Supplementary Table 2 Purpose of recording of myocardial infarction and possible reasons for incompleteness in the four linked data sources

	Primary care: CPRD	Hospital admissions: HES	Disease registry: MINAP	Cause specific mortality: ONS
Purpose of recording	Clinical care, electronic health record	Administration	Quality and outcomes improvement	Public health and administrative
Nature of coding	Read codes	ICD-10 codes I21, I22, I23 as the primary diagnosis	Custom coding of discharge diagnosis, ECG findings, cardiac markers and other clinical information	ICD-10 codes I21, I22, I23 as the underlying cause of death
When are data coded?	Real time for consultations	Weeks after discharge	Days to weeks after admission	Days after death
Who codes data?	GP during consultation, administrator for hospital discharge letters	Non-clinical trained coders, ideally based on review of complete hospital notes, but frequently based only on discharge summaries	Audit nurse	GP or hospital doctor completes death certificate with cause of death. ICD-10 codes added by trained non-clinical coders
Possible reasons for non-recording	GP did not receive hospital letter or death notification, myocardial infarction recorded in free text only	Patient admitted abroad or to private hospital, diagnosis may not be clear in the notes, linkage failure if NHS number incorrectly recorded	Patient not admitted to NHS cardiology ward or not under the care of cardiology team, linkage failure if NHS number incorrectly recorded	Patient died abroad, linkage failure if address or date of birth incorrect

Abbreviations: CPRD, Clinical Practice Research Datalink; GP, general practitioner; HES, Hospital Episode Statistics; ICD-10, International Classification of Diseases, 10th revision; MINAP, Myocardial Ischaemia National Audit Project; NHS, National Health Service; ONS, Office for National Statistics