



# Shared Decision Making

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## Guide for the Teacher

Shared decision making is a bridge from evidence to action. It focuses on the best methods to communicate evidence with the patient in order to support their decision. This topic can stand alone and can also be integrated into each domain of evidence-based medicine as the finale: once learners grasp the core topics, their next challenge will be to learn the best way to bring the information back to their patient to help carry out their preferences.

What follows is a brief review of foundational concepts in shared decision making as well as one suggestion for teaching the topic. We also provide case vignettes applicable to several of our core content chapters illustrating how shared decision making might play out in those domains. We suggest utilizing these samples in building learning opportunities following each of the core topics.

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## Introduction

Shared decision making is not an algorithm but a model of relationships between doctors and patients. As the clinician, you seek to empower the patient to make their own decisions, helping them understand and fulfill their role in a way that is appropriate for them [1]. In this way, the physician is like the front-seat passenger in a truck. The clinician guides the patient, but the patient is driving.

At the same time, the patient's comfort and preferences for participation in decision making should be assessed; for example, some patients might prefer decisions to be made by the physician [2]. Care should be taken not to assume such preferences. Finally, shared decision making should allow the patient to say no to any therapeutic, diagnostic, or other clinical decision, without fear of abandonment [3].

Shared decision making can take different forms in different circumstances. However, at the extremes, such as treatments that are the gold standard or ineffective therapies, shared decision making does not apply in the strictest sense. A treatment recognized as effective in a situation where some intervention is considered necessary might not require a full range of shared decision making practices, for example, acute sepsis is not generally accompanied by a detailed discussion with patients of the risks and benefits of fluid supplementation. Similarly, in the other direction, testing copper levels as part of diagnostic workup for pain is neither broadly recommended nor based in any notion of evidence and therefore is not a topic to bring up through shared decision making [4].

Treatments or testing which are the topic of dispute and discussion are perfect topics for shared decision making, e.g., prescribing a statin for primary prevention of coronary artery disease. Most effective therapies have been shown to reduce morbidity or delay mortality to some degree, but by and large they do not totally eliminate morbidity, and they typically have some potential harms. Most day to day clinical decisions involve a balance of benefits and harms, and ideally we would tailor those estimates to the patient whenever their specific risks are known. In addition, many things which are widely considered good medicine may still be declined by a patient, (e.g., insulin for refractory diabetes); helping patients make their own decision means acquiescing in decisions you disagree with. By the same token, you are expected and allowed to share your opinion. While the final decision belongs to the patient, you are a clinician (or a clinician in training) and should advocate for what you see as the best decision if the patient asks [5].

What follows are our recommended steps in carrying out shared decision making in clinical settings.

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## Develop a Script

Shared decision making is not just an ideology but a practice. You need to develop a "script" for engaging in shared decision making on a particular topic, much as you have other scripts for common clinical situations. For example, when you discuss taking a statin, the question is not necessarily merely "do you want to take a statin

or not,” but “how do you understand the significance of the long-term risk for cardiovascular disease, and the imperfect evidence regarding statins and primary prevention?” Such scripts should include your understanding about the evidence and guidelines and a transparent statement about your practice style, bias, and interpretation of that evidence.

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## Assess the Patient’s Context

Next, you should assess your patient’s personal context regarding the clinical topic. What are their preferences and concerns regarding the clinical condition and the options for treatment, diagnosis, or palliation? What barriers such as cost, accessibility, time, and transportation are relevant to them [6]? Are there family members who might have been affected or should be involved in the decision? More broadly, consider the social context of the clinical topic in question. Conditions like cancer, chronic pain, and depression—in fact, all clinical entities—are connected to cultural, political, and social phenomena which clinicians should be aware of in the context of decision making [7].

