

Supplementary material 3.

Description of the stroke cohort study sample (N=6436)

	Global (N=6436)		pre-wave (N=4140)		per-wave (N=1080)		post-wave (N=1216)	
	n	(%)	n	(%)	n	(%)	n	(%)
Patient socio-demographic characteristics								
Gender	6436		4140		1080		1216	
Male	3533	(54.9)	2264	(54.7)	589	(54.5)	680	(55.9)
Female	2903	(45.1)	1876	(45.3)	491	(45.5)	536	(44.1)
Age	6436		4140		1080		1216	
Median [IQR]	78	[68;87]	79	[69;87]	77	[68;86]	76	[68;85]
Urbanicity	6153		3882		1072		1199	
Urban	4451	(72.3)	2816	(72.5)	786	(73.3)	849	(70.8)
Rural	1702	(27.7)	1066	(27.5)	286	(26.7)	350	(29.2)
<i>Missing values</i>	283		258		8		17	
Fdep15	6145		3878		1070		1197	
Median [IQR]	0.10	[-0.96;1.14]	0.10	[-1.02;1.22]	-0.01	[-0.98;1.11]	0.08	[-0.88;1.11]
<i>Missing values</i>	291		262		10		19	
APL MG 2018	6171		3891		1076		1204	
Median [IQR]	4.3	[3.4;5.0]	4.3	[3.4;5.0]	4.3	[3.4;5.0]	4.2	[3.4;5.1]
<i>Missing values</i>	265		249		4		12	
Residence-EU distance (km)	6179		3897		1077		1205	
Median [IQR]	17	[6;32]	17	[6;33]	16	[5;28]	18	[7;34]
<i>Missing values</i>	257		243		3		11	
Patient clinical characteristics								
Stroke type	6436		4140		1080		1216	
Ischaemic	5669	(88.1)	3617	(87.4)	941	(87.1)	1111	(91.4)
Haemorrhagic	767	(11.9)	523	(12.6)	139	(12.9)	105	(8.6)
Coronary artery disease	6436		4140		1080		1216	
Absence	5877	(91.3)	3778	(91.3)	987	(91.4)	1112	(91.4)
Presence	559	(8.7)	362	(8.7)	93	(8.6)	104	(8.6)
Previous STEMI	6436		4140		1080		1216	
Absence	6057	(94.1)	3886	(93.9)	1017	(94.2)	1154	(94.9)
Presence	379	(5.9)	254	(6.1)	63	(5.8)	62	(5.1)
Previous stroke or transient ischaemic attack	6436		4140		1080		1216	
Absence	5166	(80.3)	3305	(79.8)	882	(81.7)	979	(80.5)
Presence	1270	(19.7)	835	(20.2)	198	(18.3)	237	(19.5)
Diabetes mellitus	6436		4140		1080		1216	
Absence	5198	(80.8)	3352	(81.0)	894	(82.8)	952	(78.3)
Presence	1238	(19.2)	788	(19.0)	186	(17.2)	264	(21.7)
Hypertension	6436		4140		1080		1216	
Absence	2419	(37.6)	1538	(37.1)	437	(40.5)	444	(36.5)
Presence	4017	(62.4)	2602	(62.9)	643	(59.5)	772	(63.5)
Dyslipidemia	6436		4140		1080		1216	
Absence	4618	(71.8)	2973	(71.8)	786	(72.8)	859	(70.6)
Presence	1818	(28.2)	1167	(28.2)	294	(27.2)	357	(29.4)
Smoking	6436		4140		1080		1216	
Absence	5103	(79.3)	3290	(79.5)	846	(78.3)	967	(79.5)
Presence	1333	(20.7)	850	(20.5)	234	(21.7)	249	(20.5)
Atheroma of the supra-aortic arteris	6436		4140		1080		1216	
Absence	6213	(96.5)	4015	(97.0)	1027	(95.1)	1171	(96.3)
Presence	223	(3.5)	125	(3.0)	53	(4.9)	45	(3.7)
Peripheral artery disease	6436		4140		1080		1216	
Absence	6144	(95.5)	3959	(95.6)	1023	(94.7)	1162	(95.6)
Presence	292	(4.5)	181	(4.4)	57	(5.3)	54	(4.4)
Atrial fibrillation	6436		4140		1080		1216	
Absence	5348	(83.1)	3432	(82.9)	885	(81.9)	1031	(84.8)
Presence	1088	(16.9)	708	(17.1)	195	(18.1)	185	(15.2)
Cardiac failure	6436		4140		1080		1216	
Absence	6114	(95.0)	3934	(95.0)	1021	(94.5)	1159	(95.3)
Presence	322	(5.0)	206	(5.0)	59	(5.5)	57	(4.7)
Psychiatry	6436		4140		1080		1216	
Absence	5759	(89.5)	3672	(88.7)	988	(91.5)	1099	(90.4)
Presence	677	(10.5)	468	(11.3)	92	(8.5)	117	(9.6)
mRS less than 1 before stroke	6436		4140		1080		1216	
No	961	(14.9)	660	(15.9)	153	(14.2)	148	(12.2)
Yes	3709	(57.6)	2292	(55.4)	673	(62.3)	744	(61.2)
Unknown	1766	(27.4)	1188	(28.7)	254	(23.5)	324	(26.6)
NIHSS at entry [0-6]	6436		4140		1080		1216	
Median [IQR]	3489	(54.2)	2185	(52.8)	607	(56.2)	697	(57.3)

