Clinical Trials: Task Sheet 5 for Week 5

(Released 30/10/11, see §8.1–§9.5)

1) Two ointments A and B have been widely used for the treatment of athlete's foot. In a recent report the following results were noted, where response indicated temporary relief from the outbreak.

	Response	No Response
Ointment A	174	96
Ointment B	149	121

a) Based on these results the report concluded that ointment A was more effective than ointment B. Use the Mantel-Haenszel test to verify this conclusion.

b) Further investigation into the source of the data revealed that the data had been pooled from two clinics. The results from individual clinics were:

	Ointment A		Ointment B	
Clinic	Response	No response	Response	No response
1	129	71	113	87
2	45	25	36	34

Reassess the evidence in the light of these additional facts.

2) (Artificial data from Ben Goldacre, 06/08/11).

   Imagine a study was conducted to examine relationship between heavy drinking of alcohol and developing ling cancer, obtaing the following results:

	Cancer	No cancer
Drinker	366	2300
Non-Drinker	98	1856

   a) Calculate the ration of the odds of developing cancer for drinkers to non-drinkers. What conclusions do you draw from this odds ratio?

   b) It transpires that 330 of the drinkers developing cancer were smokers and 1100 of the drinkers who smoked did not, with corresponding figures for the non-drinkers of 47 and 156. Calculate the odds ratios separately for smokers and non-smokers. What conclusions do you draw?

3) Now that the first part of the course is complete this is a good time to consolidate the material by reading the introduction and summary sections of all the chapters, perhaps going back to particular sections if there are items in the summaries which you feel you did not understand fully at the time.