Opportunities for Shared Decision Making in Kidney Transplantation


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Health researchers and policy-makers increasingly advocate clinical shared decision making (SDM)—a model of patient–provider communication stressing communication and joint participation in healthcare decisions to provide the best mutually decided treatment for a given patient (1,2). In SDM, the health care provider’s clinical expertise is integrated with the patient’s values and beliefs to facilitate informed treatment decisions. SDM promotes patient-centered care (3), which the Institute of Medicine identifies as essential for quality health care (4). SDM moves the patient–physician relationship away from traditional, paternalistic practices, contributing to better health outcomes (5–8), increased patient knowledge (9) and medication adherence (8), and lower healthcare costs (10). Health care advocates, such as the American Medical Association, strongly endorse SDM as the most desirable and ethical approach to the practice of medicine (11). Ethically, SDM is the optimal approach to making informed

Key words: Candidate, communication, decision aids, decision-making, informed consent, kidney transplantation

Abbreviations: CMS, Centers for Medicare and Medicaid Services; CTEC, Chicago Transplant Ethics Consortium; DCD, donation after circulatory death; ECD, extended criteria donor; EMR, electronic medical record; ESKD, end-stage kidney disease; KDRI, kidney donor risk index; PCORI, Patient-Centered Outcomes Research Institute; PCP, primary care provider; QPL, question prompt list; SCD, standard criteria donor; SDM, shared decision making.

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Introduction

Health researchers and policy-makers increasingly advocate clinical shared decision making (SDM)—a model of patient–provider communication stressing communication and joint participation in healthcare decisions to provide the best mutually decided treatment for a given patient (1,2). In SDM, the health care provider’s clinical expertise is integrated with the patient’s values and beliefs to facilitate informed treatment decisions. SDM promotes patient-centered care (3), which the Institute of Medicine identifies as essential for quality health care (4). SDM moves the patient–physician relationship away from traditional, paternalistic practices, contributing to better health outcomes (5–8), increased patient knowledge (9) and medication adherence (8), and lower healthcare costs (10). Health care advocates, such as the American Medical Association, strongly endorse SDM as the most desirable and ethical approach to the practice of medicine (11). Ethically, SDM is the optimal approach to making informed
Gordon et al.

SDM and informed consent share the common goal of activating patients in treatment decision making, but do not always overlap (14). These processes coincide most strongly in contexts of high-risk treatments, and when there are two or more treatment options (14). Although informed consent focuses on the procedure and its attendant risks, SDM is a patient-centered discussion. Thus, with SDM, the discussion concentrates on how alternative therapeutic options may impact the specific patient, and considers these impacts in light of the patient’s particular circumstances, including medical/surgical considerations (similar to informed consent), as well as social, economic, geographic and other demographic considerations. SDM also considers specific donor and recipient risk predictors in the case of transplantation. For instance, though informed consent for kidney transplantation would entail discussing its risks and benefits, SDM would involve a discussion of considering live donation versus standard criteria donor (SCD), extended criteria donor (ECD), donation after circulatory death (DCD), organ availability, timing of transplantation, geographic disparities and cultural and ethnic implications on live donation, etc. Another distinction is that while all multidisciplinary transplant team members may help provide patients with information for SDM, informed consent is typically obtained by the surgeon performing the specific procedure. The trade-off between informed consent and SDM is about how well informed the decision is versus time and resources necessary to achieve maximal patient participation. The question remains, however, as to where the tipping point lays.

SDM places considerable focus on the patient’s history, beliefs and attitudes. However, SDM does not grant patients full autonomy in deciding on a treatment (15). This means that SDM does not guarantee a patient a kidney transplant, or one from a preferred, specific donor type. Given the context of organ scarcity, allocation policy and ethnic implications on live donation, etc. Another distinction is that while all multidisciplinary transplant team members may help provide patients with information for SDM, informed consent is typically obtained by the surgeon performing the specific procedure. The trade-off between informed consent and SDM is about how well informed the decision is versus time and resources necessary to achieve maximal patient participation. The question remains, however, as to where the tipping point lays.