[7-16]	1128	(17.5)	749	(18.1)	184	(17)	195	(16.0)
[17-42]	761	(11.8)	522	(12.6)	110	(10.2)	129	(10.6)
Unknown	1058	(16.4)	684	(16.5)	179	(16.6)	195	(16.0)
Structural characteristics of care								
Calls to emergency services activity during care (intensity of daily number of calls)	6436		4140		1080		1216	
Not high	899	(14.0)	608	(14.7)	140	(13)	151	(12.4)
Moderate	1948	(30.3)	1268	(30.6)	264	(24.4)	416	(34.2)
High	1184	(18.4)	669	(16.2)	303	(28.1)	212	(17.4)
Not concerned (no calls to emergency services)	2405	(37.4)	1595	(38.5)	373	(34.5)	437	(35.9)
Care during on-call activity	6411		4122		1080		1209	
Monday-Friday [8h-18h30]	3351	(52.3)	2178	(52.8)	565	(52.3)	608	(50.3)
Monday-Friday [18h30-20h]	338	(5.3)	212	(5.1)	55	(5.1)	71	(5.9)
Week-end and holiday [8h-20h]	1328	(20.7)	829	(20.1)	233	(21.6)	266	(22.0)
Night [20h-8h]	1394	(21.7)	903	(21.9)	227	(21.0)	264	(21.8)
Missing values	25		18		0		7	
EU hospital status	6436		4140		1080		1216	
University hospital	2441	(37.9)	1654	(40.0)	348	(32.2)	439	(36.1)
General hospital	3879	(60.3)	2410	(58.2)	715	(66.2)	754	(62.0)
Private hospital	116	(1.8)	76	(1.8)	17	(1.6)	23	(1.9)
Availability of MRI 24 hours a day	6436		4140		1080		1216	
No	1694	(26.3)	1061	(25.6)	291	(26.9)	342	(28.1)
Yes	4742	(73.7)	3079	(74.4)	789	(73.1)	874	(71.9)
Presence of stroke unit	6436		4140		1080		1216	
No	1245	(19.3)	799	(19.3)	197	(18.2)	249	(20.5)
Yes	5191	(80.7)	3341	(80.7)	883	(81.8)	967	(79.5)
Presence of interventional neuroradiology unit	6436		4140		1080		1216	
No	3304	(51.3)	2102	(50.8)	551	(51.0)	651	(53.5)
Yes	3132	(48.7)	2038	(49.2)	529	(49.0)	565	(46.5)

APL MG 2018=potential accessibility indicator to general practitioners; EU=emergency unit;

FDep15=deprivation index; MRI=magnetic resonance imaging; mRS=modified Rankin Scale; NIHSS=National Institute of Health Stroke Score; STEMI=segment elevation myocardial infarction.

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Description of the STEMI cohort study sample (N=2782)

