

The **eCura system** is a clinical risk-scoring tool used to predict the likelihood of **lymph node metastasis (LNM)** in patients who undergo non-curative endoscopic submucosal dissection (ESD) for **early gastric cancer (EGC)**. It helps doctors decide whether to perform additional salvage surgery or safely monitor the patient. [1, 2, 3, 4]

How the Scoring Works

The system calculates a total score based on five specific pathological risk factors: [2, 5]

- **Lymphatic invasion:** 3 points
- **Tumor size >30 mm:** 1 point
- **Positive vertical margin:** 1 point
- **Venous invasion:** 1 point
- **Submucosal invasion ≥ 500 μm (SM2):** 1 point [2]

Risk Stratification and Treatment

Based on the cumulative points, patients are divided into three risk categories that guide post-ESD management: [2, 6]

- **Low Risk (0--2 points):** $\approx$ 2.5% LNM risk. Additional surgery may be unnecessary; close endoscopic follow-up is generally acceptable.
- **Intermediate Risk (3--4 points):** $\approx$ 6.7% LNM risk. Treatment requires case-by-case evaluation.
- **High Risk (5--7 points):** $\approx$ 23% LNM risk. Additional radical/salvage surgery is strongly recommended. [2, 7, 8, 9, 10]

Modifications and Western Validation

While highly effective, modern clinical research has refined the model. A newer modified version known as the **W-eCura score** has been developed to improve predictive accuracy, particularly in Western patient cohorts. To access exact clinical guidelines and full validation data, you can read the comprehensive [European PMC Early Gastric Cancer Report](#) or the original [PubMed eCura Validation Study](#). [9, 11, 12, 13, 14]

Would you like to know about the **specific differences** between the original eCura system and the modified **W-eCura score**, or are you looking for guidance on applying this to a **specific clinical case**?

[1] <https://pubmed.ncbi.nlm.nih.gov>

[2] <https://journals.plos.org>

- [3] <https://journals.plos.org>
- [4] <https://www.sciencedirect.com>
- [5] <https://gut.bmj.com>
- [6] <https://pubmed.ncbi.nlm.nih.gov>
- [7] <https://europepmc.org>
- [8] <https://www.mdpi.com>
- [9] <https://pmc.ncbi.nlm.nih.gov>
- [10] <https://pmc.ncbi.nlm.nih.gov>
- [11] <https://pubmed.ncbi.nlm.nih.gov>
- [12] <https://pubmed.ncbi.nlm.nih.gov>
- [13] <https://europepmc.org>
- [14] <https://gut.bmj.com>

Western and Eastern Difference

The **W-eCura score** (Western-eCura) was developed by researchers like [Morais and Libânio](#) to adapt the original Japanese system to Western patient populations. While it retains the core logic of the original framework, it modifies key thresholds to better predict **lymph node metastasis (LNM)** and prevent unnecessary salvage surgeries. [1, 2, 3]

The primary differences between the original eCura system and the modified W-eCura score center on three main areas:

1. The Submucosal Invasion Cut-off

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- **Original eCura:** Uses a deep submucosal invasion threshold of $\geq 500 \mu\text{m}$ (SM2).
- **W-eCura:** Increases this invasion depth threshold to **1,000 μm (1 mm)**.
- **Clinical impact:** This adjustment reflects differences in how Western pathologists measure depth, allowing the system to maintain high sensitivity while increasing accuracy. [1, 4, 5]
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2. Validation Population and Target Setting

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- **Original eCura:** Developed and heavily validated using large historical cohorts of **Asian (primarily Japanese) patients**, who traditionally present with higher rates of early gastric cancer.
- **W-eCura:** Tailored for and validated against **Western cohorts** using data compiled from multi-center European registries. [1, 2, 6, 7, 8]
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3. Predictive Accuracy and Discrimination

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- **Statistical superiority:** In Western patient populations, the W-eCura score demonstrates a **significantly higher area under the receiver operating characteristic curve (AUC-ROC)** compared to the original system (0.916 vs 0.900). [7]
- **Overtreatment reduction:** By refining the scoring boundaries, W-eCura is designed to maximize sensitivity for finding metastases while **preventing high-risk surgical complications** from unnecessary radical operations in fragile patients. [1, 2, 6]
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Feature / Metric	Original eCura System	Modified W-eCura Score
Primary Cohort Target	Asian populations (Japan)	Western populations (Europe/US)
Deep Invasion Threshold	≥ 500 μm	1,000 μm (1 mm)
AUC-ROC (Western Cohort)	0.900	0.916
Core Clinical Intent	Post-ESD risk stratification	Reduced Western surgical overtreatment

Would you like to explore **how the risk groups shift** under this new scoring metric, or are you investigating its application to a **specific patient scenario**?

[1] <https://gut.bmj.com>

[2] <https://remotex.bmj.com>

[3] <https://gut.bmj.com>

[4] <https://jgc-online.org>

[5] <https://jgc-online.org>

[6] <https://www.researchgate.net>

[7] <https://www.facebook.com>

[8] <https://pmc.ncbi.nlm.nih.gov>