Basic Manipulation of Quantitative (Continuous) Data 16 June

- Data: leuk (in MASS package)

  - 'wbc' white blood count.

  - 'ag' a test result, '"present"' or '"absent"'.

  - 'time' survival time in weeks.

- Survival times are given for 33 patients who died from acute myelogenous leukaemia. Also measured was the patient's white blood cell count at the time of diagnosis. The patients were also factored into 2 groups according to the presence or absence of a morphologic characteristic of white blood cells. Patients termed AG positive were identified by the presence of Auer rods and/or significant granulation of the leukaemic cells in the bone marrow at the time of diagnosis.

- Source: Feigl, P. & Zelen, M. (1965) Estimation of exponential survival probabilities with concomitant information. *Biometrics*, **21**: 826-838.

Methods to apply

- Checking the distribution

  - Draw graphs (histogram, boxplot)

  - Calculate summary statistics

  - Test the normality

  - Calculate median survival time

- Compare means between 2 groups
- Compare survival curves