	Global (N=2782)		Pre-wave (N=1868)		Per-wave (N=407)		Post-wave (N=507)	
	n	(%)	n	(%)	n	(%)	n	(%)
Patient socio-demographic characteristics								
Gender	2782		1868		407		507	
Male	2033	(73.1)	1352	(72.4)	309	(75.9)	372	(73.4)
Female	749	(26.9)	516	(27.6)	98	(24.1)	135	(26.6)
Age	2776		1865		405		506	
Median [IQR]	65	[55;74]	65	[55;74]	65	[55;74]	64	[54;74]
Missing values	6		3		2		1	
Urbanicity	2543		1691		380		472	
Urban	1843	(72.5)	1221	(72.2)	277	(72.9)	345	(73.1)
Rural	700	(27.5)	470	(27.8)	103	(27.1)	127	(26.9)
Missing values	239		177		27		35	
Fdep15	2537		1690		380		467	
Median [IQR]	0.22	[-0.72;1.09]	0.23	[-0.70;1.09]	0.11	[-0.89;1.11]	0.22	[-0.72;1.09]
Missing values	245		178		27		40	
APL MG 2018	2537		1689		380		468	
Median [IQR]	4.3	[3.4;4.9]	4.3	[3.4;4.9]	4.2	[3.3;4.9]	4.4	[3.5;5.0]
Missing values	245		179		27		39	
Residence-to-cathlab distance (km)	2541		1692		379		470	
Median [IQR]	29	[10;54]	28	[10;54]	29	[10;52]	32	[12;58]
Missing values	241		176		28		37	
Patient clinical characteristics								
Coronary artery disease or STEMI history	2782		1868		407		507	
No	2031	(73.0)	1342	(71.8)	317	(77.9)	372	(73.4)
Yes	530	(19.1)	365	(19.5)	69	(16.9)	96	(18.9)
Unknown	221	(7.9)	161	(8.6)	21	(5.2)	39	(7.7)
Diabetes mellitus	2782		1868		407		507	
No	2119	(76.2)	1400	(74.9)	318	(78.1)	401	(79.1)
Yes	414	(12.9)	290	(15.5)	59	(14.5)	65	(12.8)
Unknown	249	(9.0)	178	(9.5)	30	(7.4)	41	(8.1)
Dyslipidemia	2782		1868		407		507	
No	1708	(61.4)	1133	(60.7)	249	(61.2)	326	(64.3)
Yes	887	(31.9)	601	(32.2)	135	(33.2)	151	(29.8)
Unknown	187	(6.7)	134	(7.2)	23	(5.7)	30	(5.9)
Active smoking	2782		1868		407		507	
No	1194	(42.9)	787	(42.1)	183	(45.0)	224	(44.2)
Yes	1163	(41.8)	785	(42.0)	164	(40.3)	214	(42.2)
Unknown	425	(15.3)	296	(15.8)	60	(14.7)	69	(13.6)
Peripheral arterial disease	2782		1868		407		507	
No	2245	(80.7)	1487	(79.6)	339	(83.3)	419	(82.6)
Yes	70	(2.5)	40	(2.1)	16	(3.9)	14	(2.8)
Unknown	467	(16.8)	341	(18.3)	52	(12.8)	74	(14.6)
Obesity	2782		1868		407		507	
No	1801	(64.7)	1229	(65.8)	252	(61.9)	320	(63.1)
Yes	513	(18.4)	332	(17.8)	87	(21.4)	94	(18.5)
Unknown	468	(16.8)	307	(16.4)	68	(16.7)	93	(18.3)
Familial history of coronary artery disease	2782		1868		407		507	
No	2070	(74.4)	1367	(73.2)	308	(75.7)	395	(77.9)
Yes	455	(16.4)	317	(17.0)	64	(15.7)	74	(14.6)
Unknown	257	(9.2)	184	(9.9)	35	(8.6)	38	(7.5)
Chronic renal failure	2782		1868		407		507	
No	2264	(81.4)	1493	(79.9)	344	(84.5)	427	(84.2)
Yes	47	(1.7)	31	(1.7)	10	(2.5)	6	(1.2)
Unknown	471	(16.9)	344	(18.4)	53	(13.0)	74	(14.6)
Arterial hypertension	2782		1868		407		507	
No	1278	(45.9)	866	(46.4)	168	(41.3)	244	(48.1)
Yes	1356	(48.7)	897	(48.0)	220	(54.1)	239	(47.1)
Unknown	148	(5.3)	105	(5.6)	19	(4.7)	24	(4.7)
Structural characteristics of care								
Calls to emergency services activity (intensity of daily number of calls)	2782		1868		407		507	
Not high	440	(15.8)	303	(16.2)	63	(15.5)	74	(14.6)
Moderate	1093	(39.3)	744	(39.8)	143	(35.1)	206	(40.6)
High	642	(23.1)	399	(21.4)	127	(31.2)	116	(22.9)
Not concerned (no calls to emergency services)	607	(21.8)	422	(22.6)	74	(18.2)	111	(21.9)
Care during on-call activity	2712		1821		395		496	

Monday-Friday [8h-18h30]	1116	(41.2)	741	(40.7)	164	(41.5)	211	(42.5)
Monday-Friday [18h30-20h]	133	(4.9)	90	(4.9)	21	(5.3)	22	(4.4)
Week-end and holiday [8h-20h]	547	(20.2)	368	(20.2)	68	(17.2)	111	(22.4)
Night [20h-8h]	916	(33.8)	622	(34.2)	142	(35.9)	152	(30.6)
<i>Missing values</i>	70		47		12		11	
EU hospital status	2782		1868		407		507	
University hospital	71	(2.6)	48	(2.6)	7	(1.7)	16	(3.2)
General hospital	839	(30.2)	564	(30.2)	114	(28)	161	(31.8)
Private hospital	275	(9.9)	187	(10)	39	(9.6)	49	(9.7)
Not concerned (not managed by EU)	1597	(57.4)	1069	(57.2)	247	(60.7)	281	(55.4)
Cathlab hospital status	2782		1868		407		507	
University hospital	624	(22.4)	417	(22.3)	96	(23.6)	111	(21.9)
General hospital	1015	(36.5)	661	(35.4)	154	(37.8)	200	(39.4)
Private hospital	975	(35.0)	666	(35.7)	136	(33.4)	173	(34.1)
Not concerned (not managed by cathlab)	168	(6.0)	124	(6.6)	21	(5.2)	23	(4.5)
FMC-to-cathlab distance (km)	2555		1703		379		473	
Median [IQR]	21	[0;50]	21	[0;50]	21	[4;48]	24	[0;52]
<i>Missing values</i>	227		165		28		34	

APL MG 2018=potential accessibility indicator to general practitioners; EU=emergency unit;

FDep15=deprivation index; FMC=first medical contact; STEMI=segment elevation myocardial infarction.

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