Specifications Defining Parameters for this Request

SOC is using the CIDA tool [version 12.1.2] to replicate a known positive association between ACE inhibitors and angioedema with beta blockers as a comparator, in Market Scan and CMS data from pandemic years to understand how pandemic-related changes in healthcare utilization impact a known positive association.
This is part 2, in which we introduce subgroup analysis by quarter-year.

Query Period:	1/1/2018-6/30/2022
Coverage Requirement:	Medical & Drug Coverage
Pre-index enrollment requirement (ENRDAYS):	183
Post-index enrollment requirement (REQDAYSAFTIND):	N/A
Post-episode requirement for T2 analyses (REQDAYSAFTEPI):	N/A
Enrollment gap:	45
Restrictions:	Demographic: M/F sex only
Age groups:	18-44, 45-64, and ≥ 65
Stratifications:	quarter-year
Censor output categorization:	N/A
Envelope macro:	Reclassify encounters during inpatient stay
Never-exposed cohort:	N/A
Distribution of index-defining codes:	N/A
Freeze data:	Yes

	RUN01	
Pre-index enrollment requirement	183	
Group	ACEi	BB
Drug/Exposure		
Index Exposure/Comparator	ACEi	Beta Blockers
Cohort Definition	First valid exposure episodes during query period	
Stockpiling	See stockpiling tab	
Build Episodes on Point Exposure?	No	
Treatment Episode Gap	14	
Exposure episode extension	14	
Minimum days supplied	1	
Incidence Criteria Care Setting	N/A	
Principal Diagnosis Position	N/A	
Forced supply to attach to dispensings	N/A	
Create Baseline Table?	Yes	
Inclusion/Exclusion Criteria		
Inclusion/Exclusion group	Aliskiren,	Aliskiren,
Type of criteria	Exclusion	
Evaluation Period Start	-183	
Evaluation Period End	-1	
Care Setting/PDX	N/A	
Principal Diagnosis Position	N/A	
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Evaluation period should search for evidence of days supply	
Number of instances the criteria should be found in the evaluation period	1	
Minimum Days Supplied	1	

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Minimum cumulative dose	N/A	
Minimum average filled daily dose	N/A	
Maximum average filled daily dose	N/A	
Minimum current filled daily dose	N/A	
Maximum current filled daily dose	N/A	
Forced supply to attach to dispensings	N/A	
Inclusion/Exclusion group	Angioedema DX	
Type of criteria	Exclusion	
Evaluation Period Start	-183	
Evaluation Period End	-1	
Care Setting/PDX	Any	
Principal Diagnosis Position	Any	
Exclude evidence of days supply if inclusion/exclusion evaluation period	N/A	
Number of instances the criteria should be found in the evaluation period	1	
At Risk Time		
Minimum exposure episode duration	0	
Maximum exposure episode duration (MAXEPISDUR)	90	
Risk window interval start	0	
Censor treatment episode at evidence of:	DP end date; death; occurrence of aliskiren, ARBs, beta blockers; occurrence of angioedema; disenrollment	DP end date; death; occurrence of aliskiren, ARBs, ACEi; occurrence of angioedema; disenrollment
Blackout Period		
Event/Outcome		
Event/Outcome	Angioedema DX	
Care Setting	IP, ED, AV	
Principal Diagnosis Position	Any	
Exclude evidence of days supply if event washout includes dispensings	N/A	
Event de-duplication	De-duplicates occurrences of the same event code and code type on the same day	
Forced supply to attach to dispensings	N/A	
Propensity Score Model Parameters		
PS Model Label	ps_base	
Covariates	Age; sex; see also Covariates, Utilization, & Comorbidity tabs	
Firth Logistic Intercept Correct (FLIC) Method	No	
High-dimensional Propensity Score	No	
Output Kaplan Meier Plot	Yes	
PS Stratification		
Stratification Comparison Identifier	strat_base	
Percentiles	5	
PS Trimming Indicator	0 (Trim Non-Overlap)	
Percentile Distribution Indicator	O (Overall)	
PS Matching		
PS Comparison Identifier	fixed_base	

