



ADMINISTRATIVE MEDICINE

Part I Examination

Tuesday 5 June 2007
17:30 – 19:00 (1½ hours)

Paper IIB

Candidates must answer all parts of this questions

Style, clear grammatical English and legibility will be taken into consideration by the Examiners. Answers should be written in a form appropriate to the audience specified in the question.

Weighting of marks for each part of the question is shown in parenthesis.

**DO NOT OPEN PAPER UNTIL THE INVIGILATOR
INSTRUCTS YOU TO BEGIN**

Over a four year period all patients over 20 years old with a discharge diagnosis of myocardial infarction were identified in a community of 1.4 million people. 10280 cases were identified. Ten controls were selected for each case, matched by age and sex. Average age was 70 (range 19-101 yrs); 60% were males.

Prescriptions for NSAIDs were obtained. Use of NSAIDs before an admission event was classified by

- current users (filled prescription within 30 days)
- new users (first prescription within 30 days)
- recent users (30-90 days)
- past users (>90 days)

There was no information on dosage.

Relative risks were calculated on the basis of non-use of NSAIDs in cases and controls.

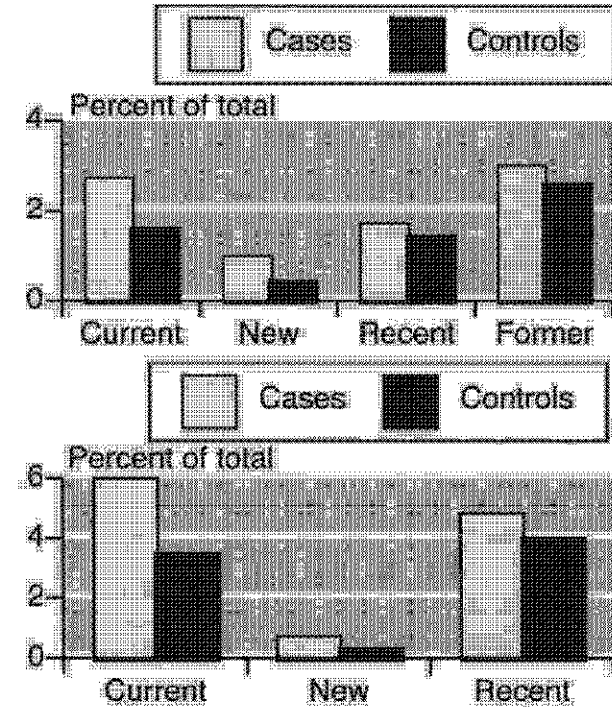
Please refer to the Figures and Table and answer the following questions:

QUESTION CONTINUES

1. (a) Describe the pattern of use, between cases and controls, in the different categories of users of (i) Coxibs (ii) NSAIDs. (10%)
- (b) Describe the pattern of results by user status. (10%)
- (c) Discuss the interpretation and explanation of possible differences between current users and new users. (10%)
2. Write an advisory statement to the director of health to indicate what definite or possible actions should be considered, in relation to NSAIDs use, on the basis of these findings. (70%)

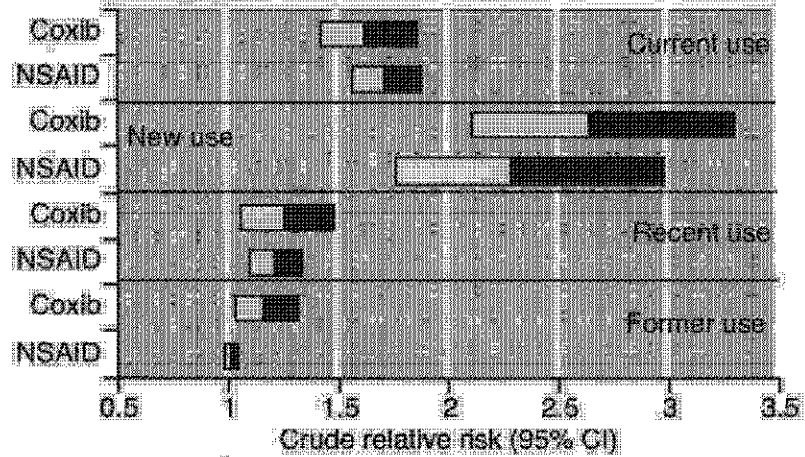
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Figures 1 and 2: Percent of cases and controls using coxibs (top) and NSAIDs (bottom)



Source: *SP Johnsen et al. Risk of hospitalization for myocardial infarction among users of rofecoxib, celecoxib and other NSAIDs. Archives of Internal Medicine 2005; 165:978-84.*

Figure 3: Crude relative risk for all coxibs and NSAIDs by type of use compared to nonuse



Figures 4 and 5: Relative risk of MI admission for current users (top) and new users (bottom), compared to nonuse

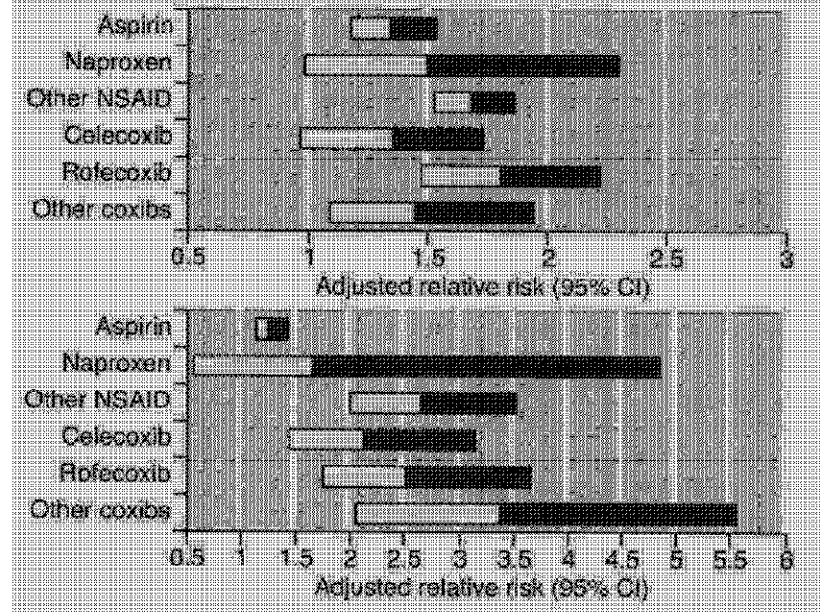


Table 1: Relative risk in persons with low and high cardiovascular risk. Statistically significant results bold, shaded

	Adjusted relative risk (95% CI)	
	Low risk	High risk
Naproxen	2.0 (0.89 to 4.3)	1.4 (0.82 to 1.6)
Other NSAIDs	2.0 (1.6 to 2.5)	1.6 (1.4 to 1.8)
Celecoxib	1.8 (0.92 to 3.1)	1.2 (0.85 to 1.5)
Rofecoxib	2.8 (1.7 to 4.5)	1.6 (1.2 to 2.0)
Other coxibs	1.8 (0.98 to 3.3)	1.1 (0.8 to 1.6)