SDM has been varyingly implemented in numerous clinical settings, including general practice (primary care (17), family medicine (18), pediatrics (19)) and specialty care (oncology (20), gastroenterology (21)). However, SDM has received less attention in solid organ transplantation (22). Research shows that transplant candidates and surgeons assign different weights to different factors when considering an offered kidney and that patients’ values change over time (23). Documented variability in the use of organs from Hepatitis C positive donors suggests that some centers systematically do not accept these organs, which eliminates the opportunity for SDM (24). A study of patients initiating renal replacement therapy found that they perceived insufficient information or time for decision making (25). Moreover, dialysis patients desired involvement in decision-making, but reported actual or fear of adversarial interactions with health professionals who neglected to engage in SDM (26–28).

Despite these gaps, SDM is well-suited to kidney transplantation. For example, there are multiple treatment options, each posing different risks and benefits. Consequently, no single treatment option is necessarily the “right” decision for all patients (29). In this paper, we explore areas of opportunity for SDM, outline challenges to implementing SDM, and propose strategies to overcome challenges to SDM in kidney transplantation. We posit that implementing SDM is feasible and propose avenues to promote SDM in this setting.

Opportunities for engaging in SDM in kidney transplantation

SDM lends itself to transplant decisions involving alternative therapeutic treatments. In addition, SDM is equally applicable in situations when clinical evidence is available or not available or of low quality (30). Table 1 identifies decision points that lend themselves to SDM. Decisions about whether to initiate or remain on dialysis, to pursue a transplant, to undergo transplant evaluation, to consider deceased versus live donor transplantation, to accept or decline an organ offer, or to pursue retransplantation or remain on dialysis, are appropriate for SDM because patients’ personal values, beliefs, goals and expectations will inform their treatment preferences. SDM should begin early in the evaluation process and proceed through the time of transplantation.

Essential elements of SDM include: defining the health problem, presenting available treatment options, discussing risks and benefits of options, assessing patient values and preferences, discussing the patient’s condition and providing recommendations, checking patient understanding, making or explicitly deferring a decision and arranging follow-up (31). By participating in decisions from the outset, transplant recipients may be more adherent to complex medical regimens given enhanced understanding. Because patients’ values and goals may change with their shifting health status on the waiting list or throughout the evaluation process, transplant clinicians should involve patients repeatedly to assess their treatment preferences.
Table 1: Opportunities for providers and patients to engage in shared decision making*

