**Appendix 1: PubMed database search terms (search terms were amended accordingly for other databases)**

**1. Emergency admission**

(("patient admission"[MeSH Terms] OR "patient readmission"[MeSH Terms]) OR ((((((((((((((((unplanned[All Fields] AND admission[All Fields]) OR (un[All Fields] AND planned[All Fields] AND admission[All Fields])) OR (nonelective[All Fields] AND admission[All Fields])) OR (non[All Fields] AND elective[All Fields] AND admissions[All Fields])) OR (unexpected[All Fields] AND admission[All Fields])) OR (unscheduled[All Fields] AND admission[All Fields])) OR (non[All Fields] AND planned[All Fields] AND admissions[All Fields])) OR (non[All Fields] AND planned[All Fields] AND admissions[All Fields])) OR (("emergencies"[MeSH Terms] OR "emergencies"[All Fields] OR "emergency"[All Fields]) AND ("hospitals"[MeSH Terms] OR "hospitals"[All Fields] OR "hospital"[All Fields]) AND admission[All Fields])) OR (("emergencies"[MeSH Terms] OR "emergencies"[All Fields] OR "emergency"[All Fields]) AND medical[All Fields] AND admission[All Fields])) OR (("emergency treatment"[MeSH Terms] OR ("emergency"[All Fields] AND "treatment"[All Fields]) OR "emergency treatment"[All Fields] OR ("emergency"[All Fields] AND "care"[All Fields]) OR "emergency care"[All Fields] OR "emergency medical services"[MeSH Terms] OR ("emergency"[All Fields] AND "medical"[All Fields] AND "services"[All Fields]) OR "emergency medical services"[All Fields] OR ("emergency"[All Fields] AND "care"[All Fields])) AND admission[All Fields])) OR (("emergencies"[MeSH Terms] OR "emergencies"[All Fields] OR "emergency"[All Fields]) AND room[All Fields] AND admission[All Fields])) OR (unplanned[All Fields] AND ("hospitalisation"[All Fields] OR "hospitalization"[MeSH Terms] OR "hospitalization"[All Fields]))) OR (("emergencies"[MeSH Terms] OR "emergencies"[All Fields] OR "emergency"[All Fields]) AND ("hospitalisation"[All Fields] OR "hospitalization"[MeSH Terms] OR "hospitalization"[All Fields]))) OR (unanticipated[All Fields] AND admission[All Fields])) OR (("emergencies"[MeSH Terms] OR "emergencies"[All Fields] OR "emergency"[All Fields]) AND ("referral and consultation"[MeSH Terms] OR ("referral"[All Fields]

**AND**

**2. Risk prediction model**

"consultation"[All Fields]) OR "referral and consultation"[All Fields] OR "referral"[All Fields])))) AND ((("risk assessment/methods"[Mesh Terms] OR "models, statistical"[MeSH Terms]) OR "forecasting"[MeSH Terms]) OR ((((("risk"[MeSH Terms] OR "risk"[All Fields]) AND score[All Fields]) OR ("risk"[MeSH Terms] OR "risk"[All Fields])) OR ("risk"[MeSH Terms] OR "risk"[All Fields])) OR ("risk factors"[MeSH Terms] OR ("risk"[All Fields] AND "factors"[All Fields]) OR "risk factors"[All Fields])))