#### The pharmacogenetic footprint of ACE inhibition: a population based metabolomics study

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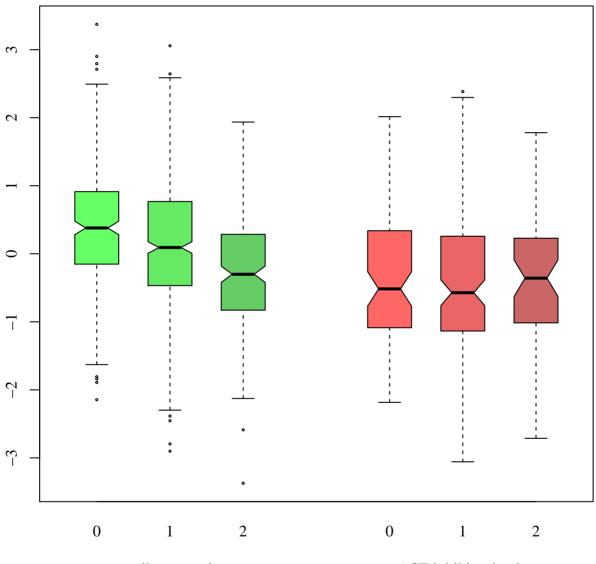
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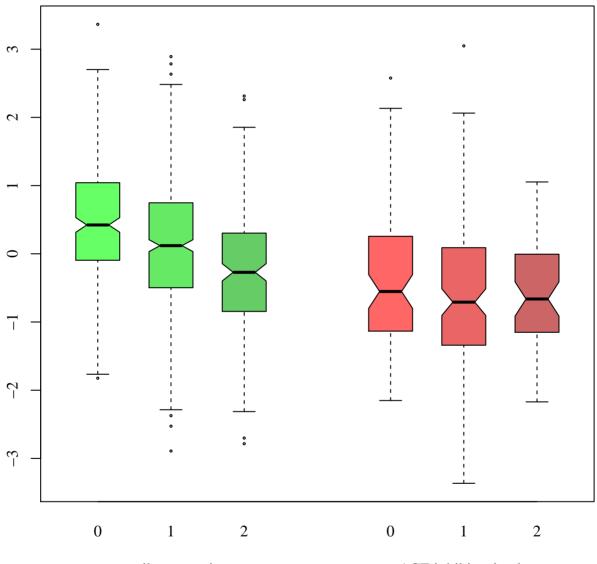
D-85764 Neuherberg, Germany

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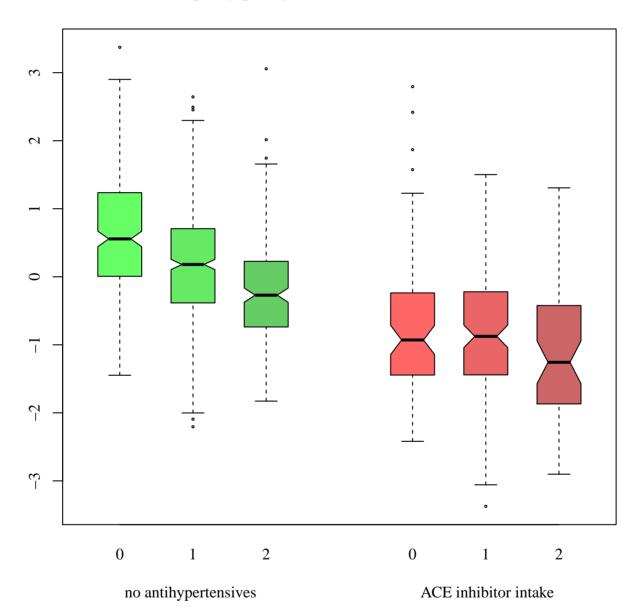
# aspartylphenylalanine – rs4316

no antihypertensives

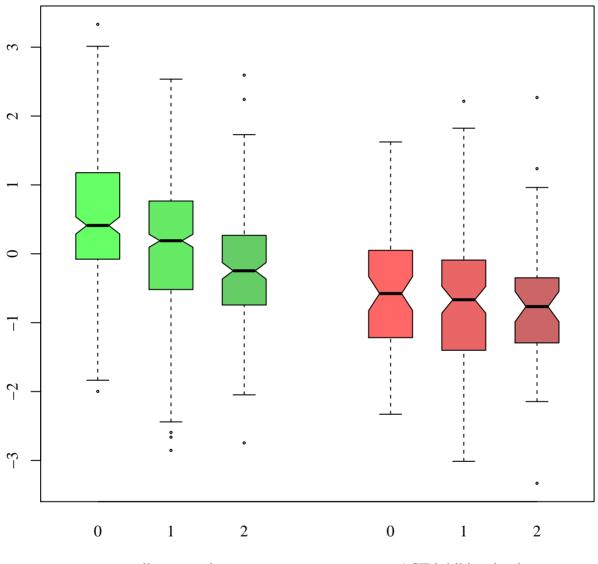


#### aspartylphenylalanine/HWESASXX – rs4316

no antihypertensives

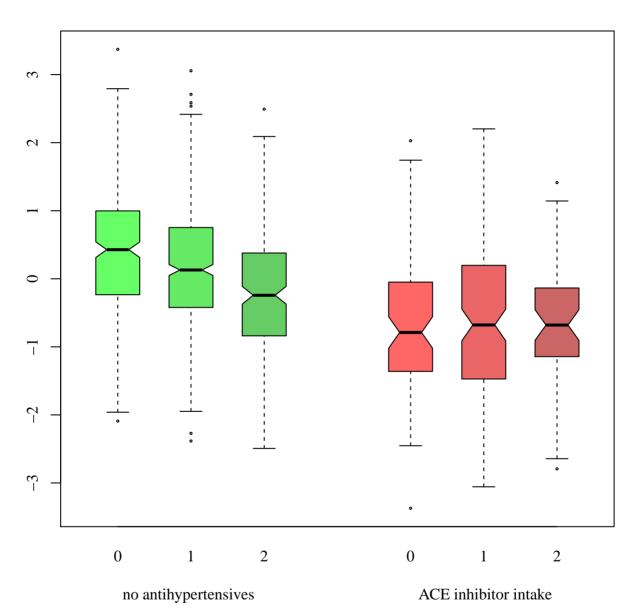


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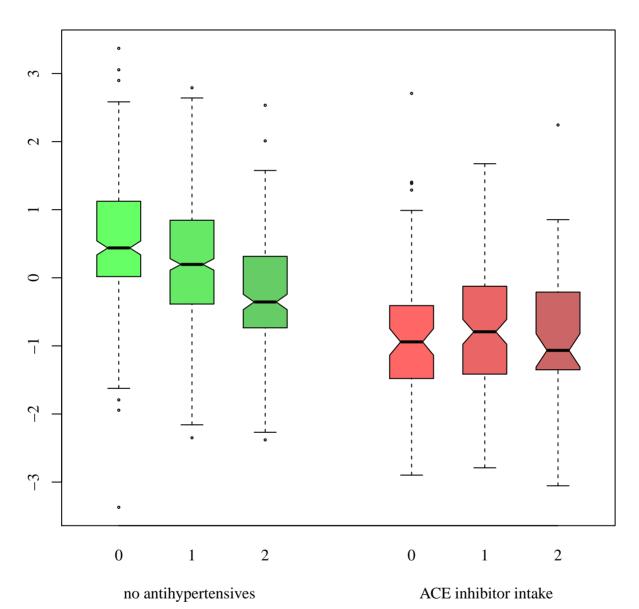


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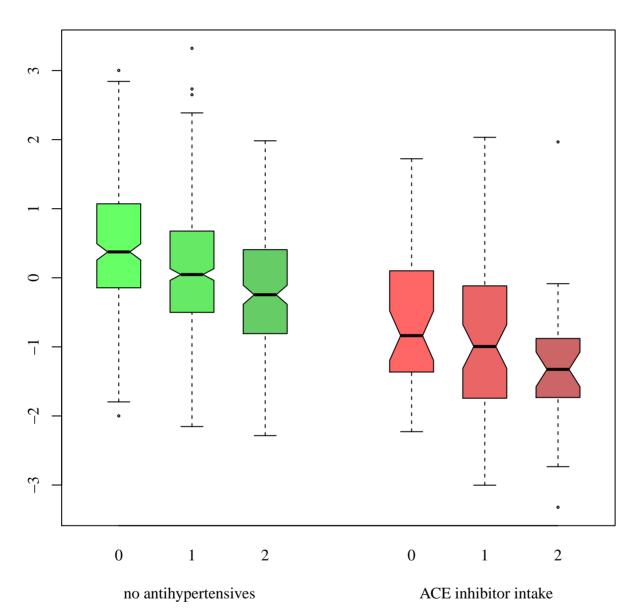
ACE inhibitor intake



