



Immigranter og incident atrieflimren i Danmark
ulighed i forekomst eller detektion?

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DENMARK



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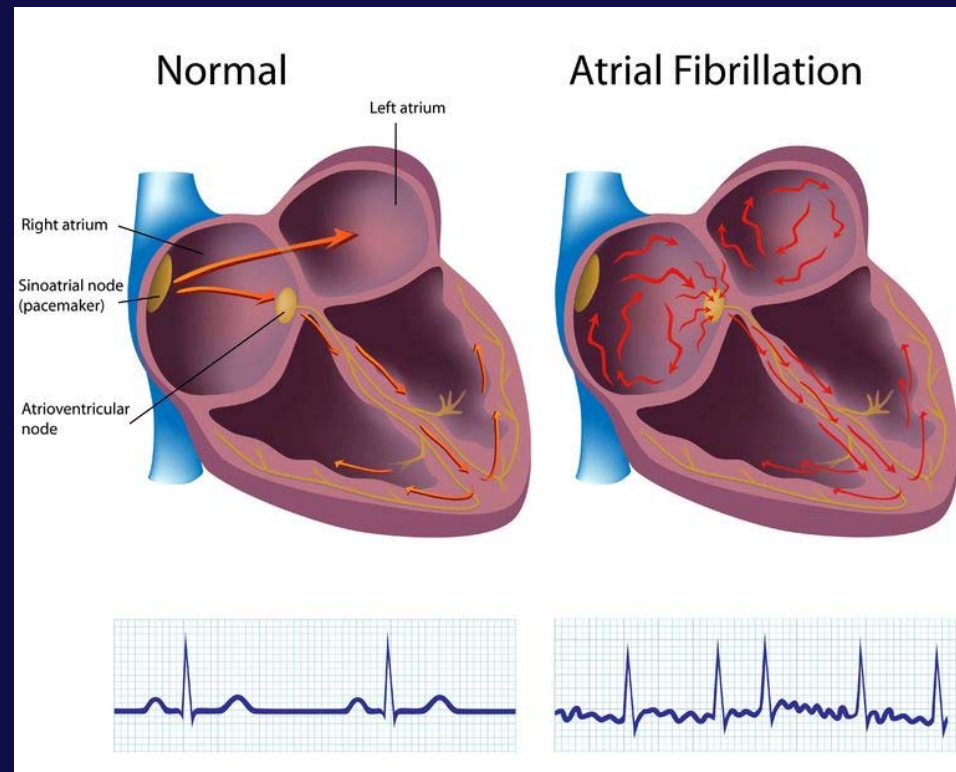
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DANISH CENTER FOR
CLINICAL HEALTH SERVICES RESEARCH



Atrieflimren (AF)



ICD-8: 427.93-427.94
ICD-10: I48

<https://www.molholm.dk/specialer/hjertesygdomme/aktuelt/symptomer-og-undersogelser-ved-atrieflimren/>

Atrieflimren (AF)

Øget risiko for:

