Activities

# Chapter 19: Quantitative data analysis: Measures of clinical effectiveness

## Activity 19.1

### Scenario

A patient with heart failure who comes to your cardiac clinic for regular check-ups confides in you that she is worried about changes to her care in the community. She is used to being monitored by her general practitioner with whom she has a good relationship but now she has been told that she will be looked after by a specialist cardiac doctor.

You decide to look for evidence to find out whether her care would be affected by this change and find the following Randomised Controlled Trial:

Blue, L et al. (2001) Randomised controlled trial of specialist nurse intervention in heart failure. *British Medical Journal* 323: 715–718.

Would the suggested intervention help your relative improve their symptoms and survival?

From the data in the results of this project, you construct the following table.

|  |  |  |  |
| --- | --- | --- | --- |
| Intervention | Died or readmitted to hospital | Lived and not readmitted to hospital | Total |
| Nurse | 52 | 32 | 84 |
| GP | 61 | 20 | 81 |
| Total | 113 | 52 |  |

Using the example in Chapter 19 to help you, calculate the Relative Risk and the Odds Ratio

What do you conclude from these results?

What do you need to consider when discussing the situation with your patient?

**To reveal the answer toggle the show/hide button (¶) or press Control + Shift + 8.**

**Answer:**

Relative risk

a/(a+b) = 52/84 = 0.63 (EER)

c/(c+d) = 61/81 = 0.75 (CER)

EER/CER 0.63/0.75 = 0.83

Relative risk = 0.83

Odds ratio

(a/b)/(c/d) = 1.63/3.05 = 0.53

Odds ratio = 0.53

These results indicate that the risk and odds of death or hospital admission using a specialist nurse intervention is less than a GP’s intervention.

To help the patient understand and reassure her the nurse needs to consider the patient’s circumstances and her understanding of her condition. The nurse also needs to reassure the patient that the level of care she would receive would be delivered by an expert nurse but if she had any concerns that she should communicate them. The nurse can be satisfied expert nursing care is at least, if not more safesafer than GP care.

NB The data extracted for the purpose of the exercise represents only one of the outcomes measured in the paper. It should not be used on its own to make a clinical judgement and it is recommended that you critically appraise the entire paper before applying the findings to clinical practice.