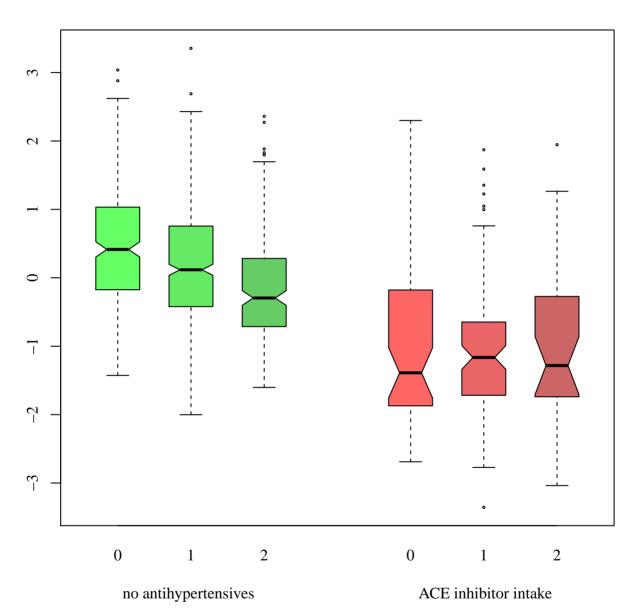
X14086 – rs4316



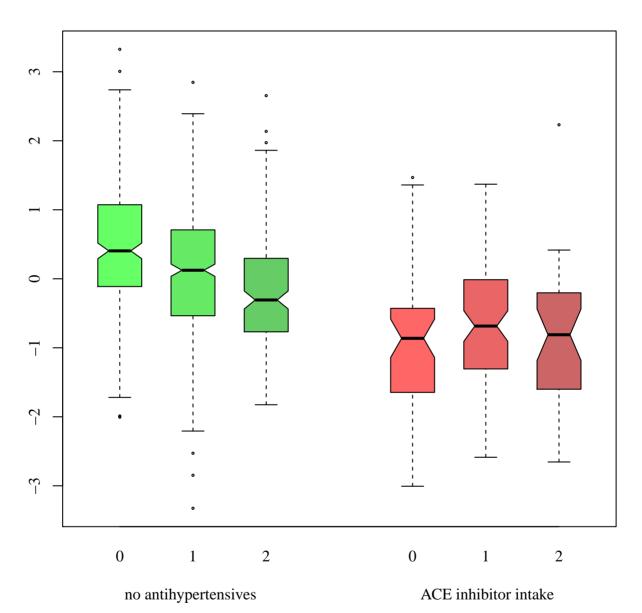
X14189 – rs4316



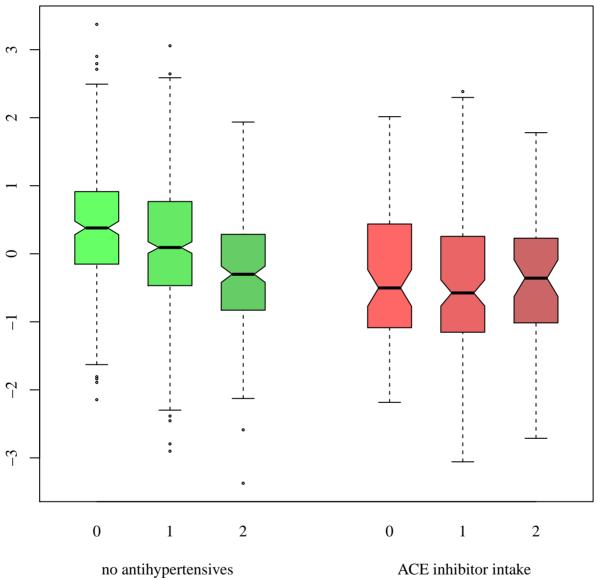
X14205 – rs4316



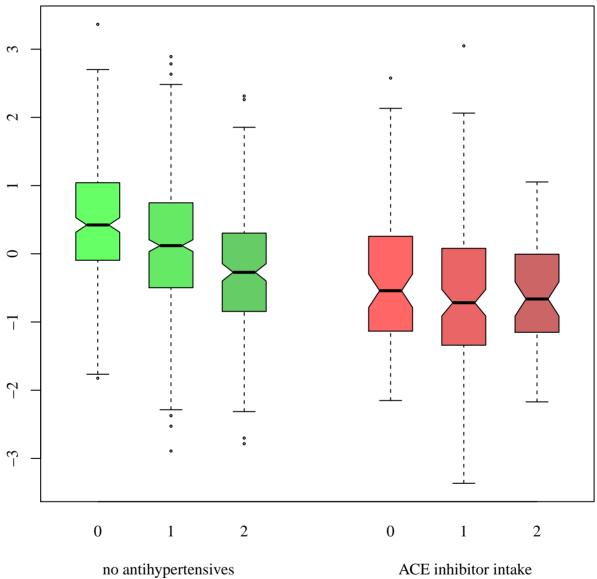
X14208 – rs4316



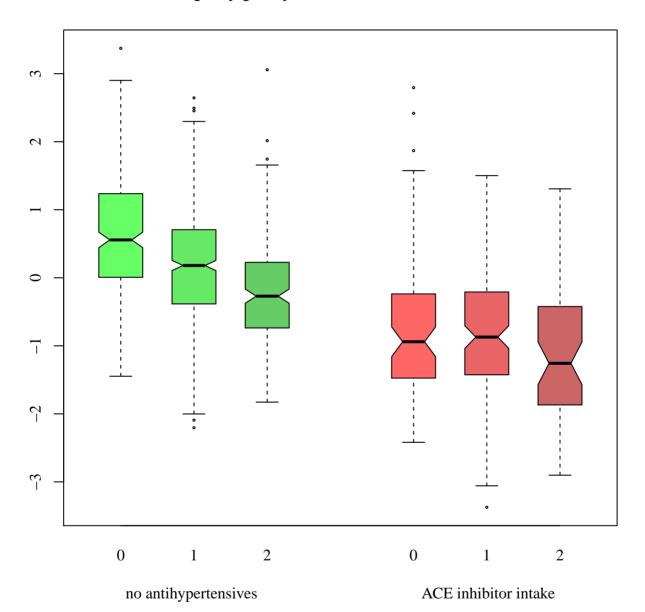
X14304 – rs4316



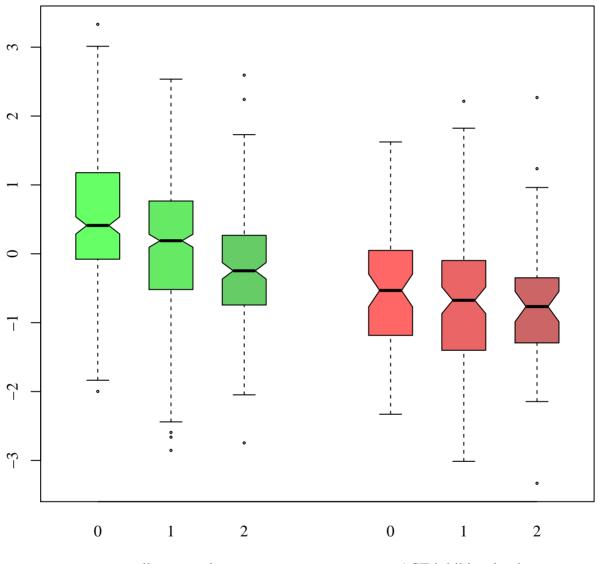
# aspartylphenylalanine - rs4320



#### aspartylphenylalanine/HWESASXX – rs4320

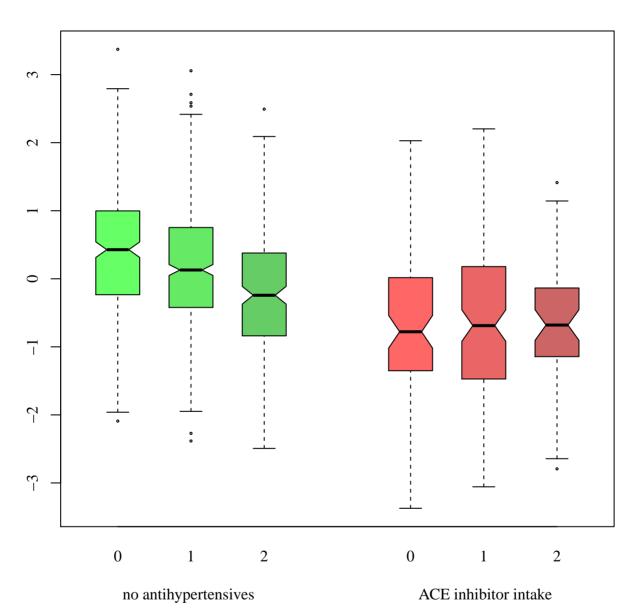


# aspartylphenylalanine/X11805 – rs4320

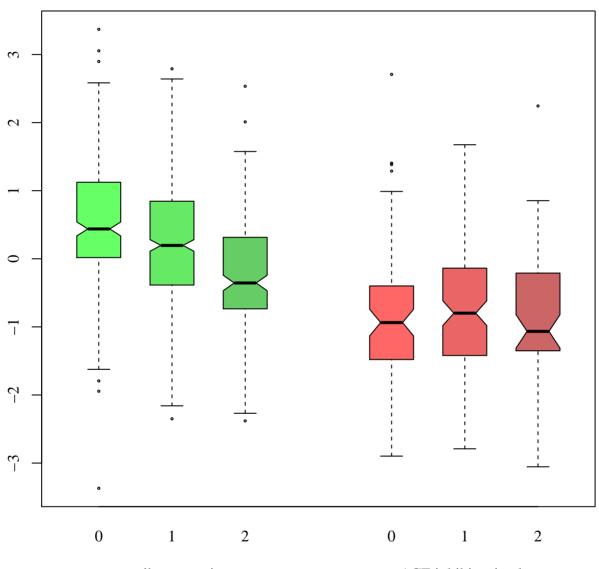


# aspartylphenylalanine/X14450 – rs4320

ACE inhibitor intake

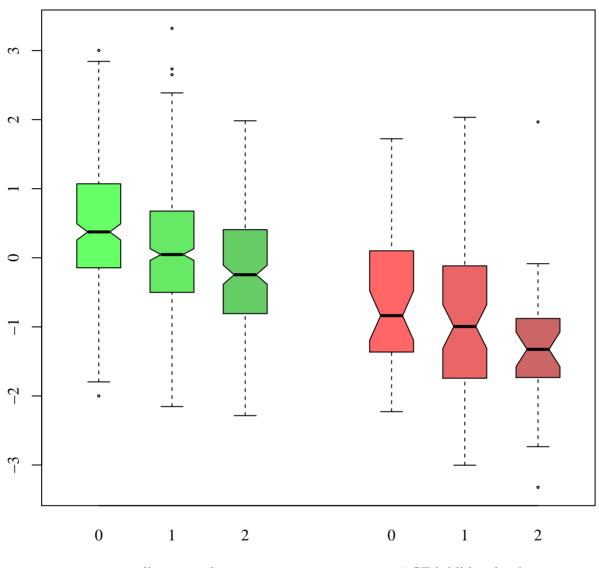


X14086 - rs4320



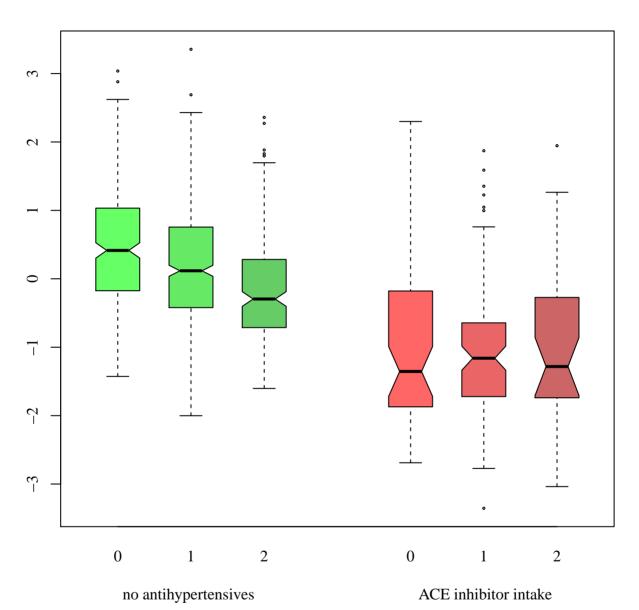
X14189 - rs4320

ACE inhibitor intake

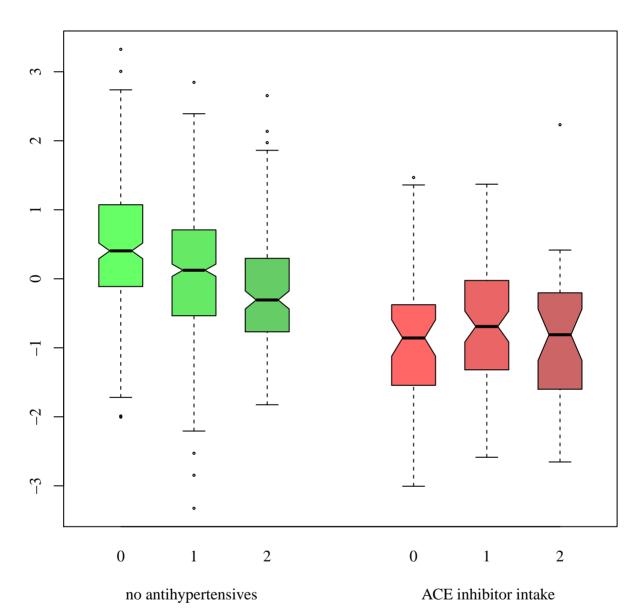


X14205 – rs4320

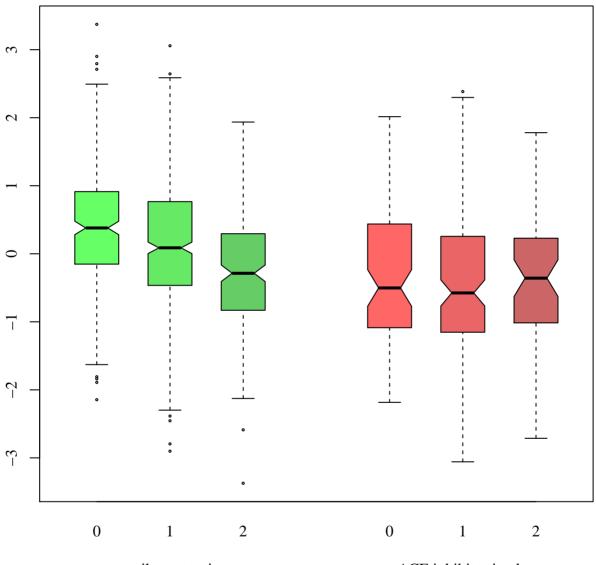
ACE inhibitor intake



X14208 - rs4320

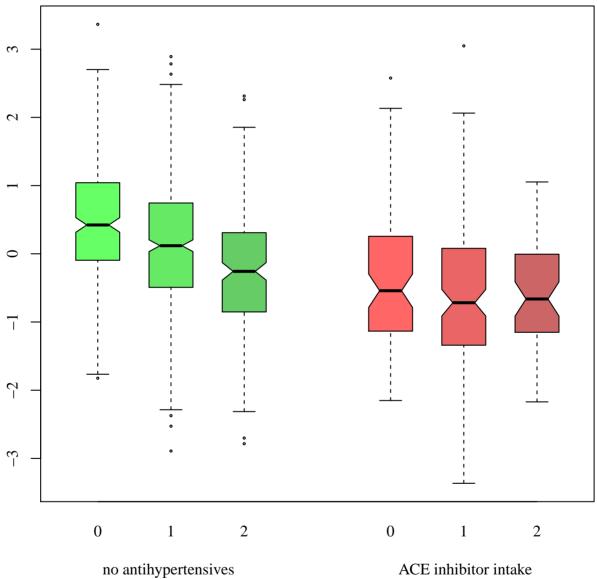


X14304 - rs4320

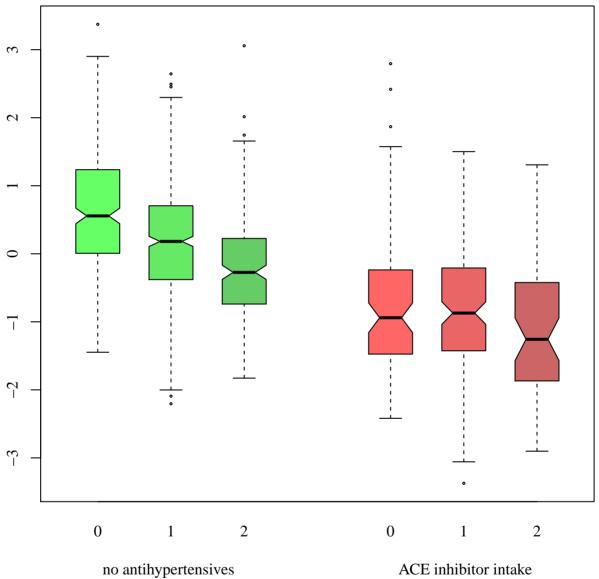


# aspartylphenylalanine – rs4323

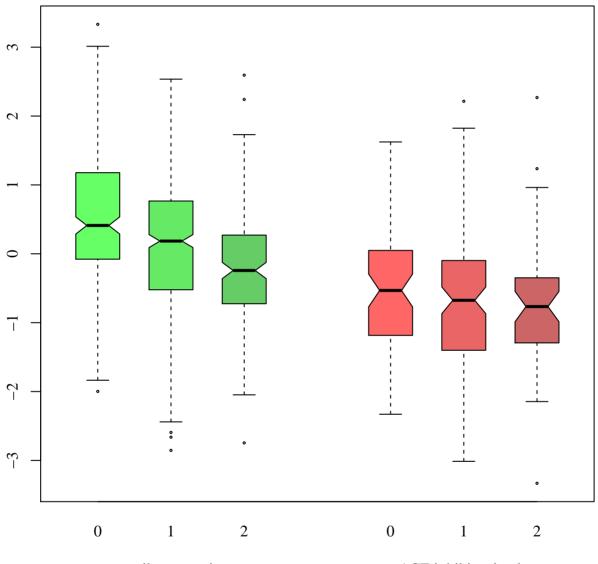
no antihypertensives



#### aspartylphenylalanine/HWESASXX – rs4323

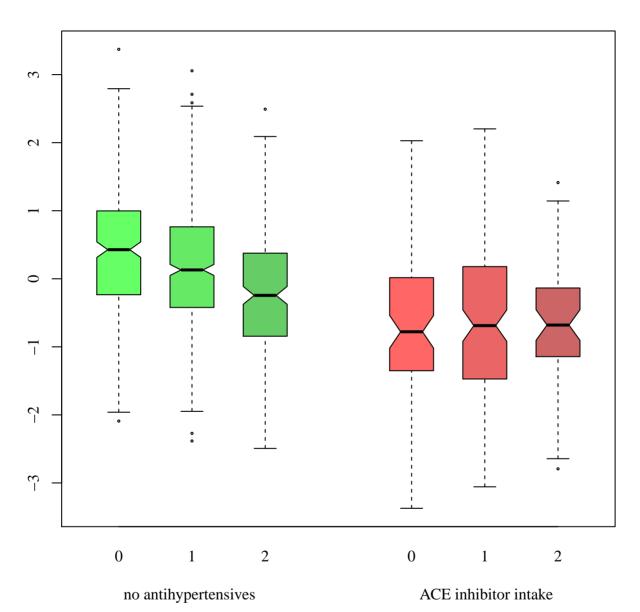


# aspartylphenylalanine/X11805 – rs4323

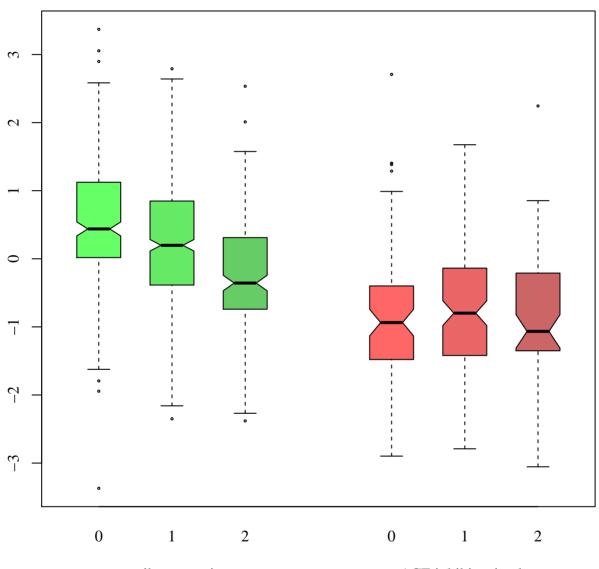


# aspartylphenylalanine/X14450 – rs4323

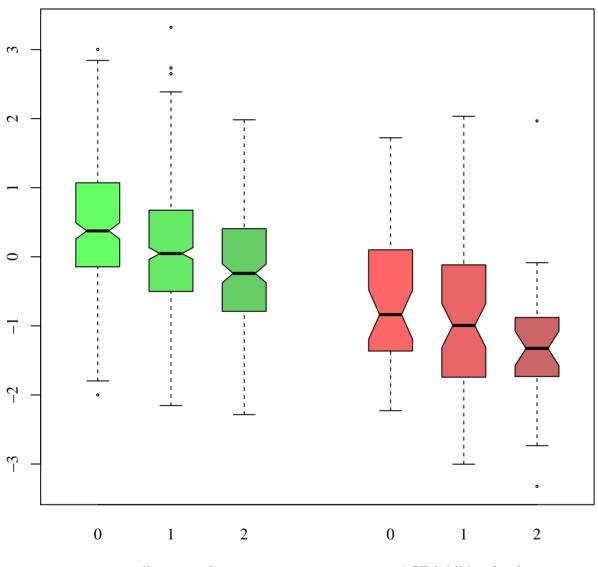
ACE inhibitor intake



X14086 - rs4323

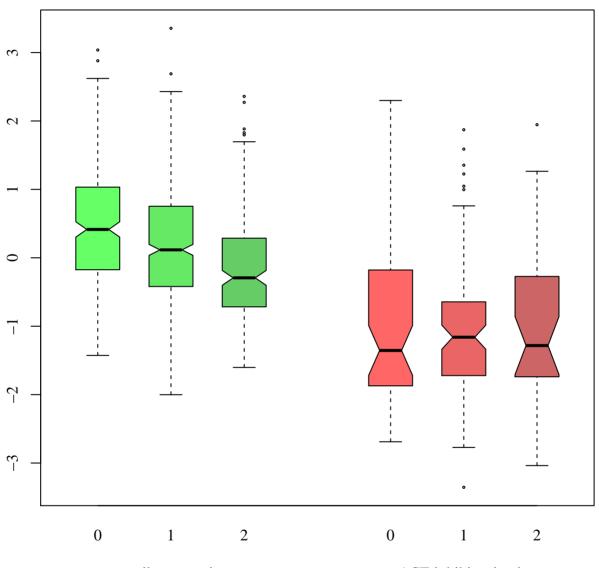


X14189 – rs4323



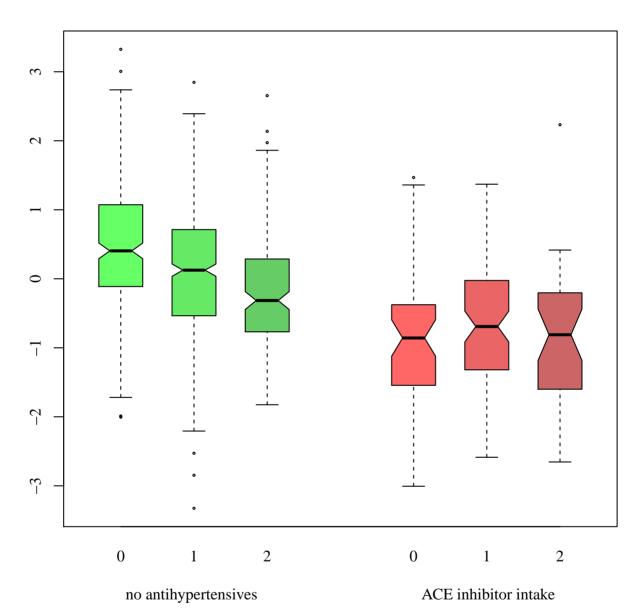
X14205 – rs4323

ACE inhibitor intake

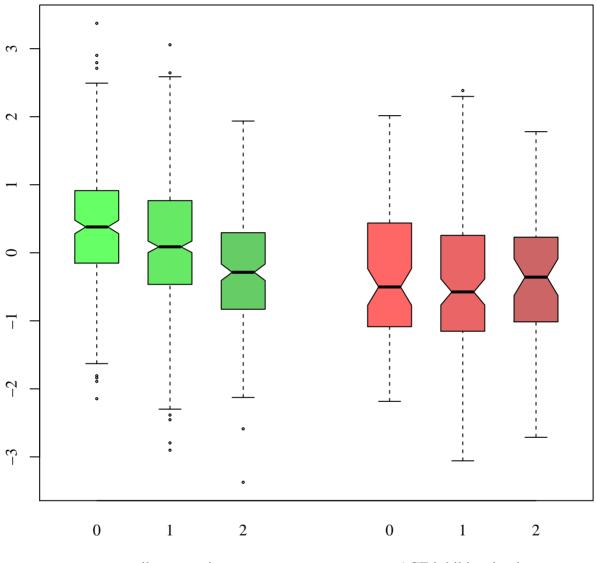


X14208 - rs4323

ACE inhibitor intake

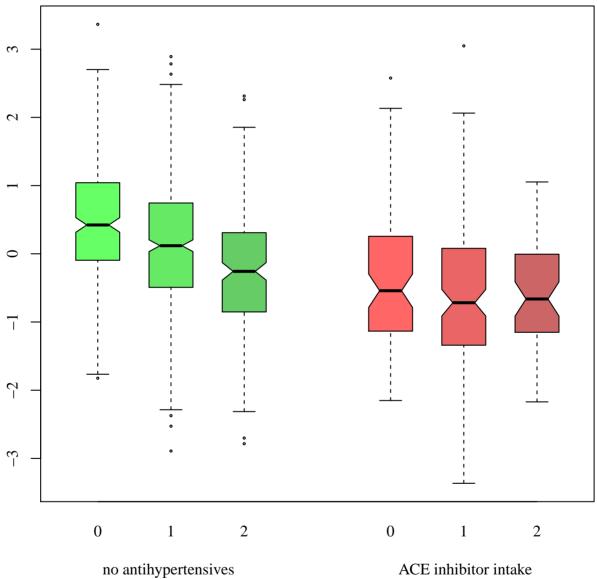


X14304 – rs4323

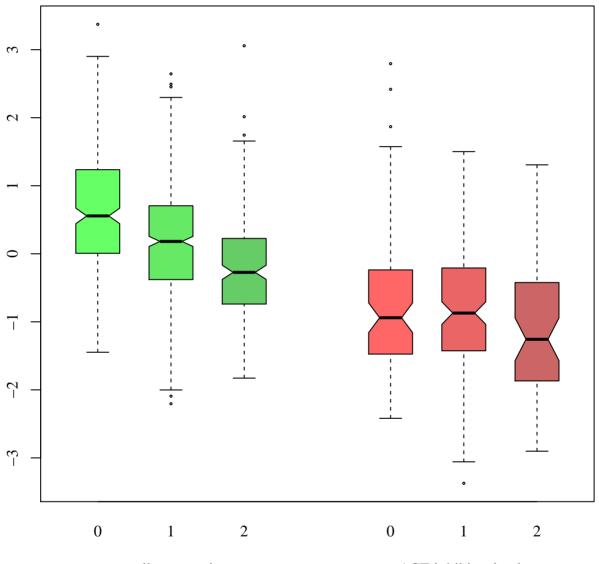


# aspartylphenylalanine – rs4324

no antihypertensives

