

Supplemental table S1. List of abbreviations

Full name	Abbreviation
ACE inhibitors	ACEIs
Analysis of variance	ANOVA
Anatomical therapeutic chemical code	ATC code
Angiotensin II receptor blockers	ARBs
Beta-blockers	BBs
Calcium channel blockers	CCBs
Cardiac drug therapy	CDT
Cardiovascular	CV
Cardiovascular disease	CVD
Chronic obstructive pulmonary disease	COPD
Confidence interval	CI
European Society of Cardiology	ESC
Hazard ratio	HR
Inverse probability weighting	IPW
Number needed to treat	NNT
Person-years	py
Relative risk	RR
Rheumatoid arthritis	RA
Standard deviations	SD
World Health Organization	WHO

Supplemental table S2. ATC codes used in our study

All mentioned diseases and medications	ATC code
Anti-hypertensive drug monotherapies	
ACEIs	C09A
ARBs	C09C
BBs	C07A
CCBs	C08C, C08D, C08E
Thiazides	C03AA
Anti-hyperlipidemic drug monotherapies	
HMG CoA reductase inhibitors	C10AA
Fibrates	C10AB
Bile acid sequestrants	C10AC
Nicotinic acid and derivatives	C10AD
Other lipid modifying agents	C10AX
Antihypertensive drug fixed-dose combinations	
Thiazides and potassium in combination	C03AB
Thiazides, combinations with psycholeptics and/or analgesics	C03AH
Thiazides, combinations with other drugs	C03AX
Calcium channel blockers and diuretics	C08G
Angiotensin converting enzyme inhibitors and combinations	C09B
Angiotensin II receptor blockers and combinations	C09D
Beta blocking agents and thiazides	C07B
Beta blocking agents and other diuretics	C07C
Beta blocking agents, thiazides and other diuretics	C07D
Beta blocking agents and vasodilators	C07E
Beta blocking agents, other combinations	C07F
Anti-hyperlipidemic drug fixed-dose combinations	
HMG CoA reductase inhibitors in combination with other lipid modifying agents	C10BA
HMG CoA reductase inhibitors, other combinations	C10BX
Secondary prevention	
Platelet aggregation inhibitor	B01AC
Vitamin K antagonist	B01AA
Organic nitrate	C01DA
Other vasodilators used in cardiac diseases	C01DX
Chronic, stable heart failure	
High-ceiling diuretics	C03C
Migraine	
Triptan	N02C
Adrenal disease	
Phentolamine	C04AB01
Tolazoline	C04AB02
Anticorticosteroids	H02CA

Mifepristone	G03XB
Metoprolol	V04CD
Hyperparathyroidism	
Calcium, combinations with vitamin D and/or other drugs	A12AX
Vitamin D and analogues	A11CC
Thyroid problems	
Thyroid hormones	H03AA
Diabetes	
Blood glucose lowering drugs	A10
Rheumatoid arthritis	
Methotrexate	L04AX03
Sulfasalazine	A07EC01
Leflunomide	L04AA13
Etanercept	L04AB01
Infliximab	L04AB02
Adalimumab	L04AB04
Golimumab	L04AB06
Abatacept	L04AA24
Anakinra	L04AC03
Tocilizumab	L04AC07
Asthma / COPD	
Inhaled steroids	R03BA, R03AK, R03AL

Supplemental table S3. Incidence rate/1000 person-years of acute CDT for anti-hypertensive monotherapies within 5 years, 10 years, 15 years, 20 years and 25 years

Follow-up year	ACEIs	ARBs	BBs	CCBs	Thiazides
5-year					
Cumulative events	591	187	854	237	492
Person years	27435	10404	56076	11132	27815
Incidence rate	21.5	18.0	15.2	21.3	17.7
10-year					
Cumulative events	966	347	1540	352	903
Person years	39740	15801	88490	14955	42957
Incidence rate	24.3	22.0	17.4	23.5	21.0
15-year					
Cumulative events	1127	405	1905	397	1077
Person years	44820	18237	105441	16542	49325
Incidence rate	25.1	22.2	18.1	24.0	21.8
20-year					
Cumulative events	1175	423	2032	413	1122
Person years	46493	18924	111911	17154	50907
Incidence rate	25.3	22.4	18.2	24.1	22.0
25-year					
Cumulative events	1183	425	2052	420	1125
Person years	46675	18964	112726	17222	51022
Incidence rate	25.3	22.4	18.2	24.4	22.0

Supplemental table S4. Number needed to treat for thiazides monotherapy compared with BBs monotherapy to prevent acute CDT in all patients and subgroups.

	NNT (95% CI)				
	5-year	10-year	15-year	20-year	25-year
All patients	102 (100 to 100)	49 (33 to 100)	34 (25 to 50)	29 (17 to 100)	26 (14 to Inf)
Gender					
Male	71 (50 to 100)	34 (25 to 100)	25 (14 to 50)	21 (11 to 100)	21 (11 to Inf)
Female	143 (100 to Inf)	67 (50 to 100)	47 (25 to 100)	38 (20 to Inf)	34 (-50 to 14)
Age(years)					
18-39	720 (-Inf to 100)	278 (-100 to 100)	156 (-100 to 33)	107 (-50 to 25)	93 (-25 to 14)
40-69	98 (100 to 100)	45 (33 to 100)	31 (20 to 50)	25 (17 to 50)	23 (-Inf to 11)
≥70	52 (33 to Inf)	27 (14 to Inf)	22 (-100 to 10)	21 (-25 to 7)	21 (-13 to 6)
Drugs for diabetes					
Yes	12 (9 to 20)	8 (6 to 13)	7 (5 to 11)	6 (4 to 10)	4 (-13 to 2)
No	135 (100 to Inf)	63 (50 to 100)	44 (25 to 100)	37 (20 to 100)	34 (-100 to 14)
Drugs for rheumatoid arthritis					
Yes	11 (7 to 33)	6 (3 to 17)	6 (3 to 17)	3 (-3 to 1)	3 (-3 to 1)
No	107 (100 to 100)	51 (33 to 100)	36 (25 to 100)	30 (20 to 100)	28 (-Inf to 14)
Drugs for asthma/COPD					
Yes	114 (-100 to 33)	60 (-50 to 20)	46 (-33 to 14)	38 (-17 to 9)	38 (-17 to 9)
No	101 (100 to 100)	48 (33 to 100)	34 (25 to 50)	28 (17 to 100)	26 (13 to Inf)
Calendar years					
1996-2000	140 (-100 to 50)	70 (-50 to 20)	53 (-33 to 17)	45 (-25 to 13)	43 (-25 to 11)
2000-2010	69 (50 to 100)	35 (25 to 50)	26 (20 to 50)	23 (14 to 50)	22 (14 to 50)
2010-2020	354 (-Inf to 100)	171 (-100 to 50)	149 (-50 to 33)	149 (-50 to 33)	149 (-50 to 33)

Supplemental figures legend

Supplemental figure 1. Incidence rate/1000 person-years of acute CDT for anti-hypertensive monotherapies of 25 years

Supplemental figure 2. Forest plot of subgroup hazard ratios between thiazides and BBs after IPW

Supplemental figure 3. NNT (number needed to treat) for thiazides compared with BBs during 25 years in subgroups

Incidence rate/1000 person-years