- Stroke
- Myokardieinfakt
- Systemisk emboli
- Demens

Incidens: 18.000 nye tilfælde årligt

Prævalens: 120.000 danskere har AF

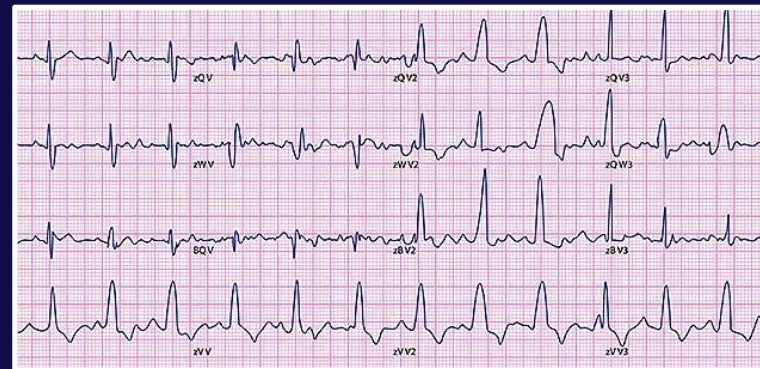
Forventes fordoblet om 30 år

Stiger eksponentielt med alderen

Stort mørketal

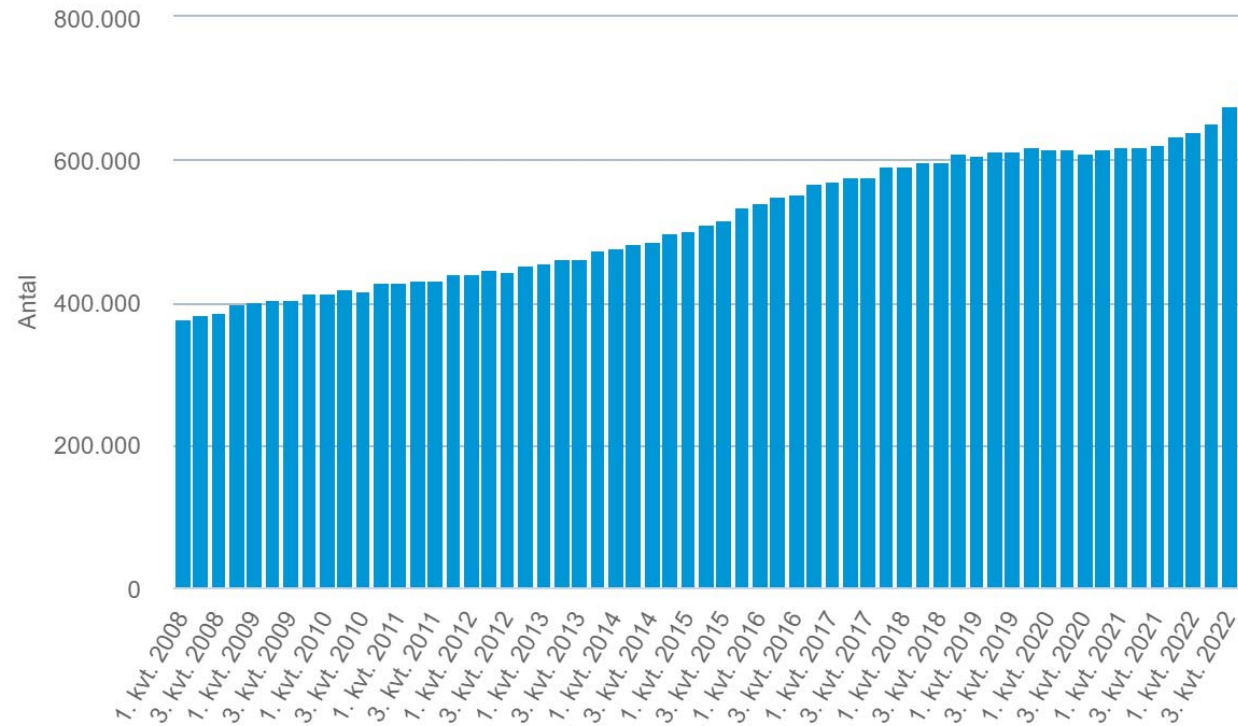


EKG



Folketal den 1. i kvartalet

Herkomst: Indvandrere | Oprindelsesland: I alt | Område: Hele landet | Køn: I alt:



Sundhedsvæsn og indvandrere

9/10 danskere er årligt i kontakt med
sundhedsvæsn
- Sundhedsministeriet



Population



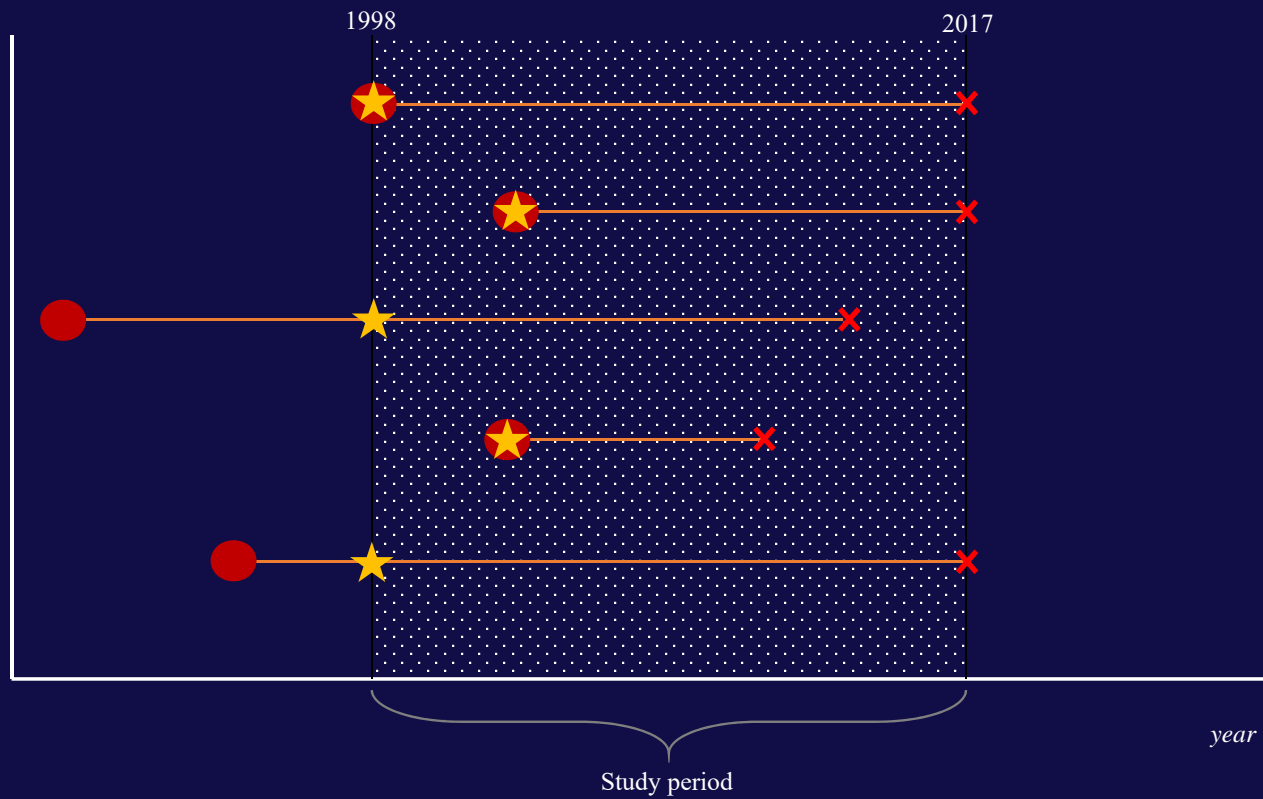
1998-2017

45 år og derover

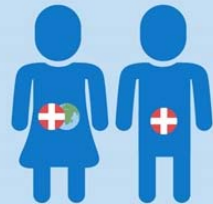
Dansk adresse i minimum 5 år før
inklusion

CPR-nummer

★ Inclusion ● 45th birthday ✕ Exclusion



Hvilken herkomst har du?

