



## Foundations of medical decision-making for older adults with cardiovascular disease

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### Abstract

In order to help older adults with cardiovascular disease navigate complex decisions, clinicians must know tenets of medical ethics and have good communication skills. The elements of decision making capacity and informed consent are reviewed, using relevant clinical examples to illustrate the basic concepts. The shared decision making model, by which clinician and patient work together to determine the plan of care, is described. Useful communication techniques to implement shared decision making are suggested.

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### 1 Introduction

The complexity of decision making for older adults with cardiovascular disease is increased by the presence of multiple comorbid conditions, variability in functional status, uncertainty in prognosis, paucity of data from gold standard trials, greater prevalence of cognitive impairment, and discontinuity across multiple sites of care. In order to help patients navigate decisions and ensure that the care provided is consistent with patients' values, the clinician must have good communication skills and be knowledgeable about basic concepts in medical ethics, such as decision-making capacity, informed consent, and shared decision-making. This paper addresses these topics. Clinical examples relevant to the care of older adults with cardiovascular disease are given.

### 2 Decision making capacity

The ethical principle of autonomy supports the right of patients with decision-making capacity to determine their plan of care. Adults are presumed to have capacity, but may

lack decision-making abilities temporarily or permanently due to acute or chronic illness. Assessment of capacity is critical to understanding whether and to what extent the patient can participate in clinical decision-making. In general, a psychiatric evaluation is not necessary in the determination of capacity (though clinicians should consult their institutional policies), but is often helpful in patients with known or suspected psychiatric illness or when there is uncertainty about a patient's capacity. In most other cases, any clinician should be able to assess decision-making capacity and must be familiar with its elements. Regarding a specific choice, a patient with decision-making capacity is able to: (1) understand the relevant information presented about the diagnosis, prognosis, treatment options, risks and benefits of each option and alternatives; (2) appreciate the consequences of the choice; (3) reason about the options in the context of personal values; (4) make and communicate a choice.<sup>[1–3]</sup>

Decision-making capacity is specific to the decision at hand and not a global judgment about the patient's general abilities. The presence of psychiatric illness or cognitive impairment, does not, in and of itself, imply lack of capacity. Thus, a patient with mild dementia may be able to make treatment decisions, such as whether to receive an implantable cardioverter defibrillator (ICD). Decision-making capacity may wax and wane. It is especially important to be alert to the presence of delirium, physical discomfort, or

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other reversible causes of impaired decision making. Patients who lack decision making abilities due to acute illness or delirium may regain capacity with appropriate medical and/or psychiatric treatment. For example, a patient with delirium due to low output heart failure may have improved cognitive ability following the initiation of intravenous inotropes.<sup>[1-3]</sup>

The standard for determining capacity varies relative to the benefits and harms expected as a consequence of the choice made.<sup>[4,5]</sup> According to this sliding scale, as the risk of the patient's choice increases, clinicians should more strictly assess whether the patient has capacity. For example, capacity must be demonstrated with greater certainty when a patient refuses a treatment with high expected clinical benefit and relatively low risk, such as stent placement of a discreet proximal left anterior descending artery (LAD) lesion during an ST elevation myocardial infarction (STEMI).

It does not necessarily follow, however, that a patient's refusal of recommended treatment means that she/he lacks decision-making capacity.<sup>[1]</sup> Clinicians should explore the patient's reasons for his/her choice and the patient's values and goals in order to carefully assess the patient's capacity to provide informed refusal, and to identify any areas of misperception or miscommunication.<sup>[4]</sup> Individual patient concerns should be addressed. For example, the patient with the STEMI may be fearful of the procedure because a family member experienced an LAD dissection with tamponade during a stenting procedure.

Clinicians are obligated to promote the patient's decision making capacity, maximizing the patient's ability to exercise autonomy. Medical information must be presented using language the patient understands, avoiding medical jargon and tailoring terms to the patient's educational level. Asking patients to express key ideas in their own words is helpful to evaluate the patient's understanding. Wearing glasses or using hearing aids, as needed, will improve the patient's ability to communicate. When possible, avoid interviewing patients when they are experiencing pain or other distressing symptoms.<sup>[2]</sup>

A patient with capacity has the right to determine how his/her decisions are made and may choose to involve others in the decision making process or delegate decision making to a friend or family member. Each patient's preference for decision-making process should be assessed.

