the practicing fellow’s learning goal (“When you are speaking with the patient, what would you like us to watch for?”) and potential tools to use to accomplish the learning goal (“What tools might you use to accomplish that goal?”). Time-outs served as opportunities for the facilitator to highlight specific teaching opportunities and to give the observer fellows an opportunity to give feedback to the practicing fellow (e.g., “When you said, ‘This must be hard to hear,’ the patient seemed to relax and be more receptive to the news about her kidney function’). Both facilitators and practicing fellow used time-outs when a “stuck” point (when the fellow was not sure what to say or the patient was confused or distressed) was reached. These time-outs were opportunities for the facilitator to help brainstorm the skills that could be used to help the learner improve and resolve the “stuck” point. At the end of the practice session, each practicing fellow was given the opportunity to name what she learned from the encounter. Fellows had the opportunity to participate in practicing and observer role. Each practice session lasted approximately 10–15 minutes before fellow roles rotated.

Taking Skills Home. At the conclusion of the half-day workshop, fellows were encouraged to identify one or two new learned communication skills that they would practice in the future. To reinforce this commitment, we gave fellows a postcard on which they wrote down the newly learned skills to practice. These cards were sent to the fellows 3–4 weeks after the course as a reminder of their learning commitment.

Measurements

The workshop was evaluated in the form of two surveys, completed before and after the workshop. These surveys included baseline assessment of communication teaching
received in the past; process measures, including learner satisfaction; and outcome measures of perceived preparedness. Perceived preparedness was measured using a five-point Likert scale before and after the workshop (1=not well prepared, 3=somewhat prepared, 5=very prepared). We used a paired t test using Excel to assess changes in fellows’ perceived preparedness on the basis of the workshop training. Learner satisfaction was measured using a five-point Likert scale measuring the importance and quality of the workshop. All analyses were conducted using Stata Version 11.2 (Stata Corp, College Station, TX). The Duke University and University of Pittsburgh institutional review boards approved the evaluations.

Results
Baseline characteristics of participating fellows are provided in Table 1. Twenty-two nephrology fellows (12 from the University of Pittsburgh and 10 from Duke University) attended the workshop; 41% were in the first year of fellowship. All had completed internal medicine training in the United States except for one fellow who completed residency training in Ireland. Overall, 14% of the fellows were white and 50% were male.

Baseline Assessment
Survey response rate among fellow participants varied between 86% and 100%. Six of 22 (27%) fellows reported experience in palliative care. Only 36% and 38% of respondents had received structured training in how to discuss dialysis initiation or withdrawal, respectively. Fewer than half reported bedside teaching in how to discuss dialysis initiation or withdrawal, including having a teacher observe and give feedback. All (19 of 19) respondents felt that communication skills were “important” or “very important” to being a “great nephrologist.”

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Data</th>
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<tbody>
<tr>
<td>Age (yr)</td>
<td>32.1±2.8</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>11 (50)</td>
</tr>
<tr>
<td>Female</td>
<td>11 (50)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>3 (13.6)</td>
</tr>
<tr>
<td>African American</td>
<td>5 (22.7)</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>4 (18.2)</td>
</tr>
<tr>
<td>East Indian/Pakistani</td>
<td>8 (36.4)</td>
</tr>
<tr>
<td>Other</td>
<td>2 (9.1)</td>
</tr>
<tr>
<td>Level</td>
<td></td>
</tr>
<tr>
<td>First-year fellow</td>
<td>9 (40.9)</td>
</tr>
<tr>
<td>Second- or third-year fellow</td>
<td>13 (59.1)</td>
</tr>
<tr>
<td>No previous training in palliative care</td>
<td>16 (72.7)</td>
</tr>
</tbody>
</table>

Age is expressed as mean ± SD; all other data are expressed as number of participants (percentage). Denominator is total number of respondents.

Learner-Perceived Preparedness

Learners were asked to evaluate their preparedness for specific communication challenges before and after the workshop (Table 2). Mean perceived preparedness on a five-point Likert scale significantly increased for all communication challenges (range, 0.5–1.14 points; P<0.01). These challenges included delivering bad news, expressing empathy, and discussing dialysis initiation and withdrawal.

Learner Satisfaction

Fellows’ satisfaction ratings for the course are outlined in Table 3. Fellows highly rated the importance of the workshop training in the development of their own skills. All participants (21 of 21) would recommend this training to other fellows, and 95% (20 of 21) reported that the curriculum should be required of all nephrology fellows (agree/strongly agree).

Fellows were also given the opportunity to write in their own comments. One fellow learned to “be more mindful of gauging the patient and/or family’s overall frame of mind prior to starting specific discussions about end of life decisions.” Other comments useful for future practice included: “Listen more intently, limit use of medical terminology further, give patients more opportunity to express feelings.”

Discussion

To our knowledge, NephroTalk is the first reported communication skills workshop for fellows in nephrology. The structure and design were modeled after preexisting curricula that incorporated known teaching skills with common scenarios encountered in nephrology. Our findings demonstrate that our curriculum is feasible, is acceptable to fellows, and improves perceived preparedness.

The workshop was designed to include both didactics and opportunities for fellows to practice newly learned skills. The structure and design were deliberate in creating a learning environment that allowed fellows to learn communication skills using a stepwise approach, observe faculty role-play demonstrating these skills, and then practice these skills through facilitated practice sessions with standardized patients. Similar workshops using standardized patients have been successful in enhancing learning and skill acquisition (12,21).