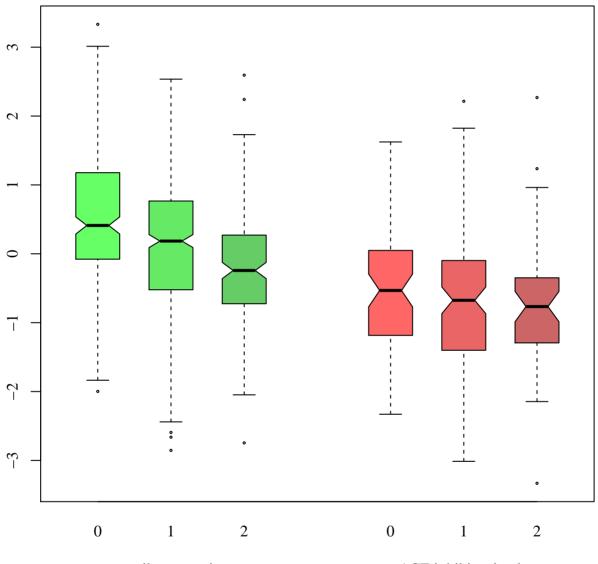


#### aspartylphenylalanine/HWESASXX – rs4324



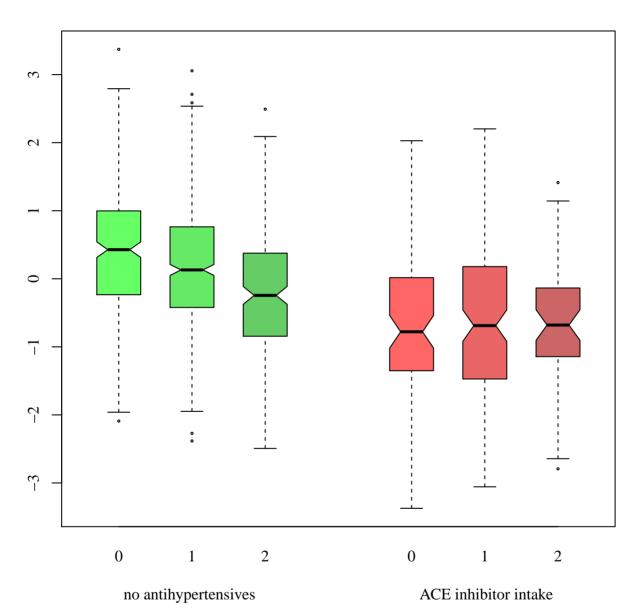
# aspartylphenylalanine/X11805 – rs4324

no antihypertensives

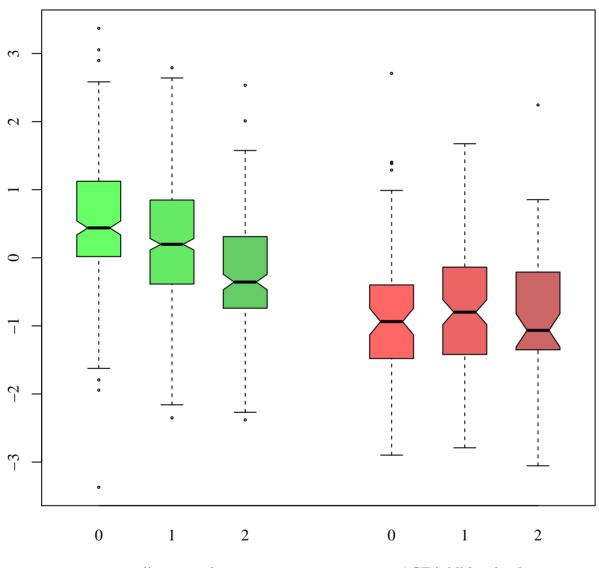


# aspartylphenylalanine/X14450 – rs4324

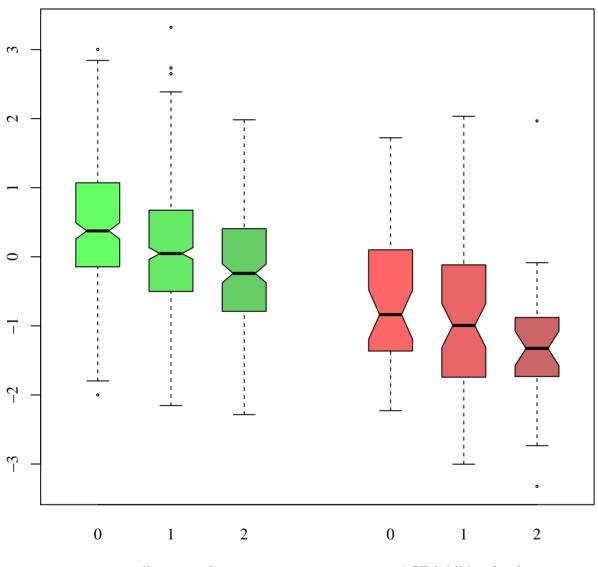
ACE inhibitor intake



X14086 - rs4324

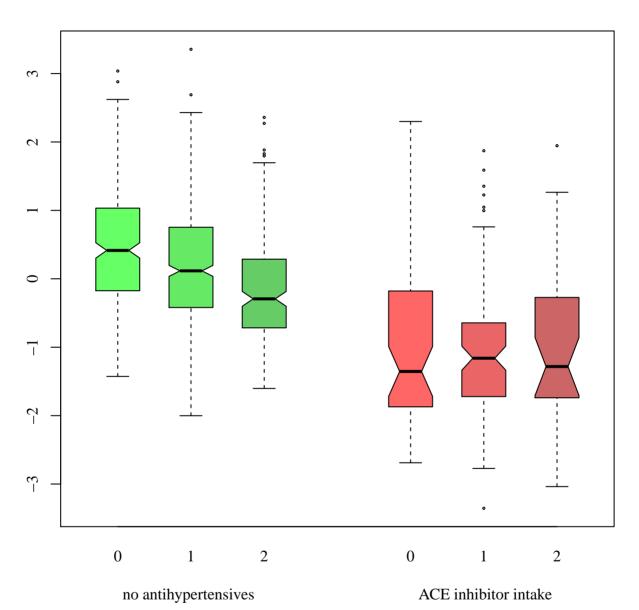


X14189 – rs4324

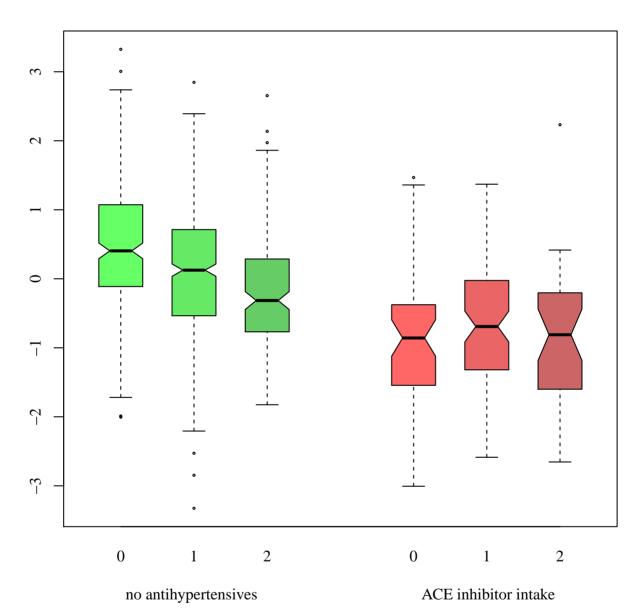


X14205 – rs4324

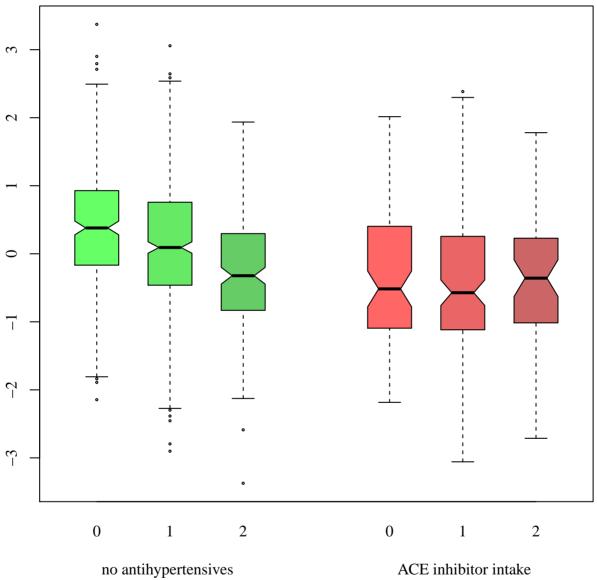
ACE inhibitor intake



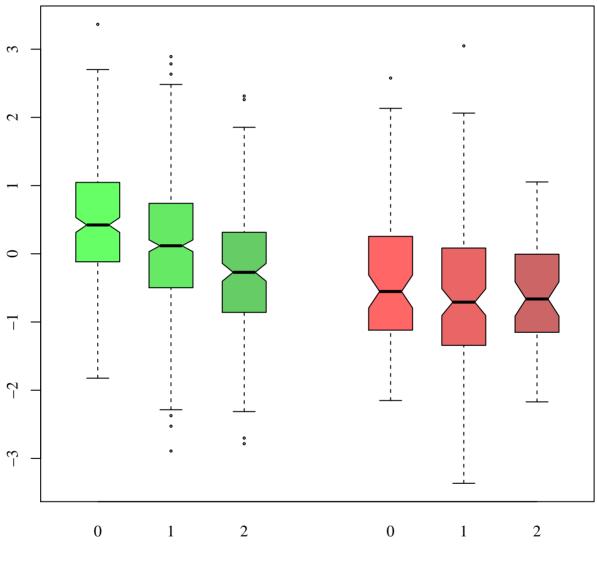
X14208 – rs4324



X14304 – rs4324

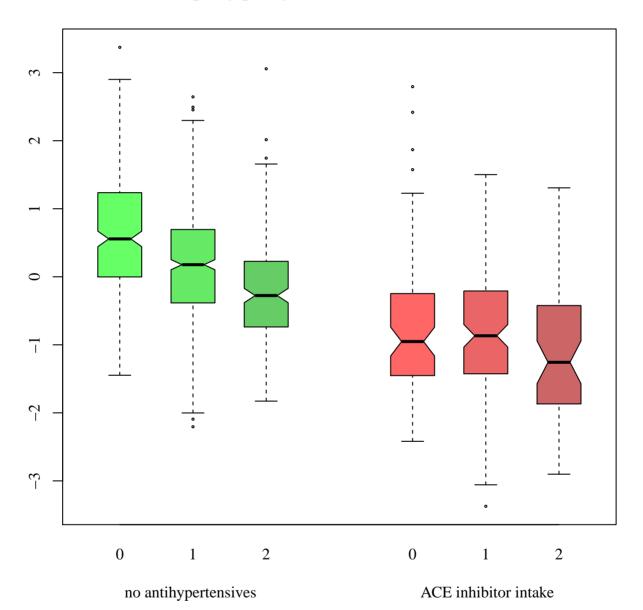


## aspartylphenylalanine - rs4325

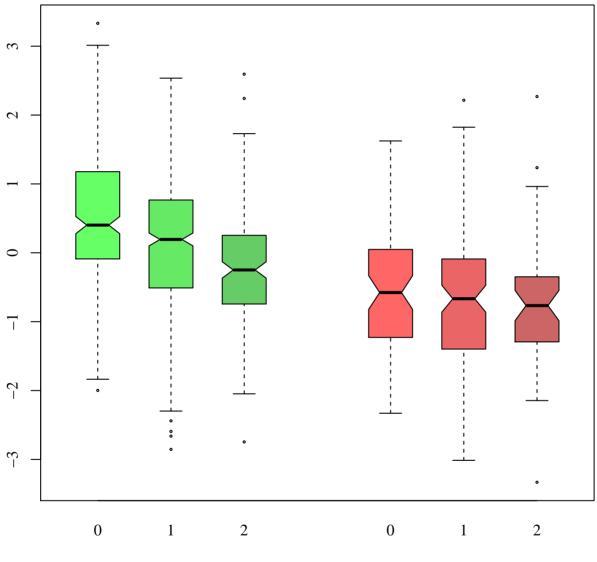


#### aspartylphenylalanine/HWESASXX – rs4325

no antihypertensives

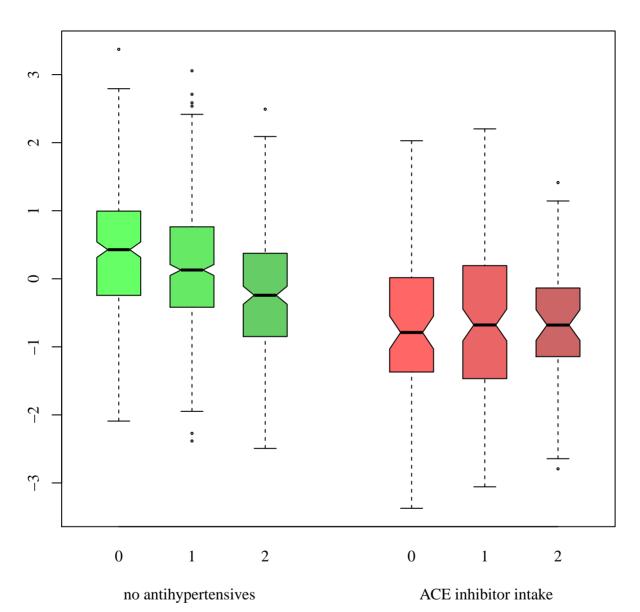


## aspartylphenylalanine/X11805 – rs4325

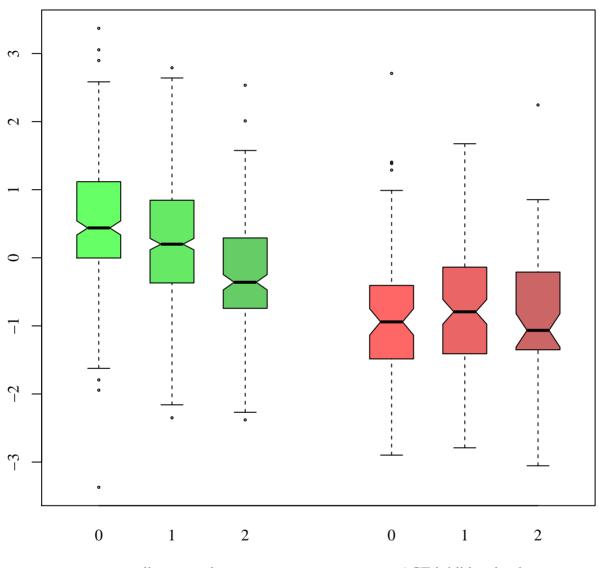


## aspartylphenylalanine/X14450 – rs4325

no antihypertensives

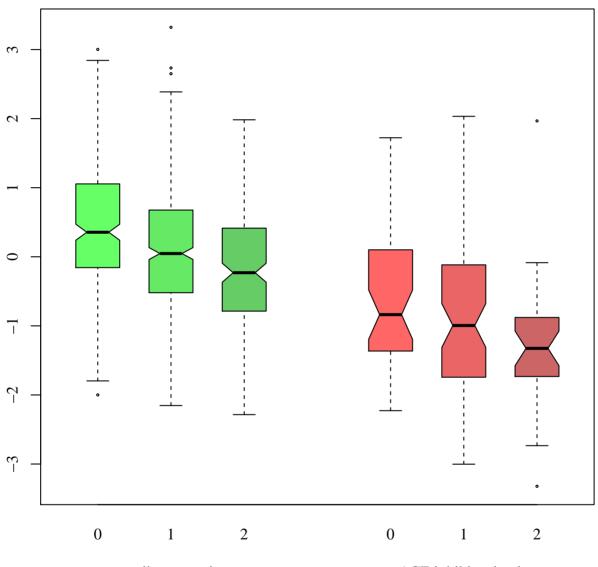


X14086 - rs4325



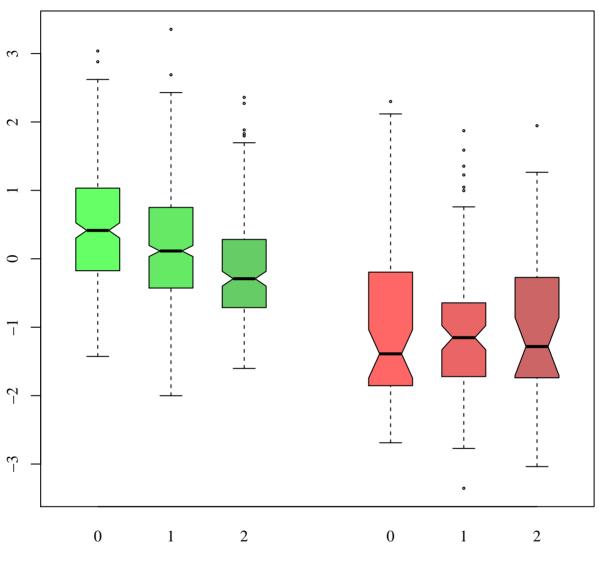
X14189 – rs4325

ACE inhibitor intake



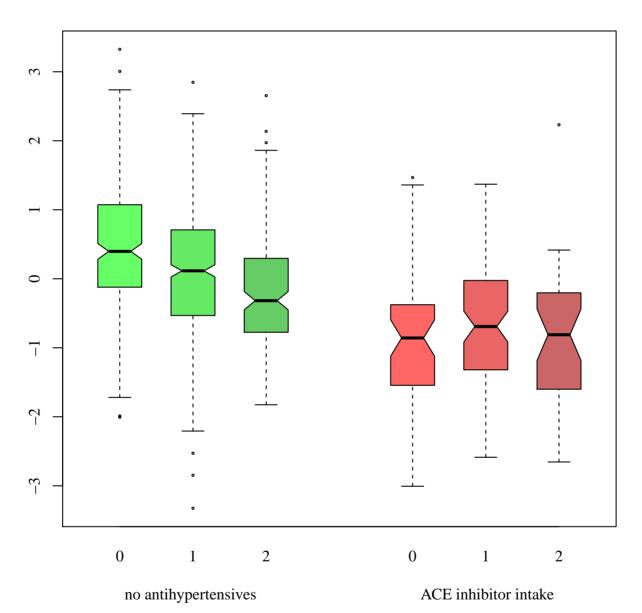
X14205 – rs4325

ACE inhibitor intake

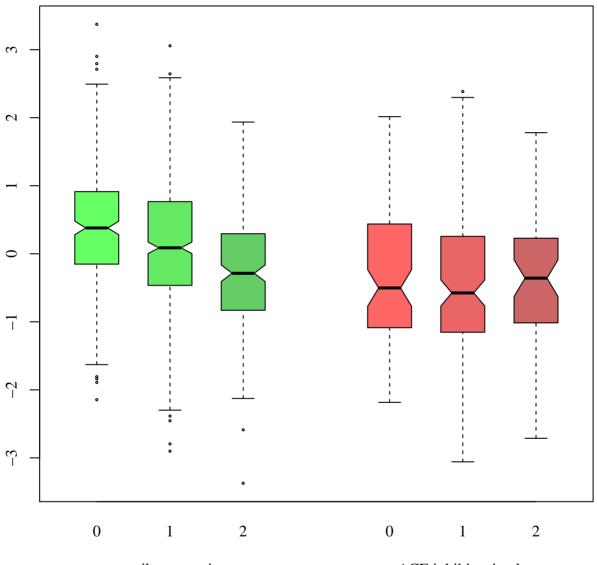


X14208 – rs4325

ACE inhibitor intake

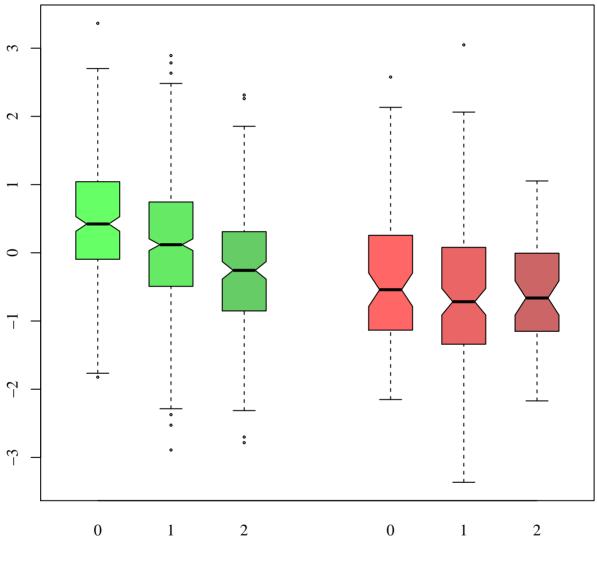


X14304 – rs4325



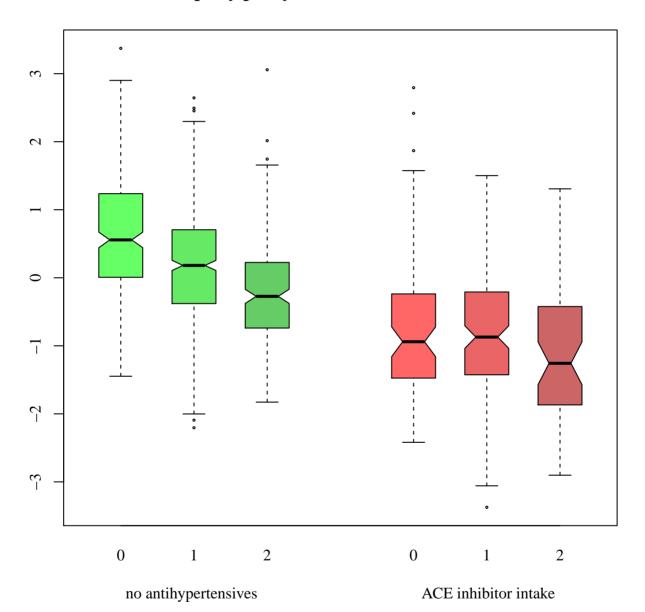
## aspartylphenylalanine – rs4326

no antihypertensives

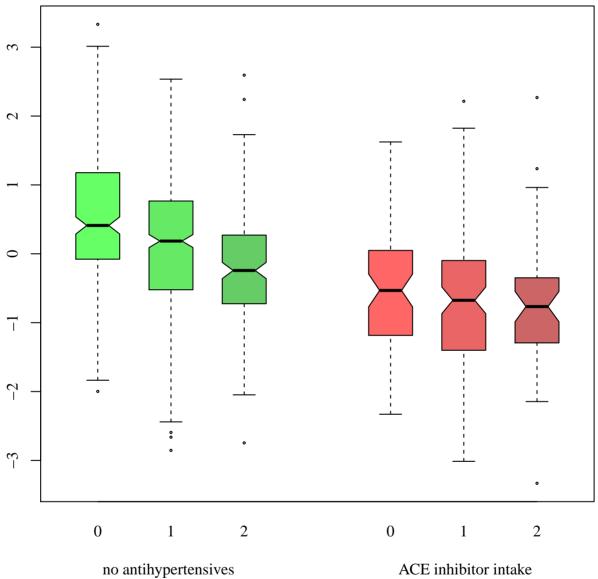


#### aspartylphenylalanine/HWESASXX – rs4326

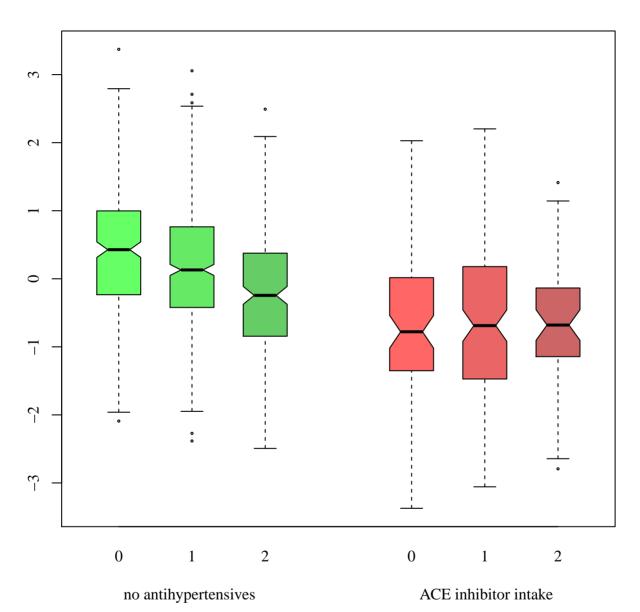
no antihypertensives



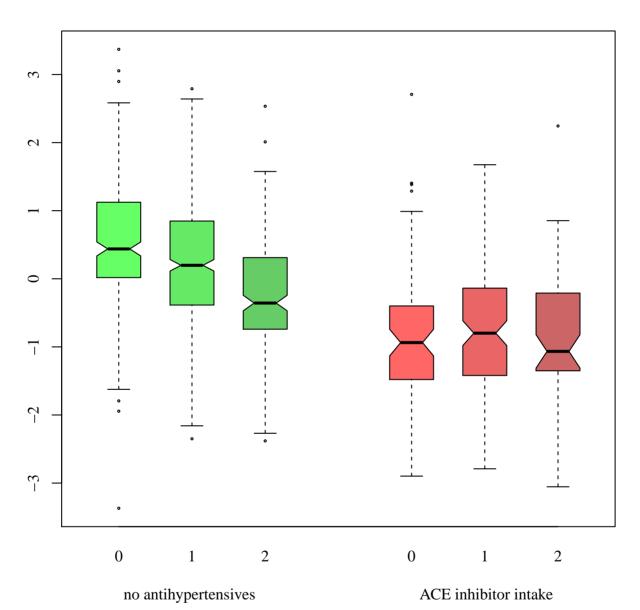
# aspartylphenylalanine/X11805 – rs4326



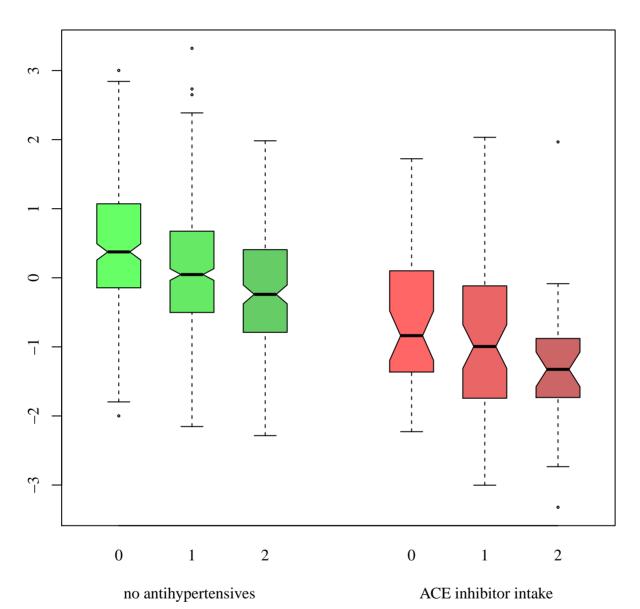
## aspartylphenylalanine/X14450 - rs4326



