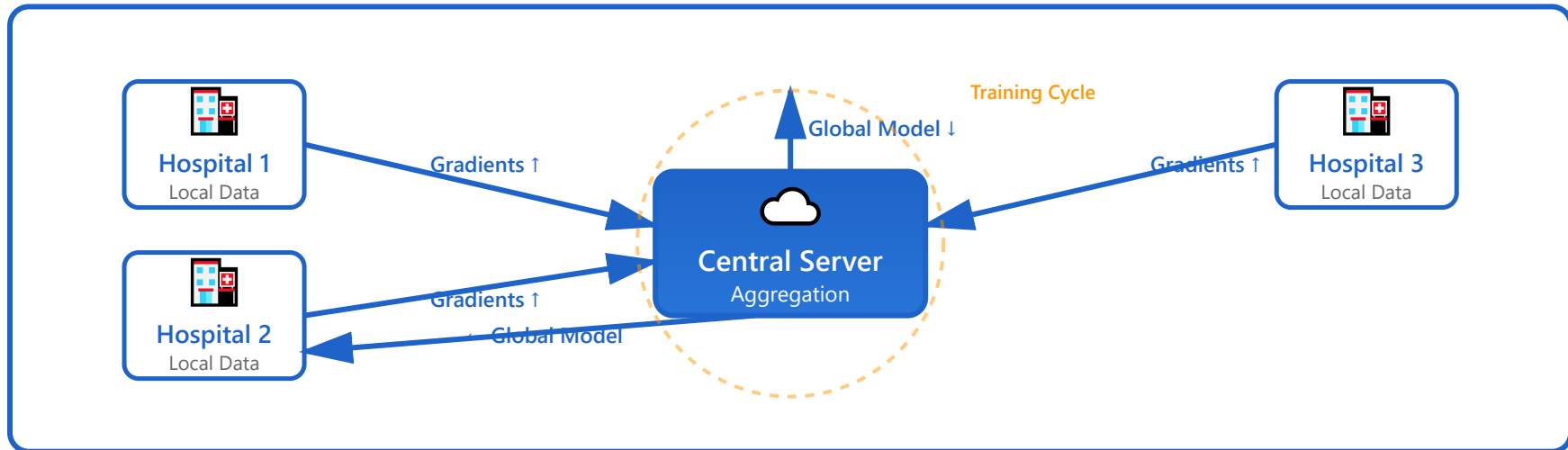# Federated Learning Overview

📚 FL Principle

Collaborative learning without centralizing data. Models travel to data, not vice versa.

🔒 Medical Privacy

HIPAA & GDPR compliant. Patient data never leaves the hospital premises.

Hospital 1
Local Data

Hospital 2
Local Data

Hospital 3
Local Data

Gradients ↑

Gradients ↑

Gradients ↑

Global Model ↓

Global Model

Training Cycle

Central Server
Aggregation

🔓 **Data stays distributed • Models aggregate learnings • Privacy preserved**