**Figure Legends**

**Supplementary Figure 1:** Cohort Selection

*Abbreviations*: District of Columbia (DC)

*Explanation***:** This figure shows the step-by-step inclusion criteria for our study cohort

**Supplementary Figure 1**



**Supplemental Table 1. List of opioid medications**

Medications

GUAIFENESIN/HYDROCODONE BIT

HYDROCODONE BIT

HYDROCODONE BIT/ACETAMINOPHEN

HYDROCODONE BIT/HOMATROPINE

HYDROCODONE TANNATE/CHLOR-TAN

HYDROCODONE/CHLORPHEN POLIS

HYDROCODONE/IBUPROFEN

P-EPD TAN/HYDROCODONE TANNATE

P-EPHED HCL/HYDROCODONE BIT

P-EPHED HCL/HYDROCODONE/BPM

P-EPHED HCL/HYDROCODONE/CP

P-EPHED HCL/HYDROCODONE/TRIPRO

PE/HYDROCODONE/DEXBROMPHENIRMN

PHENYLEPHRINE HCL/HYDROCODONE

PHENYLEPHRINE/HYDROCODONE/BPM

PHENYLEPHRINE/HYDROCODONE/CP

PHENYLEPHRINE/HYDROCODONE/D-CP

PHENYLEPHRINE/HYDROCODONE/DPHA

PHENYLEPHRINE/HYDROCODONE/PYR

POT GUAIACO/HYDROCODONE BIT

PPA HCL/HYDROCODONE BIT

IBUPROFEN/OXYCODONE HCL

OXYCODONE HCL

OXYCODONE HCL/ACETAMINOPHEN

OXYCODONE HCL/ASPIRIN

OXYCODONE HCL/OXYCODON TER/ASA

PROPOXYPHENE HCL

PROPOXYPHENE HCL/ACETAMINOPHEN

PROPOXYPHENE HCL/ASA/CAFFEINE

PROPOXYPHENE NAPSYL

PROPOXYPHENE/ACETAMINOPHEN

TRAMADOL HCL

TRAMADOL HCL/ACETAMINOPHEN

ACETAMINOPHEN WITH CODEINE

ASPIRIN/CODEINE PHOSPHATE

BROMPHENIRAMIN/PE/CODEINE PHOS

CHLORPHENIRAMINE/CODEINE PHOS

CODEINE PHOS/CARISOPRODOL/ASA

CODEINE PHOSPHATE

CODEINE SULF

CODEINE/BUTALBIT/ACETAMIN/CAFF

CODEINE/BUTALBITAL/ASA/CAFFEIN

CODEINE/PROMETHAZINE HCL

DIPHENHYDRAMIN/PE/CODEINE PHOS

GUAIFENESIN/CODEINE PHOS

P-EPHED HCL/CODEINE/GUAIFEN

MORPHINE SULFATE

MORPHINE SULFATE/NALTREXONE

HYDROMORPHONE HCL

METHADONE HCL

MEPERIDINE HCL

OXYMORPHONE HCL

BUPRENORPHINE HCL

BUPRENORPHINE HCL/NALOXONE HCL

TAPENTADOL HYDROCHLORIDE

FENTANYL

FENTANYL CITRATE

**Supplemental Table 2. List of analgesic medications**

Medications

ACETAM/PAMABRM/MAG/E/FA/BCOMPC ACETAMIN/CALCIUM CARB/MAG/CAFF ACETAMINOPHEN ACETAMINOPHEN/BROMELAINS ACETAMINOPHEN/BUTALBITAL ACETAMINOPHEN/CAFFEINE ACETAMINOPHEN/CAFFEINE/BUTALB ACETAMINOPHEN/CALCIUM CARB ACETAMINOPHEN/CHLOR-MAL ACETAMINOPHEN/CHLORPHENIRAMINE ACETAMINOPHEN/D-BROMPHENIRAMIN ACETAMINOPHEN/DP-HYDRAM HCL ACETAMINOPHEN/MAG SAL/PAMABROM ACETAMINOPHEN/MELATONIN ACETAMINOPHEN/PAMABROM ACETAMINOPHEN/PHENYLTOLOX/CAFF ACETAMINOPHEN/PHENYLTOLX CIT ACETAMINOPHEN/PYRILAM/PAMABROM ACETAMINOPHEN/PYRILAMINE MAL ACETAMINOPHN/CAL CB/CAFF/GLYC ACETAMINOPHN/PYR MA/PAMABROM ACETAMINOPHN/PYRIL MAL/CAFFEIN ACETAMINOPHN/SOD BICARB/CIT AC ANTIPYRINE APAP/CALCIUM CARB/MAGNESIUM APAP/PYRIL MAL/PAMABROM ASA/ACETAMINOPHEN/CAFFEINE/CAL ASA/ACETAMINOPHN/CAFFEIN/POT ASA/ACETAMINOPHN/MAG/ALH/CAFF ASA/APAP/MAGNESIUM/ALH/CAFFEIN ASA/CALCIUM CARB/MAG/AL HYDROX ASA/CALCIUM CARB/MAGNESIUM/ALH ASA/DP-HYDRAMINE/SOD