

Appendix 3 (as supplied by the authors): Predictive performance of combinations of variables

Complete model*	Model excluding dementia, mood disorder, schizophrenia, anxiety	Model excluding dementia, mood disorder, schizophrenia, anxiety, other disorders, substance abuse, region, initial dose	Model excluding dementia, mood disorder, schizophrenia, anxiety, other disorders, substance abuse, region, initial dose, sex, antidepressants, concomitant opioid
Model's AUC	0.8736	0.8728	0.8689
Model excluding dementia, mood disorder, schizophrenia, anxiety, other disorders, substance abuse, region, initial dose, sex, antidepressants, concomitant opioid, CCI, index opioid	Model excluding dementia, mood disorder, schizophrenia, anxiety, other disorders, substance abuse, region, initial dose, sex, antidepressants, concomitant opioid, CCI, index opioid, NSAIDs, antipsychotics	Model excluding dementia, mood disorder, schizophrenia, anxiety, other disorders, substance abuse, region, initial dose, sex, antidepressants, concomitant opioid, CCI, index opioid, NSAIDs, antipsychotics, acetaminophen/codeine, acetaminophen	
Model's AUC	0.8650	0.8590	0.8490
Model excluding dementia, mood disorder, schizophrenia, anxiety, other disorders, substance abuse, region, initial dose, sex, antidepressants, concomitant opioid, CCI, index opioid, NSAIDs, antipsychotics, acetaminophen/codeine, acetaminophen, prescriber's specialty	Model excluding dementia, mood disorder, schizophrenia, anxiety, other disorders, substance abuse, region, initial dose, sex, antidepressants, concomitant opioid, CCI, index opioid, NSAIDs, antipsychotics, acetaminophen/codeine, acetaminophen, prescriber's specialty, gabapentinoid	Model excluding dementia, mood disorder, schizophrenia, anxiety, other disorders, substance abuse, region, initial dose, sex, antidepressants, concomitant opioid, CCI, index opioid, NSAIDs, antipsychotics, acetaminophen/codeine, acetaminophen, prescriber's specialty, gabapentinoid, mode of action	
Model's AUC	0.8405	0.8296	0.8135

Model excluding dementia, mood disorder, schizophrenia, anxiety, other disorders, substance abuse, region, initial dose, sex, antidepressants, concomitant opioid, CCI, index opioid, NSAIDs, antipsychotics, acetaminophen/codeine, acetaminophen, prescriber's specialty, gabapentinoid, mode of action, benzodiazepines	Model including age and indication only	Model including age and initial prescription duration only	Model including indication and initial prescription duration only
Model's AUC	0.7955	0.7342	0.7589
			0.7618

Note: AUC = area under the curve, CCI = Charlson comorbidity index, NSAID = nonsteroidal anti-inflammatory drug.

*Complete model includes: age, sex, CCI, patient region of residence, opioid at index date, concomitant opioid, mode of action, initial dose, initial duration, prescriber's specialty at index date, indication, mood disorder, schizophrenia, anxiety, other disorder, dementia, substance abuse, benzodiazepine, antipsychotics, antidepressants, NSAID, acetaminophen, acetaminophen/codeine, gabapentinoid.