

HER2+ Cancer

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Identifying actionable biomarkers may transform cancer care and improve patient outcomes^{1,2}

- HER2+ cancer is characterized by the overexpression of the HER2 protein, a tyrosine kinase receptor growth-promoting protein expressed on the surface of various tissue cells^{3,4}
- Various HER2+ cancers may be associated with a more aggressive tumor, poor prognosis, and shorter survival upon diagnosis³⁻⁶
- Historically, the focus of HER2 biomarker testing and targeted treatments has been in breast and gastric cancer,^{7,8} but NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines[®]) have increasingly recommended HER2 testing in multiple solid tumors, outside of just breast and gastric⁹⁻¹⁸
- With a rise in treatments for HER2+ in many solid tumors, integrating routine, actionable HER2 screening across tumor types may be pivotal in improving patient outcomes^{1,19}

The deciphEHR[™] program provides educational resources on biomarker characteristics and best practices to help healthcare providers, health systems, hospitals, and specialty practices leverage their electronic health record (EHR) systems to triage suspect patients for further clinician evaluation, leading to rapid, accurate biomarker testing.





HER2 positivity has been found across solid tumors

The following are approximate prevalence rates of HER2+ cancer, defined as a score of 2+/3+ on an immunohistochemistry (IHC) test, outside of breast and gastric*:

	HER2 IHC 2+	HER2 IHC 3+
Salivary gland ²⁰⁻²²	3-21 %	13-37%
NSCLC ²²⁻²⁵	1-19%	1-5%
Biliary tract ^{22,26,27}	12-24%	5-10%
Pancreas ^{22,28,29}	6-9%	1-7%
Colorectal ^{22,30,31}	2-9 %	1-4%
Bladder ^{22,32-35}	5-52%	4-13%
Endometrium ^{22,36-3}	³⁹ 14-39%	3-28%
Ovarian ^{22,40-43}	0-24%	1-5%
Cervical ^{22,44,45}	14-18%	4-11 %

NCCN Guidelines[®] recommend HER2 testing in multiple solid tumors.^{9-18†}



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*Because HER2 testing has not yet been fully integrated into standard practice for many solid tumor types, it is possible that HER2+ has a higher prevalence than currently reported.⁴⁶ Variability in reporting of HER2 overexpression may stem in part from significant variation in the HER2 testing methods, interpretation and scoring criteria used.³⁸

[†]See the NCCN Guidelines[®] for detailed recommendations.

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There is a cost to delaying or missing a HER2+ diagnosis...



Patients with missed HER2+ diagnoses have a loss of quality-adjusted life-years and face a higher risk of disease recurrence⁴⁷



In one study, the loss of quality-adjusted life-years in patients due to missed HER2+ diagnoses led to an estimated \$1 billion economic societal loss⁴⁷

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Biomarker-driven, personalized medicine has been found to generate cost savings for healthcare organizations by decreasing costs associated with drug waste, hospital resource utilization, and side-effect management⁴⁸

...but effective biomarker testing in the right populations, at the right time, can help

The data your organization may need to more rapidly identify patients for HER2 testing may exist in your electronic health record (EHR) system

Properly identifying patients may help guide personalized, targeted treatments for better patient outcomes¹



Taking action is important; missed or delayed diagnosis of HER2+ cancer may potentially increase morbidity as well as increase healthcare costs.^{47,48} Consult the HER2+ deciphEHR[™] Program Implementation Guide or visit <u>deciphEHRoncology.com</u> to get started.





Leveraging electronic health record (EHR) data may help healthcare organizations rapidly triage patients for further clinical evaluation for biomarker testing⁴⁹



- HER2+ patients across various tumor types may have more aggressive tumors and poor prognoses³⁻⁶
- HER2+ patients need to be triaged for biomarker testing more rapidly for earlier initiation of targeted therapies across solid tumors

deciphEHR[™] may be able to help

- Your EHR system can work for you to help triage suspect HER2+ cancer patients – AstraZeneca provides resources for you to share with your EHR team
- The deciphEHR[™] program identifies EHR codes that may be used to build suspect patient lists in your EHR to triage patients for further biomarker testing
- Order Sets and Best Practice Alerts (BPAs) can be utilized in your EHR system to support healthcare providers as they navigate the HER2+ cancer diagnostic process



- EHR systems can help triage patients based on existing data, prioritize resources, and provide more **coordinated care that may foster improved outcomes**⁴⁹
- Automated Order Sets and BPAs assist providers in timely access to diagnostic best practices and reduce inefficiency by decreasing manual efforts⁵⁰





AstraZeneca provides educational resources to help you leverage your EHR, which may help increase frequency of HER2 biomarker testing across tumor types

- Ineffective or delayed treatment may have devastating effects, as HER2+ is associated with aggressive disease and poor prognosis in various tumor types³⁻⁶
- With a rise in HER2-targeted therapies, integrating routine HER2 screening across tumor types will be pivotal in improving patient outcomes^{1,19}
- The data needed to correctly and rapidly diagnose patients may exist in your EHR
- With the assistance of the deciphEHR[™] program's educational resources and biomarker best practices, physicians can triage patients for HER IHC biomarker testing, agnostic of tumor type, and provide targeted, effective therapies more rapidly

Visit <u>deciphEHRoncology.com</u> or contact your AstraZeneca representative to find out how utilizing your EHR system can help you triage patients who would benefit from further clinical evaluation for HER2+ cancer.



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