BICARB/CA ASA/MAG HYDROX/AL HYDROX/CAFF ASA/PHENACET/CAFFEINE/ALLOBARB ASA/SAL-AMIDE/APAP/AL HYDROX ASA/SAL-AMIDE/APAP/CAFFEIN ASA/SALICYLAM/ACETAMINOPH/CAFF ASPIRIN ASPIRIN/ACETAMINOPHEN ASPIRIN/ACETAMINOPHEN/CAFFEINE ASPIRIN/ACETAMINOPHEN/CAL CARB ASPIRIN/ACETAMINOPHEN/PHENACET ASPIRIN/APAP/AL HYDROX/CAFFEIN 12 ASPIRIN/BUTALBITAL ASPIRIN/CAFFEINE ASPIRIN/CAFFEINE/BUTALBITAL ASPIRIN/CALCIUM CARB/MAGNESIUM ASPIRIN/CALCIUM CARBONATE ASPIRIN/CHLOR-MAL ASPIRIN/DIPHENHYDRAMINE CITRAT ASPIRIN/DIPHENHYDRAMINE HCL ASPIRIN/MAG CARB/AL AMINOACET ASPIRIN/MAG HYDROX/AL HYDROX ASPIRIN/MEPROBAMATE ASPIRIN/SALICYLAMIDE/CAFFEINE ASPIRIN/SOD BICARB/CITRIC ACID BROMFENAC SODIUM BROMPHENIRAMINE/ACETAMINOPHEN BUTALB/ACETAMINOPHEN/CAFFEINE BUTALBITAL/ACETAMINOPHEN BUTALBITAL/ASPIRIN/CAFFEINE CELECOXIB CELECOXIB/CAPSAICIN/MENTHOL CELECOXIB/LIDOCAINE/MENTHOL CHLORPHEN/PSEUDOEPH/IBUPROFEN CHOL SAL/MAGNESIUM SALICYLATE CHOLINE SALICYLATE DICLOFEN SOD/KINESIOLOGY TAPE DICLOFENAC EPOLAMINE DICLOFENAC POTASSIUM DICLOFENAC SODIUM DICLOFENAC/BENZALKONIUM CHLOR DICLOFENAC/CAPSICUM DIFLUNISAL ETHYL HEXYL SALICYLATE ETODOLAC FENOPROFEN CALCIUM FLURBIPROFEN FLURBIPROFEN SODIUM HC/PRAMOXINE HCL/CHLOROXYLENOL IBUPROFEN IBUPROFEN LYSINE/PF IBUPROFEN/DIPHENHYDRAMINE CIT IBUPROFEN/DIPHENHYDRAMINE HCL IBUPROFEN/FAMOTIDINE IBUPROFEN/P-EPHED HCL/CP IBUPROFEN/PHENYLEPHRINE HCL IBUPROFEN/PSEUDOEPHEDRINE HCL INDOMETHACIN INDOMETHACIN SODIUM 13 INDOMETHACIN SODIUM TRIHYDRATE ISOMETHEPT/ACETAMINOP/DICHLPHN ISOMETHEPTEN/CAF/ACETAMINOPHEN ISOMETHEPTENE/APAP/CAFFEIN ISOMETHEPTENE/APAP/DICHLPHEN KETOPROFEN KETOROLAC TROMETHAMINE LANSOPRAZOLE/NAPROXEN MAGNESIUM SALICYLATE MAGNESIUM SALICYLATE/CAFFEINE MECLOFENAMATE SODIUM MEFENAMIC ACID MELOXICAM ME-SAL/GLUCOS/MSM/CAY/MEN/ALOE ME-SALICYLATE/ACET/ISOPROPANOL ME-SALICYLATE/GUAIA/PET,WH ME-SALICYLATE/MENTH/CAMPH/PEP METHYL SALICYLATE METHYL SALICYLATE/ISOPROPANOL METHYL SALICYLATE/MENTH/CAMPH METHYL SALICYLATE/MENTHOL MG SAL/ACETAMINOPHN/P-TLOX/CAF MG SALICYLATE/ACETAMINOPH/CAFF MG SALICYLATE/ACETAMINOPHEN MG SALICYLATE/DP-HYDRAM HCL MG SALICYLATE/PHENYLTOLX CIT NA SALICYLATE/THEOBROM/CA/HERB NABUMETONE NAPROXEN NAPROXEN SOD-DIPHENHYDRAM HCL NAPROXEN SODIUM NAPROXEN SODIUM/MENTHOL NAPROXEN SODIUM/P-EPHED HCL NAPROXEN/CAPSAICIN/MENTHOL NAPROXEN/ESOMEPRAZOLE MAG NEPAFENAC OXAPROZIN PHENACETIN PHENYL SALICYLATE PHENYLBUTAZONE PHENYLEPHRINE/ACETAMINOPH/CAFF PIROXICAM ROFECOXIB SAL-AMIDE/ACETAMINOPHN/CAFFEIN SAL-AMIDE/ACETAMINOPHN/ETHAVER SAL-AMIDE/ACETAMINOPHN/P-TLOX SAL-AMIDE/POT NIT/CAFFEIN/BJPA 14 SALICYLAMIDE SALICYLAMIDE/ACETAMINOPHEN SALSALATE SODIUM SALICYLATE SODIUM THIOSALICYLATE SULINDAC SUPROFEN TOLMETIN SODIUM TROLAMINE SALICYLATE TROLAMINE SALICYLATE/MENTHOL VALDECOXIB ZICONOTIDE ACETATE

