**Supplemental Table 1. List of Features Extracted from Electronic Health Record**

|  |
| --- |
|  |
| Encrypted patient identifier |  |
| Care episode date |
| No. of Previous calendar year ambulatory visits |
| No. of Previous calendar year emergency visits |
| No. of Previous calendar year hospital visits |
| No. of Previous year hospital care episodes |
| No. of Previous year non-hospital care episodes |
| No. of Previous year total care episodes |
| Hospitalization associated with transfer to psychiatry (y/n) |
| Primary hospitalization diagnosis is psychiatric (y/n) |
| Primary hospitalization diagnosis is medical (y/n) |
| Primary diagnosis ICD code(s) |
| Primary diagnosis descriptions |
| Ever previous chief complaint medical (y/n) |
| Ever previous chief complaint psychiatric (y/n) |
| Ever previous chief complaint suicidal (y/n) |
| Ever previous chief complaint substance use (y/n) |
| Episode chief complaint medical (y/n) |
| Episode chief complaint psychiatric (y/n) |
| Episode chief complaint suicidal (y/n) |
| Episode chief complaint substance use (y/n) |
| Age at admission |
| Gender |  |
| Race (UCLA-xDR only) |  |
| Ethnicity |  |
| Zip code |  |
| Charges (UCLA-xDR only) |  |
| Median pain score for episode of care (UCLA-xDR only) |  |
| Congestive heart failure |
| Cardiac arrhythmia |
| Valvular disease |
| Pulmonary circulation disorder |
| Peripheral vascular disorder |
| Hypertension uncomplicated |
| Hypertension complicated |
| Paralysis |  |
| Other neurological disorder |
| Chronic pulmonary disease |
| Diabetes uncomplicated |
| Diabetes complicated |
| Hypothyroidism |
| Renal failure |  |
| Liver disease |
| Peptic ulcer disease excluding bleeding |
| HIV/AIDS |  |
| Lymphoma |  |
| Metastatic cancer |
| Solid tumor without metastasis |
| Rheumatoid arthritis |
| Coagulopathy |
| Obesity |  |
| Weight loss |  |
| Fluid and electrolyte disorders |
| Blood loss anemia |
| Deficiency anemia |
| Depression |  |
| Bipolar |  |
| Bipolar 1 |  |
| Bipolar 2 |  |
| Psychosis |  |
| Schizoaffective |
| Anxiety disorder |  |
| Alcohol use |  |
| Opioids use |  |
| Cannabis use |  |
| Sedative/hypnotic/anxiolytic use |
| Cocaine use |  |
| Stimulant use |  |
| Hallucinogen use |
| Nicotine use |  |
| Substance use |  |
| Paranoid personality |
| Schizoid personality |
| Antisocial personality |
| Borderline personality |
| Histrionic personality |
| Obsessive personality |
| Dependent personality |
| Avoidant personality |
| Narcissistic personality |
| Other personality disorder |
| Anxiety disorder |
| Reaction to severe stress |
| Post-traumatic stress disorder |
| Adjustment disorder |
| Adult abuse or neglect |
| Child abuse or neglect (history of) |
| Pregnancy-related mental illness |
| Post-partum depression (ICD-10 only) |
| Puerperal psychosis (ICD-10 only) |
| Homelessness |
| Criminal justice involvement |
| Poverty |
| History of suicide attempt |
| History of suicidal ideation |
| History of injury of unknown intent |
| History of injury |  |
| History of suicide attempt or self-injury |
| History of episode for suicidal ideation + injury of unknown intent |
| Aminoglycosides |
| Analgesics-Narcotic |
| Analgesics-Nonnarcotic |
| Androgen-Anabolic |
| Anorectal |  |
| Antacids |  |
| Anthelmintic |  |
| Anti-Rheumatic |
| Antianginal Agents |
| Antianxiety Agents |
| Antiarrhythmic |
| Antiasthmatic |
| Anticoagulants |
| Anticonvulsant |
| Antidepressants |
| Antidiabetic |  |
| Antidiarrheals |
| Antidotes |  |
| Antiemetics |  |
| Antifungals |  |
| Antihistamines |
| Antihyperlipidemic |
| Antihypertensive |
| Antimalarial |  |
