Shared decision making and its relevance to thoracic surgery

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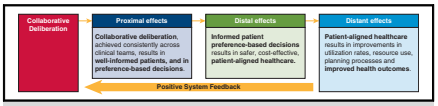
Our goal is to demonstrate how adopting an approach based on shared decision making (SDM) supports both patients and clinicians to become aware of each other's views and collaboratively arrive at solutions, even in situations in which data are scarce and outcomes are uncertain. We start by describing a case that surgeon Brunelli remembers well:



How to put shared decision making into practice.

CENTRAL MESSAGE

People often face difficult choices when facing thoracic surgery. Shared decision making offers a collaborative approach to the work of respecting people's informed preferences.

MR JONES MEETS THORACIC SURGEON, ALEX BRUNELLI

Mr Jones was a fit, 80-year-old man who had a small lung cancer nodule that was very suitable for resection. Dr Brunelli proceeded to explain the surgical treatment plan in some detail: that there are some risks, although small, and that after the operation Mr Jones would need to spend a few days recovering in hospital, and that the stay may be longer in case of any complication. As Brunelli continued to explain the procedure, Mr Jones coughed and indicated that he wanted to speak. Almost apologetically, he said that he was not sure that the plan to have surgery was something to which he could agree. Surprised, Dr Brunelli paused.

Puzzled, he invited Mr Jones to say a bit more. And so he spoke of his wife and, because she had dementia, how she needed almost-constant care, and that he was the sole caregiver. He did not feel he could take any risks, nor could he spend days away from their home. It also became clear that Mr Jones was well-informed and had been reading about the possibility of treatment with radiation. Dr Brunelli, realizing the context, confirmed that radiation was indeed an option, although perhaps not the one that most surgeons would recommend in this situation. Nevertheless, they discussed the tradeoffs, and Dr Brunelli arranged an urgent appointment with the specialist in radiation therapy.

At the end of the consultation, Mr Jones appeared relieved to avoid surgery and extremely grateful that his concerns and preferences had been heard.

This is an anonymized account of an encounter that took place in the United Kingdom in 2021. It is an example of SDM, although perhaps some diehards would suggest that the surgeon might have approached the decision with more clinical equipoise by alerting Mr Jones to the existence of alternative options, given the ongoing difficulty in recruiting enough people into trials to understand the comparative effectiveness of surgery versus radiation in lung cancer (see the section "Selected Studies Illustrating the Challenge of Discussing Surgery Versus Radiation With Patients With Early-Stage Lung Cancer").

Nevertheless, the surgeon, as soon as he became aware of the context, the priorities, and the informed personal preferences of Mr Jones, rapidly modified his recommendation and supported the patient's wish for an alternative approach. Surgeons and radiation oncologists may have their own selection bias in presenting information about the risk and benefit of the 2 treatments. Ideally, a conjunct and coordinated meeting with the patient by both specialists in the same room and at the same time would help to mitigate treating physicians' biases. This would require a coordinated approach and ideally the use of information tools that could help both specialists to "speak the same language" when presenting their unique impressions to the patient.

Some may argue that Mr Jones was a special case. He was educated and had become informed. What of people without the same intellectual level? Can they be offered engagement in such decisions? SDM advocates would say a firm yes. SDM is an ethical imperative. Indeed, there is evidence that the people that benefit most from well-designed tools that present evidence about alternatives are those who might have lower levels of health literacy.[1]

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Received for publication Nov 16, 2022; revisions received Dec 2, 2022; accepted for publication Dec 4, 2022; available ahead of print Dec 8, 2022.

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J Thorac Cardiovasc Surg 2023;165:1967-70
0022-5223/$36.00

https://doi.org/10.1016/j.jtcvs.2022.12.001

SELECTED STUDIES ILLUSTRATING THE CHALLENGE OF DISCUSSING SURGERY VERSUS RADIATION WITH PATIENTS WITH EARLY-STAGE LUNG CANCER

Studies have shown racial disparities in the frequency of surgical versus radiation therapy,[2] and that the majority of patients with non–small cell lung cancer do not report being offered alternative treatment options,[3] evidence that patient preferences about how to manage early-stage lung cancer vary,[4] and significant concerns by surgeons about the challenge of providing the correct amount of information to patients.[5-7]

There is a widely acknowledged long-standing debate about the comparative effectiveness of lung resection versus radiation for operable stage I non–small cell lung cancer.[8] Trials that have attempted to study this question have not been able to recruit sufficient patients. For example, the SABRTooth trial paper stated as follows: "We conclude that a phase III RCT randomizing higher risk patients between SABR and surgery is not feasible in the National Health Service. Patients have pre-existing treatment preferences, which was a barrier to recruitment. A significant proportion of patients randomized to the surgical group declined and chose stereotactic body radiation therapy (SBRT)."[9] This had led to questions as to whether randomized trials can provide a solution to this question.[10]

Let's therefore define as best we can what SDM involves. The section that follows provides a definition, which we use to explain the relevance to the field of thoracic surgery.

