Appendix. Open-ended survey to assess physicians' acceptability, perceived usefulness, and reasons for non-uptake of the SQ.

PATIENT COMMUNICATION

Feel free to use this patient case to facilitate your answers for the following questions:
Mr. Mayfield is a 77-year-old white male with CKD, major depression, PVD, and T2D who is married with two non-local children. He has a history of three hospitalizations in the last year with associated AKI, one of which required an ICU stay with acute renal replacement therapy. He recovered renal function and came off dialysis after 2 months.

He reports worsening bilateral lower extremity edema over the last 2 weeks and corresponding 5/10 leg pain, limiting walking. He reports fatigue and dyspnea. BMI=34.5 kg/m^2. eGFR=17 mL/min/1.73m^2. Albumin-to-creatinine is 350 mg; 6 months ago was 104 mg/g. His 2-yr risk of progression to ESRD is 70%. Mr. Mayfield is ineligible for renal transplantation.

You are his nephrologist, and you have known him for 3 years. You ask yourself the SQ (Will I be surprised if this patient dies within the next year?), and your answer is, "No, I would not be surprised."

1. What are the difficulties for you in discussing dialysis decision making?
    a. Which clinicians do you think should have conversations with patients?
        i. Primary care, nephrology, specialty palliative care, other? Why?
        ii. Physician, APP, nurse, social worker, other? Why?
2. What are the difficulties in your practice to engaging your patients in advance care planning (including discussion of prognosis and goals-of-care) in your practice?
    a. Which clinicians do you think should have conversations with patients?
        i. Primary care, nephrology, specialty palliative care, other? Why?
        ii. Physician, APP, nurse, social worker, other? Why?
3. What are the system- or policy-level difficulties to discuss dialysis decision making, advance care planning, prognosis, and goals-of-care conversations in your practice?
4. What would make it easier (e.g., specific training, resources, or access)?
5. What opportunities exist for better communication with your patients?

SURPRISE QUESTION (SQ) BEST PRACTICE ALERT (BPA) FEEDBACK
We did a QI study in our CKD clinic in 2017 in which you were asked to respond to the SQ for your patients with CKD. This was a BPA in Epic that prompted you.

6. Do you recall completing a best practice alert (BPA) that directed you to answer the Surprise Question (SQ): "Would you be surprised if this patient died in the next 12 months?"?
    a. **[If no]:** Do you think integrating the SQ into the EHR as a BPA for older adults with advanced CKD would be useful?
        i. **[If no]:** Why not?
        ii. **[If yes]**
            1. Will it help facilitate clinical management decisions?
                a. **[If no]:** Why not?
                b. **[If yes]:** How?
            2. Will it help facilitate advance care planning conversations (i.e., discussions of prognosis, values and preferences, treatment options, goals-of-care, advance directives, naming a healthcare proxy, etc.)?

        a. **[If no]:** Why not?
        b. **[If yes]:** How?
    3. Will it help facilitate dialysis decision making conversations?
        a. **[If no]:** Why not?
        b. **[If yes]:** How?

b. **[If yes]:** Did the BPA/Surprise Question response you provided impact your patient care?
    i. **[If no]:** Why not?
    ii. **[If yes]**
        1. Did it impact communication about prognosis, advance care planning, or goals of care with your patient?
        2. Did it impact your clinical management of the patient (e.g., dialysis planning; treatment goals such as BP, bicarbonate, PTH values; pharmacotherapy)?
    iii. What was the burden of answering the Surprise Question?
        1. **[Likert]:** None, Low, High
        2. Please describe why you gave this answer.
c. **[Everybody]**: How would you rate the utility of the SQ for the care of your older adult patients with CKD?
    i. **[Likert]:** No Utility, Low Utility, Moderate Utility, High Utility
    ii. Please describe why you gave this answer.
d. What are your suggestions for improving the utility of the Surprise Question?
e. What tools or resources would help you have more conversations with your patients about dialysis decision making?
f. What tools or resources would help you engage your patients in advance care planning (e.g., discussions of prognosis, values and preferences, treatment options, goals-of-care, advance directives, naming a healthcare proxy, etc.)?

FINAL THOUGHTS

7. Do you have any other major comments or concerns about the Surprise Question or communication with patients about dialysis decision making, advance care planning, prognosis, and goals-of-care conversations?

Appendix. Table 5. Themes and representative quotes from physician feedback on the SQ implementation.