<table>
<thead>
<tr>
<th>Decisions</th>
<th>Discussion points for providers to elicit patients’ values and expectations</th>
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<tbody>
<tr>
<td><strong>Whether to pursue transplantation versus initiating or staying on dialysis</strong></td>
<td>Do you understand the mortality risks of initiating or staying on dialysis?</td>
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<td></td>
<td>Do you understand the risks and benefits of transplantation?</td>
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<td></td>
<td>Are you stable on dialysis?</td>
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<td></td>
<td>Are you able to work?</td>
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<tr>
<td><strong>Discussion of morbidity, mortality and quality of life comparison for dialysis versus transplant</strong></td>
<td>Have you discussed living donation with anyone in your environment, and what kind of assistance could we as professionals offer to help support this process?</td>
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<td></td>
<td>Do you want to work?</td>
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<td></td>
<td>What would you like to be able to do that you cannot do now?</td>
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<td></td>
<td>Is dialysis conducive to your lifestyle?</td>
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<td></td>
<td>Do you have support to pursue transplant?</td>
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<tr>
<td><strong>Whether to initiate and/or complete evaluation work-up</strong></td>
<td>What do you understand about what the commitment to complete evaluation?</td>
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<td></td>
<td>Are you able and willing to possibly make several trips to the transplant center?</td>
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<td></td>
<td>Are you willing to undergo several diagnostic tests and possibly procedures to determine your candidacy?</td>
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<td></td>
<td>Do you feel you will be able to cope with the transplant center’s decision about your candidacy?</td>
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<td></td>
<td>Are there transplant candidacy criteria that you are not sure about or don’t fully understand?</td>
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<td></td>
<td>Are you able and willing to take time off of work?</td>
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<td>Are you able to pay for parking?</td>
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<tr>
<td><strong>Whether to: (a) multiple list</strong></td>
<td>Do you know what happens after you complete your evaluation?</td>
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<tr>
<td></td>
<td>Do you know what it means to be placed on the waiting list?</td>
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<tr>
<td><strong>(b) transfer care elsewhere</strong></td>
<td>Do you know how long your wait is and that it is different in various regions?</td>
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<td></td>
<td>Do you understand multiple listing and the possible benefits?</td>
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<td></td>
<td>Do you understand that your post-transplant care is usually delivered at the center that transplanted you?</td>
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<td>Do you have the desire to take the time and the means to travel to other transplant centers?</td>
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<td>Are you willing to have your follow-up care at another transplant center?</td>
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<td></td>
<td>Are you willing to travel for your post-transplant care?</td>
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<td></td>
<td>Do you have someone who can help take care of you if you get a transplant at another center?</td>
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<tr>
<td><strong>Whether to seek and/or accept a living donor kidney</strong></td>
<td>Do you prefer to wait on dialysis for a deceased donor or find a living donor match?</td>
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<td>Do you understand the risks of waiting on dialysis if you have a willing and suitable living donor?</td>
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<td>Do you understand the risks of donation?</td>
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<td></td>
<td>How do you feel directly knowing the person donating to you?</td>
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<td>How do you feel about possible indebtedness thereafter?</td>
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<td></td>
<td>Do you have concerns about the health and welfare of your potential donor?</td>
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<td><strong>Whether to participate in a paired exchange program or desensitization as necessary (vs. not desensitization)</strong></td>
<td>How do you feel about having a possible match with an organ from someone you don’t know versus getting an organ from someone you know who is a lesser match?</td>
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<td>How do you feel about your original donor giving a kidney to someone else?</td>
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<td></td>
<td>Are you comfortable accepting a living donor kidney from someone you don’t know?</td>
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<td></td>
<td>Do you understand the risks of desensitization versus a compatible donor?</td>
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<tr>
<td><strong>Whether to accept: (a) a standard criteria organ</strong></td>
<td>Do you understand what an extended criteria donor is and the risks versus benefits?</td>
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<td></td>
<td>How do you feel about waiting longer for a standard organ than for an extended criteria donor kidney?</td>
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<tr>
<td><strong>(b) an extended criteria organ</strong></td>
<td>Does knowing that the risk of infection transmission by increased risk donor kidneys is exceptionally low (like the risk of contracting hepatitis C while on dialysis) help you to consider accepting increased risk donor kidneys?</td>
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<tr>
<td><strong>(c) an increased risk donor organ</strong></td>
<td>Do you understand the benefits and risks of center-specific immunosuppression and induction therapy protocols? (i.e. steroid-avoidant, campath-avoidant, etc.)</td>
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<td>Do you understand the various expectations post-transplant at this center?</td>
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<td>Do you know the volume of transplants at each center, and what this means?</td>
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<td>Do you know the waiting time at each center?</td>
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<td>Do you know each center’s risk tolerance?</td>
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<td></td>
<td>Do you know how aggressive or conservative each center tends to be?</td>
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<tr>
<td></td>
<td>Do you know each center’s post-transplant outcomes?</td>
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</tbody>
</table>

*Continued*
SDM is not feasible when there are clear-cut medical and psychosocial contraindications to transplantation. Although a multidisciplinary committee of transplant providers makes decisions about potential recipients’ overall candidacy for transplant without direct input from the patient, as mandated by Centers for Medicare and Medicaid Services (CMS) (32), patients are represented at the meeting by their provider who communicates their wishes and values. Later, the transplant program decides whether to preliminarily accept an organ on behalf of the patient and then offers the organ to the patient. In contrast, other decisions, such as the type of offered organ (i.e. DCD, ECD, increased risk donor), are typically made by physicians, but should involve patients.

Given their different experiences and priorities, healthcare providers and patients may not agree about which treatment option to pursue. Patients sometimes favor options that better accord with their values, beliefs and fears, instead of the clinically optimal treatment. In interviews with transplant-eligible dialysis patients, many preferred dialysis because they reported doing well, fearing surgery, and observing many failed transplant recipients return to dialysis (33). When disagreements arise, as medical ethicist Rebecca Dresser explains: “Some clinicians think that respect for autonomy means they should never disagree with a patient. Some think that it would be cruel to question what a seriously ill person says she wants. Some don’t want to devote time to the hard conversations that produce good decisions” (34).

SDM holds that providers and patients should discuss the patient’s concerns and values in advance to arrive at a decision together. Ultimately, if the provider perceives the patient’s decision as suboptimal, but the decision supports the patient’s values and beliefs, then SDM is achieved, so long as the advantages and disadvantages of each option were discussed. For example, otherwise healthy patients who strongly dislike dialysis may accept an ECD organ, even when providers recommend waiting for a standard organ. Hence, the ECD option would accommodate the patient’s priorities, and thereby serve as the “best” treatment option for that particular patient. Patients may prioritize decisions that maximize perceived quality of life over quantity of life.