A DEFINITION OF SDM

An approach in which clinicians and patients make decisions together, using the best-available evidence about the likely benefits and harms of each option, and where people are supported to arrive at informed preferences.[11]

When does SDM make sense? The key is to consider situations in which there is *clinical equipoise*, by which we mean that options exist where it is reasonable to compare them as potential ways to manage the issue at hand. This does not mean that the options are perfectly balanced, only that they are alternatives where there are important tradeoffs, and where the views, priorities, and preferences of the patient can be considered as important inputs. See the section that follows for selected examples from the field of thoracic surgery.

EXAMPLES OF CLINICAL EQUIPOISE SITUATIONS IN THORACIC SURGERY

Early-Stage Lung Cancer in Which Operative Risk Is High and Radiotherapy Is a Reasonable Alternative

Stereotactic body radiation therapy is a reasonable curative treatment for high-risk surgical candidates or for those patients refusing surgery.[12,13] A multidisciplinary discussion is recommended and, ideally, a referral to both the surgeon and radiation oncologist should be organized to discuss the relative risks and benefits of the 2 curative modalities in the context of patient preferences: additionally, a meeting with the patient by both specialists would be optimal.

Lung Cancer in Which Different Surgical Approaches Are Possible (ie, Lobectomy Versus Sublobar Resection)

Sublobar resection is a well-accepted procedure performed in high-risk patients or intentionally in peripheral small lung cancers. When performed as an alternative to lobectomy, patients should be informed of the increased risk of local recurrences and balance this risk with the reduced risk of morbidity and greater preservation of pulmonary function.[14,15]

More Locoregionally Advanced Lung Cancer Stages in Which a Multimodal Treatment Is Recommended

Patients with unsuspected nodal disease found at surgery may benefit from adjuvant systemic treatment. This treatment is generally discussed between the oncologist and the patient. A low proportion of patients, however, are able or willing to start/complete chemotherapy after surgery, and one of the most frequent reasons is patient choice after taking into account the perceived benefit of postoperative chemotherapy as explained by the oncologist and the risks associated with it along with the current performance status after a major surgery.[16,17]

This definition of SDM stipulates that the best-possible evidence is used as the basis for comparing options. This is not an easy task, especially as the information needs to be in a format that can be accessible to people that do not typically consider scientific data. Tools called patient decision support tools are becoming available for many decisions, and a highly cited systematic review shows that they increase patients' knowledge, lead to more accurate risk perceptions, and increase confidence in decisions.[18] Other beneficial outcomes are likely and are being evaluated.[19] One advantage of such tools, if they are designed to be accessible to a wide spectrum of educational levels and health literacy, is that can help address health inequity.[1]

SDM is critical in those situations in which the well-informed patient is undecided between treatments that are both reasonable to them (patient equipoise). The clinical team then assists the patient by providing subtle pros and cons of each treatment tailored to the patient's needs, values, and personal circumstances.

One of the key words in the definition is "support." People are not accustomed to being asked to become involved in decisions and might even find the prospect a bit odd or uncomfortable. They expect clinicians to be experts, and rightly so. It is therefore important to explicitly say that

you are describing options because the right decision relies on their input: there is no right answer because people will vary in terms of their priorities, goals, and preferences. It is imperative you make sure that the patient understands that you will support them to make the right decision and that you will never abandon them to make decisions where they feel anxious or confused.[20] In a recent systematic review exploring preferred decision-making role using a control preference scale, 65% of respondents (pooled from 5 studies on SDM and early-stage lung cancer) preferred a collaborative role, whereas only 28% preferred a more passive role.[21] This issue is particularly important in which patients might prefer their clinician to make recommendations and avoid the extra work and responsibility of decisions. People who are deeply anxious, have limited cognitive capacity, or feel unable to comprehend complex information may want more support than others. Nevertheless, they appreciate clinicians who understand their goals, preferences, and priorities as decisions are made: a modified and compassionate form of shared decision making.

