**Supplementary Table 1: Categories of all included somatic diagnoses as defined within the International Classification of Diseases, 8th revision (ICD-8) and ICD-10, respectively.**

|  |  |  |
| --- | --- | --- |
| Disease | ICD-8 | ICD-10 |
| Main Categories |  |  |
| Certain infectious and parasitic diseases. | 000-136 | A00-B99 |
| Neoplasms | 140-239 | C00-D48 |
| Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism | 280-289 | D50-D89 |
| Endocrine, nutritional and metabolic diseases. | 240-279 | E00-E90 |
| Diseases of the nervous system and the sense organs | 320-389 | G00-H95 |
| Diseases of the circulatory system | 390-441.1, 444.3-458, 782.4 | I00-I99 |
| Diseases of the respiratory system | 460-519 | J00-J99 |
| Diseases of the digestive system | 520-577, 444.2 | K00-K93 |
| Diseases of the skin and subcutaneous tissue | 680-709 | L00-L99 |
| Diseases of the musculoskeletal system and connective tissue | 710-738 | M00-M99 |
| Diseases of the genitourinary system | 580-629, 792 | N00-N99 |
| Pregnancy, childbirth and the puerperium | 630-678 | O00-O99 |
| Certain conditions originating in the perinatal period | 760-779 | P00-P96 |
| Congenital malformations, deformations and chromosomal abnormalities | 740-759 | Q00-Q99 |
| Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 780, 782.3, 782.5-791, 793-796 | R00-R99 |
| Injury, poisoning and certain other consequences of external causes | 800-999 | S00-T99 |
| External causes of morbidity and mortality |  | V01-Y98 |
| Factors influencing health status and contact with health services |  | Z00-Z99 |
| Specific disease entities |  |  |
| Epilepsy | 345-345.99 | G40-41 |
| Brain injury | 850.99, 851.29-854.99, 800.99-801.09, 803.88 | S06, S01.1-S01.9, S02-S02.1, S02.7, S02.9 |
| Autoimmune diseases | 242.00, 245.03, 249, 255.1, 269.00, 281.0, 283.90-91, 340, 354, 364, 446.29, 446.30-31, 446.39, 446.49, 563.01, 563.19, 571.93, 571.90, 694, 694.05, 696.09-10, 696.19, 704.00, 709.01, 712.19, 712.39, 712.59, 712.09, 716, 733.09, 734.0, 734.19, 734.90, 712.49 | D51.0, D59.1, D69.3, E05.0, E06.3, E10, E27.1, G35, G61.0, G70.0, H20, K50, K51, K73, K74.3, K90.0, L10, L12, L40, L63, L80.9, M05-M06, M08, M31.3, M32.1, M32.9, M33, M31.5-6, M34, M35.0, M35.3, M45.9 |
| Atopic disorders  | 493, 691, 708, 507 | J30, J45, J469, L20, L50 |
| Asthma  | 493 | J45, J469 |

**Supplementary Table 2: ATC-codes used to identify prescriptions for somatic medications during the year prior to first-time schizophrenia diagnosis.**

|  |  |
| --- | --- |
| ATC-code | Medication group |
| A | **Alimentary tract and metabolism** |
| B | **Blood and blood forming organs** |
| C | **Cardiovascular system** |
| D | **Dermatologicals** |
| G | **Genitourinary system and sex hormones** |
| H | **Systemic hormonal preparations, excl. sex hormones and insulins** |
| J | **Anti-infectives for systemic use** |
| L | **Antineoplastic and immunomodulating agents** |
| M | **Musculoskeletal system** |
| N (excl. N03-07) | **Nervous system** |
| P | **Antiparasitic products, insecticides and repellents** |
| R | **Respiratory system** |
| S | **Sensory organs** |
| V | **Various** |

Abbreviations: ATC=Anatomical Therapeutical Chemical.