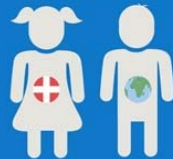


Mindst en forældre er både født i Danmark og dansk statsborger



Ingen af forældrene er både født i Danmark og dansk statsborger

Født i Danmark eller udlandet



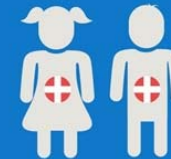
Dansk oprindelse

Født i udlandet



Indvandrere

Født i Danmark



Efterkommere

Exposure



Norge



Polen



USA



Tyrkiet



Iran



Sverige



UK



Tyskland

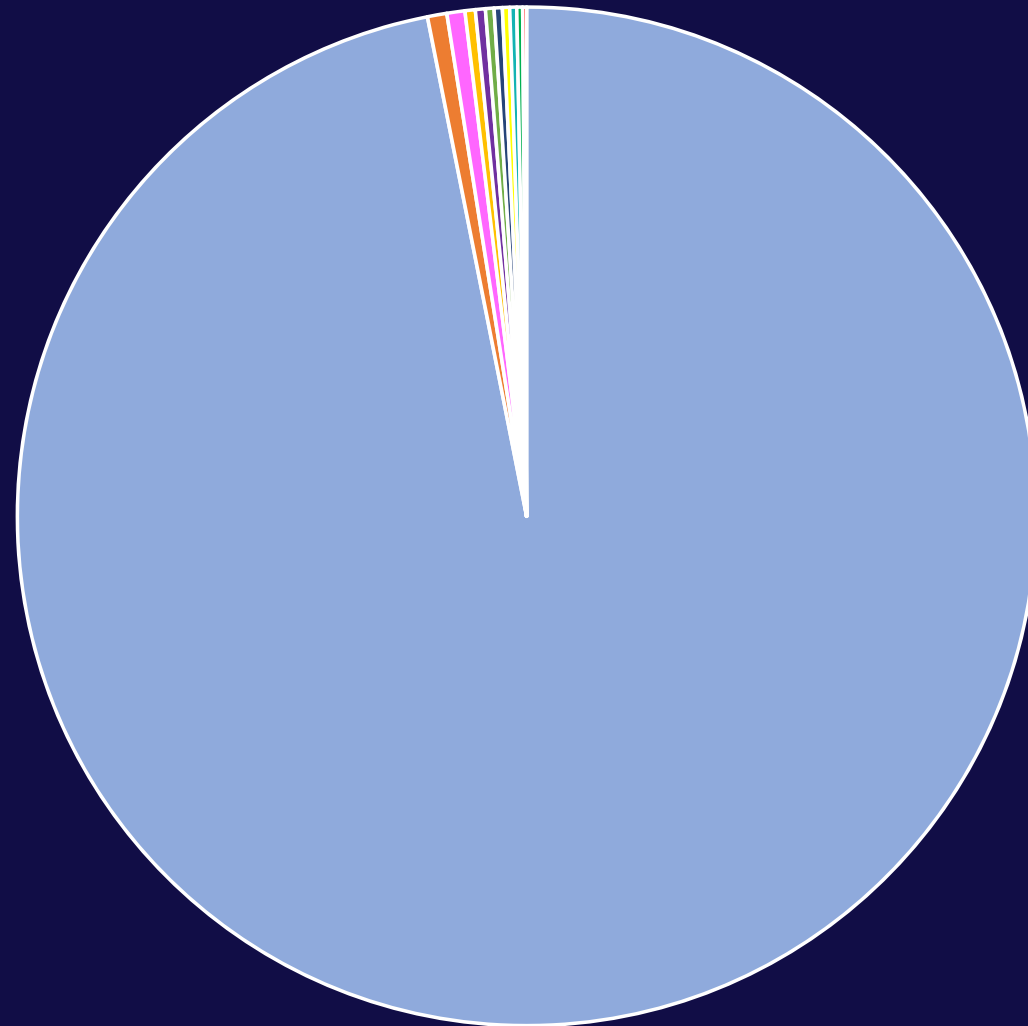


Irak



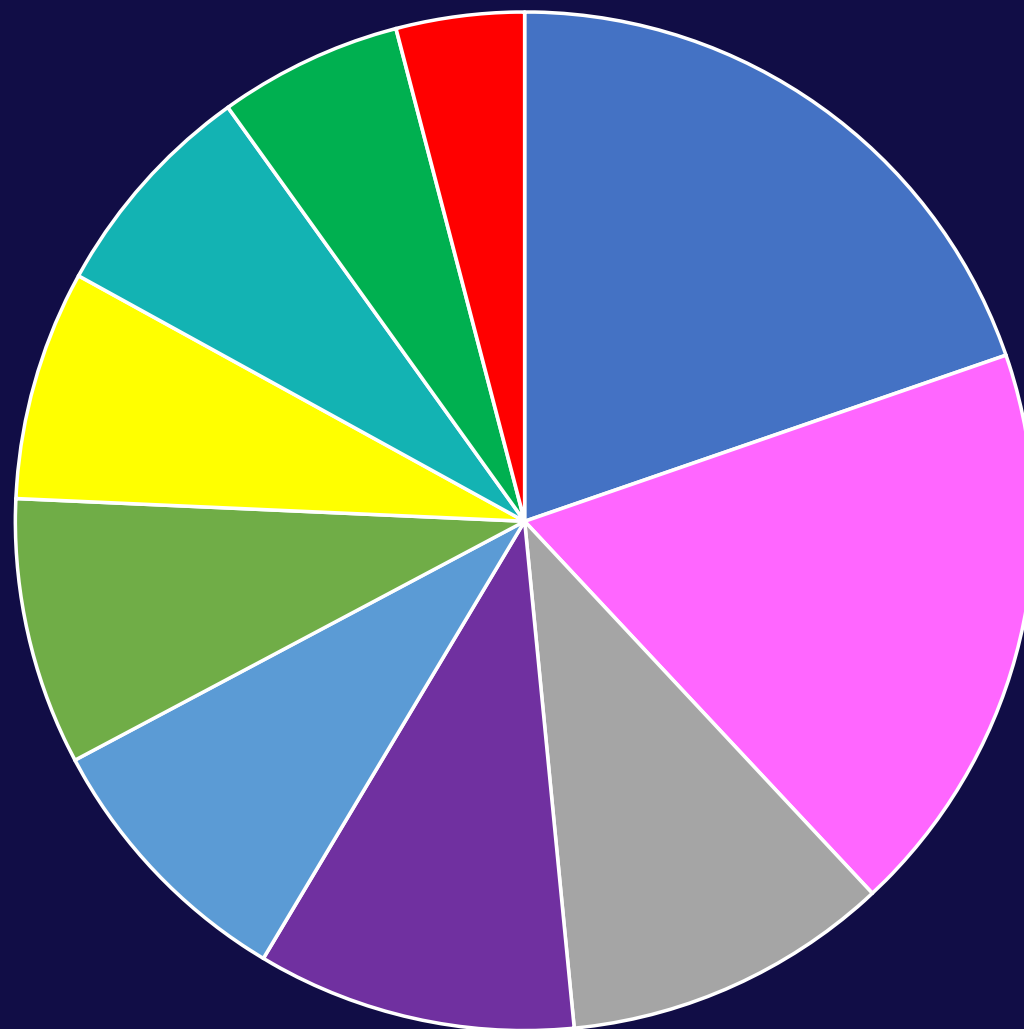
Bosnien-Herzegovina

Land	Antal	Procent
Danmark (ref.)	3.380.816	96,88
Tyskland	21.468	0,62
Tyrkiet	19.954	0,57
Sverige	11.340	0,32
Norge	11.030	0,32
Polen	9.425	0,27
UK	9.237	0,26
Iran	7.942	0,23
Irak	7.739	0,22
Bosnien-Hercegovina	6.351	0,18
USA	4.428	0,13



■ Danmark
 ■ Tyskland
 ■ Tyrkiet
 ■ Sverige
 ■ Norge
 ■ Polen
 ■ UK
 ■ Iran
 ■ Irak
 ■ Bosnien-Hercegovina
 ■ USA

Land	Antal	Procent
Tyskland	21.468	19,71
Tyrkiet	19.954	18,32
Sverige	11.340	10,41
Norge	11.030	10,13
Polen	9.425	8,65
UK	9.237	8,48
Iran	7.942	7,29
Irak	7.739	7,11
Bosnien- Hercegovina	6.351	5,85
USA	4.428	4,07



■ Tyskland
 ■ Tyrkiet
 ■ Sverige
 ■ Norge
 ■ Polen
 ■ UK
 ■ Iran
 ■ Irak
 ■ Bosnien-Hercegovina
 ■ USA