It is also critical to consider the role of family members and care partners, or perhaps other surrogate decision makers. Sometimes other people have different perceptions of surgical risk and benefits, which may be different to both the patient's and clinician's views. Understanding these potential conflicting influences on decisions will be critical to achieving a successful collaborative process.[22]

Establishing a connection with patients during the encounter is essential to foster communication and create a safe environment for patients to express their values and preferences. An empathic approach to patients using appropriate verbal and nonverbal communication styles and practicing active listening telegraphs respect and trust and that patient concerns, fears, and values are taken into account.[23]

THE BENEFITS OF SDM

The proximal benefits of doing SDM are well described, and in randomized trials in which patient decision aids are used, there is consistent evidence of knowledge gain, greater satisfaction, and other affective outcomes. It has been more difficult to conduct trials of sufficient duration to quantify the extent of longer-term outcomes. It might also be a research design challenge. Where clinical equipoise exists, the potential benefit of one treatment strategy over the other, is by definition, marginal. Using an SDM approach (vs not doing so) will lead some patients to choose treatment A, other to choose treatment B, and so the difference in comparative outcomes by alternative option might not be large. Whether a trial that does not offer some patients SDM is ethical is another conundrum. Novel research designs might be necessary to investigate the benefits of SDM at clinical levels (greater professional reward), team levels (positive work culture), and on distant effects such as lower use rates and reduced cost to both individuals and healthcare systems[21] (Figure 1).

There are a number of suggested approaches described. Here, we outline 2 models that have been specifically developed to help clinicians bring shared decision making into their clinical practice.

The 3-talk shared decision-making model was developed by an international collaboration and focused on describing steps that are core conversational elements.[24] First is the explanation of "team talk": that you as a clinician will work as a team with your patient and their family, supporting them to understand alternative option, goals, inherent tradeoffs, and what treatment seems appropriate to their personal circumstances. "Option talk" focuses on providing accurate and up-to-date information about alternatives and doing so in ways that are easy to understand. Patient decision aids help this process. "Decision talk" brings these elements together, listening to the views and reactions of people as they consider the implications of the alternatives to them and their family. This step may not be easy for some people, and they may need some time to think and discuss the new information they have received.

Another approach, developed by a surgeon, is the "best-case, worst-case" method.[25] Taylor and colleagues[25] have shown the benefit of forecasting future scenarios when patients are considering whether to have surgery or take an alternative approach. They advocate describing what might be the outcome to the patient if the surgery goes well. This is the "best-case" scenario. This has the advantage of clarifying expectations, and perhaps reducing an unrealistic hope of cure. A "worst-case" scenario is also described, where details of potential bad outcomes (adverse events and so on) are given. The last step of this approach is to describe the "most likely" outcome, which has the effect of providing a realistic basis for agreeing to proceed with surgery, or to consider another alternative.

WORKFLOW PATHWAYS

One of the perennial challenges is the influence of established clinical pathways, payment systems, and relationships between different disciplines. The establishment of multidisciplinary clinics have increased the degree of collaboration between surgeons, oncologists, and therapeutic radiation experts. Such clinics are complex to set up, expensive, and, potentially, delay decision-making processes. An additional significant problem is the lack of opportunity to ensure that the informed preferences of patients become an essential part of deliberations.[26] Without mechanisms to arrive at an agreed set of reasonable options that can be offered to patients and their families, the default is that the discipline with the most influence on decisions is the one that is first to obtain the diagnostic information and offer advice. Efforts to support shared decision making would need to address how disciplines collaborate

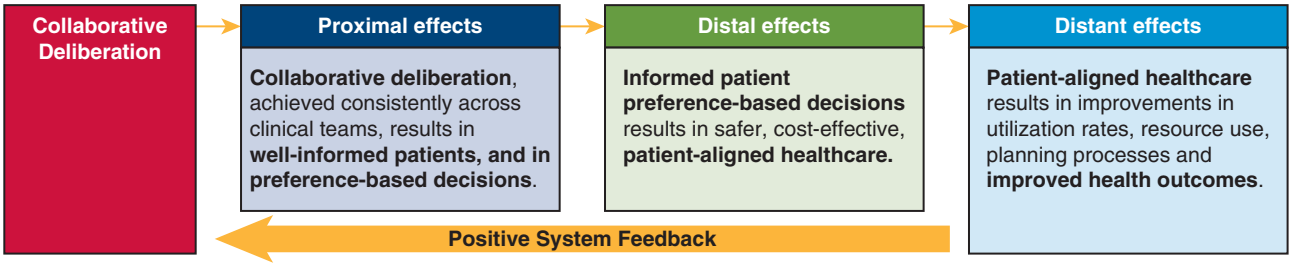

FIGURE 1. How to put shared-decision making into practice: proximal, distal, and distant effects of doing shared decision making.

on how and when to offer "reasonable" options to their patients.

Conflict of Interest Statement

Dr Elwyn reported advisor to Dynamed Decisions, part of EBSCO Health. Dr Brunelli reported advisory board role with Astra Zeneca, Ethicon, and Roche.

The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

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Key Words: shared decision making, patient-centered care, lung cancer, lung resection