### 3 Informed consent

Informed consent is a legal process, grounded in the principle of autonomy, which ensures patients are adequately informed to make health care choices and give au-

thorization for procedures and other interventions. Informed consent is more than a document indicating the patient's authorization.<sup>[6]</sup> The elements of informed consent are: (1) disclosure, (2) decision-making capacity, and (3) voluntariness.<sup>[2,7]</sup>

Disclosure is the sharing of information by the provider with the patient. It is generally accepted that the following should be disclosed to ensure fully informed consent for a procedure or treatment: (1) diagnosis and prognosis; (2) nature and purpose of treatment or procedure; (3) expected benefits of the procedure; (4) risks and complications (both common, regardless of severity, and rare but serious); (5) alternatives to the procedure; (6) consequences of not undergoing the procedure or treatment.<sup>[7]</sup>

There are three legal standards regarding what information should be disclosed in order to achieve adequate informed consent: (1) what a typical physician would disclose (professional standard); (2) what a reasonable patient would want to know (reasonable patient standard); or (3) what a particular patient needs to know to make the decision (subjective standard). The ethical ideal is to achieve the subjective standard, tailoring information to the needs of each individual patient. Jurisdictions vary regarding which legal standard is used to determine liability if relevant information was not adequately disclosed.<sup>[6,7]</sup>

Voluntariness means that the patient makes a decision free from manipulation or coercion. Clinician recommendations and information framing are not necessarily threats to voluntariness. The clinician may make a recommendation based on an understanding of the expected benefit of the intervention and the likelihood it will achieve the patient's goals. Patients' understanding may be maximized by framing the information in the context of their illness. This promotes patients' ability to apply their values to the decision and to exercise their autonomy. However, information may not be withheld in order to manipulate the patient to choose a particular treatment option.<sup>[7]</sup> For example, after learning about and addressing the fears of the patient with STEMI and considering the range of options in the context of the patient's overall good prognosis with standard treatment, the clinician may strongly recommend proceeding with stent placement, given that the patient's goal of returning to his prior level of functioning is likely achievable.

The signed informed consent document is a record that a discussion took place between the clinician and the patient or surrogate decision-maker. Merely reading the document does not constitute adequate informed consent, and the document may not adequately record the conversation. The main purpose of the consent process is to ensure the patient is informed and controls his/her own health care, not to pro-

vide legal protection for clinicians.<sup>[6,7]</sup> Local law and institutional policies vary regarding which procedures require a signed informed consent document to be entered in the medical record. The clinician responsible for the care or the clinician who will perform the procedure should have the informed consent discussion with the patient. Institutional policies vary regarding when this may be delegated to another qualified provider.

Recognized exceptions to the requirement of informed consent include: in a true emergency, when delaying the procedure to obtain informed consent from the patient or appropriate surrogate decision-maker would result in harm to the patient;<sup>[4]</sup> when the patient waives his/her right to provide informed consent and delegates decision making to a surrogate (or the treating physician); and when the information would cause harm to the patient (known as “therapeutic privilege”). Although invoked more frequently in the past, appropriate circumstances when therapeutic privilege is followed are extremely rare and often involve severe psychiatric illness (e.g., discussion of informed consent elements leads a patient to be a danger to self or others).

Barriers to effective informed consent include time constraints, poor clinician communication style, inadequate assessment of patient understanding, confusing consent forms, low patient health literacy, language barriers, and patient mistrust/misunderstanding of the purpose of the informed consent process.<sup>[6]</sup> The quality of informed consent may be improved with communication training, informational materials and decision aids.

#### 4 Shared decision making

Shared decision making is the process by which the patient (the expert on his/her values and preferences) and the clinician (the expert on the diagnosis, prognosis, and treatment details) work together to make health care decisions. The process involves a two-way exchange of information between the patient and physician in order to: (1) explore the patient’s understanding of the disease, prognosis and options; (2) learn about the patient as a person and about the meaning and impact of the illness in his/her life; (3) assess decision making preferences; (4) provide emotional support and medical information; (5) assess understanding of the information provided; (6) make treatment recommendations that are aligned with the patient’s goals and preferences; (7) come to consensus on a plan.<sup>[8]</sup>

The plan of care is tailored to the goals of the patient, who chooses among the treatment options. For example, the decision to choose destination left ventricular assist device (LVAD) therapy is a complex one. The physician provides

information about indications and risks of mechanical circulatory support, as well as how the LVAD might benefit the patient (e.g., prolonged life, improved ability to participate in activities). The patient shares her willingness to undergo a surgical procedure and participate in follow up care, as well as whether the best possible functional status she can achieve with an LVAD contributes, in her estimation, to a life worth living. This process is more in depth than informed consent about a specific procedure.