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Adjustments



Stroke

Diabetes

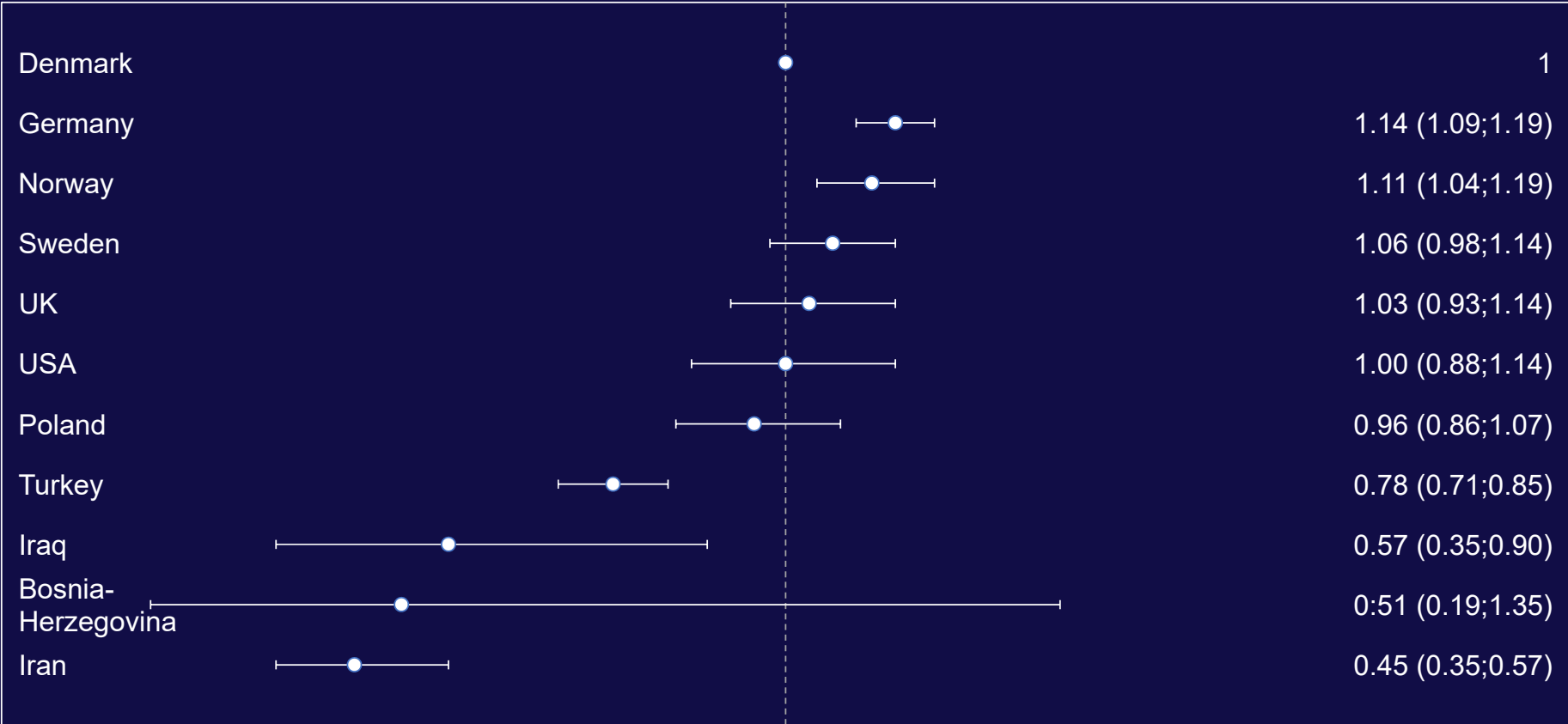
Hypertension

C₂HES₂-score (coronary heart disease, chronic obstructive pulmonary disease, heart failure (counted double) and thyroid disease)

