Methodology  A total of 13,324 patients were used to verify the feasibility and effectiveness of the treatment using data from three hospital tumor registries. Additionally, five machine learning approaches were used to predict development models, including LADT (Logical Analysis of Data Trees), NBT (Naïve Bayes Trees), RF (Random Forests), RT (Random Trees), and FT (Functional Trees).

Results  The experimental results indicate that the RF model was of the highest accuracy. The results suggest that six of the most important recurrent risk factors were behavior, age, tumor metastasis, grade, surgical margins, and pathological stage.

Conclusion  These risk factors should be monitored for early detection and the clinical features summarized in this study as additional effective treatments and appropriate interventions.

Introduction/Background  To evaluate the most accurate technique for sentinel-lymph-node (SLN) biopsy in Endometrial cancer (EC) performed by the different Spanish centers.

Methodology  This is a multi-institutional retrospective study including patients with preoperative clinical stage I-II EC FIGO 2009, of all histologies and grades undergoing SLN mapping from January 2015 to January 2022. Patients received three different tracers: Indocyanine green (ICG), ICG + technetium-99m (99mTC) and 99mTC alone and different sites of injections (cervical, uterus and both) were used. Twenty-four Spanish centers were enrolled. Negative SLN were ultra-staged with immunohistochemistry for cytokeratin and OSNA.

Results  1221 patients were analyzed. Median number of resected SLNs was 2 (range 1–3). 526 (43%) patients received ICG, 332 (27.1%) received ICG + 99mTC and 363 (29.7%) 99mTC alone. The cervical injection was used in 1121 (92%) patients, 60 (5%) patients underwent a uterine injection and 40 (3%) patients received both. The bilateral mapping rates were 324 (61.6%) for ICG group, 250 (75.3%) for ICG + 99mTC and 173 (47.7%) for 99mTC alone. The para-aortic mapping rate was 18 (3.4%) for ICG group, 35 (11.5%) for ICG + 99mTC and 25 (6.9%) for 99mTC alone, respectively (p < 0.001). Empty node packets were diagnosed only in 10 (1.6%) patients of the ICG group (p < 0.001). The sensitivity was: 77% for ICG group, 90% for ICG + 99mTC and 97% for 99mTC alone. The false negative rate was 23% for the ICG group, 9.5% for ICG + 99mTC group and 3.3% 99mTC alone group.

Univariate and multivariate analysis showed that age, uterus site of injection and the use of ICG + 99mTC were independent predictive factors of bilateral drainage.

Conclusion  We did not find any differences among tracers in terms of accuracy; Otherwise, combining 99mTc to ICG achieves the highest overall and bilateral detection rates.