

# Clinical Validation Requirements (Clinical Validation Requirements)



## Validation Protocol

- Independent test dataset (minimum 100-500 cases)
- Multi-center Validation
- Expert evaluation (Gold Standard)
- Prospective vs Retrospective study



## Re-validation Criteria

- On model architecture change
- Training data distribution change > 10%
- Addition of new disease or subtype
- Performance variation > 5%



## Performance Metrics

- Sensitivity  $\geq 90\%$
- Specificity  $\geq 85\%$

- $AUC \geq 0.90$
- Subgroup performance evaluation (age, gender, race)