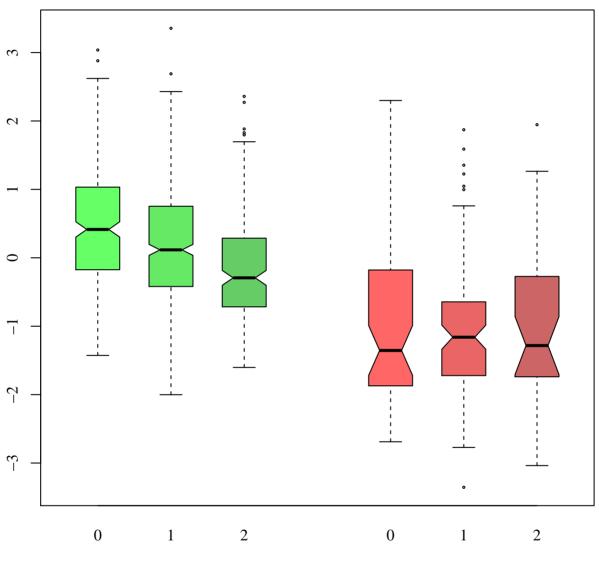
X14086 - rs4326



X14189 – rs4326

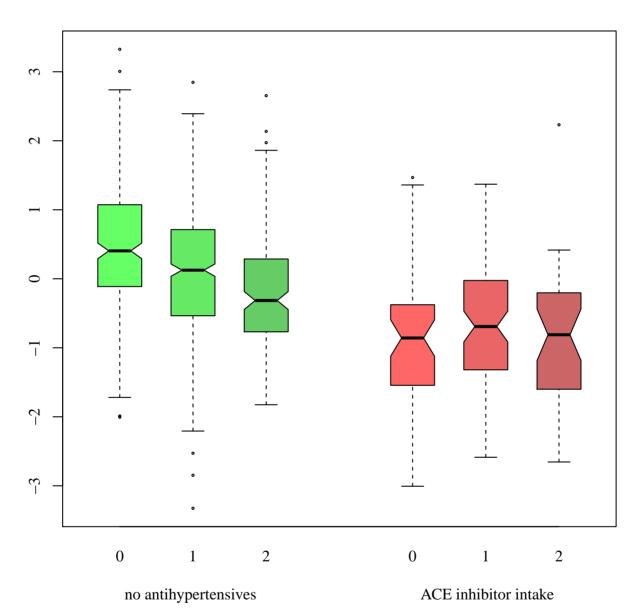


X14205 – rs4326

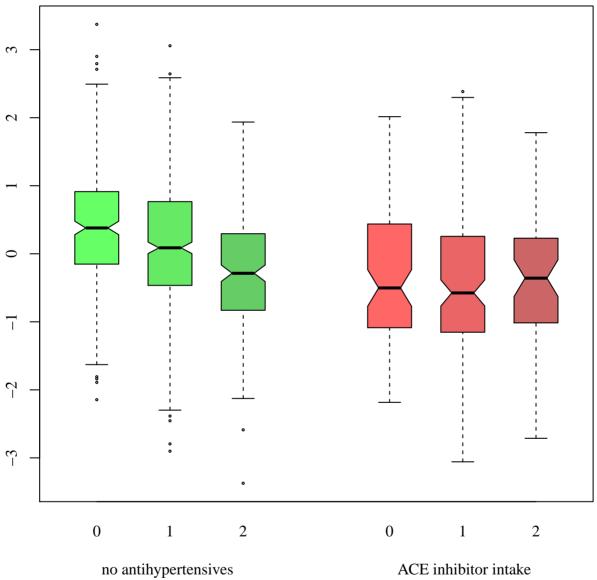


X14208 - rs4326

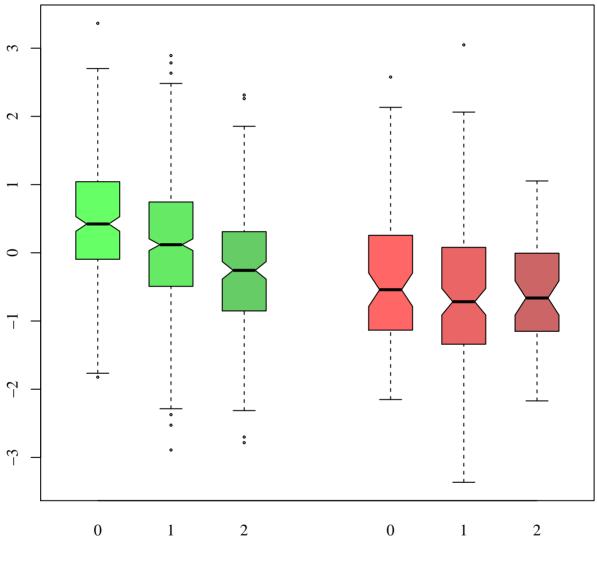
ACE inhibitor intake



X14304 – rs4326

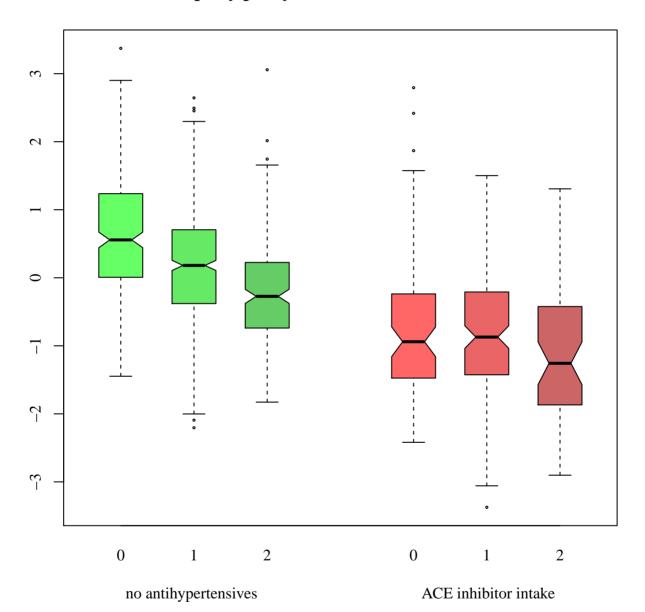


## aspartylphenylalanine – rs4327

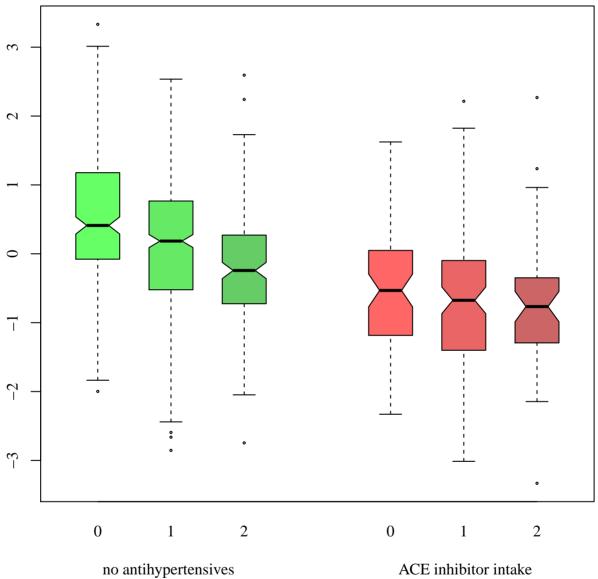


#### aspartylphenylalanine/HWESASXX – rs4327

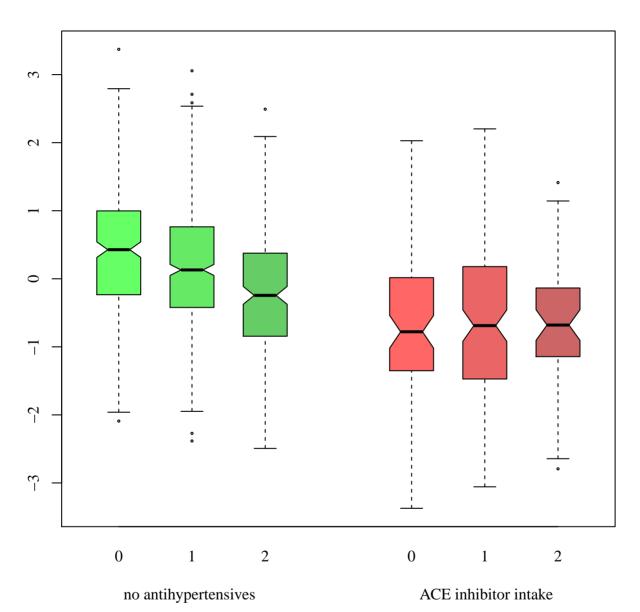
no antihypertensives



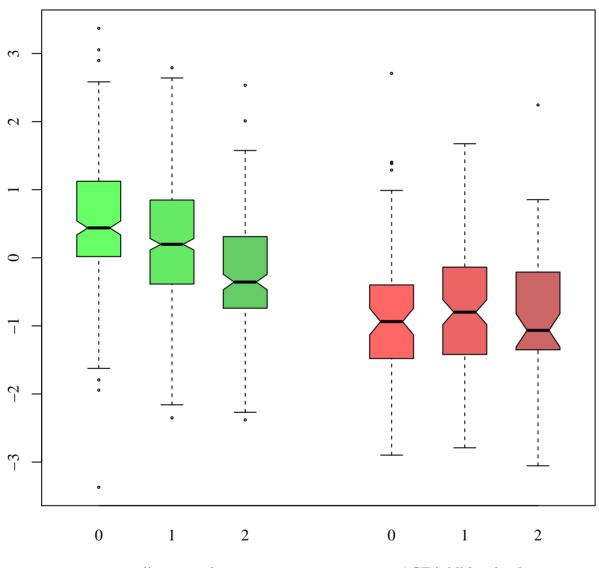
## aspartylphenylalanine/X11805 – rs4327



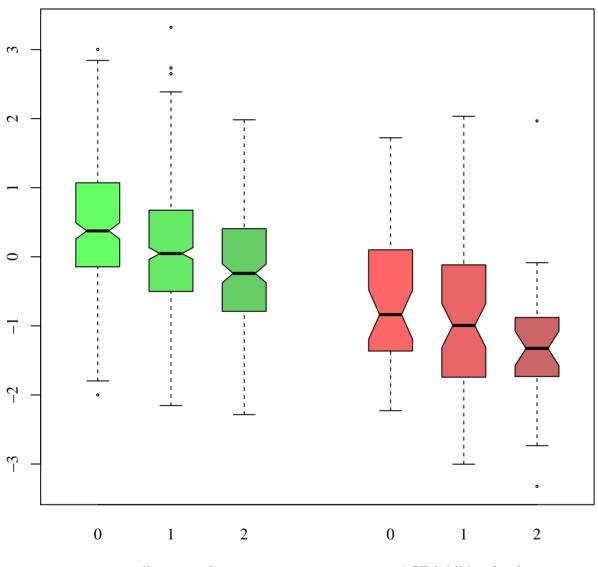
## aspartylphenylalanine/X14450 – rs4327



X14086 - rs4327

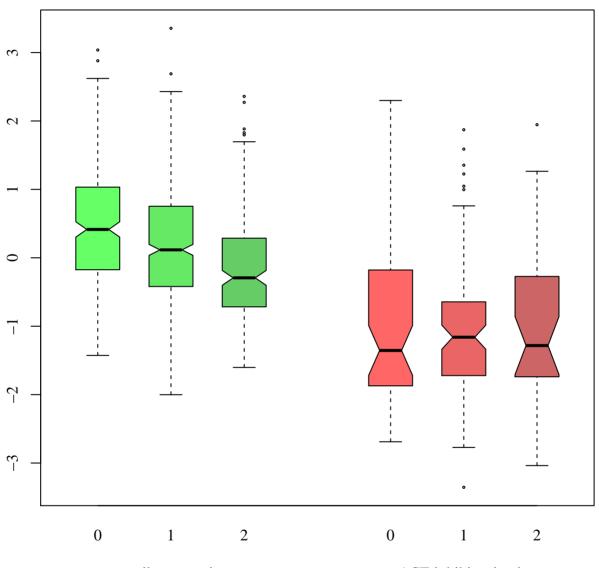


X14189 – rs4327



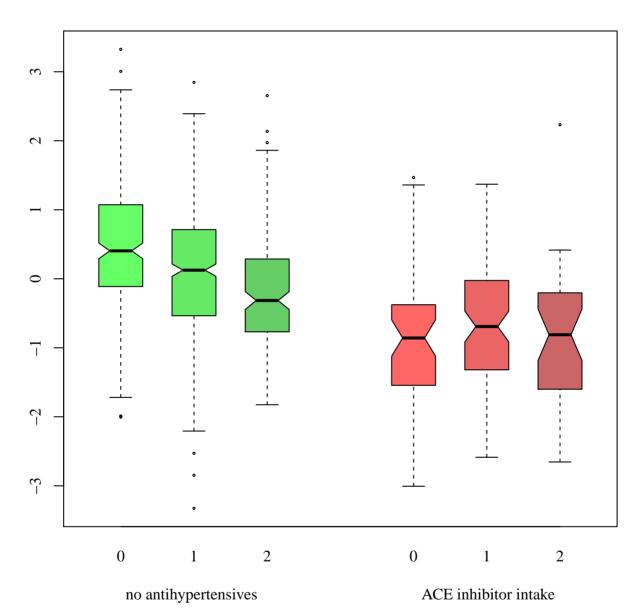
X14205 – rs4327

ACE inhibitor intake

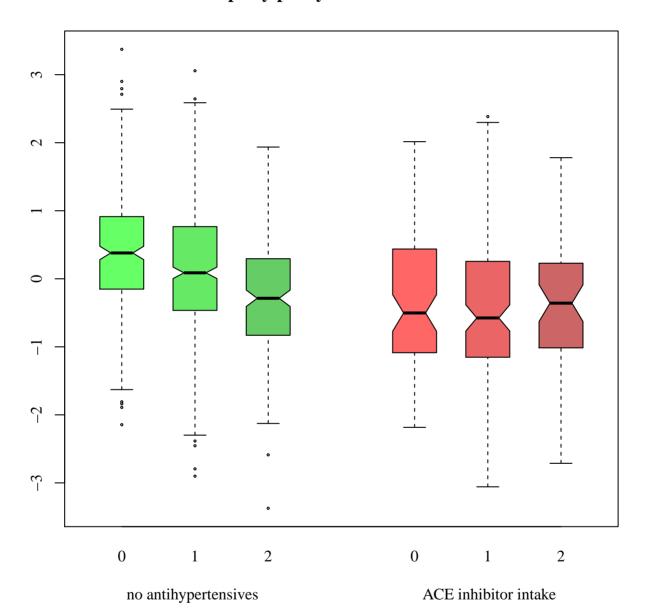


X14208 - rs4327

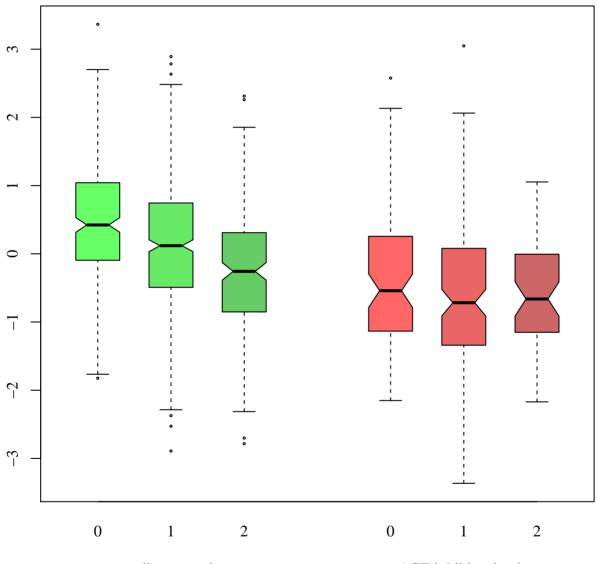
ACE inhibitor intake



X14304 – rs4327

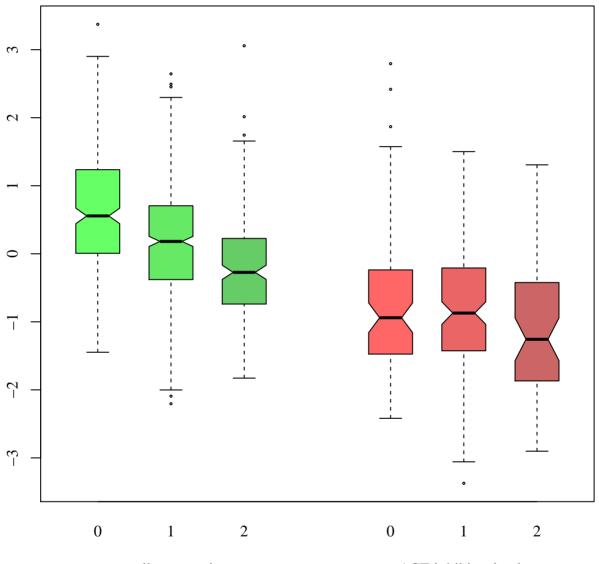


## aspartylphenylalanine – rs4329



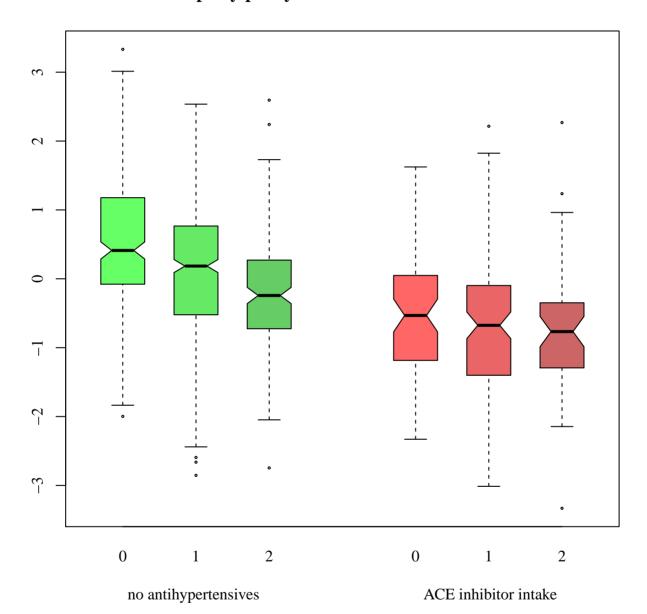
#### aspartylphenylalanine/HWESASXX – rs4329

