Gastric Cancer: HER2 Testing

What is HER2?

Human Epidermal Growth receptor 2 (HER2) is a protein involved in normal cell growth, that is found in small amounts in almost all human cells, including stomach (gastric) cells.

Why is HER2 an important biomarker?

HER2 over-expression causes cancer cells to grow aggressively and spread into organs across the body (metastasis).

While this is associated with a poor prognosis, targeted treatments that inhibit HER2 show promising results in patients with gastric cancer – making HER2 an important biomarker.¹



What is HER2+ gastric cancer?

Sometimes, a random change within cancer cells can result in too many copies or over-expression of HER2 on the cell surface. Gastric cancer cells with high levels of HER2 are considered HER2 positive (HER2+).



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of all gastric cancers over express HER2¹ Evaluating your HER2 status can serve as an important biomarker and therapeutic target for treating your gastric cancer.



Your doctor will discuss their recommendation to evaluate your HER2 status based on your diagnosis and medical history.



Current recommendations call for HER2 testing at the time of diagnosis with advanced gastric cancer.^{2,3}



It is recommended that the **diagnostic turnaround** time for HER2, ideally, does not exceed **5 working days**.³



Diagnosis should be made **from multiple (5-8) endoscopic biopsies**, as it is possible that a single sample may not have HER2+ cancer cells.²



Samples should be **validated** with **Immunohistochemistry (IHC)** and/or amplification by in **situ hybridization (ISH)** in a centralized testing center by a trained pathologist. Reported according to WHO criteria.²

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Your care team will explain and discuss the results of your pathology report. If your cancer is HER2+ they will discuss targeted therapy treatment options.

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Current guidelines recommend treatment with trastuzumab plus chemotherapy for patients with HER2 gastric cancer. Following treatment with trastuzamab, fam-trastuzamab deruxtecan may be suggested.²

Navigating your HER2 status may feel overwhelming but speaking with your care team may help clear some doubts. Here are some questions to get the conversation started.

- Has my HER2 status been evaluated?
- What kind of sample is needed to evaluate my HER2 status? Will this cause me any side-effects?
- When will you know the status of my HER2 evaluation?
- Knowing that my HER2 status is positive, what are the next steps?

1. van Cutsem, E. et al. HER2 screening data from ToGA: targeting HER2 in gastric and gastroesophageal junction cancer. Gastric Cancer 18, 476–484 (2015).

 Lordick F, Carneiro F, Cascinu S, Fleitas T, Haustermans K, Piessen G, Vogel A, Smyth EC, on behalf of the ESMO Guidelines Committee, Gastric cancer ESMO Clinical Practice Guideline for diagnosis, treatment and follow-up, Annals of Oncology (2022)

3. Ruschoff J, et. al. HER2 testing in gastric cancer: A practical approach. Modern Pathology, 5, 637-650 (2012)

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