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## Assess Benefits and Harms

Whenever possible, assess the patient’s baseline risk of the condition in question. For instance, what is the patient’s risk of total cardiovascular events? Or, what is this patient’s risk of stroke due to atrial fibrillation? In many cases, risk calculators are readily available, either online or integrated into electronic health records. After the baseline risk has been calculated, consider how much an intervention can reduce this risk. This process is addressed more thoroughly in Chap. 4, section “Applying and Communicating Results of Clinical Trials to Your Patient”. Decision aids may help in this process, but be aware that some are biased and incomplete. Decision aids may serve as tools to further quantify and visualize benefits and harms. Displaying the impact of an intervention through bar graphs or icon arrays improves patients’ understanding of their risk [8].

Assessing benefits and harms in this manner only addresses the numeric information. We must continue in the process to further integrate these numbers into shared decision making.

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## Integrate Patient Preferences

A patient’s personal context, their preferences and concerns, should be integrated with your own recommendation. Options should be presented in patient friendly language, without coercion. Decision aids are often seen as a part of shared decision making but be aware that they are not perfect and can be inherently biased. Use them as tools to further quantify and visualize risks and benefits [9]. Further

considering the example of taking a statin for primary prevention of coronary artery disease, a decision aid may present your patient with a numerically significant improvement in coronary artery disease on a statin. Even so, if a patient's preference tends otherwise (for example, perhaps she has relatives who she believes are suffering adverse events from such a medication), she may decide not to take the statin, incorporating the evidence and prioritizing her personal opinions [10].

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## Reach a Decision

On this basis, you should help the patient reach a decision. Consider using the teach-back method to ensure your patient has considered their decision on the basis of the preferences and concerns they expressed earlier, and that they understand how the risks and benefits line up with those preferences. The teach-back method involves asking the patient to teach the pro and cons of the clinical decision back to you to ensure that they have interpreted and understand the conversation you just had. Emphasize that decisions can be revisited, and preferences need to be iteratively reconsidered on the basis of new information, situations, and preferences. You will be there to work with them throughout, and help them turn their decisions, where appropriate, into action [11].

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## From Theory to Action

As noted above, shared decision making is not a dogma but a practice. The following chapters of this book will be accompanied by case vignettes and supplementary questions to help develop your shared decision making practice. Each of the above elements might be exercised in different ways, to various extents, by you and the patient given the circumstances of the case.

### **TEACH IT!!**

This section can be used as an added teaching session in the context of a Harm exercise or a Therapy exercise. We recommend starting with a numerical assessment of benefit or harm based on the data you are working with, described in detail in Chaps. 4 and 6. For illustrative purposes, we will use the example of statins for primary prevention of cardiovascular disease, both because this is a common clinical concern in many specialties of medicine and because an excellent risk communication tool is available publicly to enhance the process. Please also see Chap. 4, section "Applying and Communicating Results of Clinical Trials to Your Patient".

15 min:

- Have learners calculate a sample patient's baseline risk of cardiovascular disease utilizing the ASCVD risk calculator. Then, present them with relative risk

reduction data regarding statins for primary prevention of cardiovascular disease. Have learners estimate the absolute risk reduction for that patient.

- Armed with the absolute risk reduction, have learners attempt to speak this information to the patient.
- Using the table above, work with your learners to talk through the above steps focusing on how they would frame their shared decision-making question and what their own recommendation would be for the patient based on assessing harms and benefits.
- Have learners verbalize examples of patients' contexts and preferences which may alter the decision outcome. Discuss that the decision the patient makes may not match your own preferences and how to reconcile this!
- Ask the learners how they might visually display the absolute risk reduction to help the patient understand the true magnitude of benefit. Utilize the Mayo Clinic Statin Decision Aid, available online [12]

30 min:

- Add to the above exercise by having learners pair up. Prepare two patient scripts ahead of time, adding context and barriers of differing types to each. Have the paired teams take turns role playing being the patient in the scenario. The person in the clinician role practices how to incorporate all of the steps in shared decision making with the patient. Debrief with the group by using the table as a discussion guide.

## ***TEACH IT!!***

The sample worksheets in the appendix to this chapter can be used to complete the teaching in all of the core content domains of evidence-based medicine. We recommend filling out tables like these with your learners after the core teaching in each domain so they can develop their SDM teaching/interaction style and scripts for future use. After the table has been filled out, we recommend having learners practice scripts with each other in pairs with one individual providing counseling and the other serving as the patient.

