# Uncertainty Quantification

### 🎲 Aleatoric Uncertainty

Inherent randomness in the data that cannot be reduced with more training

### ❓ Epistemic Uncertainty

Model knowledge gaps that can be reduced with more data or better training

## Clinical Confidence Thresholds

| | |
|---|---|
| High (>90%) | Proceed with recommendation |
| Medium (70-90%) | Flag for review |
| Low (<70%) | Require expert consultation |
| Very Low (<50%) | Decline to answer |

**"I don't know" is a valid and valuable medical response**