



# Pharmaceutical Forecasting: Patient-Based Models, Uptake Curves and Lifecycle Events

29 August – 2 September 2027  
Riyadh - KAFD district five-star



## Pharmaceutical Forecasting: Patient-Based Models, Uptake Curves and Lifecycle Events

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### Introduction:

Pharmaceutical forecasting decides how much a company invests in a launch, what it pays for an in-licensed asset and how much product it manufactures, yet many forecasts rest on a single top-down market share guess that nobody can trace back to patients. Brand plans slip, supply is misjudged and leadership loses confidence in the numbers. This Core Concept course trains analysts to build epidemiology-driven patient models, shape uptake with analogues, model competitor entry and exclusivity loss, convert volume into net revenue and present ranges instead of single points. Each participant builds a Patient-Based Launch Forecast Model with a Scenario Set.

### Course Objectives:

- Select the right forecast type and structure for a launch asset, an in-market brand, a business development opportunity or a long-range portfolio plan
- Build a patient-based forecast from prevalence or incidence through diagnosis, treatment, line of therapy and compliance to treated patient numbers
- Shape peak share and time to peak with uptake curves, diffusion parameters and weighted analogue products
- Model the effect of new competitor entrants, loss of exclusivity and generic or biosimilar erosion on share, price and volume
- Convert patient volume into units, gross sales and net revenue using dosing, persistence and gross-to-net assumptions
- Present a forecast range with scenarios, key assumption drivers and a supply-ready unit profile to leadership

### Target Audience:

- Commercial forecasting analysts who produce launch and in-market brand forecasts
  - Market access and pricing analysts who model price, reimbursement uptake and net revenue
  - Business development and licensing analysts who value pipeline assets and in-licensing opportunities
  - Brand and marketing analysts who translate brand plans and competitor activity into volume expectations
  - Demand planning analysts who turn commercial forecasts into unit requirements for supply teams
  - Strategic planning analysts who consolidate product forecasts into the long-range portfolio plan
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## **Course Outline:**

### **Day 1: The Pharmaceutical Forecasting Landscape and Forecast Types**

- Why Pharma Forecasts Differ: Patent Life, Prescriber Decisions and Payer Gatekeeping
- Forecast Type Map: Launch, In-Market, Business Development and Long-Range Plan
- Top-Down Market Sizing Versus Bottom-Up Patient Build Comparison
- Forecast Question Canvas: Decision, Horizon, Granularity and Owner
- Current Forecast Audit Using an Assumption Traceability Checklist

### **Day 2: Epidemiology, Patient Flow and Uptake Frameworks**

- Epidemiology Inputs: Prevalence, Incidence and Addressable Population Segments
- Patient Flow Funnel: Diagnosis, Treatment, Line of Therapy and Eligibility Rates
- Persistence, Compliance and Dosing Conversion From Patients to Units
- Bass Diffusion Model: Innovation and Imitation Coefficients for Uptake
- Analogue Selection Scorecard: Therapy Area, Launch Order and Differentiation

### **Day 3: Building Launch and In-Market Brand Forecasts**

- Peak Share Estimation With Product Profile Attribute Scoring
- Time-to-Peak and Uptake Curve Shaping From Weighted Analogues
- In-Market Brand Trend Models From Prescription and Sales Data
- Market Share Allocation Across Branded Competitors and Order of Entry
- Price, Volume and Gross-to-Net Build to Net Revenue

### **Day 4: Market Events, Uncertainty and Forecast Governance**

- Competitor Entry Event Modelling: Timing, Share Steal and Source of Business
- Loss of Exclusivity Erosion Curves for Generic and Biosimilar Entry
- Scenario Design: Base, Upside and Downside Assumption Sets
- Monte Carlo Simulation Overview and Tornado Sensitivity Charts
- Forecast Governance: Assumption Book, Version Control and Forecast Accuracy Review

### **Day 5: Patient-Based Launch Forecast Model Build**

- Case Brief: Specialty Launch Asset With Two Anticipated Competitors
  - Patient-Based Model Build: Funnel, Uptake and Share Worksheets
  - Net Revenue and Unit Profile Hand-Off to Supply Planning
  - Scenario Set Build and Key Driver Summary for Leadership
  - Forecast Presentation and Peer Assumption Challenge Panel
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## Skills You Will Gain:

- Epidemiology-Based Modelling
- Patient Flow Analysis
- Uptake Curve Design
- Analogue Benchmarking
- Competitive Event Modelling
- Net Revenue Forecasting
- Forecast Scenario Planning
- Forecast Storytelling

## Why Attend This Course:

- Return with a Patient-Based Launch Forecast Model and Scenario Set that can be adapted to an asset in your own portfolio
- Explain every forecast number by tracing it back to patients, analogues and named assumptions
- Give business development, brand and supply teams one consistent forecast instead of competing versions
- Compare forecasting practice with analysts from originator, generic and specialty companies across therapy areas

## Conclusion:

A pharmaceutical forecast earns trust when each number traces back to patients, analogues and explicit assumptions. The course moves from forecast types and the reasons pharma forecasting differs, through epidemiology, patient flow and diffusion-based uptake, to peak share, in-market trends and net revenue, and then to competitor entry, exclusivity loss, scenarios and governance. The final day brings the methods together in a launch case and closes with each participant presenting a Patient-Based Launch Forecast Model with a Scenario Set.

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