Fellows surveyed reported a lack of both structured and bedside teaching in common scenarios encountered in practice, including dialysis initiation and withdrawal in seriously ill patients. These results support previous studies that highlight a lack of formal education in how to conduct these conversations, especially concerning end-of-life issues and forgoing dialysis (10,22,23). Guidelines, such as the Renal Physicians Association’s Shared Decision-Making in the Appropriate Initiation and Withdrawal of Dialysis, have been created to identify patients at risk for poor outcomes (24–27), yet less attention has been given to provide fellows with the tools to navigate these conversations. This communication workshop addresses this need and provides tools to engage in these conversations.

We chose two communication scenarios common to nephrology practice: breaking bad news and defining goals of care. Nephrologists frequently encounter opportunities...
in which they must discuss bad news, including giving a
diagnosis, discussing the need for dialysis, or addressing
decides at the end of life. In addition to giving unfavorable
news, these discussions frequently arouse strong emotions
in patients (28). Data suggest that providers often avoid
equal emotional data and instead focus on the clinical data
(16,29–31). We emphasized the importance of tracking
emotional data as patients often respond to serious news
first with emotion that, if unattended, may be a barrier for
understanding the information given (32). By attending to
emotion, providers allow patients to process the informa-
tion and at the same time decrease anxiety and enhance
trust (6,33). Communication skills training has been shown
to improve providers’ recognition of and attention to patient
emotion (34). Within our workshop, fellows were provided
with skills to both track and attend to emotional data.

The second scenario involved defining goals of care
when the patient is doing poorly. These discussions are
challenging because they necessitate a new plan to be
discussed. We provided a framework to elicit patient care
goals and end-of-life preferences as part of the decision-
making process. By understanding these care goals and
preferences, the fellow then had the opportunity to offer
a recommendation. This framework enhances shared deci-
sion-making, which encourages participation from

provider and patient to make care decisions that combine
the medical evidence with the patient’s care goals and
preferences (35,36).

This workshop was feasible and effective. Its success
relied on the support and commitment of the nephrology
division and program directors. They ensured that the
fellows’ clinical services had attending coverage during
the workshop. Each program also secured funding for
the standardized patients, provided a location for the
workshop, and supplied food and beverages throughout
the course. The facilitators (J.S, J.G.) have been trained in
how to conduct interactive communication workshops
with the two senior facilitators (R.A. and J.A.T.), two of
the OncoTalk co-collaborators.

The findings have several important limitations. First,
because the workshops were conducted at two sites, our
sample size was relatively small. Future studies are needed
to confirm the efficacy of this curriculum in a larger
population. Second, our primary outcome was based on
subjective measure of perceived improvements in commu-
nication, rather than observable skills. Third, because we
had no control group, we are unable to determine whether
improvements in fellow perceived preparedness were due
to our curriculum or some other unmeasured factor.

The demographic characteristics of the participating
fellows included a small number of whites and a large
number of East Indian/Pakistani fellows. These fellows
may not be representative of training fellows, which may
influence the generalizability of our results (37). Finally,
some fellows had more opportunity to practice than others
given the limited time; however, we designed our curric-
ulum so that there was active participation and learning
even while fellows were in the observer role. Despite these
limitations, our data suggest NephroTalk is a feasible and
effective workshop to enhance nephrology fellow–perceived
preparedness in advanced communication skills.

Communication is essential to the practice of nephrol-
ogy, yet formal education in these skills is lacking. We
present NephroTalk, an interactive communication workshop
for nephrology fellows that involves didactic and practice
sessions addressing common communication scenarios. The
results presented highlight the need for structured

| Table 2. Learner preparedness for communication tasks before and after course |
|---------------------------------|-----------|-----------|-----------|
| “Overall How Well Prepared Do You Feel to…” | Before Course | After Course | P Value |
| Give bad news to a family member about their loved one’s illness | 3.36 | 4.36 | <0.001 |
| Express empathy | 3.95 | 4.45 | 0.001 |
| Conduct a family meeting | 3.3 | 4.09 | <0.001 |
| Discuss various treatment options with families of critically ill patients | 3.55 | 4.23 | 0.003 |
| Discuss discontinuing or not initiating dialysis | 3.14 | 4.27 | <0.001 |
| Respond to family members who want treatments that you believe are not indicated, specifically dialysis initiation | 3.00 | 4.14 | <0.001 |
| Respond to families who deny the seriousness of their loved one’s illness | 3.00 | 4.14 | <0.001 |
| Discuss religious or spiritual issues with families | 2.91 | 3.91 | <0.001 |
| Elicit a family’s concerns at the end of a patient’s life | 3.18 | 4.27 | <0.001 |

aMean response as indicated on Likert scale: 1=not well prepared, 3=somewhat prepared, 5=very well prepared.
bP<0.05 is considered significant.

| Table 3. Learner satisfaction with NephroTalk course |
|---------------------------------|-----------|
| Component | Mean Response ± SD |
| Importance of training | 4.48±0.60 |
| Relevance of content | 4.60±0.50 |
| Usefulness of didactics | 4.43±0.60 |
| Usefulness of small group practice sessions | 4.57±0.51 |
| Effectiveness of small group leaders | 4.62±0.50 |
| Usefulness of actors | 4.57±0.51 |
| Overall quality of the program | 4.43±0.51 |

aLikert scale on which 5=highest score.

communication education in nephrology programs. In addition, NephroTalk may serve as a model curriculum for enhancing communication education for other institutions. Future work includes confirming perceived preparedness improvements with observable outcomes, disseminating NephroTalk to interested nephrology programs, and encouraging education and awareness among nephrology educators and attendings.

References

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