Introduction to HER2 testing in gastric cancer

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Gastric cancer (GC) is the second most common malignancy after lung cancer and the third leading cause of death in Eastern Asia. As early gastric cancer is generally asymptomatic, patients often present with inoperable advanced or metastatic disease. Importantly, the median survival time for patients with advanced or metastatic GC is less than a year. Given the above, exploring options that can help predict the prognosis and guide treatment of GC is of great importance. Human epidermal growth factor receptor 2 (HER2) overexpression has been correlated with poor outcome and a more aggressive disease in patients with GC in several studies. The assessment of HER2 has also led to the development of targeted therapy for the treatment of GC with trastuzumab. The Trastuzumab for Gastric Cancer (ToGA) trial demonstrated that patients suffering from advanced GC with HER2 overexpression experienced an overall survival (OS) beyond one year following treatment with trastuzumab and chemotherapy. As HER2 is the only validated marker for predicting trastuzumab response, accurate detection of HER2 overexpression is essential. Enabling this, international recommendations for HER2 testing have been modified to form APAC-specific HER2 testing guidelines. The guidelines contain recommendations that span the pre-analytic to post-analytic stages of HER2 testing, emphasize the importance of multidisciplinary collaboration and account for the challenges of day-to-day testing faced by laboratories in APAC.

Biography

Michael Bilous studied Medicine at Cambridge and Birmingham Universities and completed his Pathology Training in New Zealand and Australia. He was the Head of the Tissue Pathology Department at Westmead Hospital until 2010. Currently, he is a Clinical Associate Professor at the University of Sydney and Conjoint Associate Professor at the University of Western Sydney. He has maintained a long standing interest in Breast and Gastrointestinal Pathology and written prolifically on breast and gastrointestinal pathology. He was a member of the Asia-Pacific task force and the 2013 ASCO/CAP update committee that published recommendations on HER2 testing in gastric and breast cancer, respectively.

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