## Appendix

### Shared Decision Making Worksheets

#### Worksheet Template

Shared decision making step	Case analysis	Example of language to be used
Triage the individual issue under discussion to deem if it is appropriate for shared decision making	What is the clinical decision?	
Develop your script for a particular topic	Frame the goal of decision making:	
Assessing your patient's personal context regarding the clinical topic	Their concerns: Barriers: Social Context:	
Assess benefits and harms	Best estimate of baseline risk: Evidence supporting risk reduction: What are the harms?	
Integrating patient context with your own recommendations	Decision Aid: Option 1: Option 2: Your recommendation: Address patient concerns:	
Reach a decision	What's the decision?	

### Worksheet Example: Searching the Literature

Case: A 54-year-old woman who had chronic right knee osteoarthritis and interested in getting a steroid knee injection.

SDM step	Case analysis	Example of language to be used
Triaging the individual issue under discussion to deem if it is appropriate for SDM	What is the clinical decision?	What is the effectiveness of steroid injection in the treatment of knee pain from osteoarthritis? (Search for a decision aid, or, if one is lacking, a guideline or useful evidence-based resource to assist.)
Developing your SDM script for a particular topic	What is your goal: What is the evidence: What is your preference:	
Assessing your patient's personal context regarding the clinical topic	What is their preference: Their concerns: Barriers: Social Context:	They would like relief of pain. They are worried about side effects but are not opposed to injection. No significant barriers. She is able to make it to an appointment for an injection and could afford it.
Assess Benefits and Harms	Best estimate of baseline risk: N/A Evidence supporting risk reduction: N/A Evidence supporting benefit: What are the harms?	
Integrating patient context with your own recommendations	Decision Aid/EBM resources: Option 1: Option 2: Your recommendation: Address patient concerns:	
Reach a decision	What's the decision?	

### Worksheet Example: Causation/Harm

A 59-year-old man with chronic GERD comes to you wondering if he should stay on his current proton pump inhibitor that he has taken for 5 years given the reports he has read in the media about potential harms.

SDM step	Case analysis	Example of language to be used
Triaging the individual issue under discussion to deem if it is appropriate for SDM	What is the clinical decision?	Should a proton pump be continued, and how, given the evidence of potential adverse effects? (Find a decision aid, evidence-based resource, or evidence-based guideline addressing the strength of causation and how to balance harms and benefits.)
Developing your SDM script for a particular topic	What is your goal: What is the evidence: What is your preference:	
Assessing your patient's personal context regarding the clinical topic	What is their preference: Their concerns: Barriers: Social Context:	They would like relief of reflux symptoms but are worried about harms about being on a chronic medication. They are wondering whether they can take the medication on a less-than-daily basis. Social context: patient has significant anxiety about taking medications and potential harms.
Assess Benefits and Harms	Best estimate of baseline risk: Evidence supporting causation of harm: Evidence supporting benefit:	
Integrating patient context with your own recommendations	Decision Aid/EBM resources: Option 1: Option 2: Your recommendation: Address patient concerns:	
Reach a decision	What's the decision?	



### Worksheet Example: Diagnosis

Your patient, 35 years old with a history of migraines, comes in requesting an MRI because of a headache which “feels different from my normal migraine.” She has no focal neurological abnormalities on physical exam.

SDM step	Case analysis	Example of language to be used
Triaging the individual issue under discussion to deem if it is appropriate for SDM	What is the clinical decision?	Should MRI be pursued in a patient with a history of migraines and changed headache without neurological findings?
Developing your SDM script for a particular topic	What is your goal: What is the evidence: What is your preference:	
Assessing your patient’s personal context regarding the clinical topic	What is their preference: Their concerns: Barriers: Social Context:	They would like to make sure they do not have cancer. Cost is a barrier. An aunt was diagnosed three months ago with brain cancer after headaches.
Assess Benefits and Harms	Best estimate of prevalence: Best estimate of likelihood ratios/predictive values/NNT: What are the harms?	
Integrating patient context with your own recommendations	Decision Aid/EBM resources: Option 1: Option 2: Your recommendation: Address patient concerns:	
Reach a decision	What’s the decision?	