**Potential obstacles and challenges to implementing SDM in kidney transplantation**

Distinctive factors present potential obstacles, and paradoxically opportunities, for SDM in kidney transplantation.

**Provider receptivity to SDM:** Providers vary in their receptivity to SDM because it requires a shift in interactions with patients. Several interventions have demonstrated improvements in SDM implementation (35). Interventions that educate providers about sharing decisions with patients and use decision aids increase the likelihood of adoption (36). Major barriers to providers implementing SDM include: time constraints, patient characteristics and nonapplicable clinical situations. Key facilitators include: provider motivation, and positive effects on the clinical process and patient outcomes (37).

**Patient–provider relationship:** The complex relationship between patients, their PCPs and/or nephrologists and the transplant teams can interfere with SDM. Late referral to transplant centers inhibits early opportunities for SDM. Late referrals also preclude the opportunity for educating the patient and family on pre-emptive transplantation and supporting them in broaching the subject of living donation with their loved ones.

Patients referred to a transplant center for kidney transplantation interact with a multidisciplinary provider team (32). Although multidisciplinary teams aim to provide streamlined and efficient care, patients may have varied access to different providers, potentially limiting their ability to obtain information (38) and engage in SDM. These challenges can be exacerbated by the fact that care providers (PCP, nephrologist, dialysis unit) are often disconnected from the transplant center with little integration in the delivery of care model.

Although patients meet individual members of the transplant team during the evaluation process, there may be little continuity in patients’ relationships with individual team members, and fewer opportunities for thorough discussion. Clinical databases facilitate continuity by ensuring that elements of care are handed off; yet such systems may inhibit patients’ opportunities to directly express concerns. Diminished opportunity for an ongoing one-to-one
patient–provider relationship may impair patients’ rapport, trust and comfort with transplant providers. These dynamics are noteworthy, given that trust is both a necessary precursor (39) and outcome (40) of SDM and patient care. In the context of the patient–provider relationship, SDM has potential limitations (41,42). Broadly, patients may not desire autonomy, patients might respond poorly when providers disclose uncertainty about medical care, and providing risk/benefit information for every treatment option may not be feasible given lack of time or available data (41). Further, patients may chose options that are not considered the safest or most effective or cost-effective, and potentially have negative repercussions for providers and transplant centers (42). Importantly, when patients experience poor outcomes from selecting less effective options, public reporting and centers’ CMS certification can be adversely affected.

**Wait-list decisions:** Once patients are placed on the wait list for kidney transplantation, many factors relating to the unpredictability of the organ offer may severely undermine the application of SDM to accept or decline the offer, as outlined in Table 2. Therefore, providers should engage patients in SDM early in the preoffer period and continue to review different organ offer scenarios vide infra.

**Organ scarcity and committee decision-making:** The scarcity of available organs presents challenges to SDM in transplantation. Institutional, multidisciplinary committees determine whether patients are eligible transplant candidates, require additional testing, or removed from the wait list. Decisions made by the selections committee in the context of organ scarcity take into consideration ethically informed policies designed to redress historical practices of patient selection based on perceived social worth (43).

However, providers face conflicting choices that prioritize different constituencies: the patient, society and the institution. Promoting patients’ health while minimizing harm is the primary objective of clinical care (patient perspective). However, as societal “stewards” of offered organs, transplant providers have responsibility to maximize outcomes, especially for deceased donor kidneys (44,45). Provider decisions may also be influenced by the emphasis on transplant program-specific outcomes currently used by public and private payers to certify transplant centers, introducing risk aversion into the decision-making process (institutional perspective) (46). Institutional decisions are often as much about resource allocation, clinical and financial outcomes, as about providing medically appropriate care. For instance, a patient who is a high medical/surgical risk (due to co-morbidities) with a history of nonadherence may insist on receiving a standard criteria donor transplant (rather than ECD). Assuming that transplant providers can achieve institutional consensus on this particular patient, the closed-door committee decision-making process may significantly constrain SDM.