| Antimyasthenic Agents |
| Antimycobacterial Agents |
| Antineoplastics |
| Antiparkinsonian |
| Antipsychotics |
| Antiseptics and Disinfectants |
| Antisera |  |
| Antiviral |  |
| Assorted Classes |
| Beta Blockers |
| Calcium Blockers |
| Cardiotonics |  |
| Cardiovascular |
| Cephalosporins |
| Chemicals |  |
| Contraceptives |
| Corticosteroids |
| Cough/Cold |  |
| Decongestants |
| Dermatological |
| Diagnostic Products |
| Dietary Products |
| Digestive Aids |
| Diuretics |  |
| Estrogens |  |
| Fluoroquinolones |
| General Anesthetics |
| Gout |  |
| Hematopoietic Agents |
| Hemostatics |  |
| Hypnotics |  |
| Laxatives |  |
| Local Anesthetics-Parenteral |
| Macrolide Antibiotics |
| Unknown medication |
| Medical Devices |
| Migraine Products |
| Minerals and Electrolytes |
| Misc. Antiinfectives |
| Misc. Endocrine |
| Misc. Genitourinary Products |
| Misc. Gi |  |
| Misc. Hematological |
| Misc. Psychotherapeutic |
| Misc. Respiratory |
| Mouth and Throat (Local) |
| Multivitamins |  |
| Neuromuscular Blockers |
| Nutrients |  |
| Ophthalmic |  |
| Otic |  |
| Oxytocics |  |
| Penicillins |  |
| Pharmaceutical Adjuvants |
| Pressors |  |
| Progestins |  |
| Skeletal Muscle Relaxants |
| Stimulants |  |
| Sulfonamides |
| Tetracyclines |  |
| Thyroid |  |
| Toxoids |  |
| Ulcer Drugs |  |
| Urinary Antiinfectives |
| Urinary Antispasmodics |
| Vaccines |  |
| Vaginal Products |
| Vitamins |  |
| Any mood stabilizer  |
| Any antipsychotic  |
| Any anxiolytic |
| Any antidepressant  |
| Lithium |  |
| Valpro |  |
| Lamotrigine |  |
| Carbamazepine |
| Aripiprazole |  |
| Risperidone |  |
| Olanzapine |  |
| Quetiapine |  |
| Asenapine |  |
| Paliperidone |  |
| Ziprasidone |  |
| Lurasidone |  |
| Haloperidol |  |
| Chlorpromazine |
| Amisulpride |  |
| Alprazolam |  |
| Bromazepam |
| Chlordiazepoxide |
| Clonazepam |  |
| Clorazepate |  |
| Diazepam |  |
| Flurazepam |  |
| Lorazepam |  |
| Oxazepam |  |
| Temazepam |  |
| Triazolam |  |
| Citalopram |  |
| Escitalopram |  |
| Paroxetine |  |
| Fluoxetine |  |
| Fluvoxamine |  |
| Sertraline |  |
| Desvenlafaxine |
| Duloxetine |  |
| Levomilnacipran |
| Milnacipran |  |
| Venlafaxine |  |
| Vilazodone |  |
| Vortioxetine |  |
| Nefazodone |  |
| Trazodone |  |
| Reboxetine |  |
| Teniloxazine |  |
| Viloxazine |  |
| Bupropion |  |
| Amitriptyline |  |
| Amitriptylinoxide |
| Clomipramine |
| Desipramine |  |
| Dibenzepin |  |
| Dimetacrine |  |
| Dosulepin |  |
| Doxepin |  |
| Imipramine |  |
| Lofepramine |  |
| Melitracen |  |
| Nitroxazepine |
| Nortriptyline |  |
| Noxiptiline |  |
| Opipramol |  |
| Pipofezine |  |
| Protriptyline |  |
| Trimipramine |  |
| Amoxapine |  |
| Maprotiline |  |
| Mianserin |  |
| Mirtazapine |  |
| Setiptiline |  |
| Isocarboxazid |
| Phenelzine |  |
| Tranylcypromine |
| Selegiline |  |
| Discharge home |  |
| Discharge with home health |  |
| Discharge to inpatient psychiatry |  |
| Discharge to acute care facility |  |
| Discharge operating room |
| Discharge to hospice |  |
| Discharge skilled nursing facility |
| Discharge with planned readmission |
| AWOL |  |
| Died |  |
| Discharged to rehabilitation |  |
| Discharge to long term care |
| Day of admission |  |
| Day of discharge |
| Length of stay |
| Days until psychiatric rehospitalization |
| Hospitalization associated with psychiatric rehospitalization within 30 days |
| Days until rehospitalization |
| Hospitalization associated with medical rehospitalization within 30 days |
| Medical rehospitalization for suicidal ideation |
| Medical rehospitalization for suicide attempt or self-harm |
|  |  |
|  |  |