### Worksheet Example: Screening

A 60-year-old Spanish-speaking man with a 30-pack-year smoking history, who quit smoking 5 years ago, asks you whether he should get the “lung cancer test.” He is asymptomatic.

SDM step	Case analysis	Example of language to be used
Triaging the individual issue under discussion to deem if it is appropriate for SDM	What is the clinical decision?	Is this patient eligible for lung cancer screening per evidence-based guidelines? If he is eligible, what is the benefit to him of screening, and should he be screened?
Developing your SDM script for a particular topic	What is your goal: What is the evidence: What is your preference:	
Assessing your patient’s personal context regarding the clinical topic	What is their preference: Their concerns: Barriers: Social Context:	“I would like to do whatever you recommend, doctor.” He is concerned about cancer. Cost is a barrier. You have seen him before. His health literacy is poor in Spanish and English.
Assess Benefits and Harms	Best estimate of baseline risk: Evidence supporting risk reduction: Evidence supporting benefit: Evidence regarding test characteristics: What are the harms?	
Integrating patient context with your own recommendations	Decision Aid/EBM resources: Option 1: Option 2: Your recommendation: Address patient concerns:	
Reach a decision	What’s the decision?	

### Worksheet Example: Therapy

A 45-year-old woman with chronic back pain, fatigue, decreased energy, and anhedonia has been recently diagnosed by you with depression and returns to discuss treatment options. Her PHQ-9 is 15. She is able to work and be active in home life but finds her symptoms very disruptive; they keep her from playing with her kids as she would like to. She often feels overwhelmed. She has no suicidal ideation.

SDM step	Case analysis	Example of language to be used
Triaging the individual issue under discussion to deem if it is appropriate for SDM	What is the clinical decision?	Is psychotherapy, pharmacotherapy, or both the most appropriate option? If medication is indicated, which would you and she choose? (Find a guideline and/or evidence-based resource comparing pharmacotherapy and psychotherapy.)
Developing your SDM script for a particular topic	What is your goal: What is the evidence: What is your preference:	
Assessing your patient's personal context regarding the clinical topic	What is their preference: Their concerns: Barriers: Social Context:	She is wary of the side effects of medications and has never tried psychotherapy before. She is worried that she will have to be on a habit-forming medication for the rest of her life. Barriers: There are only a few psychotherapists taking new patients who accept her insurance. Time commitment for weekly visits is also difficult given childcare and work.
Assess Benefits and Harms	Evidence supporting benefit of pharma Evidence supporting benefit of psychotherapy What are the harms?	
Integrating patient context with your own recommendations	Decision Aid/EBM resources: Option 1: Option 2: Your recommendation: Address patient concerns:	
Reach a decision	What's the decision?	

### Worksheet Example: Prognosis

A 65-year-old grandmother comes to you to discuss her worsening shortness of breath. She has severe COPD (GOLD stage D) without significant comorbidities; she quit tobacco 15 years ago. She would like to know what she can expect for the future. She is on home oxygen and has been hospitalized three times in the past year. She is on a long acting beta agonist, inhaled corticosteroid, anticholinergic, and daily prednisone 10 mg. She likes to chat with her grandchildren and can walk to the kitchen and bathroom on the first floor of her house.

SDM step	Case analysis	Example of language to be used
Triaging the individual issue under discussion to deem if it is appropriate for SDM	What is the clinical decision?	What is the prognosis, both regarding life expectancy and quality of life, associated with this patient's severe COPD? What should be the approach to her care on that basis? (Search for an evidence-based guideline regarding the prognosis of patients with severe COPD, including medical and surgical options.)
Developing your SDM script for a particular topic	What is your goal: What is the evidence: What is your preference:	
Assessing your patient's personal context regarding the clinical topic	What is their preference: Their concerns: Barriers: Social Context:	She would like to remain as active as possible and maximize her time with her grandchildren. She wonders whether there is any possibility of lung transplant but worries about risk of surgery. Cost is not a barrier. She has good social support.
Assess Benefits and Harms	Evidence supporting benefit of transplant compared to continue medical therapy Evidence regarding prognosis of severe COPD (life expectancy, quality of life) What are the harms?	
Integrating patient context with your own recommendations	Decision Aid/EBM resources: Option 1: Option 2: Your recommendation: Address patient concerns:	
Reach a decision	What's the decision?	

