

Nomogram for venous thromboembolism

 chatgpt.com/c/690631e6-b680-8329-8fd4-7f7669b30d14

Findings of: Wang MH, Zhang J, Yang L, Zhao J, Yao H, Xu H, Wu G, Hu J. Development and validation of a multi-parameter nomogram for venous thromboembolism in patients undergoing surgery for brain tumors: a retrospective analysis. Neurosurg Rev. 2025 Oct 21;48(1):727. doi: 10.1007/s10143-025-03887-2. PMID: 41117840.

- Study design & cohort: retrospective analysis of 400 adult NICU (neurological intensive care unit) patients who underwent brain-tumor surgery between January 2018 and July 2023 (mean age 52.5 ± 15.6 years; 46.5% male). 96 patients (24%) developed postoperative venous thromboembolism (VTE). [Life Science Network](#)
- Objective: develop and validate a multi-parameter nomogram to predict postoperative VTE risk after brain-tumor surgery. [Life Science Network](#)
- Independent predictors included in the final model (7 variables): elevated preoperative D-dimer, elevated HbA1c on admission, longer operative duration, higher TT4 on admission, increased BMI, older age, and history of hyperlipidemia. [Life Science Network](#)
- Model performance: the multivariable logistic-regression nomogram achieved excellent discrimination (AUC = 0.937) with good calibration and clinical utility on decision-curve analysis. [Life Science Network](#)
- External validation/robustness check: a linear support vector machine (LSVM) using the same predictors returned an overall accuracy of 85%, supporting robustness of the predictor set. [Life Science Network](#)
- Authors' conclusion: the nomogram—based on readily available clinical and laboratory variables—can improve individualized early identification of patients at high risk for postoperative VTE after brain-tumor surgery and may inform surveillance or prophylaxis decisions. [Life Science Network](#)

Annotated Vancouver-style citation (preferred format)

Wang MH, Zhang J, Yang L, Zhao J, Yao H, Xu H, Wu G, Hu J. Development and validation of a multi-parameter nomogram for venous thromboembolism in patients undergoing surgery for brain tumors: a retrospective analysis. Neurosurg Rev. 2025 Oct 21;48(1):727. doi:10.1007/s10143-025-03887-2. PMID: 41117840.

Annotation: Large single-center NICU surgical cohort (n=400) with 24% postoperative VTE; authors identified seven independent, clinically measurable predictors and constructed a logistic-regression nomogram (AUC 0.937) with decision-curve support and

an LSVM check (accuracy 85%). The model appears promising for risk stratification, but prospective external validation and assessment of how use of the nomogram changes clinical outcomes/bleeding risk with prophylaxis were not reported and remain necessary before routine clinical adoption. [Life Science Network](#)

(31 oct 2025)