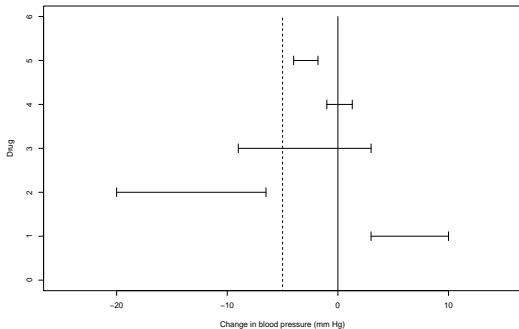


Interval estimation

- A **point estimate** is of little value without some indication of its **precision**
- **interval estimation** is a compromise between:
 - the width of your interval;
 - the likelihood that your interval will include the right answer.
- A **confidence interval** is defined as follows:
 - choose an acceptable level of confidence, say $100p\%$ (conventionally, $p = 95$ but it's your choice)
 - construct an interval so that $100p\%$ of the time, it will include the true value of the parameter

Question: all other things being equal, if you **increase** p , will the resulting confidence interval become **wider** or **narrower**?

Statistical significance is not the same as practical significance: comparing five anti-hypertensive drugs



- which drugs give a **significant** reduction in blood pressure?
- which drugs give a **useful** reduction in blood pressure?
- which drugs need further investigation?