THEME	EXAMPLE QUOTES
Barriers to Goals-of-Care and Advance Care Planning Discussions	
Time	Time consuming and not feasible within the time allotted to patients in clinic and during busy hospital service. System-wise is again time assignment for patient - it takes less time to tweak a HTN medication and add vitamin D to a CKD patient than have these appropriate conversations.
Difficult and uncomfortable conversations	Challenging topic to talk about considering gravity of outcomes All GOC discussions are hard
Patient and family readiness	Sometimes the patients are just not ready, so you have to slowly approach the topic over several visits. Knowing what his life expectancy is on, and off, dialysis. Knowing whether dialysis is something that is consistent with his wishes - and whether he can understand what's involved with dialysis without experiencing it. Wondering what his reaction would be to a poor prognosis conversation
Patient understanding	Ensuring that the patient has an adequate understanding about conservative kidney care versus dialysis - this requires multiple visits and conversations (of which we have had over the past 3 years). Also, an assessment of wife's understanding and involvement in decision-making Painting an appropriate picture of what role KRT plays in the ongoing care and what goals it is designed to achieve.
Inter-clinician communication and fragmented care (e.g., EHR)	Works better if we all have access to the same EHR. Ideally there would be a committee meeting regarding involving nephrologist, educator, and social worker Make the GOC in Epic easier
Timely access to specialty palliative care	Increase access to timely palliative care visits PCP relaying such conversations to specialists and referring to palliative care in a timely fashion
Facilitators of Goals-of-Care and Advance Care Planning Discussions	
Longitudinal relationship	Those with the best relationship especially a long term trusting relationship are best to do this. Usually if the primary nephrologist has a long relationship - this can just be done with him or her. But for more challenging goals discussions and/or less familiarity with the patient (given my primary challenge of appropriate time given in a specific 30 minute visit) - renal palliative care support can be helpful.
Multidisciplinary team-based, nephrologist-led	There should be an integrated approach to modality, transplant, and/or conservative therapy involving the nephrologist, an educator, and when appropriate a palliative physician. Ideally starts with the nephrologist and then gets directed appropriately.

	Nephrologists best understand prognosis and in long-standing patient's cases their ultimate desires and goals with their lives
Patient education	Renal care educators and social work to help provide options in respect to KRT or not. Dedicated time slots to have these discussions are important. Printed material easily accessible by a link we can click to print off for the patients or have mailed to them RN education that's integrated in our care flow.
Telemedicine	Telemedicine is a real advance as now easy to schedule frequent 'visits' for follow up questions and close contact to provide support.
Designate time	Actually spending the time and having these important conversations maybe designated time for this kind of discussion
Benefits of the Surprise Question	
Prompt clinicians to have discussions	Will prompt the nephrologist to consider starting this conversation. Might allow the patient to consider conservative care rather than dialysis it may cause earlier discussion of dialysis
Provides systematic identification of high-risk patients	Gives a sense that KRT may not offer much in the way of benefit. Better at identifying patients at risk for not doing well with dialysis.
Reminder of the big picture of patient care	A reminder not to get so caught up in the KDOQI, PTH, iron, creatinine stuff and to remember big picture what's best for this patient. Reality check to members involved in the care.
Low time burden	Took minimal time as built into the system.
Critiques and Recommendations for Improving the Surprise Question	
Conversations happen unprompted	I already have these discussions with my patients and if the situation feels over my head, I reach out to [palliative nephrologists] for direction and/or appointment in their palliative-nephrology clinic Seeing this question doesn't change the fact that I may not feel it's the appropriate time to discuss end of life care wishes with the patient. Also it does not change the fact that there may not be time to discuss it with the patient at that visit.
Do not make the SQ mandatory	Don't make it mandatory to answer the question before closing off the visit It was an inconvenience to be forced to answer the question before closing the visit when busy seeing clinic patients
The SQ is not robust enough alone	Perhaps if we select [No] to the surprise question, and option could be what we'd like to do with our next clinic appt. Examples could be refer to palliative care clinic, or option to have a longer visit for the patient's subsequent appointment if deemed appropriate? We all need a bit more training a "how to have difficult conversations" reference

Trigger the BPA when the note is started	I start the note before the visit, have this pop up at this time (that is before the visit). In our Epic system, any extra clicking can be rather annoying. But this was more worthwhile than most of the "clicks" I do in epic.