**Supplementary Appendix S6:** Definitions of depression and alcohol use disorder

**Depression**: The following ICD-9 and ICD-10 diagnosis were used to define the existence of depression. The appearance of any of these codes, even once, in inpatient or outpatient data, was sufficient to assign the patient as having depression.

|  |  |  |  |
| --- | --- | --- | --- |
| **ICD9** | **ICD10** | **ICD9 Description** | **ICD10 Description** |
| 29699 | F3481 | Other specified episodic mood disorder | Disruptive mood dysregulation disorder |
| F3489 | Other specified persistent mood disorders |
| 29636 | F3342 | Major depressive affective disorder, recurrent episode, in full remission | Major depressive disorder, recurrent, in full remission |
| 29635 | F3341 | Major depressive affective disorder, recurrent episode, in partial or unspecified remission | Major depressive disorder, recurrent, in partial remission |
| 29631 | F330 | Major depressive affective disorder, recurrent episode, mild | Major depressive disorder, recurrent, mild |
| 29632 | F331 | Major depressive affective disorder, recurrent episode, moderate | Major depressive disorder, recurrent, moderate |
| 29633 | F332 | Major depressive affective disorder, recurrent episode, severe, without mention of psychotic behavior | Major depressive disorder, recurrent severe without psychotic features |
| 29630 | F339 | Major depressive affective disorder, recurrent episode, unspecified | Major depressive disorder, recurrent, unspecified |
| 29634 | F333 | Major depressive affective disorder, recurrent episode, severe, specified as with psychotic behavior | Major depressive disorder, recurrent, severe with psychotic symptoms |
| 29626 | F325 | Major depressive affective disorder, single episode, in full remission | Major depressive disorder, single episode, in full remission |
| 29625 | F324 | Major depressive affective disorder, single episode, in partial or unspecified remission | Major depressive disorder, single episode, in partial remission |
| 29621 | F320 | Major depressive affective disorder, single episode, mild | Major depressive disorder, single episode, mild |
| 29622 | F321 | Major depressive affective disorder, single episode, moderate | Major depressive disorder, single episode, moderate |
| 29623 | F322 | Major depressive affective disorder, single episode, severe, without mention of psychotic behavior  | Major depressive disorder, single episode, severe without psychotic features |
| 29620 | F329 | Major depressive affective disorder, single episode, unspecified | Major depressive disorder, single episode, unspecified |
| 29624 | F323 | Major depressive affective disorder, single episode, severe, specified as with psychotic behavior | Major depressive disorder, single episode, severe with psychotic features |
| 311 | F328 | Depressive disorder, not elsewhere classified | Major depressive disorder, single episode, unspecified |
| F329 | Major depressive disorder, single episode, unspecified |
| 3004 | F341 | Dysthymic disorder | Dysthymic disorder |
| 6254 | N943 | Premenstrual tension syndromes | Premenstrual tension syndrome |

**Definition of alcohol use disorder**

The following ICD-9 and ICD-10 diagnosis were used to define the existence of alcohol use disorder. The appearance of any of these codes, even once, in inpatient or outpatient data, was sufficient to assign the patient as having alcohol use disorder.

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| --- | --- | --- | --- |
| **ICD-9 Code** | **ICD-10 Code** | **ICD-9 Description** | **ICD-10 Description** |
| 2911 | F1096 | Alcohol-induced persisting amnestic disorder | Alcohol use, unspecified with alcohol-induced persisting amnestic disorder |
| 2912 | F1027 | Alcohol-induced persisting dementia | Alcohol dependence with alcohol-induced persisting dementia |
| 2915 | F10950 | Alcohol-induced psychotic disorder with delusions | Alcohol use, unspecified with alcohol-induced psychotic disorder with delusions |
| 29181 | F10239 | Alcohol withdrawal | Alcohol dependence with withdrawal, unspecified |
| 29182 | F10182 | Alcohol induced sleep disorders | Alcohol abuse with alcohol-induced sleep disorder |
| F10282 | Alcohol dependence with alcohol-induced sleep disorder |
| F10982 | Alcohol use, unspecified with alcohol-induced sleep disorder |
| 29189 | F10159  | Other alcohol-induced mental disorders | Alcohol abuse with alcohol-induced psychotic disorder, unspecified |
| F10180  | Alcohol abuse with alcohol-induced anxiety disorder |
| F10181  | Alcohol abuse with alcohol-induced sexual dysfunction |
| F10188  | Alcohol abuse with other alcohol-induced disorder |
| F10259  | Alcohol dependence with alcohol-induced psychotic disorder, unspecified |
| F10280  | Alcohol dependence with alcohol-induced anxiety disorder |
| F10281  | Alcohol dependence with alcohol-induced sexual dysfunction |
| F10288  | Alcohol dependence with other alcohol-induced disorder |
| F10959  | Alcohol use, unspecified with alcohol-induced psychotic disorder, unspecified |
| F10980  | Alcohol use, unspecified with alcohol-induced anxiety disorder |
| 2919 | F1099 | Unspecified alcohol-induced mental disorders | Alcohol use, unspecified with unspecified alcohol-induced disorder |
| 30390 | F1020 | Other and unspecified alcohol dependence, unspecified | Alcohol dependence, uncomplicated |
| 30391 | Other and unspecified alcohol dependence, continuous |
| 30392 | Other and unspecified alcohol dependence, episodic |
| 30393 | F1021 | Other and unspecified alcohol dependence, in remission | Alcohol dependence, in remission |
| 30500 | F1010 | Alcohol abuse, unspecified | Alcohol abuse, uncomplicated |
| 30501 | Alcohol abuse, continuous |
| 30502 | Alcohol abuse, episodic |
| 30503 | Alcohol abuse, in remission |
| V113 | Z658 | History of alcoholism | Other specified problems related to psychosocial circumstances |