

Supplementary Appendix

The authors have provided this appendix containing additional information about their work.

Supplement to: Chen IY, Szolovits P, Ghassemi M. Can AI help reduce disparities in general medical and mental health care? *AMA J Ethics*. 2019;21(2):167-180. doi:10.1001/amajethics.2019.167.

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Table S1. 30-day Readmission Rate by Race, Gender, and Insurance Type for 4214 Psychiatric Patients

Demographic Category	No. of Patients	Readmission Rate, %
Race		
Asian	157	8.9
Black	436	12.4
Hispanic	322	9.3
White	3071	12.5
Other	550	7.8
Gender		
Female	2123	11.8
Male	2091	11.7
Insurance type		
Private	1439	14.0
Public	2461	10.8
Other	314	8.3

Table S2. 30-day Readmission Rate by Race, Gender, and Insurance Type for 25 879 Intensive Care Unit Patients

Demographic Category	No. of Patients	Readmission Rate, %
Race		
Asian	583	14.2
Black	2327	10.9
Hispanic	832	10.3
White	18377	13.4
Other	3761	18.4
Gender		
Female	11077	13.8
Male	14803	13.8
Insurance type		
Private	8186	11.2
Public	17465	15.0
Other	229	16.6

Table S3. Examples of Unsupervised Topics Learned From MIMIC-III Intensive Care Unit Clinical Notes

Topic Name ^a	Characteristic Words
Cancer	Mass, cancer, metastatic
Heart flow	Afib, atrial, Coumadin®, fibrillation
Kidney	Renal, dialysis, ESRD, line
Orthopedic	Liver, cirrhosis, hepatic, ascites
Pulmonary	COPD, home, BiPAP, chronic
Substance abuse	EtOH, abuse, CIWA, withdrawal
Abbreviations: afib, atrial fibrillation; BiPAP, bilevel positive airway pressure; CIWA, Clinical Institute Withdrawal Assessment; COPD, chronic obstructive pulmonary disease; ESRD, end-stage renal disease; EtOH, ethanol. ^a Topic name was inferred based on algorithmically found top words.	

Table S4. Examples of Unsupervised Topics Learned From Psychiatric Notes

Topic Name ^a	Characteristic Words
Anxiety	Anxiety, depression, disorder
Bipolar disorder	Bipolar, lithium, manic, episode
Chronic pain	Pain, chronic, mg
Depression	Depression, suicidal, depressive
Psychosis	Psychotic, psychosis, paranoia
Substance abuse	Use, substance, abuse, cocaine
Abbreviation: mg, milligram. ^a Topic name was inferred based on algorithmically found top words.	