

## Understanding Gastric Cancer Risk Factors: We Need to Close the Gap

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See “Knowledge Gaps among Physicians Caring for Multiethnic Populations at Increased Gastric Cancer Risk” by Shailja C. Shah, et al. on page 38, Vol. 12. No. 1, 2018

Gastric cancer is the fifth most common malignancy worldwide; however, the incidence of gastric cancer in the United States is relatively low at 7.3 per 100,000 in 2017 accounting for only 1.7% of new cancer cases in the United States.<sup>1</sup> Given this low incidence, most medical providers in the United States, including gastroenterologists, do not fully understand the risk factors for gastric cancer and do not realize that there are high-risk populations in the United States that would benefit from screening for gastric cancer. In this issue of *Gut and Liver*, Shah *et al.*<sup>2</sup> publish a report that evaluates the knowledge gaps of physicians on the topic of risk factors for gastric cancer. The authors performed an internet-based survey of physicians (primary care providers and gastroenterologist) in New York City, which included a knowledge assessment of gastric cancer risk factors followed by three clinical vignettes. This study highlights the current gaps in knowledge of physicians who theoretically should be the most knowledgeable about the risk factors for gastric cancer since the population that they care for has the highest population of immigrants from high incidence areas. In a nutshell, this study demonstrates the need to educate all physicians regarding the risk factors for gastric cancer. Primary care physicians need further education on risk factors such as ethnicity and *Helicobacter pylori* infection and which patients should be referred for gastric cancer screening. Gastroenterologists need further education on all risk factors including ethnicity and *H. pylori* infection as well as the significance of gastric intestinal metaplasia and how it should be surveyed. As the paper demonstrates in one of its vignettes, many gastroenterologists do not realize that gastric intestinal metaplasia in a patient from a high incidence region should have endoscopic surveillance.

There are many issues that remain unresolved when it comes to gastric cancer screening in the United States. Although Japan and Korea have demonstrated gastric cancer screening to be cost-effective and have a mortality benefit, these issues have yet to be adequately addressed for high-risk populations in the United States. With a lack of data regarding the benefits of gastric cancer screening for high-risk populations in the United States, only weak recommendations exist by a single U.S. medical society, the American Society of Gastrointestinal Endoscopy, suggesting “screening EGD for gastric cancer in new U.S. immigrants from high-risk regions around the world, such as Korea, Japan, China, Russia, and South America, especially if there is a family history of gastric cancer in a first-degree relative.”<sup>3</sup> In addition, the American Society for Gastrointestinal Endoscopy (ASGE) suggests surveillance esophagogastroduodenoscopy (EGD) for patients with gastric intestinal metaplasia if they are thought to be at increased risk for developing gastric cancer due to ethnicity or family history.<sup>4</sup>

As physicians in the United States, we need to remember that the United States continues to have a significant immigrant population from area with a high incidence of gastric cancer. Gastric cancer in particular is a disease that occurs disproportionately higher in certain immigrant populations from high incidence regions of the world as mentioned previously. This is probably one of the most significant unaddressed healthcare disparities in the United States.<sup>5</sup> Another fact that highlights this disparity is that guidelines for esophageal cancer screening and Barrett’s esophagus are well established in the United States; although, the incidence of esophageal cancer is much lower than gastric cancer in the United States (16,940 vs 28,000 in 2017,

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respectively).<sup>1,6,7</sup> It makes sense that high-risk groups for gastric cancer should undergo screening, especially if the countries that they have immigrated from have national guidelines for gastric cancer screening such as Korea and Japan. However, questions regarding how gastric cancer screening should be performed in the United States for these high-risk populations remain. We previously proposed an algorithm for gastric cancer screening in the United States with EGD in high-risk patients followed by surveillance for patients found to have *H. pylori* infection, atrophic gastritis, and/or intestinal metaplasia; however, this algorithm was only a suggestion based on an extensive review of the literature, incorporating recommendations by the ASGE.<sup>8</sup> Additional data regarding the efficacy and cost-effectiveness of this or any other algorithm proposed for gastric cancer screening will be needed for implementation and insurance coverage as a screening test.

Fortunately, interest in diagnosing early gastric cancer has been increasing in the United States, partially due to the increasing interest and developing expertise in endoscopic submucosal dissection in the United States. With this increasing interest in diagnosing early gastric cancer, it provides us with an opportunity to further educate gastroenterologist in the United States regarding this significant healthcare disparity. The study by Shah *et al.*<sup>2</sup> provides us with important data that will help guide us on the specific topics that physicians require further education regarding risk factors for gastric cancer. The eventual goals should be for physicians to be able to identify patients who are at high risk for gastric cancer and to establish guidelines for gastric cancer screening for these patients in the United States and throughout the world.

## CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was

reported.

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