Decision-making needs, preferences and styles vary. Some patients may prefer simply to hear a specific recommendation, without justification or explanation of other options. Others may prefer the physician to merely present information and lay out the spectrum of choices. Even in this latter case, the clinician need not detail untenable or inappropriate options and may offer her/his recommendation.<sup>[7,9]</sup>

While some patients may be able to clearly articulate specific goals and values, many others need help to clarify their values and understand how each option supports or opposes their goals. The shared decision making model is particularly appropriate for value-laden decisions with uncertain outcomes. The shared decision making process is iterative, and extends from preventive interventions (e.g., statins for hypercholesterolemia) through end of life decisions (e.g., palliative inotropes). Clinicians should discuss the plan of care and the patient’s goals and values at regular intervals and with major events in the course of illness (e.g., heart failure re-hospitalization, functional decline, and consideration of ICD, dialysis or major surgery).

#### 5 Communication

Implementing the shared decision making model requires open communication between patient and physician in a relationship of mutual respect and trust.<sup>[8]</sup> A number of practical techniques have been suggested in order to optimize communication with patients. One method is Ask-Tell-Ask, which emphasizes the importance of asking open ended questions in order to elicit what the patient already knows even before providing medical information.<sup>[9]</sup> Phrases such as “please share with me what you understand about your illness” provide clinicians with important insights into a patient’s knowledge base and areas needing more explanation. In addition, eliciting patient understanding demonstrates respect for and interest in the patient’s perspective and may yield important information about the patient’s values and concerns, decision making style and health literacy. In the second “ask,” after targeted information is provided in the “tell,” the physician assesses the pa-

tient's understanding of the information provided and addresses any remaining concerns or requirements for clarification.

While not all communication with patients and families includes breaking bad news, these difficult conversations serve as a useful paradigm to illustrate components of successful communication to support shared decision making. Buckman's six steps for breaking bad news (SPIKES) illustrate principles, which are applicable, with modification, to many situations.<sup>[10]</sup> These steps provide more detail than the Ask-Tell-Ask method, but emphasize the same principles. The steps are: (1) Setting; (2) Elicit Perceptions; (3) Obtain an Invitation for information; (4) Share Knowledge and information; (5) Respond to Emotions with Empathy; and (6) Summarize and plan next steps.

## 6 Application

Mrs. M is an 84 year-old woman, who underwent bio-prosthetic aortic valve replacement 12 years ago. She lives with her daughter, who pays household bills and cooks meals. Mrs. M is otherwise independent, but her exercise tolerance has declined greatly over the past two years. She sees her primary care physician and her cardiologist, Dr. A, regularly. Over the past few months, Mrs. M has worsening dyspnea and lightheadedness on minimal exertion and peripheral edema. Diagnostic testing confirms the cause of her symptoms is prosthetic aortic valve stenosis and that surgery is the only invasive management option. Her anatomy is not amenable to valve-in-valve transcatheter aortic valve replacement.

Dr. A schedules a visit with Mrs. M in order to discuss the diagnosis and treatment options. At her last visit, Mrs. M stated her preference to not include her daughter or others in the discussion, explaining that her daughter already meddles too much in her affairs.

Dr. A is unsure of Mrs. M's values, preferences and goals and suspects the planned conversation about invasive treatment options for aortic stenosis may spark a more detailed discussion. He prepares the Setting accordingly. She is last on his patient schedule; he will not be rushed. He sits in a chair on the same level as hers, faces her, and moves the exam room computer to the side so he can maintain eye contact. In order to elicit her Perceptions, Dr. A begins by asking how Mrs. M is feeling and asking her to recap what she understands about the nature of her illness and the purpose of the visit. After sharing that she is feeling "about the same" and that she understands the symptoms are likely caused by the "heart valve again," she reminds Dr. A is supposed to be giving her specific test results. Recognizing

