

# Introduction to Clinical Prediction Models: a CPD course

#### Course overview

Clinical prediction models combine multiple pieces of patient information in order to predict a clinical outcome. This full-day course includes lectures and practical sessions and aims to give participants an introduction to the clinical reasoning and statistical methodology behind clinical prediction models.

### Who should attend? Is it right for me?

This course is aimed at researchers who require a basic understanding of prediction modelling as part of their research studies. It is suitable for those who have no previous experience of prediction modelling, as well as those seeking to refresh their skills.

#### What is the course schedule?

This course runs online. The lecture videos will be available online and can be watched at any time (from two weeks before to two weeks after the course is scheduled to take place). A suggested timetable is given in the table below, which highlights the live sessions provided for participants to ask questions. Practical materials can be worked through at the participants' own pace, but demonstrators are available to answer questions and assist with practical tasks.

## What will delegates learn?

By the end of this course delegates will have an understanding of:

- What a prediction model is
- How to develop a clinical prediction model
- How to validate a clinical prediction model
- How to present a clinical prediction model for a clinical audience

### What does the course cover?

- Diagnostic & prognostic models
- Systematic reviews of prognostic factors & models
- Logistic regression & survival analysis for model development
- Discrimination & calibration statistics
- Internal & external validation
- · Point score systems, nomograms & websites



### **Timetable**

Time	Session
9:30-10:30	Session 1: Prediction Models via Logistic Regression (recorded video)
10:30-10:45	Live Q&A
10:45-11:30	Live Practical 1
11:30-11:45	Break
11:45-12:15	Session 2: Prediction Models via Survival Analysis (recorded video)
12:15-12:30	Live Q&A
12:30-12:45	Live Practical 2
12:45-12:55	Session 3: Presenting Prediction Models for a clinical audience (recorded video)
12:55-13:00	Live Q&A

# To find out more

 $Contact\ Dr\ Laura\ Bonnett\ (\underline{L.J.Bonnett@liverpool.ac.uk})\ in\ the\ Department\ of\ Health\ Data\ Science.$ 

Alternatively, visit the department's website at <a href="https://www.liverpool.ac.uk/population-">https://www.liverpool.ac.uk/population-</a>

health/about/health-data-science/courses-and-workshops/.