no antihypertensives

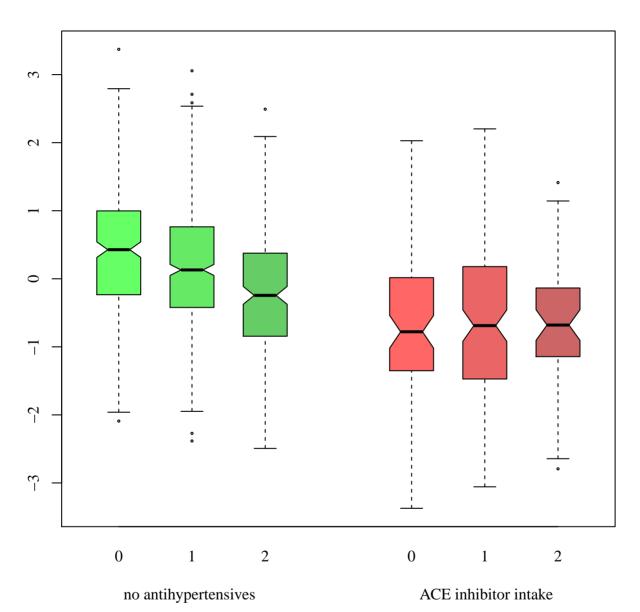


# aspartylphenylalanine/X11805 – rs4329

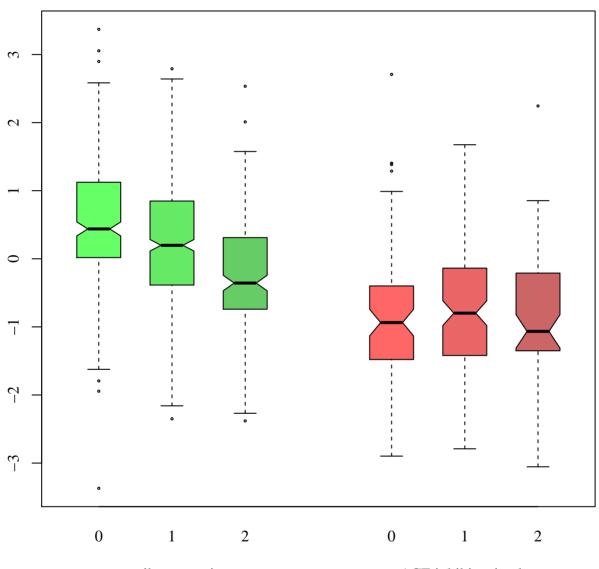
no antihypertensives



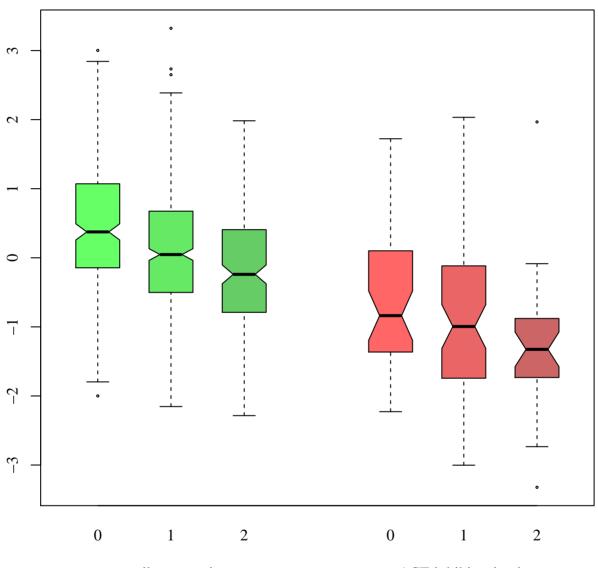
# aspartylphenylalanine/X14450 – rs4329



X14086 - rs4329

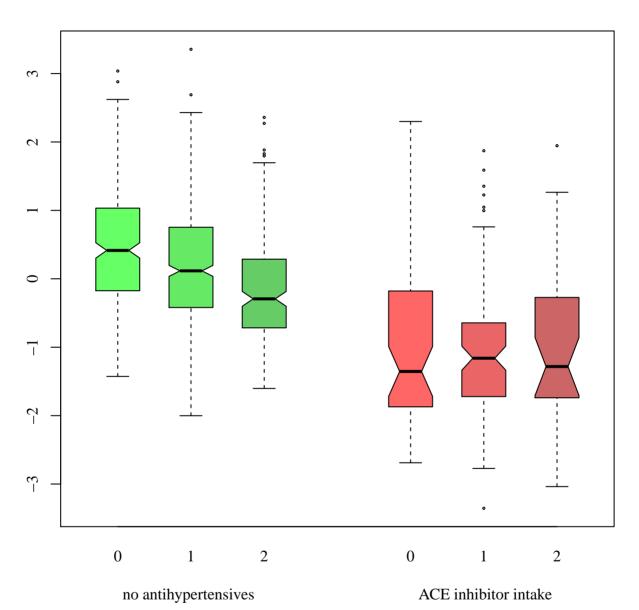


X14189 – rs4329

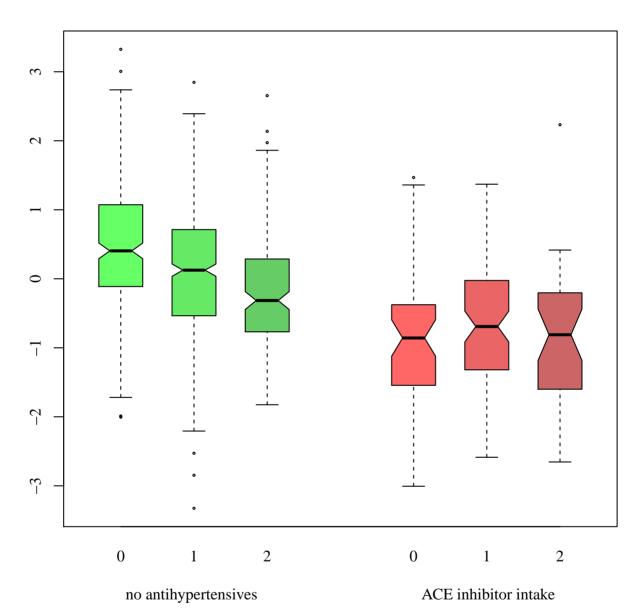


X14205 – rs4329

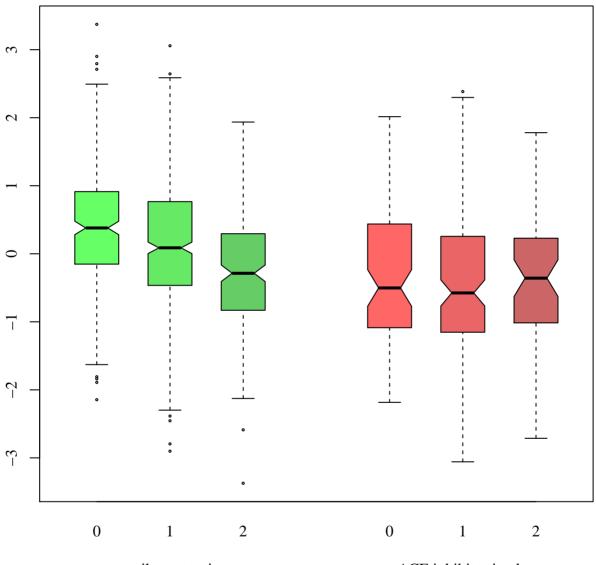
ACE inhibitor intake



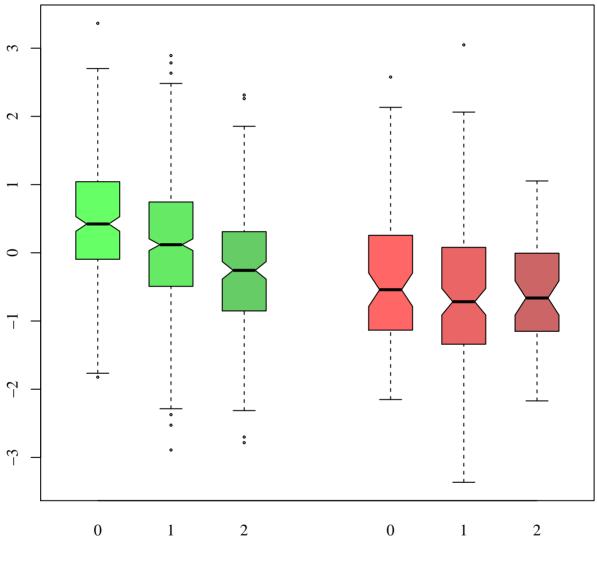
X14208 - rs4329



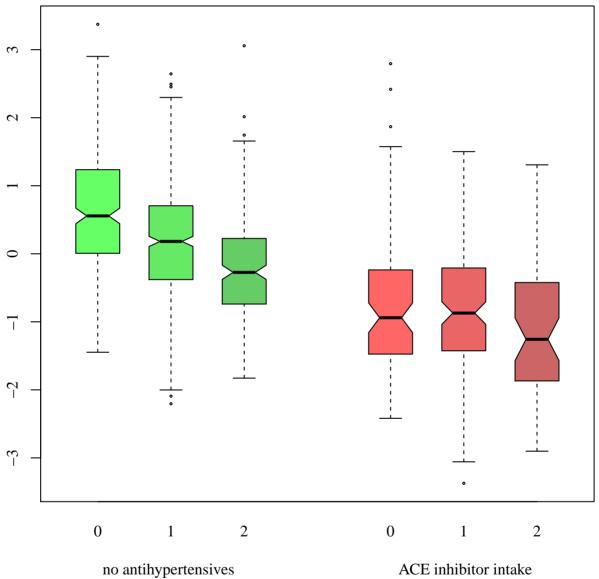
X14304 – rs4329

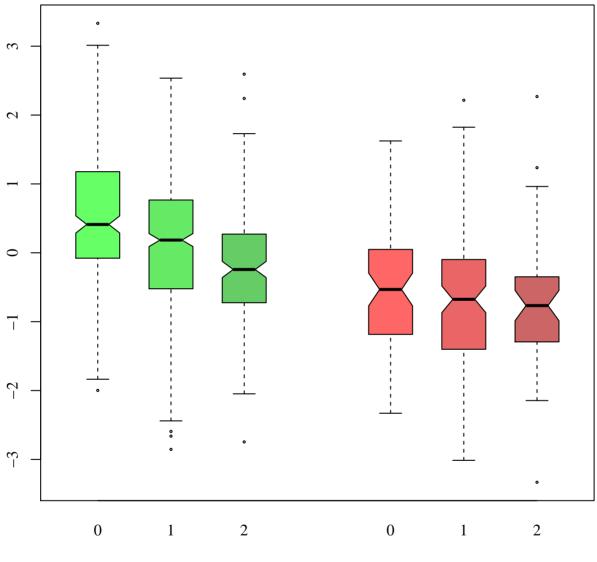


no antihypertensives

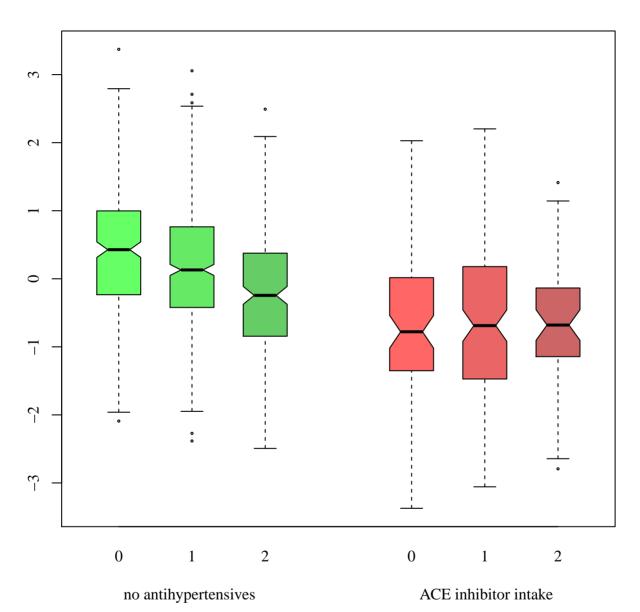


no antihypertensives

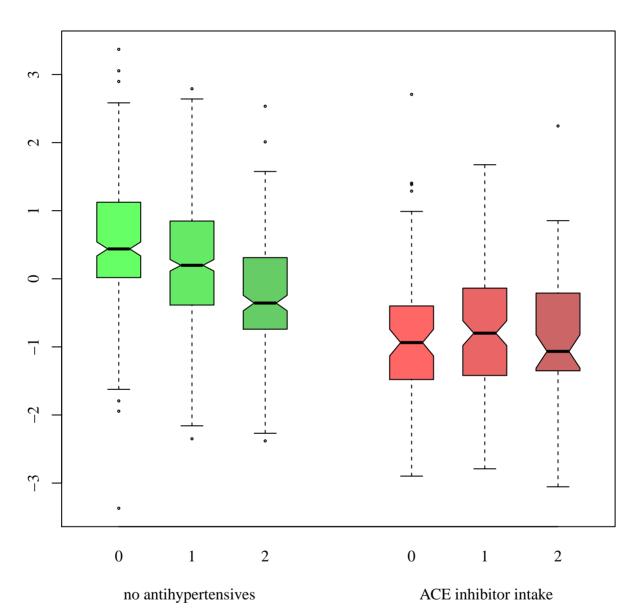




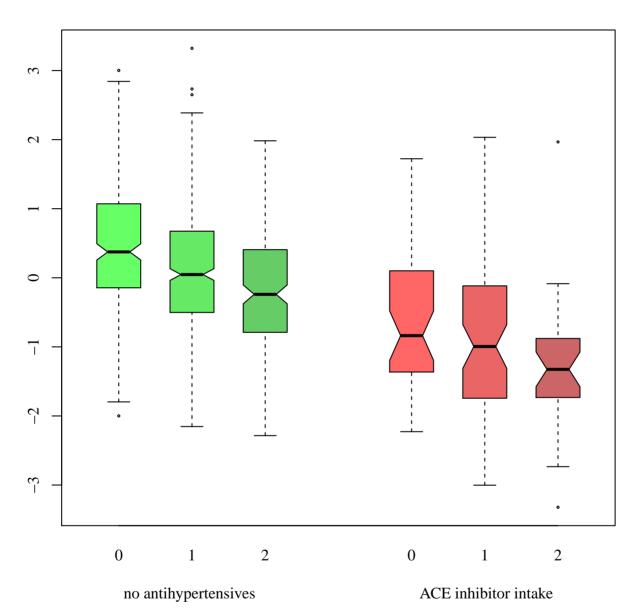
no antihypertensives



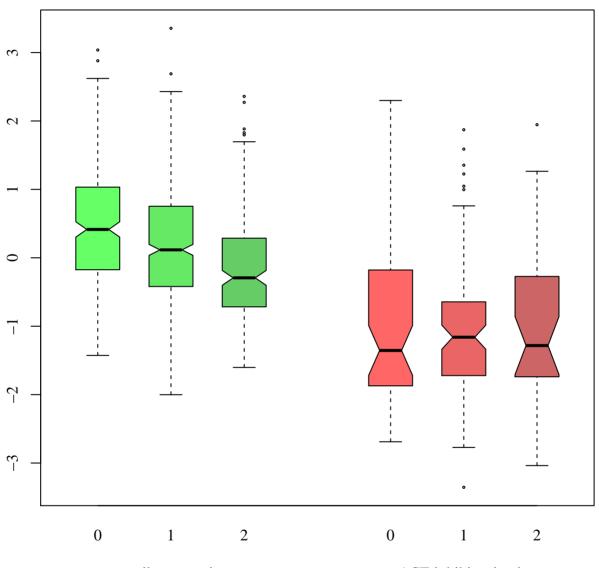
X14086 – rs4331



X14189 – rs4331

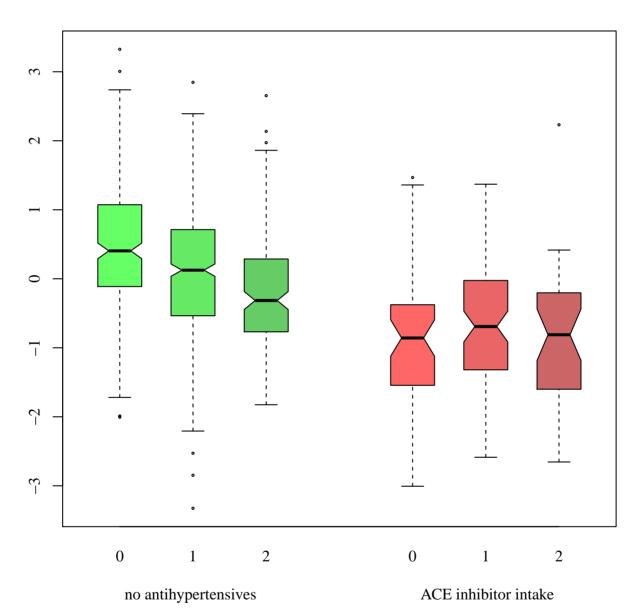


X14205 – rs4331

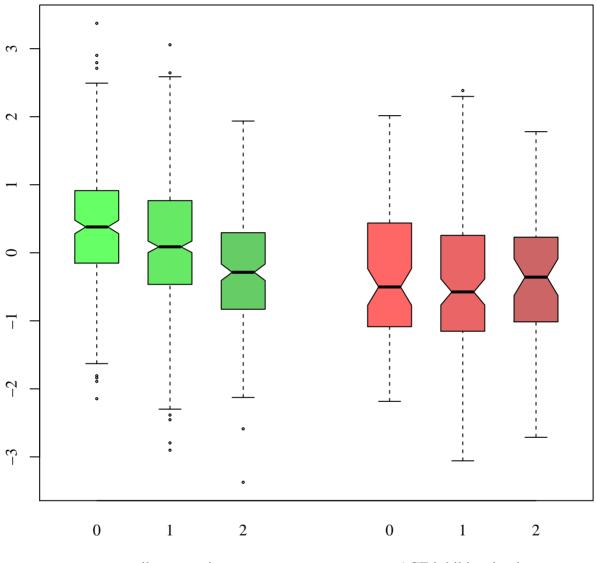


X14208 – rs4331

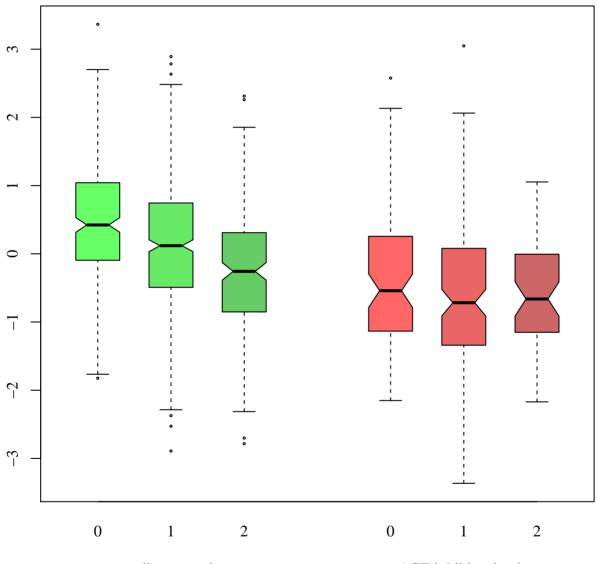
ACE inhibitor intake



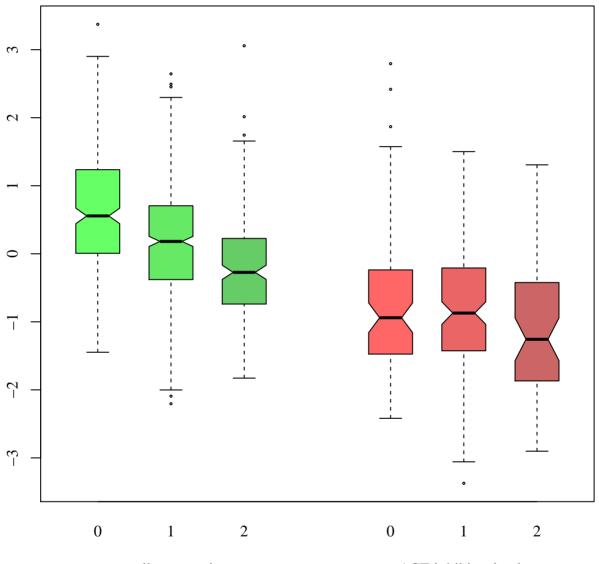
X14304 – rs4331



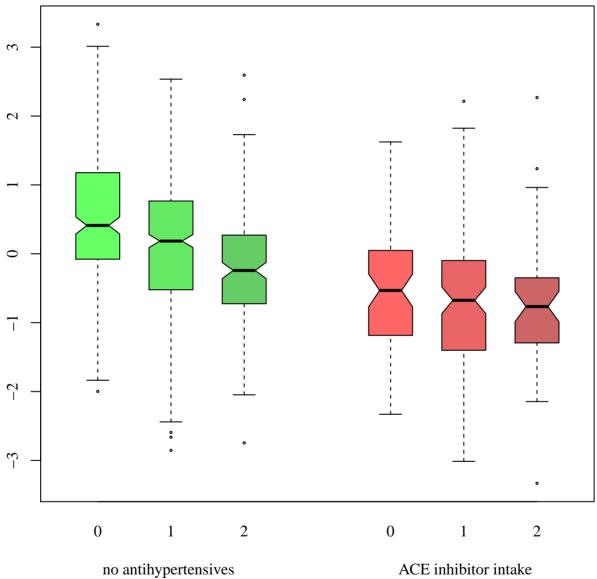
no antihypertensives



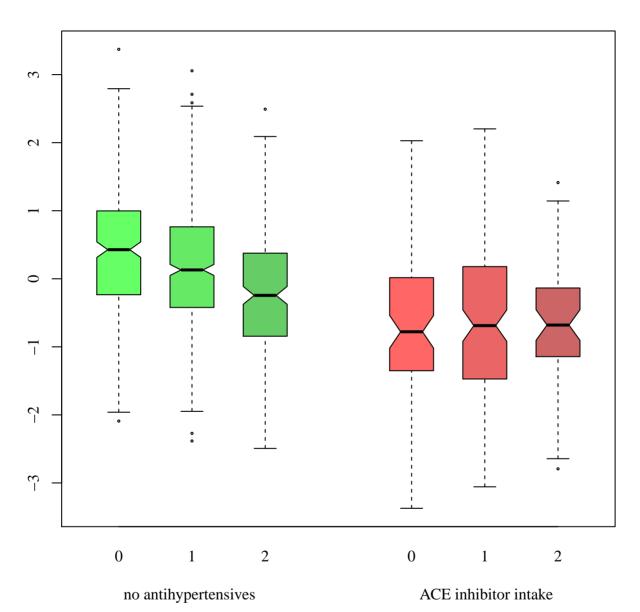
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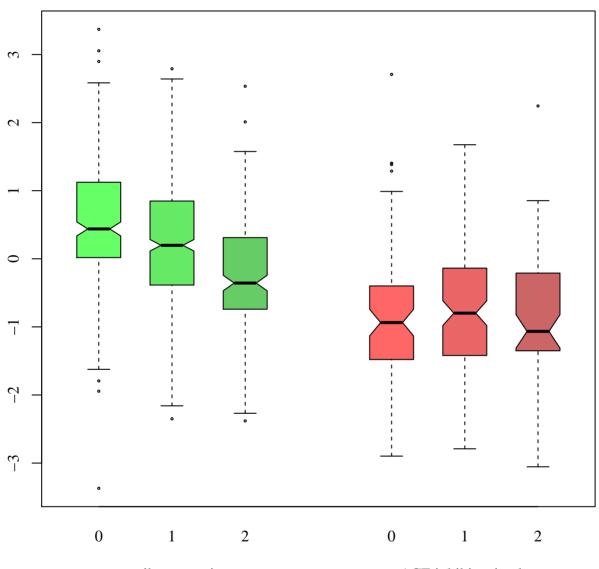
no antihypertensives