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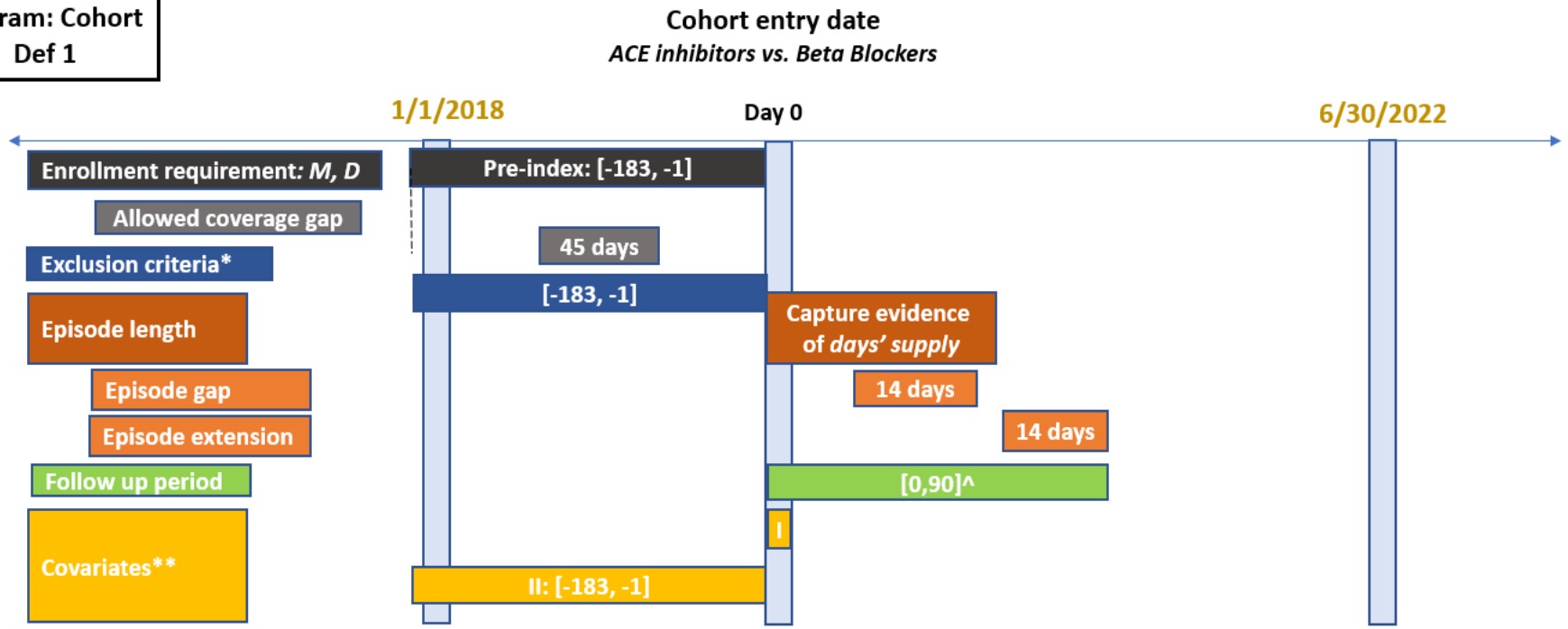
Ratio Type	Fixed ratio matching
Matching Ratio	1:1
Matching Caliper Settings	0.025
Analysis Type	Conditional and unconditional
Subgroup Analyses	
Stratifying variable	Quarter-year (Phase 2)
Subgroup Categories	Each 3-month period beginning January of a given calendar year (n = 18) (2018Q1, 2019Q1, etc.)
Firth Logistic Intercept Correct (FLIC) Method	No
Re-estimate Propensity Score within subgroup level	No
Should subgroup re-matching be restricted to the matched population	Yes

ICD-9-CM, HCPCS, and CPT codes are provided by Optum360. NDC codes are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."

Diagram Detailing the Design of this Request

Type 2 design diagram: Cohort Def 1



***Exclusion Criteria**: Aliskiren, ARBs, ACE inhibitors/beta blockers; angioedema

^ The follow up period begins on the day of the index date and ends at the earliest occurrence of the end of at-risk time; angioedema; comparator drug, aliskiren, or ARBs; disenrollment; Data Partner end date; or death.

****Covariates:** Window I: Age, sex, quarter-year

Window II: History of: allergic reaction, diabetes, heart failure, ischemic heart disease, NSAID use; Comorbidity Score; Drug Utilization (dispensings, unique generics); Medical Utilization (IP hospital stays, non-acute institutional stays, ED visits, AV visits, OA visits), CCW conditions (acquired hypothyroidism, acute myocardial infarction, Alzheimer's disease & related disorders or senile dementia, anemia, asthma, atrial fibrillation, benign prostatic hyperplasia, cancer (breast, colorectal, endometrial, lung, prostate), cataract, chronic kidney disease, chronic obstructive pulmonary disease & bronchiectasis, depression, glaucoma, hip/pelvic fracture, hyperlipidemia, hypertension, osteoporosis, rheumatoid arthritis/osteoarthritis, stroke/transient ischemic attack)