

LAB

Meta-Analysis Comparison of CABG to PCI

INSTRUCTIONS

1. Study chapters 9 - 12 in EKS (2nd ed)
2. Look over the questions in this lab
3. Read [Hlatkey et al., 2009](#) [Click link for full text in pdf format; full reference: Hlatky, M. A., Boothroyd, D. B., Bravata, D. M., Boersma, E., Booth, J., Brooks, M. M., et al. (2009). Coronary artery bypass surgery compared with percutaneous coronary interventions for multivessel disease: a collaborative analysis of individual patient data from ten randomised trials. *Lancet*, 373(9670), 1190-1197.
4. Discuss specific issues online
5. Submit your lab report via the Assignment tool.

QUESTIONS

1. Page 1, column 2, para. 1 of Hlatkey et al. (2009) states "observational studies have been confounded by *treatment selection bias*." Discuss how treatment selection could bias the hazard ratio (i.e., relative risk) estimates in this study.
2. Do you think the *treatment selection bias* referred to in the prior question would bias the results in favor of CABG or PCI? Justify your response.
3. Use the mortality data on p. 2, column 2, para. 6 to calculate the crude RR of mortality comparing CABG to PCI. Show your calculations.
4. The article concludes that, overall, "long term mortality is similar after CABG and PCI in most patients." Why then, were RR estimates a bit *less* than 1? Provide a plausible explanation.
5. Review the first six subgroup analyses in Figure 2 (p. 4). Come to your own conclusion about the relative benefits of CABG, if any, within each subgroup. Use simple sentences, and quantify the benefits, if any.