## aspartylphenylalanine/X14450 - rs4332

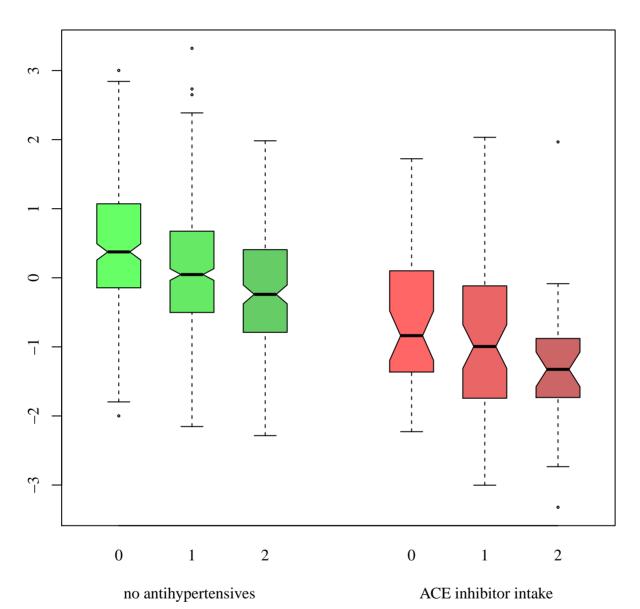


X14086 - rs4332

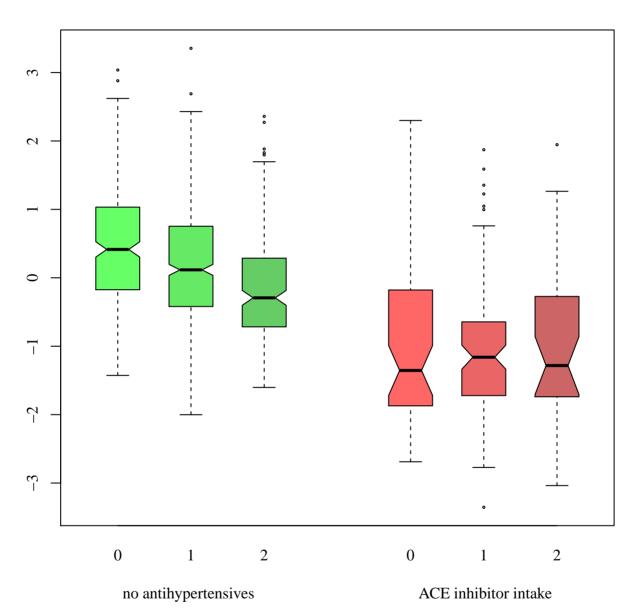


X14189 – rs4332

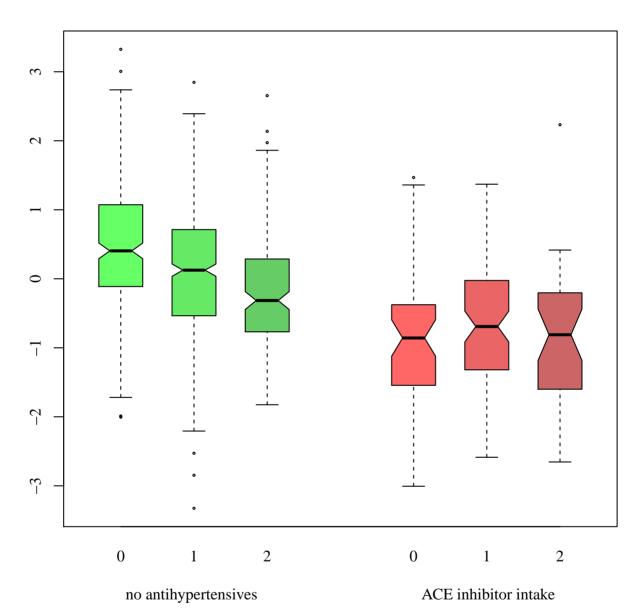
ACE inhibitor intake



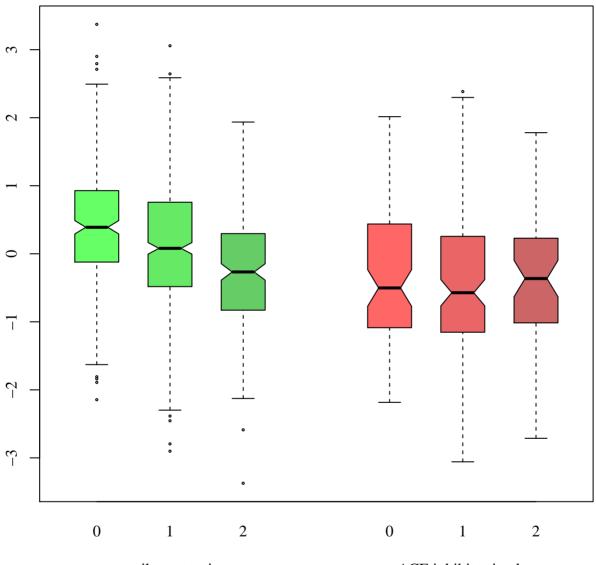
X14205 – rs4332



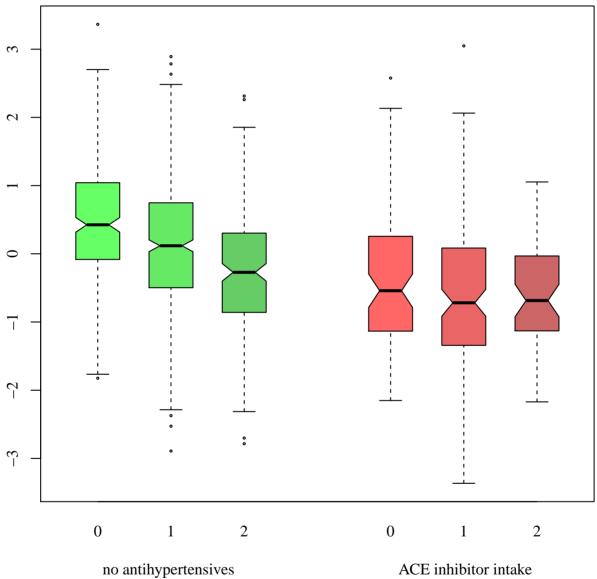
X14208 - rs4332

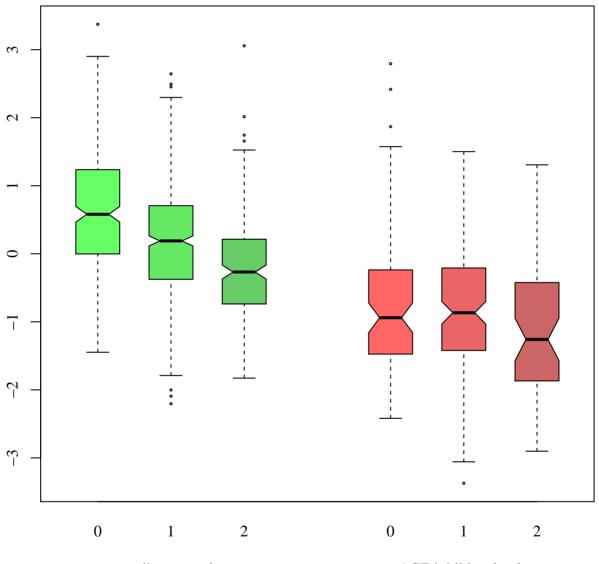


X14304 – rs4332

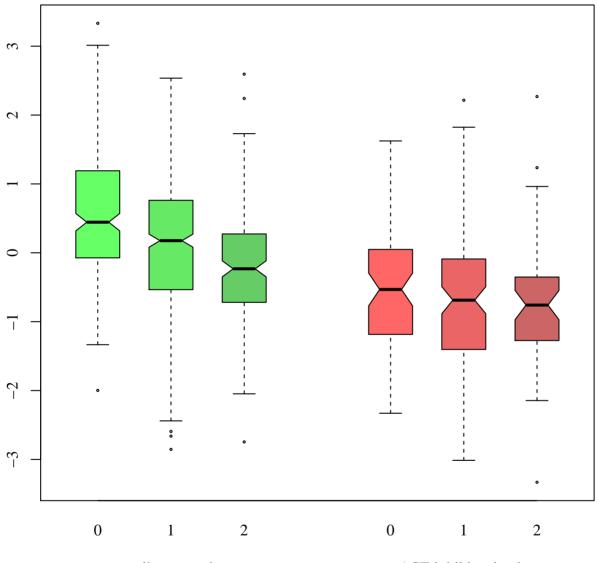


no antihypertensives

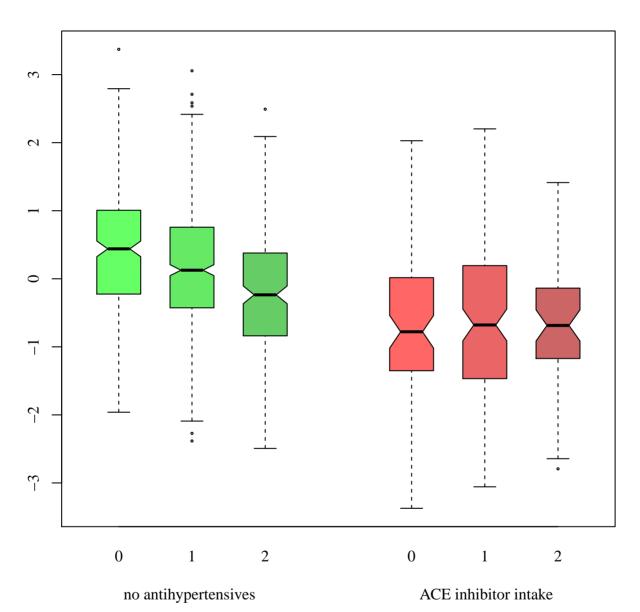




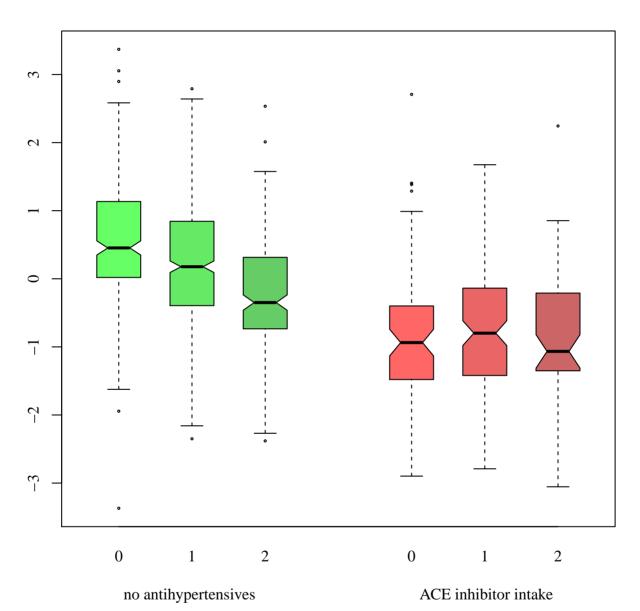
ACE inhibitor intake



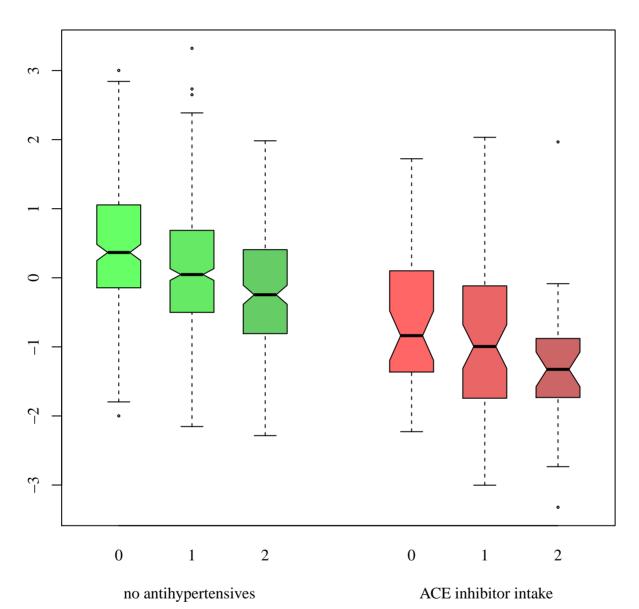
no antihypertensives



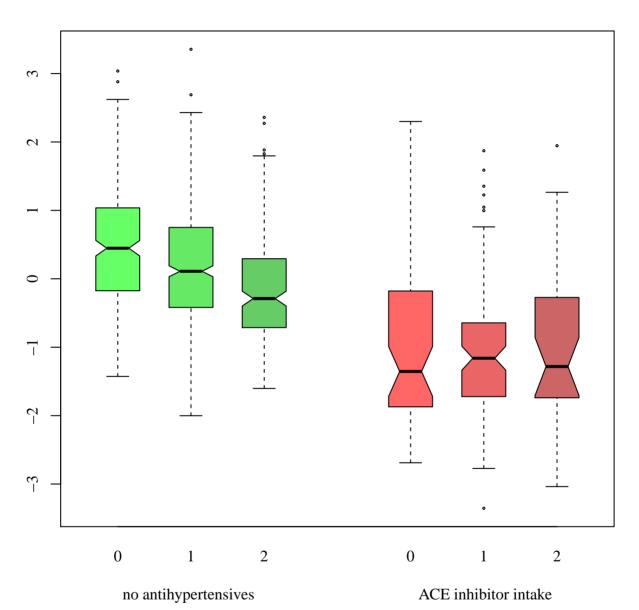
X14086 – rs4334



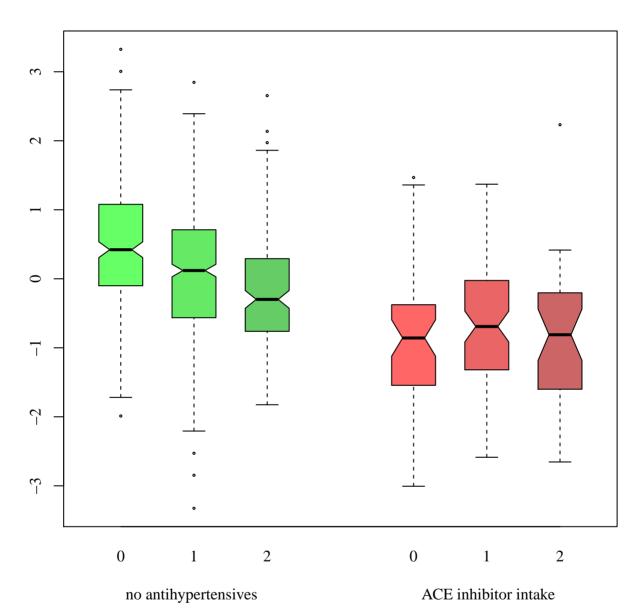
X14189 – rs4334



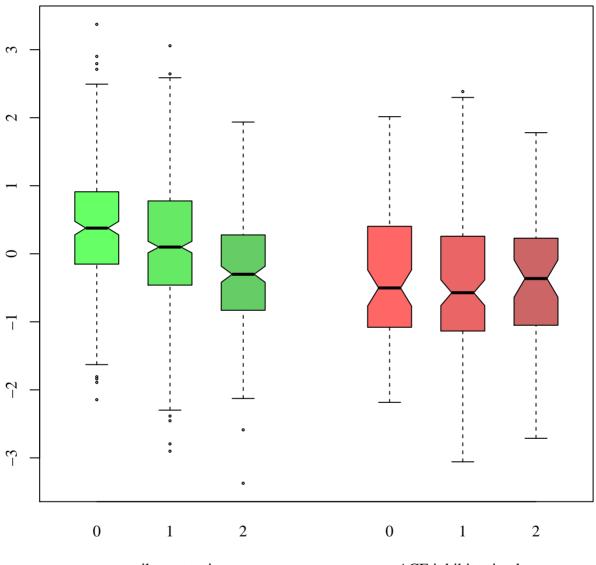
X14205 – rs4334



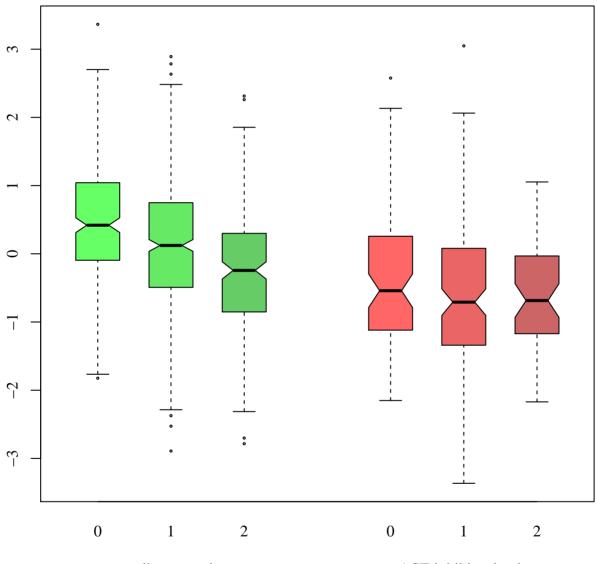
X14208 – rs4334



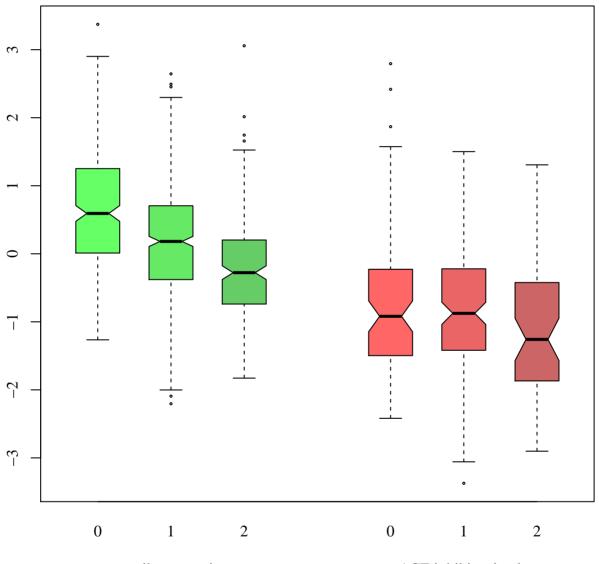
X14304 – rs4334



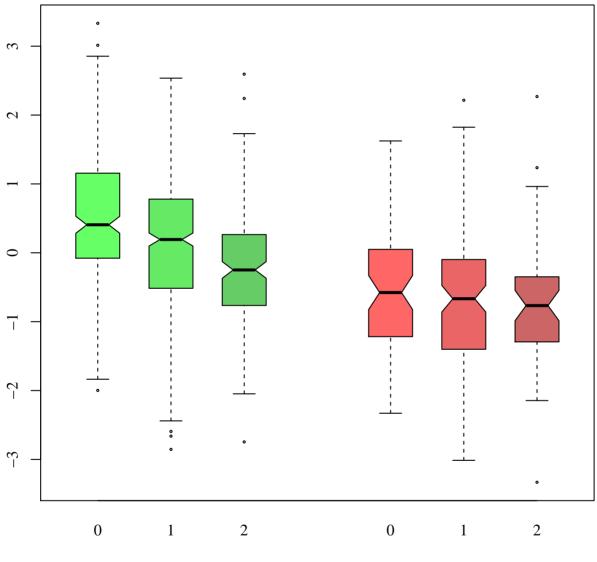
no antihypertensives



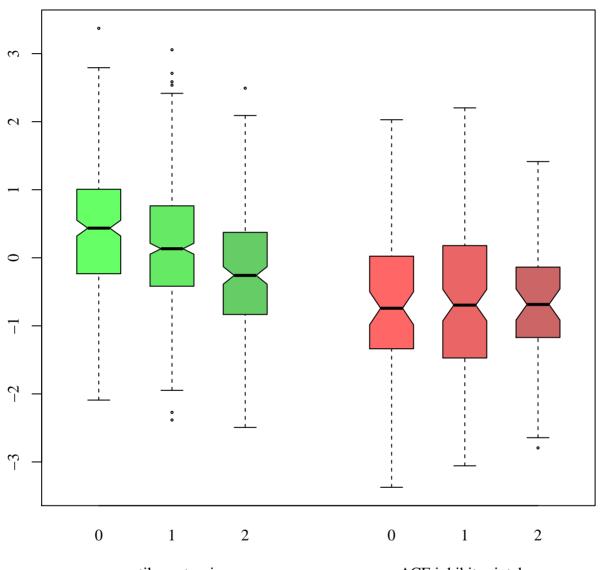
no antihypertensives



no antihypertensives

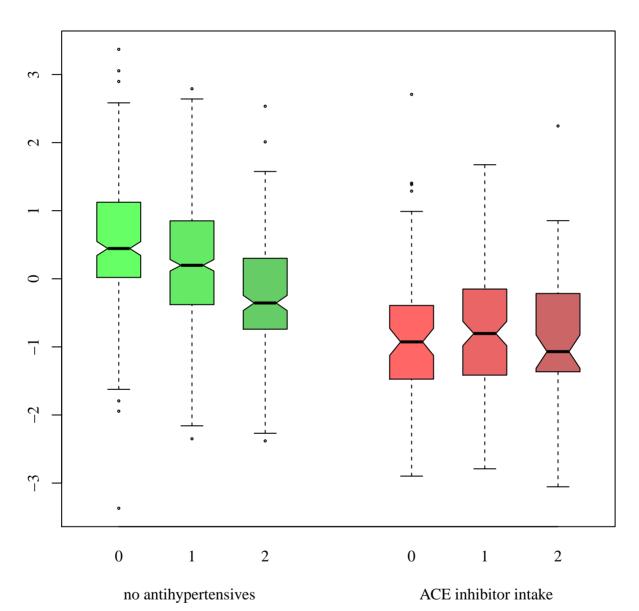


no antihypertensives

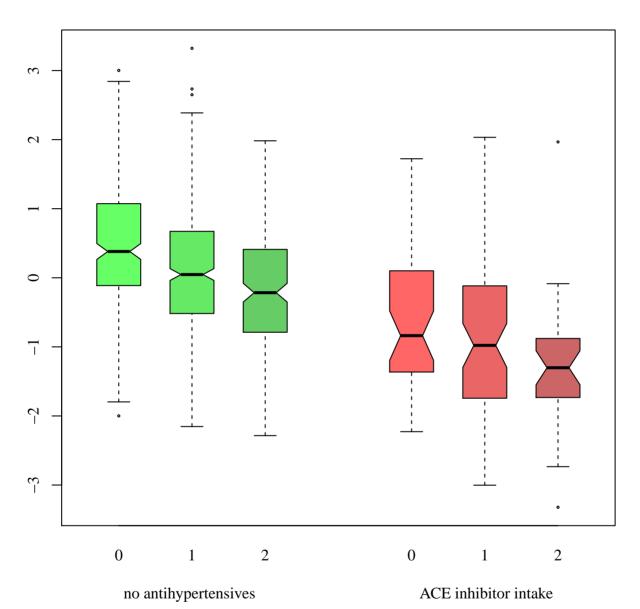


X14086 – rs4335

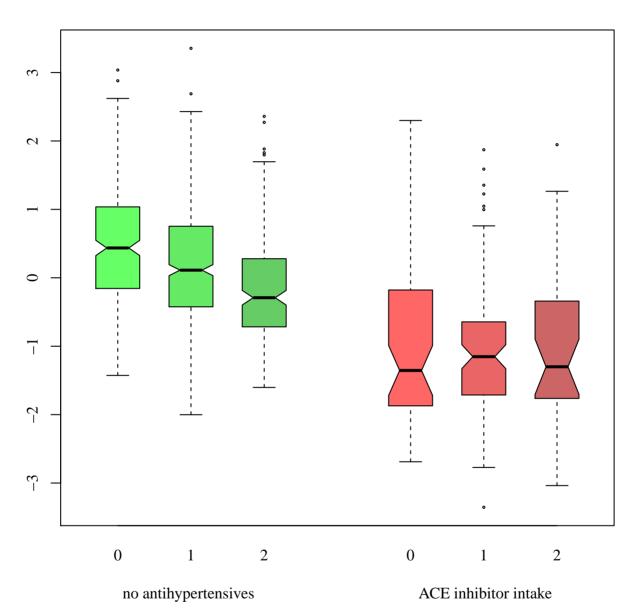
ACE inhibitor intake



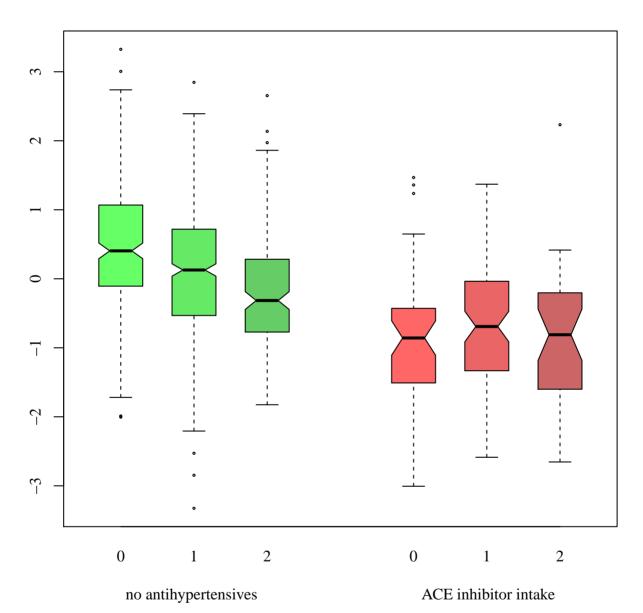
X14189 – rs4335



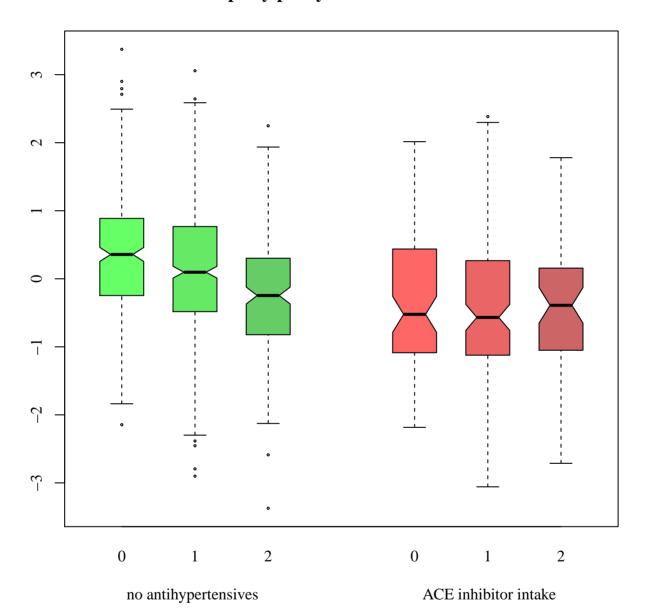
X14205 – rs4335



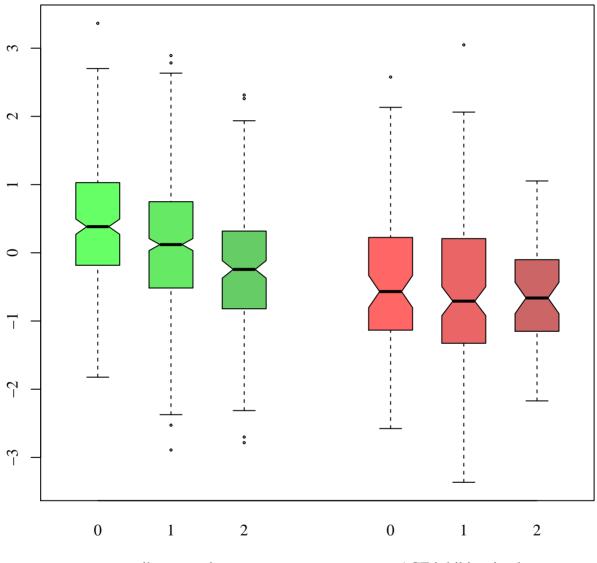
X14208 – rs4335



X14304 – rs4335

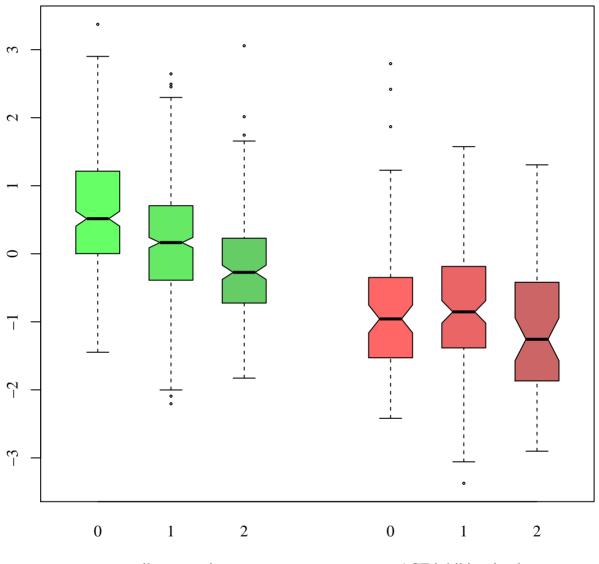


## aspartylphenylalanine – rs4336



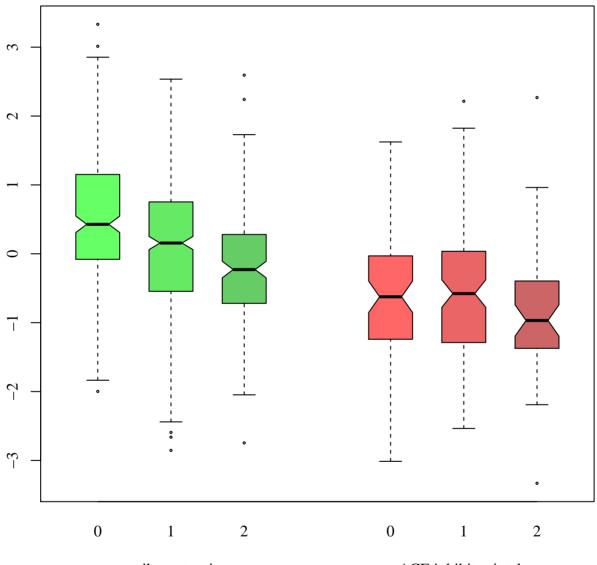
#### aspartylphenylalanine/HWESASXX – rs4336

no antihypertensives



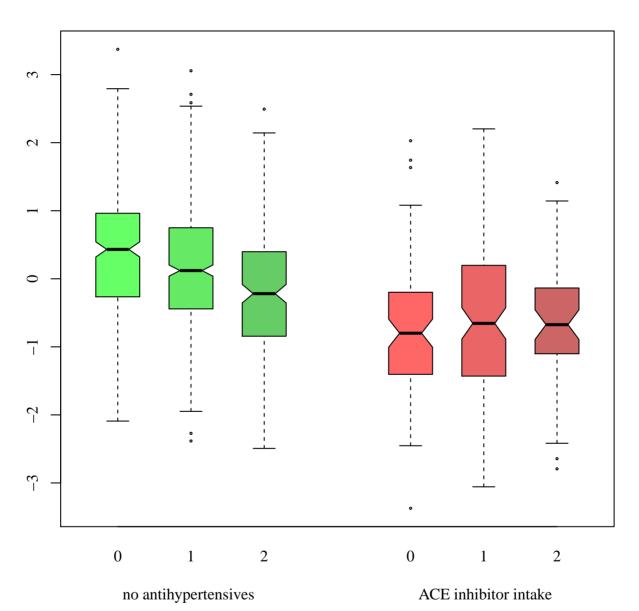
## aspartylphenylalanine/X11805 – rs4336

