

## Chapter 3: EHR Integration

While integration into the EHR is not always necessary for decision aid delivery, it can be helpful to automate different aspects of the process. For example, at Mass General Brigham, we have a Best Practice Advisory (BPA) in place to remind clinicians to order decision aids at the time of referral to an orthopedic surgeon. This toolkit will not address EHR integration issues specific to a decision aid or vendor; rather we focus on some tips and resources that may be applicable regardless of decision aid vendor:

- Clinical decision support tools embedded in the EHR can enhance the care provided to patients at the right time that fits into a clinicians' workflow. They support identification of appropriate use of tools during a decision window when patients are actively considering their treatment options.
- There are different aspects of the workflow that can be supported with IT including reports to facilitate reliable, equitable patient identification, reminders, and alerts to support decision aid ordering and use, and SmartPhrases to support thorough documentation.
- Identify and include IT representative on the implementation team and/or assign someone from the implementation team to be the liaison with IT.
- Plan ahead, as enhancements and changes to EHR can often take a long time and require multiple levels of approval.
- Strong communication with leadership should emphasize the need for IT support and integration, and should focus on strategies to build and deploy IT solutions.
- Once tools are in place, perform quality checks periodically to ensure IT tools and apps are working as intended (especially after EHR system upgrades).

For those interested in the details of an IT integration project, a team of investigators at Dartmouth documented the steps and time that were required to integrate decision aids into Epic at 5 different health systems: [Integrating Option Grid Patient Decision Aids in the Epic Electronic Health Record: Case Study at 5 Health Systems.](#)

### The following resources are included in this chapter:

Resource # 3.1: **Best Practice Advisory:** Example of an Epic BPA in which the referring clinician is asked if they want to send a decision aid to the patient as part of the referral to a hip or knee arthroplasty surgeon.

Resource # 3.2: **SmartPhrase:** Example of a SmartPhrase that can be used to support documentation of decision aid delivery and shared decision making conversation for hip osteoarthritis.

Resource # 3.3: **SmartSet:** Example of how the decision aid is ordered automatically as part of lung cancer screening CT scan order to meet payer mandate.

### Resource # 3.1: Best Practice Advisory

**Best Practice Advisory:** The screenshot below displays a BPA, which is a non-interruptive reminder embedded in a clinical workflow at the time of referral from a primary care clinician to an orthopedic surgeon for the diagnosis of hip or knee arthritis. The BPA alerts the referring clinician that the patient is eligible for a decision aid prior to a visit with an orthopedist. The clinician can then order a decision aid from a SmartSet linked in the BPA, note within the BPA that the patient is not appropriate for the decision aid, note that the patient has declined the decision aid, or disregard the BPA altogether.

BPAs are designed with multidisciplinary groups including primary care providers, orthopedic specialists, and IT analysts to help define the logic, content, and tracking. BPA performance is tracked to identify how many alerts are triggered, how often it is interacted with and what the outcome of that interaction is.

#### Patient Decision aid

You are referring your patient to orthopaedics and your patient may benefit from a decision aid in making an informed decision. Please consider ordering a decision aid at this time.

**Order decision aid**

**Orthopaedics Decision Aids [preview](#)**

Acknowledge reason:

Decision aid  
not appropriate

Patient  
declined

### Resource # 3.2: SmartPhrase

**SmartPhrase:** A hip osteoarthritis example SmartPhrase (or sometimes known as a “dot phrase”) is included below. This is a visit note template that can be embedded into the EHR through use of an abbreviation to pull longer phrases or paragraphs into a note. A SmartPhrase can support clear documentation of a shared decision making discussion in a visit, including documentation of decision aid delivery, discussion of both the pros and the cons for the treatment or test, and inclusion of the patient’s individual preferences along with documentation of the final decision. Often there are sections that get filled in for each patient to individualize the note (as identified in italics below).

.SDMHipOA

I engaged this patient in a shared decision making conversation today to determine best approach to manage the patient’s [*advanced, moderate, mild*] hip osteoarthritis. I examined the patient and we reviewed radiographic findings. We discussed how bothered the patient is by their symptoms.

After reviewing the patient’s prior experience with conservative treatments, we established that the patient [*is/is not*] a candidate for surgery. We reviewed the pros and cons of [*surgery, conservative measures*].

[Surgery]:

Pros: symptom relief, and studies show about 90 out of 100 patients will have less pain after surgery.

Cons: main surgical risks include, but are not limited to infection, dislocation, leg length inequality, fracture, implant loosening, hardware failure, nerve and vascular injury, deep vein thrombus, and pulmonary embolism. Studies show about 3 to 8 out of 100 patients will have a complication after surgery. Some of these may require additional treatment, including further surgery.

[Conservative Measures:]

Pros: main benefit of the conservative treatments [*anti-inflammatory medication, activity modification, weight modification, use of cane, physical therapy, and injections*] is symptom relief, but this is often less than with surgery.

Cons: the main risks depend on the specific approach [*anti-inflammatory medication, activity modification, weight modification, use of cane, physical therapy, and injections*], but they are usually less than with surgery.

After discussion about the patient's preferences and values, we decided on {HOAchoice:341}

{the choices are 1. Surgery, 2. Conservative Measures}

**Resource # 3.3: SmartSet**

**SmartSet:** A SmartSet, commonly known as an “order set,” can enhance standardization of decision support, particularly when guidelines or payer mandates require specific documentation. The example below shows how EHR logic can automate the ordering of a decision aid for an eligible patient. In this example, a lung cancer screening DA is sent to the patient prior to a clinician ordering a lung cancer screening CT scan based on responses. Documentation of SDM with DA delivery is required to meet payer mandates for this particular test.

**CT Chest Lung Cancer Screening**

What is the patient’s smoking status?

 Current smoker Former smoker Never smoker

Please enter the number pack-years of smoking: (This exam is only appropriate for patients with history of 20 pack-years or more.) Note: pack-years = (packs/day) x (years as a smoker)

Has the patient received counseling from a provider on the importance of smoking cessation? This is a Medicare requirement for current smokers.

 Yes No

Is there documentation of shared decision making? (If not, order decision aid)

 Order decision aid**Lung Cancer: Should I Have Screening?** [preview](#)