Paradoxically, these challenges may also present opportunities to promote SDM. For example, SDM should occur when patients are considering accepting a ‘marginal’ organ for transplant. Accordingly, providers should assess patients’ preferences for various organ options (i.e. ECD or increased risk donor organs) to optimize patient-centered outcomes in advance of organ offers. Clinicians should explore with patients what level of risk they are willing to take and what their desired outcome with transplantation is (re-Abide from dialysis as soon as possible, long-term graft function, younger donor, etc.) to ascertain which organs would be most suitable to the patient’s needs.

**Variability of transplant practice:** Transplant centers vary in terms of their patient evaluation process, waitlist management practice, risk aversion and immunosuppressive regimens. Variation in clinical practice can hamper establishing patients’ expectations for transplant outcomes when such information is not publicly available. Although transplant outcomes are currently publicly reported, the factors that contribute to the imperfect risk adjustment methodologies are not. To foster SDM, transplant providers should inform patients about how their own center differs from others in clinical practice at the outset so that patients can determine which transplant center best aligns with their treatment preferences, using SDM in this process.

**Education and patient’s declining cognitive status:** Details considered during organ offers and transplantation are medically complex. Informed decision-making constitutes an important aspect of SDM, and requires that patients comprehend complicated health and probabilistic information. Compounding the problem with comprehension is the limited availability of data on patient outcomes, e.g. long-term living donor outcomes. Details, such as kidney donor risk index (KDRI) or risks associated with remaining on hemodialysis versus accepting a marginal quality organ are statistic-based, requiring adequate health literacy and numeracy levels to make informed decisions.
However, many transplant candidates and recipients have inadequate literacy (47).

Further, due to declining clinical condition and ethnic/cultural and socio-economic considerations, patients' ability to synthesize and understand medical information may be compromised. Cognitive impairment is commonly under-diagnosed in kidney candidates, and worsens over time (48), diminishing some patients' capacity for SDM. Cognitive deficits and limited health literacy and numeracy can compromise patients' ability to understand statistical probabilities and make complex decisions. Therefore, educational discussions about therapeutic options for patients with advanced chronic kidney disease should occur early and accommodate patients with diverse literacy levels and declining cognitive status to foster SDM.

**Proposed strategies to optimize SDM in organ transplantation**

We propose several strategies to overcome barriers to SDM in kidney transplantation (Table 3). As a prerequisite to implementing SDM in clinical practice, provider receptivity is essential. To increase receptivity, providers should receive education and continued training regarding how SDM can potentially improve patient outcomes.

With regard to patient-provider relationships, more sustained and consistent communication between providers and the patient/family is needed to prevent fragmentation of care and enhance SDM. Family members play an integral role in decision-making among patients initiating renal replacement therapy (49). Family dynamics are important particularly in discussions about living donor transplantation or when patients are incapacitated. Providers should identify patients’ and families’ preferences before cognitive declines and regularly reassess preferences. Although patients commonly desire an active role in decision-making, they may be less involved in participating in the actual discussions (50). Therefore, clinicians should act as facilitators and “coaches” in the decision-making process. By asking questions about the patient’s and family’s treatment preferences, and asking the patient to fully participate if desired, clinicians can enhance patient and family participation in SDM. Early education with on-going reinforcement is crucial for ensuring comprehension, as adults maintain a limited ability to retain information that is taught 2–3 years earlier (51).

Through SDM, providers can foster patient-centered care by communicating at a level individual patients best understand. For instance, providers can translate probabilistic and complex information to become more comprehensible to facilitate SDM. Strategies that providers may use to assess patients’ and families’ understanding of treatment options and elicit patients’ values and expectations include: teach back to assess understanding, open-ended questions, asking about patients’ fears, or enhancing rapport. Providers can normalize patients’ concerns and promote understanding of what to expect from transplantation by giving patients “permission” to discuss personal issues by stating “you may have questions about . . . ”

Electronic forms of communication can help bridge gaps in continuity of care (52). Providing patients the option to correspond with healthcare providers via email through the electronic medical record (EMR) can facilitate information seeking, discussion and SDM (53). Many EMRs also use alerts to identify patients’ preferences such as contact method, preferred name, or preferred language and translator, all of which help to build rapport with patients. Similarly, alerts could document patient preferences regarding decision-making in the kidney transplantation process.

Decision aids, in paper or electronic formats, can facilitate treatment SDM (35) and increase patients’ understanding during informed consent for routine medical and surgical care (54,55), even among patients with reduced literacy and chronic illness (56,57). For example, in one study, research participants across all literacy levels were more satisfied with an automated approach to informed consent than when explanations were provided by a human agent (58), and liked computer-based decision aids that are self-paced, private and informative (59).

