

Supplementary file 1: Search string for PubMed, Google scholar and AJOL

Search #	Search term
1)	In-hospital OR in-patient
2)	Stroke OR cerebrovascular accident OR CVA OR cerebral infarction OR Ischemic stroke OR Lacuna stroke OR cerebral hemorrhage OR haemorrhagic stroke
3)	1 AND 2
4)	mortality OR 30-day mortality OR death OR case-fatality
5)	3 AND 4
6)	risk factors OR associated factors
7)	5 OR 6
8)	sub-Saharan Africa
9)	Angola OR Benin OR Botswana OR Burkina Faso OR Burundi OR Cameroon OR Cape Verde OR Central African Republic OR Chad OR Comoros OR Congo OR Cote d'Ivoire OR Djibouti OR Equatorial Guinea OR Ethiopia OR Gabon OR The Gambia OR Ghana OR Guinea OR Guinea-Bissau OR Kenya OR Lesotho OR Liberia OR Madagascar OR Malawi OR Mali OR Mauritania OR Mauritius OR Mozambique OR Namibia OR Niger OR Nigeria OR Rwanda OR Sao Tome and Principe OR Senegal OR Seychelles OR Sierra Leone OR Somalia OR South Africa OR Sudan OR Swaziland OR Tanzania OR Togo OR Uganda OR Zaire OR Zambia OR Zimbabwe
10)	8 OR 9
11)	Limit to January, 1990-December,2020
12)	Limit to Humans
13)	10 AND 11 AND 12