ACE inhibitor intake

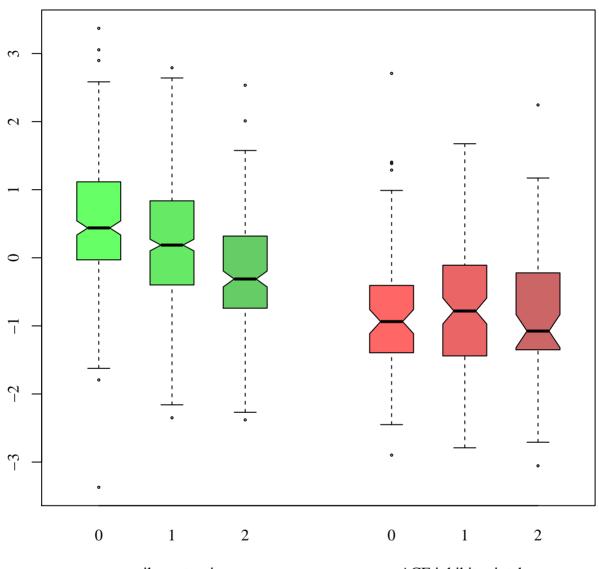


## aspartylphenylalanine/X14450 – rs4336

no antihypertensives

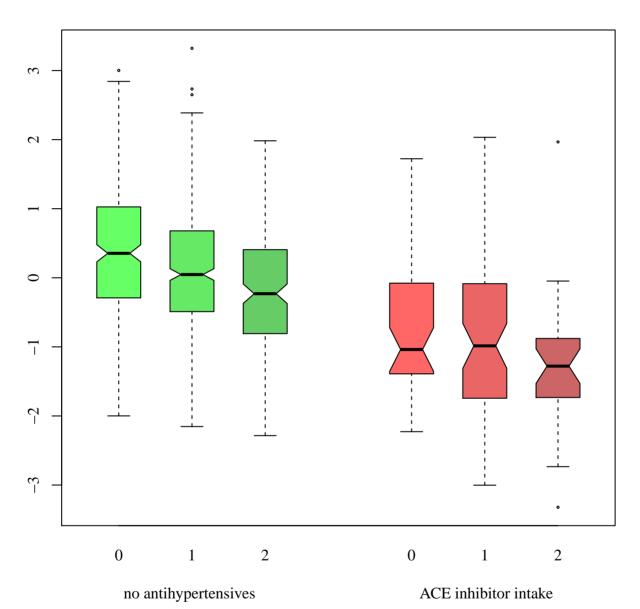


X14086 - rs4336

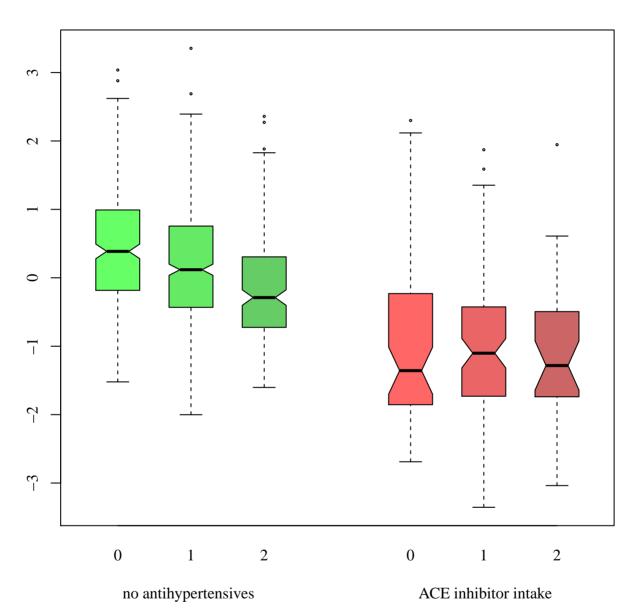


X14189 – rs4336

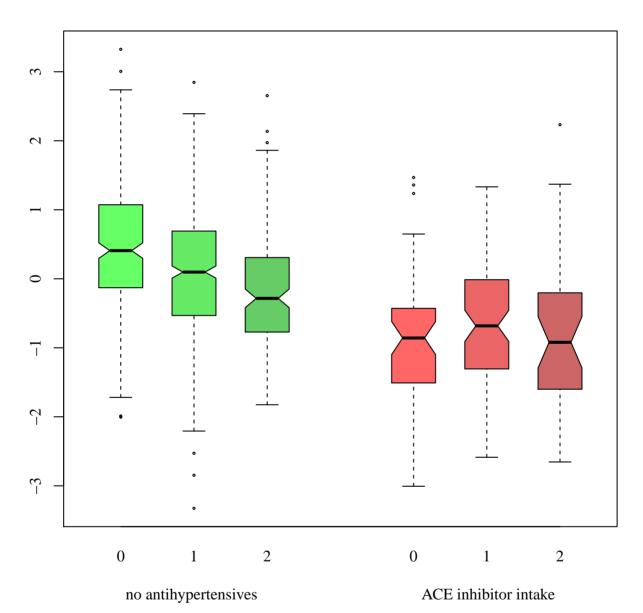
ACE inhibitor intake



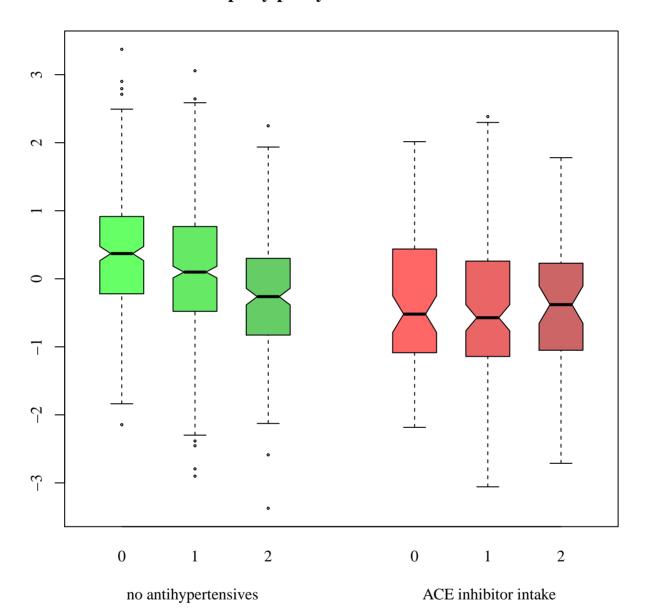
X14205 – rs4336



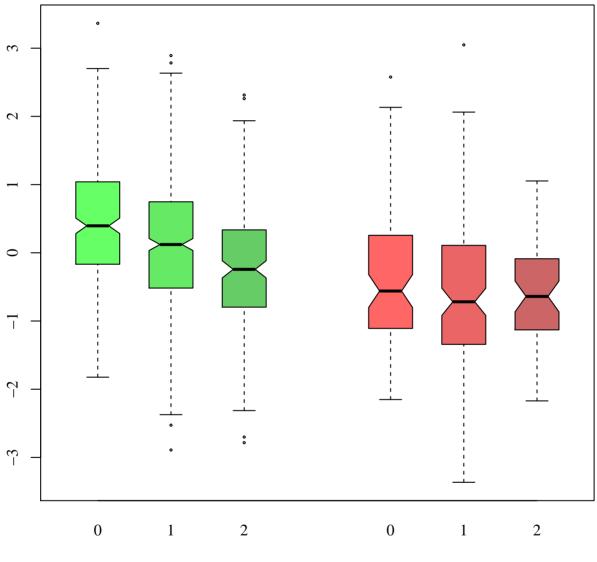
X14208 – rs4336



X14304 – rs4336

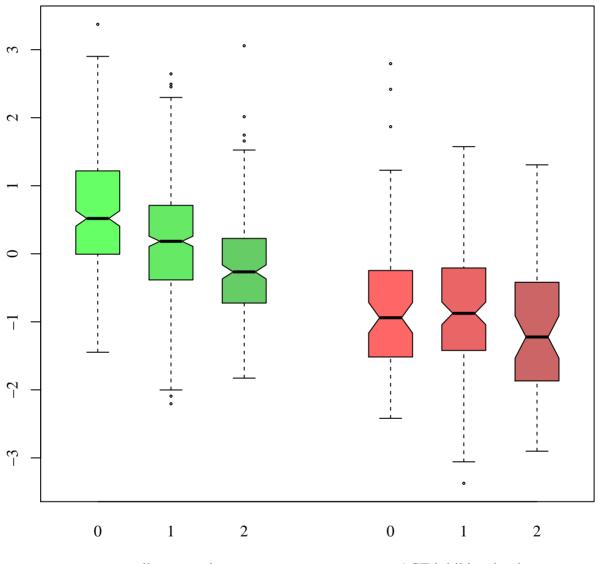


## aspartylphenylalanine – rs4337



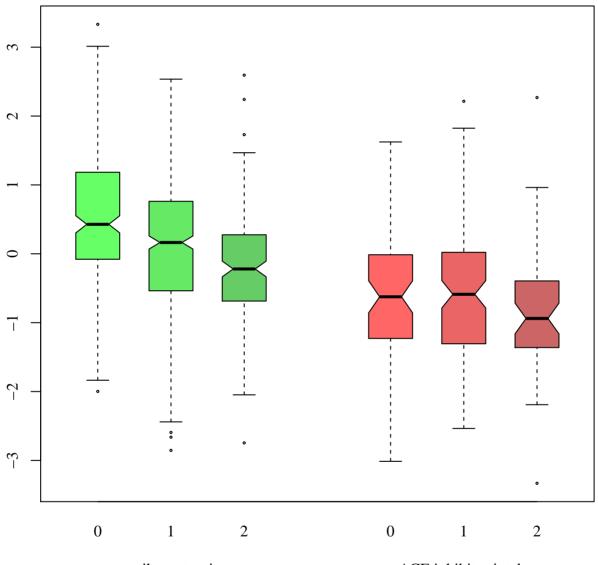
#### aspartylphenylalanine/HWESASXX – rs4337

no antihypertensives



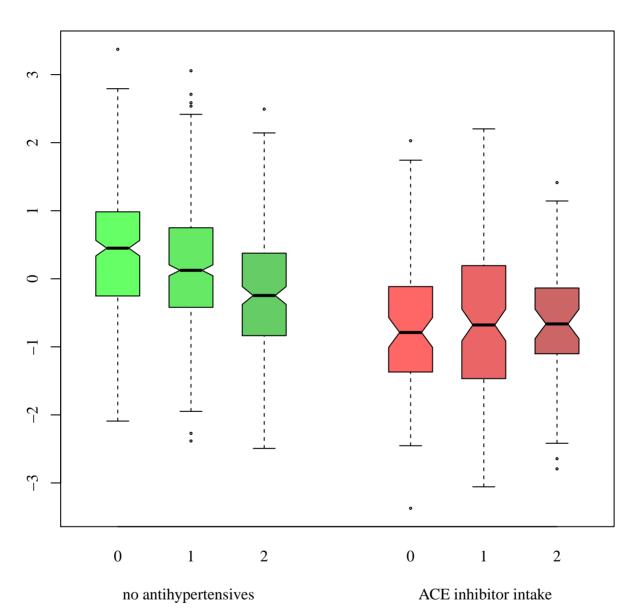
## aspartylphenylalanine/X11805 – rs4337

no antihypertensives

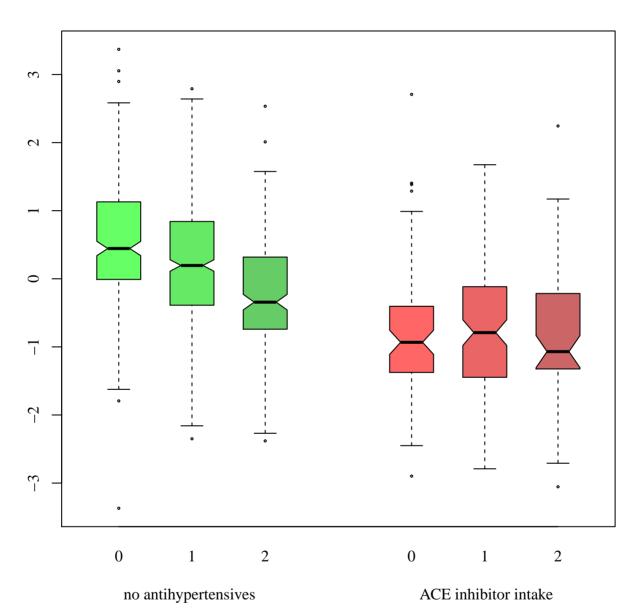


## aspartylphenylalanine/X14450 – rs4337

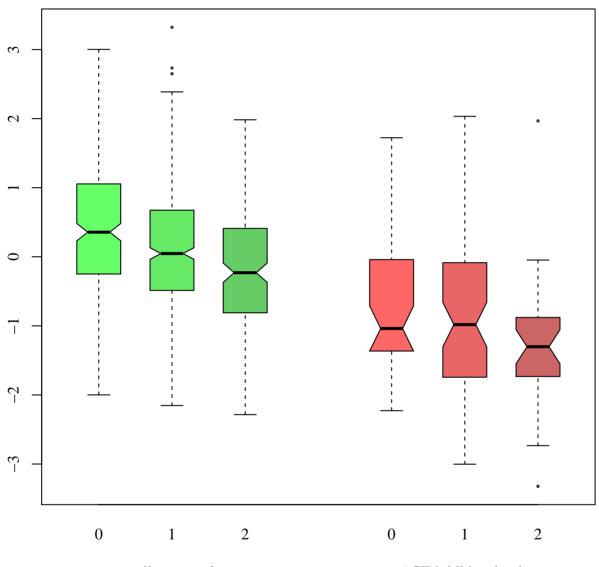
no antihypertensives



X14086 - rs4337

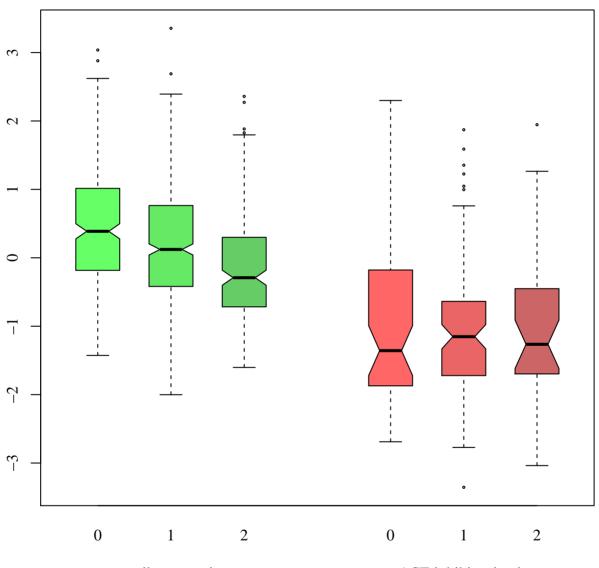


X14189 – rs4337



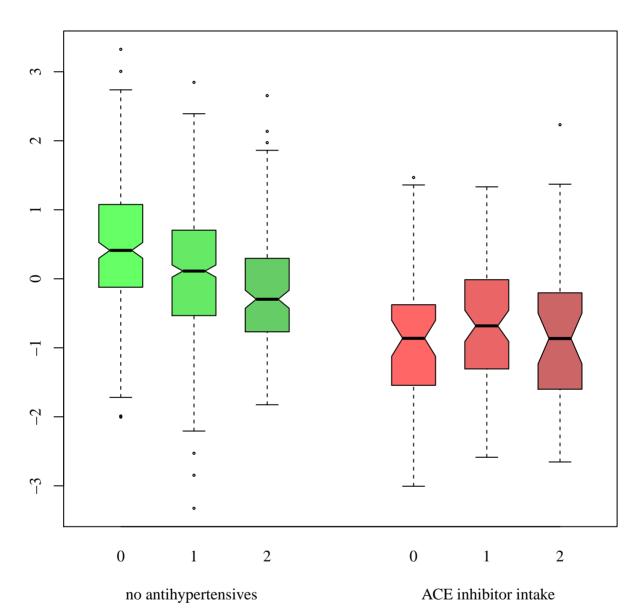
X14205 – rs4337

ACE inhibitor intake

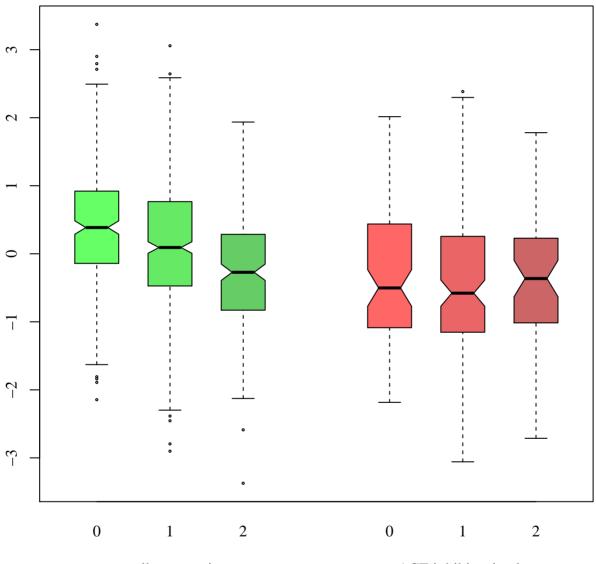


X14208 - rs4337

ACE inhibitor intake

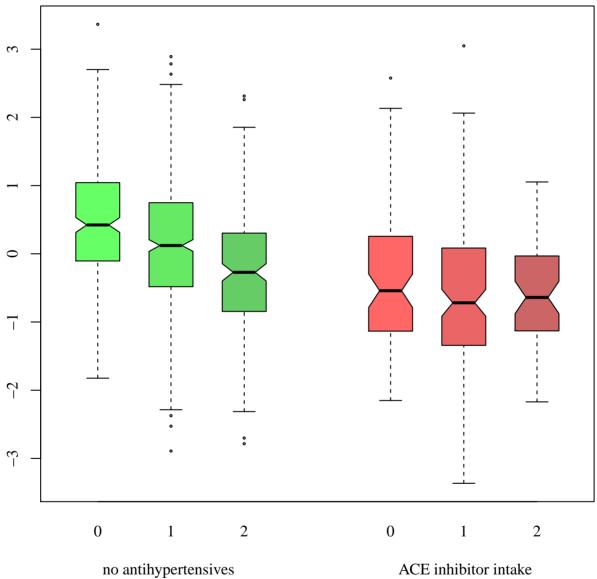


X14304 – rs4337

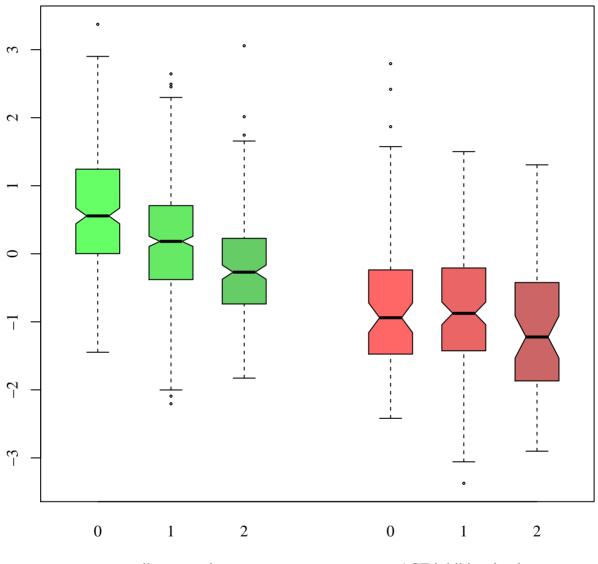


## aspartylphenylalanine – rs1987692

ACE inhibitor intake

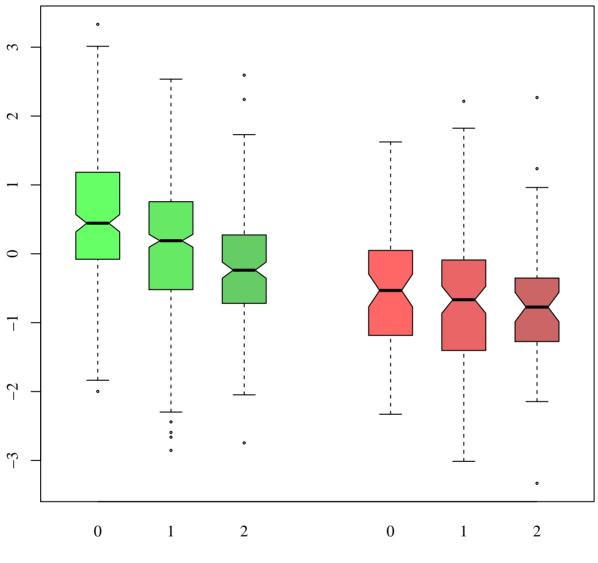


#### aspartylphenylalanine/HWESASXX – rs1987692



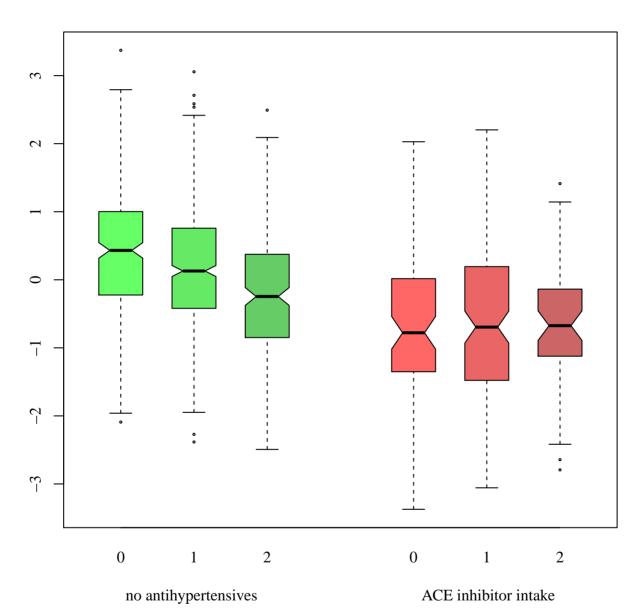
#### aspartylphenylalanine/X11805 – rs1987692