Checklists and other visual aids can enhance recall and informed consent in surgical patients (60,61). A visual aid that depicts all steps in the process of transplant evaluation could be potentially quite valuable for potential candidates. As potential candidates often fail to complete or do not know where they are in the evaluation process (62), such an aid may help them appreciate the full picture, prompt them to discuss next steps with their providers (SDM), or take the next step forward.

Due to the time sensitivity of organ offers and patients’ cognitive status, patient-educational resources are needed to help patients optimally prepare for decision-making. One such resource is a question prompt lister sheet (QPL), which can help patients ask important questions about transplantation, thereby activating patient-clinician discussions and fostering SDM (Figure 1). (63) QPLs increase patient understanding and improve communication with
Other educational resources include hypothetical scenarios that prepare patients to identify, discuss and debate pivotal decisions in the transplant pathway. Although decision-aids are increasingly used, and can enhance the quality and efficiency of SDM (65), none have been developed for transplant candidates to date. Relatively, studies of patient navigator programs demonstrate that they are cost-effective and present a net financial benefit for providers through increasing completion of treatment (66, 67).

**Which transplant provider should engage in SDM with the patient?**

Ideally, every encounter with each transplant provider should involve SDM. Granted, not all providers have the time, sufficient knowledge about or relationship with the patient to engage in SDM. Thus, we propose that the transplant nurse coordinator serve as the point person to routinely engage patients in SDM given that they follow the patient throughout the transplant process, serve as key contact and patient advocate. Trust develops as an individual transplant nurse coordinator supports a patient through the evaluation and share the goal of obtaining a transplant. This relationship helps to ensure that patients’ decisions are respected—a critical feature of SDM. Any point person should document patient preferences in the medical record to promote continuity in SDM among the entire transplant team.

**Research needs to address gaps in SDM in transplantation**

Research is needed to assess organ transplant candidates’ and recipients’ preferences for SDM. Studies should assess which decisions patients desire SDM with their providers. In addition, studies should assess patients’ perceptions regarding actual SDM practices in transplantation to identify strengths and shortcomings. Such research can inform interventions to better accommodate SDM in clinical practice. Research is also needed to identify transplant-related decisions for which patients most desire decision
Aids and factors informing patients’ decisions; such knowledge is pivotal in developing decision-aids promoting SDM. As standardized coding systems have been developed to assess the practice of SDM, research should assess the extent to which SDM is occurring in transplantation (68,69).

**Application to other cultures and organs**

As the patient–doctor relationship and treatment decision making are informed by cultural norms and expectations, SDM is likely culturally shaped (70). Thus, the value placed on patient autonomy and equality in the United States and other Western countries—which is pivotal to the construct of SDM, may not be shared in cultures with hierarchical social structures that maintain a high degree of respect for authority. The existing cross-cultural research shows that preferences for SDM vary by country, numeracy skills and age (71–73). Based on these findings, transplant providers should not expect that all patients desire involvement in treatment decisions. Rather, providers should assess patients’ desires for autonomy and SDM.

Medical decision making for nonrenal transplants, e.g. liver, heart, lung, raises other challenges for SDM given the complicated medical calculations of risk/benefit. Although renal patients have a choice as to whether to accept an organ offer, nonrenal patients have no effective alternative medical options to transplantation. Complicated decisions as to whether to attempt liver transplantation at all are typically made in the context of group discussion and consensus building by extensive multidisciplinary personnel. However, as patients are not included in these discussions, there is a potential lack of transparency to enable early SDM in nonrenal transplant.

**Conclusion**

SDM is increasingly considered an essential part of quality healthcare delivery. Therefore, it is important to consider its application and implications in transplantation. SDM may increase adherence to transplant treatment plans as patients recognize their active role in decision-making processes (8,74). The impact of decision and visual aids on SDM should be assessed once they are validated for the transplant field. However, certain characteristics of the transplant clinical context present critical challenges to effectuating SDM. Of great concern is that patients’ expectations about engaging in SDM are restricted due to limited transparency in the decision-making process. By reconsidering the structure and practice of care, as proposed, opportunities to implement SDM may emerge. Transplant clinicians are encouraged to learn from other disciplines about how to incorporate SDM into clinical practice (20). Facilitating the application of SDM in transplantation holds promise for optimizing informed consent and reducing health care costs.

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