

# ***Integrating CT-based Radiomics and Clinical Features to Better***

## ***Predict the Prognosis of Acute Pancreatitis***

### ***ELECTRONIC SUPPLEMENTARY MATERIAL***

#### ***Intra- and interobserver agreement***

For intraobserver agreement, 2003 pancreatic features demonstrated satisfactory consistency (mean ICC: 0.957, range: 0.750-1.000), resulting in the exclusion of 261 features; 2025 peripancreatic features were found satisfactory consistency (mean ICC: 0.927, range: 0.750-1.000) with the exclusion of 239 features. In terms of interobserver agreement, 2084 pancreatic features demonstrated satisfactory consistency (mean ICC: 0.956, range: 0.751-1.000), and 180 features were eliminated; 1794 peripancreatic features showed satisfactory consistency (mean ICC: 0.917, range: 0.750-1.000), and 470 features were excluded.

### **The formula for calculating the radscore in the combined model**

$$\begin{aligned} \text{Radscore} = & 0.16737707 * \log\_firstorder\_log\text{-sigma-1-0-mm-3D-Mean} + \\ & 0.127280548 * \text{wavelet\_glrlm\_wavelet-LLH-GrayLevelNonUniformityNormalized} + \\ & 0.09352608 * \text{wavelet\_glcm\_wavelet-LLL-InverseVariance} + \\ & 0.054193303 * \text{wavelet\_glrlm\_wavelet-LLH-RunEntropy} + \\ & 0.0502191 * \text{specklenoise\_gldm\_LargeDependenceEmphasis} + \\ & 0.0183538068 * \text{specklenoise\_glcm\_ldm} + \\ & 0.0137501648 * \text{boxsigmainage\_firstorder\_RobustMeanAbsoluteDeviation} + \\ & 0.0130556943 * \text{specklenoise\_glrlm\_LongRunEmphasis} + \\ & -0.02450364 * \log\_gldm\_log\text{-sigma-4-0-mm-3D-SmallDependenceEmphasis} + \\ & -0.03578913 * \text{wavelet\_firstorder\_wavelet-LLH-InterquartileRange} + \\ & -0.0544432253 * \text{boxsigmainage\_glrlm\_GrayLevelNonUniformityNormalized} + \\ & -0.07849399 * \log\_firstorder\_log\text{-sigma-4-0-mm-3D-RootMeanSquared} + \\ & -0.09357549 * \log\_firstorder\_log\text{-sigma-2-0-mm-3D-Median} + \\ & -0.270904452 * \log\_firstorder\_log\text{-sigma-2-0-mm-3D-10Percentile} + \\ & 0.4 \end{aligned}$$