this statement as an Invitation to share Information, he shares Knowledge, reviewing the results of the echocardiogram and coronary angiogram, which reveal severe prosthetic valve stenosis without significant obstructive coronary artery disease and describes the indication for and risks of surgery. He asks her to explain the diagnosis and treatment in her own words. Her answer indicates she understands that the only curative treatment is surgery, but that surgery carries risk of death and of both cognitive and functional debility, especially since she had a prior heart operation, and she would most likely require a period of rehabilitation in a nursing home setting afterward. She asks Dr. A for a recommendation. He Tells her that there are two options: first, to have the surgery, because even the elevated risk for her is not prohibitive and that after the rehabilitation, she would likely be able to do more activities she find enjoyable than she can now; or second, to not have the surgery and opt for treatment aimed only at comfort as symptoms worsen. Dr. A explains this second option would be right for someone who viewed any period of hospitalization and rehabilitation as too burdensome to go through at this stage of life. Dr. A then Asks Mrs. M what she thinks of the 2 options.

Mrs. M becomes tearful. She explains that she is frustrated by needing help at all from anyone and had hoped to be able to do the things she likes without such a major intervention like surgery. Dr. A responds to Mrs. M's display of Emotion with Empathy, stating that to be frustrated in these circumstances is completely understandable. He learns more by asking her to tell more about what activities she likes and what is important to her. He explains that he is there to partner with her to make the decision.

After more open conversation, Dr. A learns that Mrs. M would view the investment of time and risk to have aortic valve surgery worthwhile in order to achieve the benefit of prolonged life and improved function. But he also senses that she would like more time to discuss with her family and others. He Summarizes the information exchanged and explains that the decision is not emergent. They Plan a follow up visit in two weeks.

This case example demonstrates how the SPIKES method can be applied when there are complex, preference sensitive decisions to be made. The Ask-Tell-Ask method is a useful communication technique that can be applied within the SPIKES paradigm or outside it. In this example, the physician gets to know the patient's values, preferences, and goals and informs the patient about the options. But he also helps clarify the benefit of each option and why someone would choose each option, based on his/her goals and values. This fits with Mrs. M's decision making preferences. She asks for a recommendation; after learning her reaction

to his explanation of the two options, Dr. A can make a patient-centered recommendation based on her values. This conversation goes beyond the minimum required to obtain informed consent from Mrs. M and is an example of shared decision making.

## 7 Conclusions

Communication techniques, such as Ask-Tell-Ask and SPIKES support shared decision making. Shared decision making is an iterative process of two-way communication by which the clinician and patient partner to ensure the plan of care is appropriate for complex, value-laden decisions. Clinicians must know the elements of decision making capacity and informed consent and principles of shared decision making in order to ensure the care of older adults with cardiovascular disease is consistent with patient values and goals.

## References

- 1 Ganzini L, Volicer L, Nelson WA, *et al.* Ten myths about decision-making capacity. *J Am Med Dir Assoc* 2004; 5: 263–267.
- 2 Sessums LL, Zembruska H, Jackson JL. Does this patient have medical decision-making capacity? *JAMA* 2011; 306: 420–427.
- 3 Appelbaum PS. Assessment of patients' competence to consent to treatment. *N Engl J Med* 2007; 357: 1834–1840.
- 4 Chow GV, Czarny MJ, Hughes MT, *et al.* CURVES: a mnemonic for determining medical decision-making capacity and providing emergency treatment in the acute setting. *Chest* 2010; 137: 421–427.
- 5 Lo B. Assessing decision-making capacity. *Law Med Health Care* 1990; 18: 193–201.
- 6 Hall DE, Prochazka AV, Fink AS. Informed consent for clinical treatment. *CMAJ* 2012; 184: 533–540.
- 7 Meisel A, Kuczewski M. Legal and ethical myths about informed consent. *Arch Intern Med* 1996; 156: 2521–2526.
- 8 Allen LA, Stevenson LW, Grady KL, *et al.* Decision making in advanced heart failure: a scientific statement from the American Heart Association. *Circulation* 2012; 125: 1928–1952.
- 9 Goodlin SJ, Quill TE, Arnold RM. Communication and decision-making about prognosis in heart failure care. *J Card Fail* 2008; 14: 106–113.
- 10 Baile WF, Buckman R, Lenzi R, *et al.* SPIKES — a six-step protocol for delivering bad news: application to the patient with cancer. *Oncologist* 2000; 5: 302–311.