

# Statistics in Practice

## Case Studies in Medicine

### A free Teaching Resource Pack for Statistics and Science A-Level Teaching

Designed by De Montfort University, Leicester, and BASF Pharma, a Nottingham-based pharmaceutical company, with the help of the Royal Statistical Society Centre for Statistical Education and Nottingham Trent University, this pack is intended to provide a valuable and practical resource to teachers involved in teaching statistical methods within A-level science and mathematics syllabuses. It is available free of charge to schools with sixth form teaching.

The pack consists of **student cards** containing background information and real datasets from medical research. The problems covered include:

Student cards: problems investigated

- Summarising data
- Hypothesis testing:
  - Z-test
  - Chi-squared test
  - t-test
  - Wilcoxon rank sum test
- Scatter plots and box plots
- Correlation
- Linear regression and prediction
- Epidemiology
- Topics for student projects

The student cards are accompanied by a **Teacher's Guide** containing outline solutions for all problems.

The pack was created to promote the appreciation of statistics amongst students and is the first of a series of packs planned by the Royal Statistical Society Centre for Statistical Education.

A limited number of these resource packs are available free of charge by sending a C4 size SAE with a 44p stamp to the following address:

Royal Statistical Society Centre for Statistical Education (Teaching Resource Pack)  
Department of Mathematics, Statistics and Operational Research  
Nottingham Trent University  
Nottingham NG1 4BU

In addition, full contents of the packs can be downloaded from the following websites:

<http://www.cse.dmu.ac.uk/Courses/MScIDM/StatPack/>

and

<http://science.ntu.ac.uk/rsscse/schools/StatPack/>