		Denmark	Norway	Sweden	Poland	UK	Turkey	Germany	USA	Iraq	Iran	Bosnia-Herzegovina
		N=3,380,816	N=11,030	N=11,340	N=9,425	N=9,237	N=19,954	N=21,468	N=4,428	N=7,739	N=7,942	N=6,351
Sex		1,636,031 (48%)	3,927 (36%)	4,158 (37%)	3,514 (37%)	5,766 (62%)	10,870 (54%)	9,705 (45%)	2,331 (53%)	4,762 (62%)	5,029 (63%)	3,160 (50%)
Age, median (IQR)		49 (45-62)	51 (45-65)	50 (45-62)	45 (45-52)	45 (45-54)	45 (45-45)	53 (45-63)	47 (45-65)	45 (45-45)	45 (45-45)	45 (45-45)
Education level, baseline	0	184,414 (6%)	2,140 (23%)	2,090 (22%)	1,999 (24%)	2,245 (28%)	926 (6%)	4,131 (23%)	1,429 (40%)	1,743 (26%)	970 (14%)	1,137 (19%)
	1	655,901 (21%)	3,320 (35%)	3,386 (36%)	3,722 (45%)	3,215 (40%)	3,264 (20%)	7,442 (41%)	1,198 (34%)	2,545 (38%)	2,749 (39%)	3,527 (58%)
	2	2,260,669 (73%)	3,904 (42%)	3,903 (42%)	2,539 (31%)	2,570 (32%)	11,953 (74%)	6,746 (37%)	914 (26%)	2,371 (36%)	3,354 (47%)	1,399 (23%)
Category of family income (IQR), baseline		2 (1-3)	2 (1-3)	2 (1-3)	2 (1-2)	2 (1-3)	2 (1-2)	2 (1-3)	2 (1-3)	2 (1-2)	2 (1-2)	2 (2-2)
Work adherence	Working	2,383,608 (71%)	6,653 (62%)	7,420 (67%)	6,651 (71%)	7,052 (78%)	12,311 (62%)	13,685 (65%)	2,819 (67%)	3,461 (45%)	4,849 (62%)	4,098 (65%)
	Retired	631,013 (19%)	2,399 (22%)	2,105 (19%)	965 (10%)	819 (9%)	696 (4%)	4,358 (21%)	825 (20%)	45 (1%)	85 (1%)	<5 (0%)
	Social subsidy	355,064 (11%)	1,657 (15%)	1,552 (14%)	1,740 (19%)	1,165 (13%)	6,769 (34%)	3,136 (15%)	576 (14%)	4,216 (55%)	2,922 (37%)	2,246 (35%)
Diabetes		97,890 (3%)	256 (2%)	267 (2%)	262 (3%)	160 (2%)	1,670 (8%)	621 (3%)	94 (2%)	543 (7%)	331 (4%)	192 (3%)
Hypertension		767,600 (23%)	2,375 (22%)	2,416 (21%)	1,908 (20%)	1,205 (13%)	3,577 (18%)	4,830 (22%)	806 (18%)	1,378 (18%)	1,103 (14%)	1,139 (18%)
Stroke		44,171 (1%)	132 (1%)	142 (1%)	72 (1%)	66 (1%)	124 (1%)	253 (1%)	63 (1%)	42 (1%)	45 (1%)	25 (0%)
C2HEST		0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)	0 (0-0)
Visits to GP, baseline	0	865,474 (26%)	2,910 (26%)	3,097 (27%)	2,428 (26%)	2,763 (30%)	2,991 (15%)	6,050 (28%)	1,330 (30%)	1,077 (14%)	1,481 (19%)	1,110 (17%)
	1-2	1,969,312 (58%)	6,226 (56%)	6,408 (57%)	5,109 (54%)	5,170 (56%)	10,247 (51%)	12,008 (56%)	2,476 (56%)	3,683 (48%)	4,138 (52%)	3,236 (51%)
	≥3	546,030 (16%)	1,894 (17%)	1,835 (16%)	1,888 (20%)	1,304 (14%)	6,716 (34%)	3,410 (16%)	622 (14%)	2,979 (38%)	2,323 (29%)	2,005 (32%)