**Supplementary Table 3: ICD-8 and ICD-10 codes used to identify mental disorders prior to first-time schizophrenia diagnosis.**

|  |  |  |
| --- | --- | --- |
| Mental Disorders | ICD-8 codes | ICD-10 codes |
| Disorders due to use of alcohol or psychoactive substance use | 291, 303, 570, 571.00, 571.10, 573.00, 573.01, 577.10, 979, 980, 304, 294.4 | F10, F11-16 and F18-19 |
| Bipolar disorder | 296.16, 296.39, 298.19 | F30-31 |
| Depression | 296.09, 296.29, 296.99  | F32-33 |
| Anxiety disorders | 300.09  | F40-42 |

Abbreviations: ICD=International Classification of Diseases

**Supplementary Table 4: Risk of hospitalization with schizophrenia (i.e. relapse) during the first five years after incident schizophrenia diagnosis depending on the number of different somatic hospital contacts and redeemed somatic medications during the year before the incident schizophrenia diagnosis.**

|  |
| --- |
| Any somatic hospital contact within the year prior to first-time schizophrenia diagnosis |
|  | **N (%)** | **Relapse N (%)** | **Crude HRR\* (95%-CI)** | **Adjusted HRR^ (95%-CI)** |
| Eligible individuals | 11,856 (100) | 5,506 (46.4) |  |  |
| No somatic hospital contact | 544 (4.6) | 220 (40.4) | 1.00 (ref.) | 1.00 (ref.) |
| Any somatic hospital contact | 11,312 (95.4) | 5,286 (46.7) | **1.22 (1.06; 1.39)** | **1.30 (1.07; 1.59)** |
| No. different categories1: 1 2 3 4 5 6+ | 2,136 (18.0)1,403 (11.8)812 (6.9)508 (4.3)320 (2.7)867 (7.3) | 1,020 (47.8)705 (50.3)401 (49.4)250 (49.2)188 (58.8)557 (64.2) | **1.19 (1.10; 1.28) 2****1.27 (1.16; 1.38) 2****1.24 (1.11; 1.38) 2****1.21 (1.06; 1.38) 2****1.53 (1.32; 1.78) 2****1.75 (1.59; 1.92) 2** | **1.21 (1.12; 1.31)2****1.26 (1.16; 1.38)2****1.21 (1.08; 1.35)2****1.21 (1.05; 1.38)2****1.49 (1.28; 1.75)2****1.66 (1.50; 1.84)2** |
| Any somatic medication prescription within the year prior to first-time schizophrenia diagnosis |
|  | **N (%)** | **Relapse N (%)** | **Crude HRR\* (95%-CI)** | **Adjusted HRR^ (95%-CI)** |
| Eligible individuals | 11,856 (100) | 5,506 (46.4) |  |  |
| No prescription | 4,613 (38.9) | 2,155 (46.7) | 1.00 (ref.) | 1.00 (ref.) |
| Any prescription  | 7,243 (61.1) | 3,351 (46.3) | **0.92 (0.88; 0.98)** | 0.96 (0.90; 1.02) |
| No. different prescriptions: 1 2 3 4 5 6+ | 2,790 (23.5)1,955 (16.5)1,162 (9.8)663 (5.6)331 (2.8)243 (2.1) | 1,292 (46.3)878 (44.9)547 (47.1)302 (45.6)163 (49.2)123 (50.6) | 0.97 (0.90; 1.04)**0.91 (0.84; 0.99)**0.94 (0.85; 1.04)0.89 (0.79; 1.01)1.04 (0.88; 1.22)1.13 (0.94; 1.36) | 0.96 (0.89; 1.04)**0.89 (0.82; 0.97)**0.94 (0.85; 1.05)**0.89 (0.78; 0.99)**1.03 (0.87; 1.22)1.10 (0.91; 1.34) |

Abbreviations: HRR=Hazard rate ratio; 95%-CI=95% Confidence Interval;

\* The crude analyses are adjusted for age at diagnosis, gender and indexyear.

^ The adjusted analyses are adjusted for age at diagnosis, gender, indexyear, in- or outpatient status at incident schizophrenia diagnosis, length of baseline hospitalization, educational level, prior psychiatric diagnoses and use of antipsychotics, parental psychiatric diagnoses and parental educational level. Furthermore, the analyses on somatic hospital contacts were adjusted for somatic medication use during the previous year and vice versa.

1 Amount of somatic diagnoses from the different categories, independent of the amount of diagnoses within the single categories.

2 The risk of relapse increased in a dose-response relationship (p<0.001), as tested with the Wald´s test.