### Worksheet Example: Systematic Reviews

A 45-year-old working mother of three is healthy and without symptoms. She recently heard about two friends diagnosed with cancer and would like to know how best to prevent cancer. She wonders if there are foods she should include or avoid in her diet. She knows there have been a number of scientific studies—she has read about them in the lay press—but finds their results contradictory and confusing.

SDM step	Case analysis	Example of language to be used
Triaging the individual issue under discussion to deem if it is appropriate for SDM	What is the clinical decision?	What cancer-preventing diet, if any, should be recommended to this healthy patient? (Seek evidence-based resources regarding diet and cancer.)
Developing your SDM script for a particular topic	What is your goal: What is the evidence: What is your preference:	
Assessing your patient’s personal context regarding the clinical topic	What is their preference: Their concerns: Barriers: Social Context:	She would like to reduce her risk of cancer. She enjoys a variety of foods but cost is a barrier. Her health literacy is high.
Assess Benefits and Harms	Evidence regarding absolute and relative risk reduction of diet in cancer What are the harms of pursuing specific diets?	
Integrating patient context with your own recommendations	Decision Aid/EBM resources: Option 1: Option 2: Your recommendation: Address patient concerns:	
Reach a decision	What’s the decision?	

### Worksheet Example: Non-inferiority

Your 66-year-old patient has atrial fibrillation and hypertension without other comorbidities. He enjoys building useful objects out of wood. He has been taking warfarin for years without noticeable adverse effects and has read about “new blood thinners.” He wonders if he should switch.

SDM step	Case analysis	Example of language to be used
Triaging the individual issue under discussion to deem if it is appropriate for SDM	What is the clinical decision?	Should this patient change from warfarin to a direct oral anticoagulant (DOAC)? Is a DOAC noninferior to warfarin for this patient? (Ascertain an evidence-based source to answer this question.)
Developing your SDM script for a particular topic	What is your goal: What is the evidence: What is your preference:	
Assessing your patient’s personal context regarding the clinical topic	What is their preference: Their concerns: Barriers: Social Context:	Cost is a barrier but he finds it inconvenient to go to the anticoagulation clinic sometimes multiple times a week. He is concerned about avoiding bleeding.
Assess Benefits and Harms	Evidence regarding noninferiority of DOACs compared to warfarin. Evidence comparing the harms.	
Integrating patient context with your own recommendations	Decision Aid/EBM resources: Option 1: Option 2: Your recommendation: Address patient concerns:	
Reach a decision	What’s the decision?	

### Worksheet Example: Learner Assessment

This format can also be valuable in assessing your learners' performance within evidence-based practice. What to look for from learners for each topic:

SDM step	Case analysis	What to look for in your learners
Triaging the individual issue under discussion to deem if it is appropriate for SDM	What is the clinical decision?	Can they develop a PICO question to search the literature
Developing your SDM script for a particular topic	What is your goal: What is the evidence: What is your preference:	Are they able to interpret the evidence to commit to what their own recommendation/preference would be?
Assessing your patient's personal context regarding the clinical topic	What is their preference: Their concerns: Barriers: Social Context:	Are they able to integrate social context and barriers into the script they develop to speak with the patient while practicing role plays at the end?
Assess Benefits and Harms	Evidence supporting benefit of transplant compared to continue medical therapy Evidence regarding prognosis of severe COPD (life expectancy, quality of life) What are the harms?	
Integrating patient context with your own recommendations	Decision Aid/EBM resources: Option 1: Option 2: Your recommendation: Address patient concerns:	How actively does the learner include the patient in the discussion and use of a decision aid. Are they able to troubleshoot the patient's concerns using the evidence. Do they avoid jargon. Do they explain the statistics in patient friendly language?
Reach a decision	What's the decision?	

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