Baseline, fully adjusted

IRR



0

1

2



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Atrial fibrillation in immigrant groups: a cohort study of all adults 45 years of age and older in Sweden

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Abstract To study the association between country of birth and incident atrial fibrillation (AF) in several immigrant groups in Sweden. The study population included all adults ($n = 3,226,752$) aged 45 years and older in Sweden. AF was defined as having at least one registered diagnosis of AF in the National Patient Register. The incidence of AF in different immigrant groups, using Swedish-born as referents, was assessed by Cox regression, expressed in hazard ratios (HRs) and 95% confidence intervals (CI). All models were

stratified by sex and adjusted for age, geographical residence in Sweden, educational level, marital status, and neighbourhood socioeconomic status. Compared to their Swedish-born counterparts, higher incidence of AF [HR (95% CI)] was observed among men from Bosnia 1.74 (1.56–1.94) and Latvia 1.29 (1.09–1.54), and among women from Iraq 1.96 (1.67–2.31), Bosnia 1.88 (1.61–1.94), Finland 1.14 (1.11–1.17), Estonia 1.14 (1.05–1.24) and Germany 1.08 (1.03–1.14). Lower incidence of AF was noted among men (HRs ≤ 0.60) from Iceland, Southern Europe (especially Greece, Italy and Spain), Latin America (especially Chile), Africa, Asia (including Iraq, Turkey, Lebanon and Iran), and among women from Nordic countries (except Finland), Southern Europe, Western Europe (except Germany), Africa, North America, Latin America, Iran, Lebanon and other Asian countries (except Turkey and Iraq). In conclusion, we observed substantial differences in incidence of AF between immigrant groups and the Swedish-born population. A greater awareness of the increased risk of AF development in some immigrant groups may enable for a timely diagnosis, treatment and prevention of its debilitating complications, such as stroke.

Keywords Atrial fibrillation · Gender · First generation immigrants · Neighbourhood · Second generation immigrants · Socioeconomic status

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Hvad finder andre studier?

Cardiovascular disease incidence and survival: Are migrants always worse off?

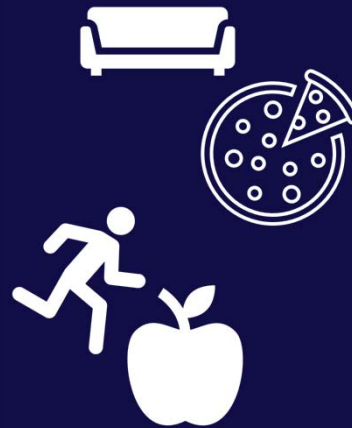
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Abstract Studies on cardiovascular disease (CVD) incidence and survival show varying results between different ethnic groups. Our aim was to add a new dimension by exploring the role of migrant status in combination with ethnic background on incidence of—and survival from—CVD and more specifically acute myocardial infarction (AMI) and stroke. We conducted a historically prospective cohort study comprising all newly-arrived migrants to

0.85–0.93) and stroke (IRR = 0.62; 95 % CI 0.56–0.69) compared to Danish-born, but significantly higher incidence of AMI (IRR = 1.12; 95 % CI 1.02–1.24). Female refugees had similar rates of CVD and AMI, but significantly lower incidence of stroke (RR = 0.76; 95 % CI 0.67–0.85). Both male and female family-reunited immigrants had significantly lower incidence of CVD, AMI and stroke. All-cause and cause-specific survival after CVD,

Hvorfor?



Studiets begrænsninger



Konklusion

Norsk og tysk fødte havde signifikant større sandsynlighed for en incident AF hospitalsdiagnose ift. personer født i Danmark. For personer født i Irak, Iran og Tyrkiet var den relative sandsynlighed lavere.

Det er uklart hvad årsagen til dette er, men det kan skyldes 1) genetik, 2) forskel i levevis, 3) manglende detektion