

Supplementary material

Supplement to: The incidence and prevalence of IgA nephropathy in Europe.

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Supplemental Table S1. Sensitivity analysis: IgAN point prevalence and 2021 expected prevalent cases in European countries, based on national kidney biopsy registry data and regional data (Estimate 1: patients of all ages)

Country	Annual IgAN incidence per 100 000	Median duration of disease (years)	IgAN point prevalence per 10 000 ^a	Population in 2021 ^b	Expected prevalent IgAN cases in 2021 ^c
<i>National data</i>					
Czech Republic	1.16	31	3.60	10 494 836	3778
Denmark	1.08	33.5	3.62	5 840 045	2114
Estonia	1.4	31	4.34	1 330 068	577
Italy	0.84	33.5	2.81	59 236 213	16 645
Lithuania	1.93	31	5.98	2 795 680	1672
Norway	0.85	40.1	3.41	5 391 369	1838
Poland	0.62	31	1.91	37 840 001	7227
Scotland	1.22	33.5	4.07	5 500 000	2239
Spain	0.34	33.5	1.14	47 398 695	5403
Sweden	1.27	42	5.33	10 379 295	5532
<i>Regional data</i>					
Germany [1, 2]	1.81 ^d	33.5	6.06	83 155 031	50 392
Northern Ireland [3]	1.79 ^e	33.5	6.00	5 006 324	3004
Romania [4]	1.00 ^f	31	3.10	19 201 662	5953
Serbia [5, 6]	0.51 ^g	31	1.59	6 871 547	1093
Pooled	–	–	3.58 (95% CI: 3.56–3.60) ^h	300 440 766	107 468

CI, confidence interval; IgAN, immunoglobulin A nephropathy.

^aCalculated as annual IgAN incidence x duration of disease.

^bSee 'Reference populations' section of 'Methods' for sources.

^cCalculated as point prevalence x population.

^dTwo single-center studies were identified for Germany. Braun et al. [1] reported an annual IgAN incidence of 1.72 (2003–2008). Zink et al. [2] reported an annual IgAN incidence of 1.9 (2006–2013) from a single, internationally recognized teaching hospital. The value presented in the table is the mean of the two estimates.

^eThe Northern Ireland study, while single center, covered all kidney biopsies in the country of Northern Ireland (1996–2005).

^fIncidence of mesangioproliferative glomerulonephritis (including IgAN) in two regions of Romania (2004). This figure is likely to overestimate IgAN incidence.

^gTwo studies from the same center were identified for Serbia, covering approximately 70% of the country. Naumovic et al. [5] reported an annual IgAN incidence of 0.85 (2000–2006). Brkovic et al. [6] reported an annual IgAN incidence of 0.18, calculated as (number of IgAN cases / study duration) / reference population at the midpoint of the study period (2007–2014). The value presented in the table is the mean of the two estimates.

^hCalculated as sum of expected prevalent cases / sum of population.

Supplemental Table S2. Sensitivity analysis: Effect of ± 2 years duration of disease on IgAN point prevalence in European countries (Estimate 1: patients of all ages)

Country	Median duration of disease (years)	Median duration ± 2 years	IgAN point prevalence per 10 000	
			Lower bound	Upper bound
Czech Republic	31	29.0–33.0	3.36	3.83
Denmark	33.5	31.5–35.5	3.40	3.83
Estonia	31	29.0–33.0	4.06	4.62
Italy	33.5	31.5–35.5	2.65	2.98
Lithuania	31	29.0–33.0	5.60	6.37
Norway	40.1	38.1–42.1	3.24	3.58
Poland	31	29.0–33.0	1.79	2.04
Scotland	33.5	31.5–35.5	3.83	4.32
Spain	33.5	31.5–35.5	1.07	1.20
Sweden	42	40.0–44.0	5.08	5.59
Weighted average ^a	–	–	2.48	2.79

IgAN, immunoglobulin A nephropathy.

^aWeighted by population (see 'Reference populations' section of 'Methods' for sources) using the standard formula for weighted arithmetic mean.

Supplemental Table S3. IgAN annual incidence and 2021 expected incident cases in elderly patients in European countries, based on national kidney biopsy registry data and other nationwide data (and regional data for Germany) (Estimate 3: elderly patients)

Country	Registry	Time frame	Number of native kidney biopsies in elderly patients	Elderly age group definition	Annual IgAN incidence per 100 000 elderly patients ^a	Elderly population in 2021 ^b	Expected incident IgAN cases in elderly patients in 2021 ^c
Czech Republic [7]	Czech Registry of Renal Biopsies	1994–2011	2000	≥61 years	0.45	2 693 466	12
Estonia [8]	Tartu University Hospital	2001–2010	21 ^d	>65 years	0.08	260 508	0
Germany [2]	University Hospital Aachen	1990–2013	376	>60 years	1.09	23 226 319	253 ^e
Northern Ireland [3]	Belfast City Hospital (all kidney biopsies in Northern Ireland)	1976–2005	96 ^d	>65 years	0.37	327 297	1
Poland [9]	Polish Registry of Renal Biopsies	2009–2014	955	≥65 years	0.22	7 384 884	16
Spain [10]	Spanish Registry of Glomerulonephritis	1994–2019	6588	≥65 years	0.22	9 239 221	20
Sweden [11]	Four pathology departments (all kidney biopsies in Sweden)	1974–2015	490 ^f	≥60 years	0.68	2 690 306	18
Pooled (incl. Germany)	–	–	–	–	0.70 ^g	45 822 001	320
Pooled (excl. Germany)	–	–	–	–	0.30 ^g	22 595 682	67

IgAN, immunoglobulin A nephropathy.

^aCalculated as (number of IgAN cases / study duration) / reference population at the midpoint of the study period.

^bSee 'Reference populations' section of 'Methods' for sources.

^cCalculated as incidence x population.

^dNumber of elderly patients with biopsy-confirmed primary glomerulopathy.

^eGermany data were from a single, internationally recognized teaching hospital.

^fNumber of elderly patients with biopsy-verified IgAN.

^gCalculated as sum of expected incident cases / sum of population.

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