Supplement to “Long-term benzodiazepine use and risk of labour market marginalization in Finland – A cohort study with five-year follow-up”, by Heidi Taipale, Antti Tanskanen, Terhi Kurko Tero Taiminen, Hanna Särkilä, Jari Tiihonen, Reijo Sund, Solja Niemelä, Leena Saastamoinen and Jarmo Hietala

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| **Supplementary Table 1.** Distribution of diagnosis for granted disability pensions for short-term and long-term benzodiazepine and related drug users. |
| **ICD-10** | **Description**  | **Short-term users, N** | **Long-term users, N** | **chi-squared test p-value** |
| A-B | Infectious and parasitic diseases | 7 | <5 |  | 0.322 |
| C-D | Neoplasms and anaemias etc. | 133 | 77 |  | 0.001 |
| E | Endocrine, nutritional and metabolic diseases | 28 | 21 |  | 0.700 |
| F | Mental, Behavioural and Neurodevelopmental disorders | 1244 | 1246 |  | <0.001 |
| G | Diseases of the nervous system | 186 | 188 |  | 0.070 |
| H | Diseases of the eye and adnexa | 28 | 14 |  | 0.111 |
| I | Diseases of the ear and mastoid process | 106 | 78 |  | 0.383 |
| J | Diseases of the respiratory system | 35 | 27 |  | 0.746 |
| K | Diseases of the digestive system | 37 | 18 |  | 0.055 |
| L | Diseases of the skin and subcutaneous tissue | 11 | <5 |  | 0.069 |
| M | Diseases of the musculoskeletal system and connective tissue | 738 | 449 |  | <0.001 |
| N | Diseases of the genitourinary system | 7 | 7 |  | 0.741 |
| Q | Congenital malformations, deformations and chromosomal abnormalities | 10 | <5 |  | 0.103 |
| R | Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified | 9 | 5 |  | 0.458 |
| S | Injury, poisoning and certain other consequences of external causes | 97 | 101 |  | 0.126 |
| T | Injury, poisoning and certain other consequences of external causes | 35 | 31 |  | 0.823 |
| Z | Factors influencing health status and contact with health services | 5 | 6 |  | 0.551 |
| NA | Not specified/ recorded | <5 | <5 |  |  |
| Total |  | 2717 | 2277 |  |  |
| **Supplementary Table 2.** Distribution of diagnosis for granted disability pensions for short-term and long-term benzodiazepine and related drug users in ICD-10 subcategory F, referring to ‘Mental, Behavioural and Neurodevelopmental disorders’. |
| **ICD-10 subcategories** | **Short-term users, N** | **Long-term users, N** | **chi-squared test p-value** |
| F0 Mental disorders due to known physiological conditions | 9 | 16 | 0.163 |
| F1 Mental and behavioural disorders due to psychoactive substance use | 34 | 51 | 0.066 |
| F2 Schizophrenia, schizotypal, delusional, and other non-mood psychotic disorders | 173 | 189 | 0.409 |
| F3 Mood [affective] disorders | 885 | 840 | 0.264 |
| F4 Anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders | 95 | 99 | 0.783 |
| F5 Behavioural syndromes associated with physiological disturbances and physical factors | <5 | <5 | 0.707 |
| F6 Disorders of adult personality and behaviour | 22 | 28 | 0.399 |
| F7 Intellectual disabilities | 10 | 7 | 0.465 |
| F8 Behavioural and emotional disorders with onset usually occurring in childhood and adolescence | 11 | 5 | 0.133 |
| F9 Unspecified mental disorder | <5 | 7 | 0.096 |
| Total | 1244 | 1246 |  |

**Supplementary Figure 1.** Cumulative incidence function curve for labour marker marginalization (A), disability pension (B), long-term sickness absence (C) and long-term unemployment (D) for long-term vs. short-term benzodiazepine and related drug users.

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| A graph showing the growth of short-term  Description automatically generated | A graph of a long term short-term growth  Description automatically generated |
| A graph of a long term short-term  Description automatically generated | A graph of a long term short-term growth  Description automatically generated |