

| Module | Topic |
|--------|-------|
|--------|-------|

Day 1

Introduction

Modeling Goals and how TreeAge Pro can help you
Navigating in TreeAge Pro

Module 1: Build a Cost-Effectiveness Model

Build model structure for patient pathways
Enter model inputs through parameter variables
Configure your model via Tree Preferences

Module 2: Analyze Cost-Effectiveness Model

Calculate average cost and effectiveness for each strategy
Compare strategies via Cost-Effectiveness Analysis (ICER, Net Benefits)
Reuse model structure through Clones

Module 3: Sensitivity Analysis

Study how parameter uncertainty affects model results (1-Way, Tornado)
Modeling exercise
Study how combined parameter uncertainty affects model results (PSA, Distributions)

Module 4: Extras

Dashboard to quickly view important model information
Model Validation to quickly find model errors
Bayes' Revision to derive probabilities from test sensitivity/specificity

Day 2

Module 5: Markov Models

Introduce Markov modeling concepts
Build a State Transition Model
Build a Markov model
Study patient flows through Markov Cohort Analysis
Markov modeling exercise

Module 6: Markov - Decision Analysis

Incorporate Markov models into decision tree
Run Cost-Effectiveness Analysis on a decision tree containing Markov models

Module 7: Markov - Time Dependence

Incorporate time dependence to a Markov model (Tables)
Incorporate Time-in-state dependence into a Markov model (Tunnels)

Module 8: Heterogeneity and Event Tracking (Microsimulation)

Run individual patients through your model (Microsimulation)
Introduce patient characteristics for heterogeneity
Use patient events to drive model flow
Run patient simulation (Microsimulation) and interpret results

Module 9: Sensitivity Analysis and Microsimulation

Study individual parameter uncertainty on a simulation model
Study combined parameter uncertainty on a simulation model

Module 10: Extras - Advanced Topics Not Included in Course

Time-to-event simulation (DES)
Bootstrapping
Testing & debugging
Time Reporting
Global matrices
Extras