Editorials

Discussing Life Expectancy with Older Patients: Prediction and Patient Preferences

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Caring for older patients is increasingly complex with growing levels of multimorbidity and risks associated with polypharmacy.[1] Communicating the potential harms of various screening, testing, and treatment options is important for older people, because these may outweigh the benefits when life expectancy is taken into account.[2] For example, a population-based survey of older U.S. adults reported overscreening in prostate, breast, cervical, and colorectal cancer, and more than 30% of participants with a very high risk of mortality had recently been screened for cancer.[3] The risks associated with screening are poorly understood, and societal and cultural beliefs influence the belief that prevention is better than a cure.[4,5] As a result, patients with a limited life expectancy are exposed to risks of harm, such as anxiety and discomfort associated with screening, procedural complications, and further invasive testing after a false-positive test result.[2,6,7] The inconvenience and cost of undergoing unnecessary cancer screening also can be a burden for older patients. Clinical guidelines are increasingly incorporating life expectancy predictions rather than strict age cutoffs into clinical decision-making tools, reflecting the importance of this issue.[8,9]

Physicians commonly estimate a patient's life expectancy based on the patient's history and the physician's clinical knowledge and intuition, although they do not always share these estimates with the patient.[10,11] Research has shown that physicians' prognostic estimates are often inaccurate and optimistically biased.[10,12,13] Among U.K. family physicians, qualitative research shows that identifying patients with nonmalignant disease who were likely to die within the next year was especially challenging, and that poor communication between physicians in primary and secondary care is a barrier.[14] Several barriers to discussing life expectancy include uncertainty in prognostic estimates, limited time to broach this sensitive topic, and concerns about upsetting the patient or getting negative reactions.[11]

Tools have been developed to support family physicians in estimating life expectancy and having these conversations. These range from the "Surprise Question" approach, which asks physicians, "Would I be surprised if this patient died in the next 12 months?", to clinical prediction rules that use multiple predictors to estimate the probability of a patient's death occurring within a defined period of months or years.[15,16] To date, a number of clinical prediction rules for all-cause mortality in primary care have been developed, with several demonstrating good predictive accuracy in the populations for which the clinical prediction rule was derived and validated.[8]

One recently developed tool, QMortality (https://www.qmortality.org), uses demographic, clinical, and social variables to predict short-term mortality and is designed to be integrated into computerized decision support systems, allowing for an automated calculation of risk.[17] In 500,000 family practice patients in England, discrimination (measured by the c-statistic) was calculated to assess the ability of the QMortality model to differentiate between those who died and those who did not.[15,17] C-statistics of 0.85 for women and 0.84 for men were reported, indicating good predictive accuracy. There is potential to externally validate this tool in other geographic settings such as the United States.[17] More research is needed to test the impact of such tools on processes of care and patient outcomes.[18]

Past research indicates that patients are open to discussing life expectancy with their physician.[19,20] However, a recent nationally representative study of older U.S. adults found that when presented with a hypothetical patient with limited life expectancy, most of the participants did not want to discuss life expectancy.[21] Qualitative research indicates that patients who did not want to discuss life expectancy were concerned about the emotional burden of "knowing" and the negative effect a discussion could have on their emotional state.[19-21] In qualitative studies exploring cancer screening, older patients expressed doubt about their physician's ability to accurately predict life expectancy, and patients lacked understanding of the role of life expectancy in cancer screening.[20,22,23]

When patients are open to discussing life expectancy, their motivations include the ability to plan and to prepare for the end of life, to maintain open communication with their physician, to make medical or health-related decisions, and to make the most of the time they have left.[19-21] Preferences about the timing and content of discussions on life expectancy can vary.[19,21] In a recent survey of U.S. adults, many participants were uncomfortable at the prospect of stopping cancer screening, even when they were provided with detailed information on why screening may be of low benefit.[23] However, patients with higher trust in their physicians were more likely to be comfortable with stopping the screening.[23]

Evidence shows that physicians need more training in discussing life expectancy, and there are resources available to support this process for certain conditions such as cancer.[11,24-26] For example, ePrognosis (https://eprognosis.ucsf.edu) provides guidance on how to incorporate prognosis into discussions about cancer screening for older

adults, covering topics such as addressing uncertainty in estimating life expectancy and making a recommendation based on patient values and individual risk factors.

Future research should focus on developing improved tools to assist physicians in predicting life expectancy and to support shared decision-making with patients. Although prediction tools are important, obtaining patient perspective on the use of prediction tools and preferences about discussions of life expectancy is critical.

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