|  |  |  |  |
| --- | --- | --- | --- |
|  | Mortality | Dialysis Discontinuation | Hospitalization |
|  | \*\*HR | 95% CI | HR | 95% CI | HR | 95% CI |
| Opioid+Gabapentin Model |  |  |  |  |  |  |
|  Low Opioid/Low Gabapentin | Ref | Ref | Ref | Ref | Ref |  Ref |
|  Low Opioid/High Gabapentin | 1.06 | 1.00, 1.11 | 0.95 | 0.87, 1.27 | 1.19 | 1.16, 1.23 |
|  High Opioid/Low Gabapentin | 1.15 | 1.13, 1.18 | 1.21 | 1.12, 1.29 | 1.19 | 1.16, 1.19 |
|  High Opioid/High Gabapentin | 1.19 | 1.15, 1.23 | 1.12 | 1.01, 1.26 | 1.36 | 1.33, 1.40 |
|  |  |  |  |  |  |  |
| Opioid+Pregabalin Model |  |  |  |  |  |  |
|  Low Opioid/Low Pregabalin | Ref | Ref | Ref | Ref | Ref | Ref |
|  Low Opioid/High Pregabalin | 1.10 | 0.97, 1.23 | 0.86 | 0.58, 1.41 | 1.17 | 1.10, 1.26 |
|  High Opioid/Low Pregabalin | 1.14 | 1.11, 1.17 | 1.22 | 1.14, 1.31 | 1.20 | 1.18, 1.22 |
|  High Opioid/High Pregabalin | 1.25 | 1.20, 1.31 | 1.10 | 0.90, 1.32 | 1.39 | 1.36, 1.43 |

Supplementary Table 3: Hazards ratios and 95% confidence intervals\* for mortality, dialysis discontinuation, and hospitalizations by high/low drug status among the prevalent dialysis population, 2010

\*Employed a Fine-Grey Competing Risk Cox Regression Model adjusting for propensity scores

\*\*Hazard Ratio