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Decision Aides for Shared Decision Making in Barrett's Surveillance

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Using Decision Aides for Shared Decision Making

Medical decision making is a central function of the clinical encounter, and patients are playing increasingly substantial roles in these decisions.¹ Shared decision making is the incorporation of patients preferences, goals, and choices into diagnostic and treatment planning. Formal processes for shared decision making are frequently recommended prior to cancer screening and surveillance.² Patient decision aids are tools designed to support patients through the shared decision making process given the difficulty most patients report with medical decisions.³ Patient decision aides come in many forms including leaflets and booklets, video or audio guides, and interactive media and are used either during or prior to medical encounters. Patient decision aides are particularly useful for medical decisions that are deemed preference sensitive. Preference sensitive decisions involve two or more options whose clinical efficacy are equivalent but have important trade-offs related to side effects, intermediate outcomes, or burdens to daily life.⁴ For preference sensitive decisions, the ethically optimal process is one that empowers patients to makes decisions consistent with their values, goals, and preferences.

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The study by Yachimski et al.⁵ in the current issue of *Clinical Gastroenterology and Hepatology* is an important contribution to the growing literature on shared decision making in Gastroenterology and Hepatology.² The authors describe the development and validation of a decision support tool for cancer surveillance specific to Barrett's Esophagus (BE). The two BE treatment methods compared in this study are surveillance endoscopy with ablation, and chemoprevention with aspirin. Surveillance endoscopy for BE can be followed by progressively more effective techniques to ablate the pre-cancerous lesions. Radiofrequency ablation during surveillance endoscopy is now recommended for BE with low- and high-grade dysplasia, and even among high-risk patients with nondysplastic BE.⁶ Evidence from observational studies suggests that aspirin and selective cyclooxygenase-2 inhibitors (coxibs) can also reduce the risk of progression of BE to esophageal cancer.⁷ Clinical practice guidelines recommend the use of aspirin as a chemoprevention agent among patients with cardiovascular risk factors.⁶

The authors used a questionnaire with accompanying visual aides to elicit preferences for surveillance endoscopy versus oral chemoprevention among patients with nondysplastic BE. Study participants favored surveillance endoscopy significantly more than oral chemotherapy (78% versus 53%, $P < 0.01$) and this preference did not change when the frequency of surveillance endoscopy was modified. Nor were there differences in preferences by patient characteristics (e.g. age, gender, education attainment, peptic ulcer history, or chronic conditions). A strength of the study is that study participants mirror the characteristics of patients at-risk for BE, and among these typical patients only 16% endorsed neither method while 47% were willing to do both methods. The greater preference for surveillance endoscopy compared to chemoprevention may reflect the fact that the two methods were described as having similar efficacy at limiting progression of BE. The study authors inferred that patients with nondysplastic BE benefit as equally from radiofrequency ablation as patients with low or high-grade dysplasia, but the evidence for benefit of radiofrequency ablation in nondysplastic BE is sparse. Furthermore, the authors did not conduct a sensitivity analysis varying the estimates of benefit from ablation, and endoscopy was always presented before oral chemoprevention to participants—producing a potential framing bias in favor of endoscopy.^{8,9} These limitations may result in an artificially higher preference for surveillance endoscopy on the questionnaire compared with its actual selection in routine clinical practice.

Quality Standards for Patient Decision Aides

To reduce the heterogeneity found across patient decision aides, the International Patient Decision Aide Standards Collaboration (IPDAS) developed a set of criteria for defining high quality decision aides. While not explicitly a patient decision aide, the questionnaire used by Yachimski et al.⁵ does possess many of the characteristics endorsed by IPDAS.¹⁰ For example, the questionnaire used a systematic development process, presents descriptions of the clinical problem, outcome probabilities, options and outcomes, and some guidance regarding the decision making process. Further, IPDAS recommends using three simultaneous formats for presenting risk information (to reduce literacy and numeracy barriers): percentiles, ratios (with realistic denominators) and pictographs.¹⁰ The BE

treatment questionnaire in this study has a robust presentation of risk data using both percentiles and pictographs.⁵

Despite these strengths, a few notable IPDAS endorsed criteria are missing from the study.¹⁰ The questionnaire lacks an explicit values clarification exercise and descriptions of other patients' experiences or stories. In addition, probabilities for outcomes (progression of BE) or adverse events are not tailored to personal risk factors despite the availability of data on age, sex, obesity, peptic ulcer disease and cardiovascular disease. Personalized data would change risk estimates and may affect treatment preferences.

The authors also did not include any of the common process measures used to assess the effectiveness of decision aides, such as decisional uncertainty, decision satisfaction, or involvement in the decision process.^{10,11} This gap is particularly relevant given the number of participants who report neither treatment option as their preference. Asking patients' preferences for surveillance endoscopy, chemoprevention, both, or neither and providing a response option for unsure or uncertain at baseline and then after working through the questionnaire would add to our understanding of patients' preferences. Declines in ratings of decisional uncertainty after using the BE treatment preferences questionnaire—even if the option of neither was chosen—would have added to our assessment that the questionnaire is beneficial.¹¹ Therefore, the questionnaire in this study is an excellent start and closer adherence to the IPDAS criteria will strengthen future attempts to develop decision aides for shared decision making for surveillance endoscopy.

Importance of Values Clarification in Shared Decision Making

The lack of a values clarification exercise as part of the patient preferences questionnaire is an important omission. The authors' findings that preferences were neither sensitive to variations in interval timing of surveillance endoscopy or by patient characteristics suggests that the questionnaire may have failed to tap into patients' underlying values and goals. Surveys that elicit preferences using highly quantitative, emotionally-detached methods can produce psychometrically valid and reliable results but also results that fail to predict individual health behaviors.¹² Formal values clarification exercises can help patients reflect on their personal values and circumstances as they relate to specific processes and outcomes of the decision at hand. For example, feelings of discomfort and vulnerability associated with the endoscopy procedure are powerful intuitive emotions that may affect adherence to guidelines-concordant surveillance.¹³ Values clarification exercises, despite being subjective, can encompass the spectrum of intuitive and affect-laden responses that frame patients' health goals and drive human decision making for a particular clinical treatment.^{12,14} In summary, the most effective decision aides encompass both *deliberative* processes using objective, analytic data as well as *intuitive* processes using subjective responses to arrive at decisions that are likely to predict actual preferences and patients' behavioral intentions.^{12,15} The current study included a robust deliberative process but lacked formal values clarification to address the critical intuitive components of decision making.

Patient Decision Aides may Facilitate Choosing Wisely

Decision aides are advocated primarily for preference sensitive decisions.⁴ Others have advocated decision aides to nudge patient¹⁶ and provider¹⁷ behavior towards guidelines-concordant options. Decision aides are relevant in these settings because best evidence is often not clearly presented or discussed within the context of busy and time-limited clinical encounters. Decision aides, especially those using values clarification exercises, are also helpful for facilitating conversations about factors that are difficult, non-conscious, or otherwise avoided during clinical encounters.¹⁵ The American Gastroenterological Society has endorsed five ‘Choosing Wisely’ recommendations for reducing waste and guidelines-discordant overuse of medical interventions including use of surveillance endoscopy in BE.¹⁸ Overuse as well as underuse of surveillance endoscopy in patients with nondysplastic BE is not uncommon and occurs despite accurate awareness by patients and physicians of BE associated cancer risk.^{19,20} Validated decision aides coupled with values-clarification exercise may address the many non-analytical factors driving endoscopy use, facilitate guideline concordant surveillance practices, and perhaps greater acceptance of oral chemoprevention.¹⁸

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