no antihypertensives

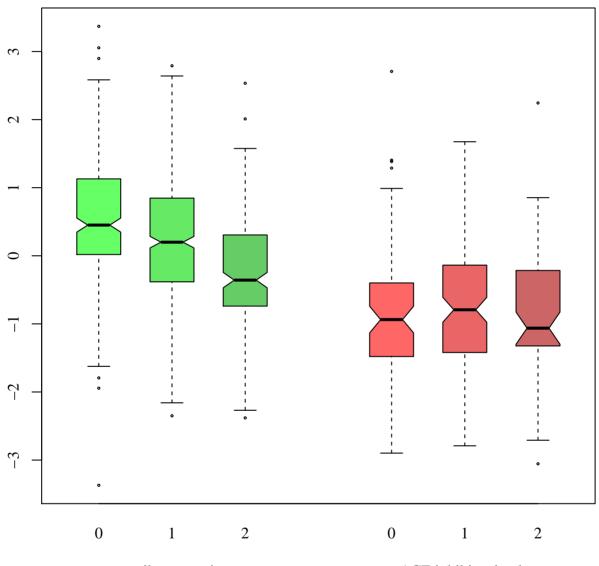


#### aspartylphenylalanine/X14450 – rs1987692

ACE inhibitor intake

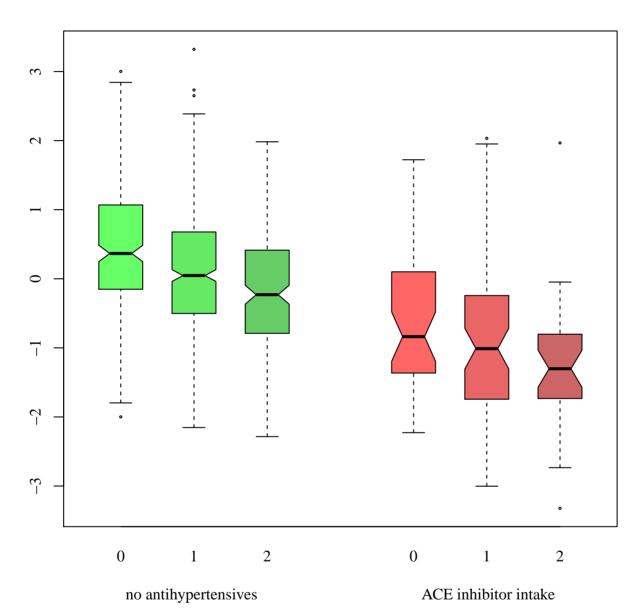


X14086 - rs1987692

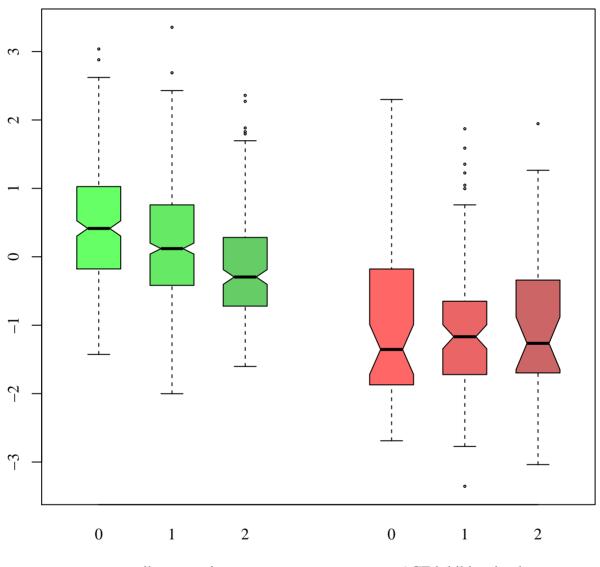


X14189 - rs1987692

ACE inhibitor intake

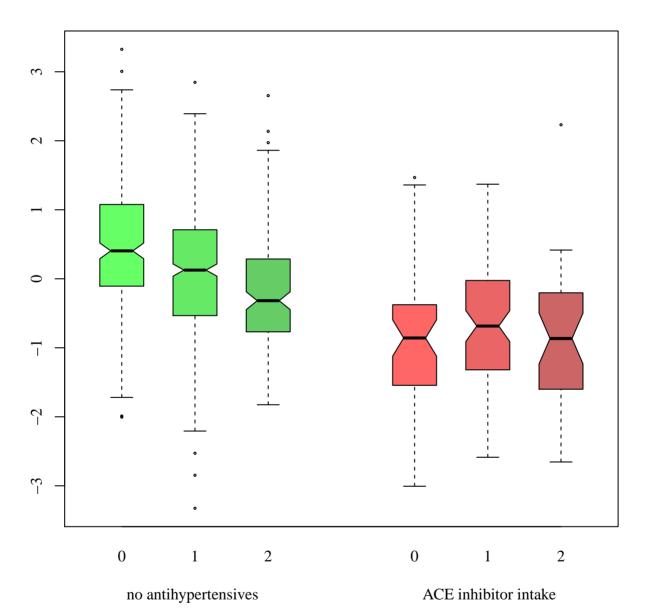


X14205 - rs1987692

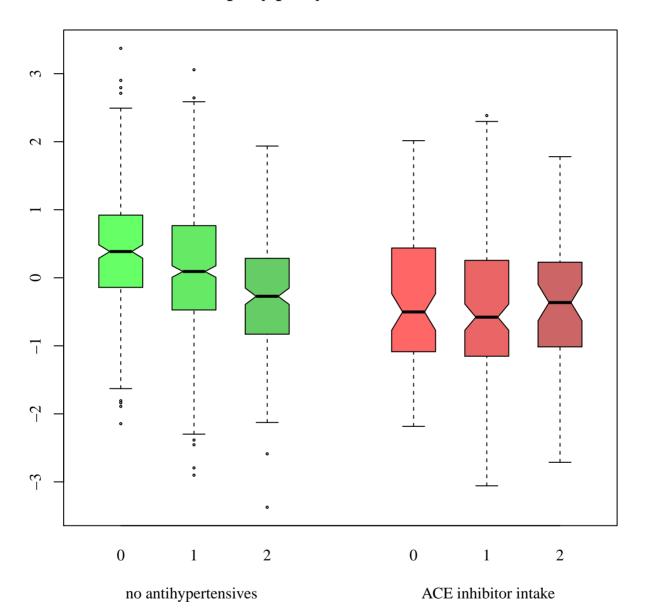


X14208 - rs1987692

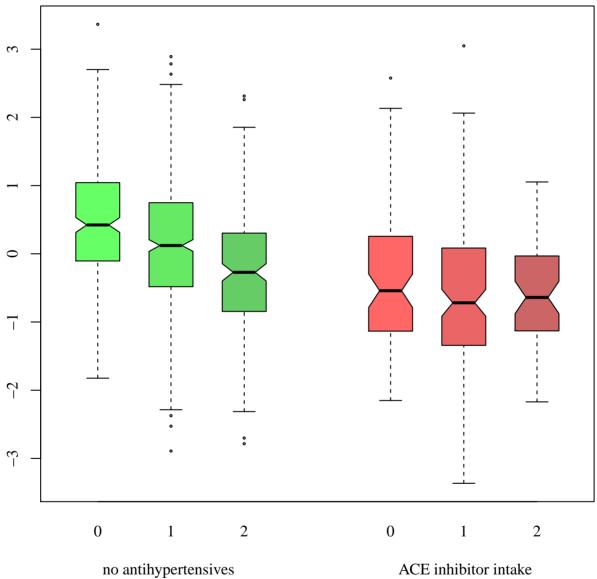
ACE inhibitor intake



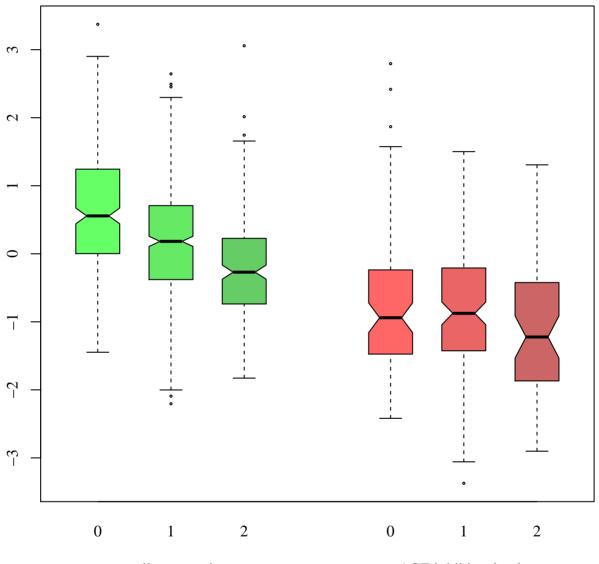
X14304 - rs1987692



## aspartylphenylalanine – rs4341

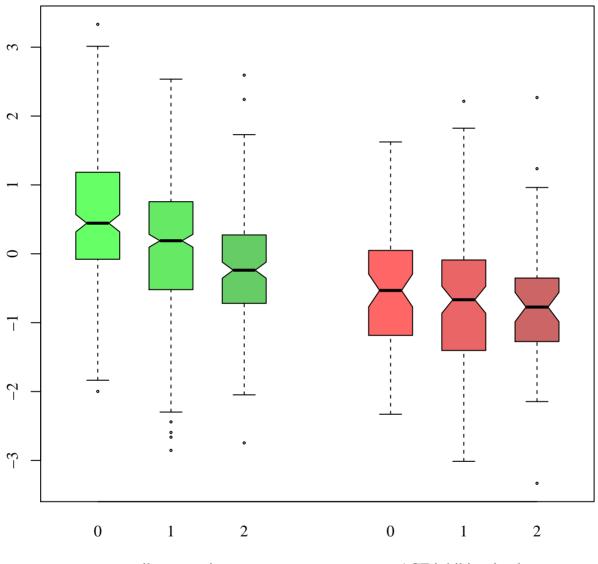


#### aspartylphenylalanine/HWESASXX – rs4341



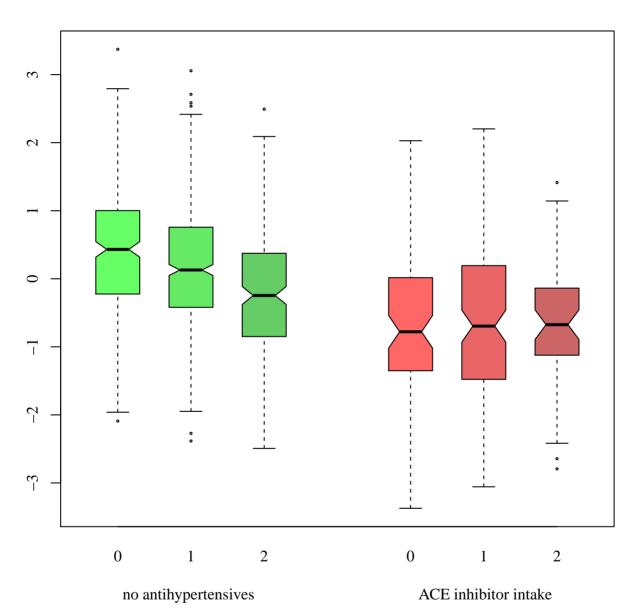
# aspartylphenylalanine/X11805 – rs4341

no antihypertensives

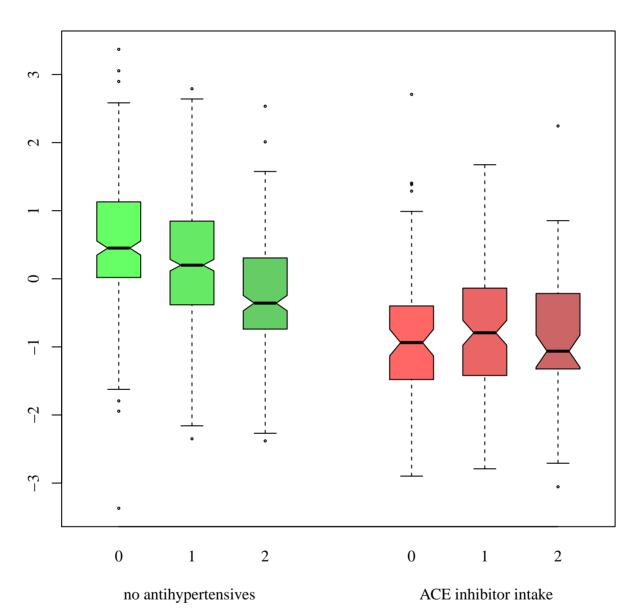


## aspartylphenylalanine/X14450 – rs4341

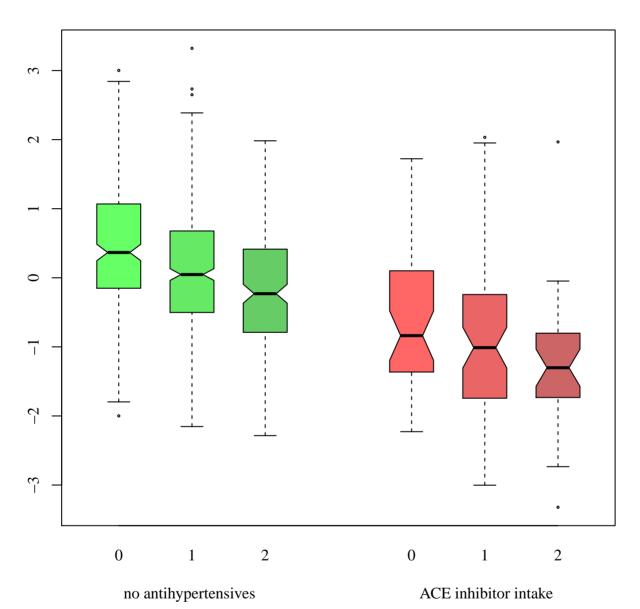
no antihypertensives



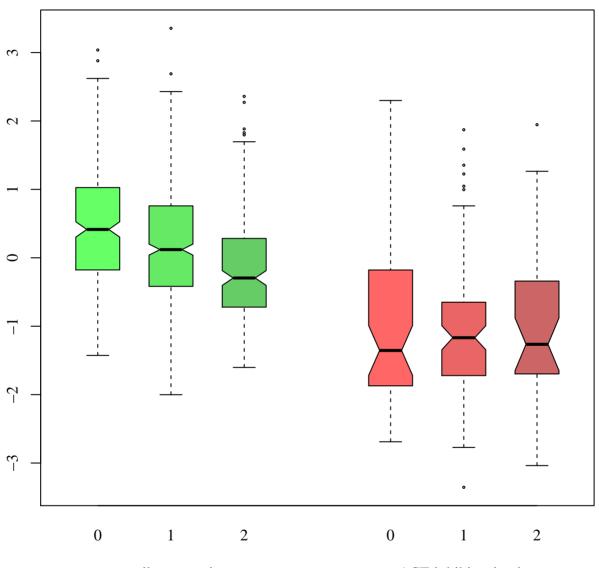
X14086 – rs4341



X14189 – rs4341

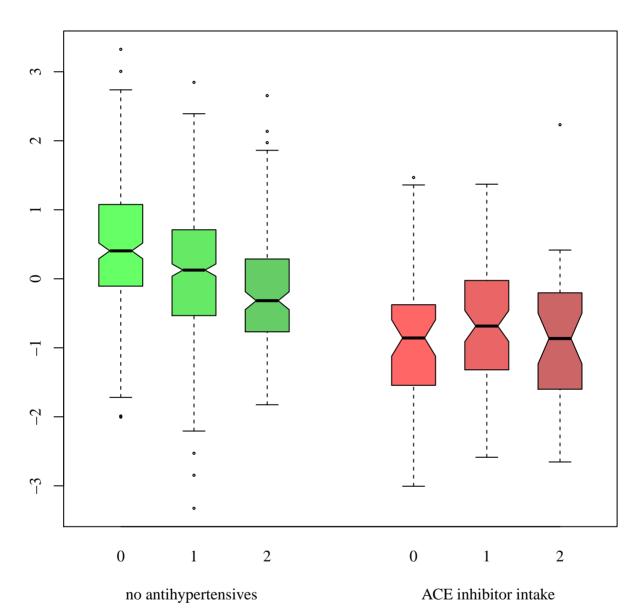


X14205 – rs4341

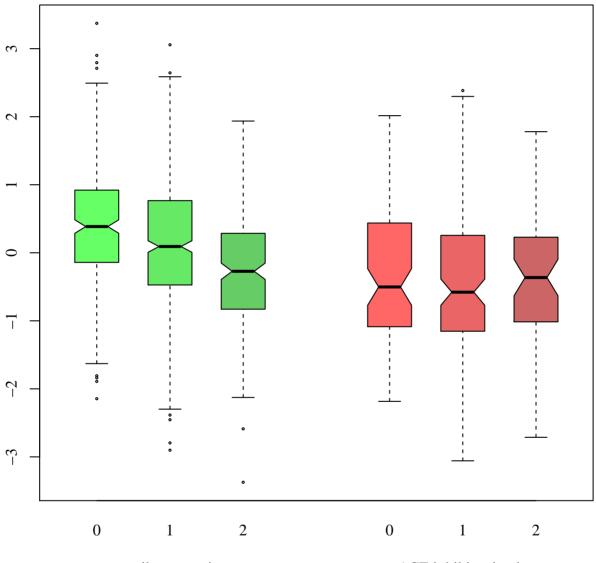


X14208 – rs4341

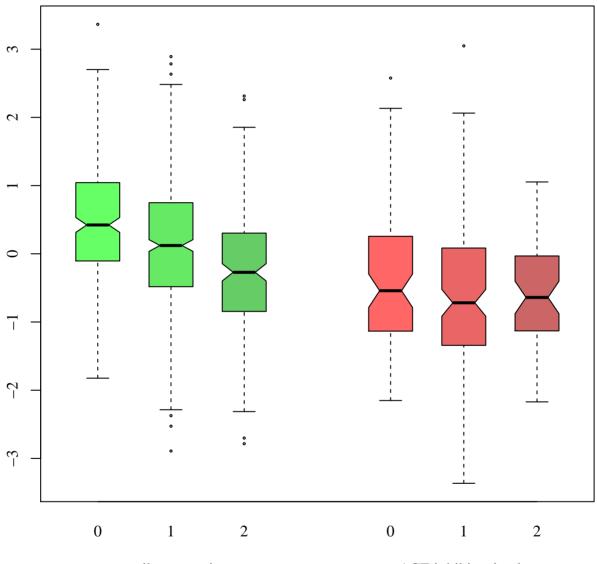
ACE inhibitor intake



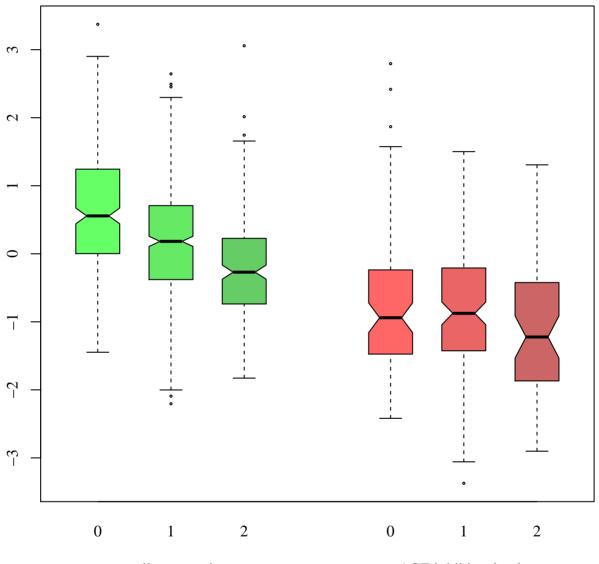
X14304 – rs4341



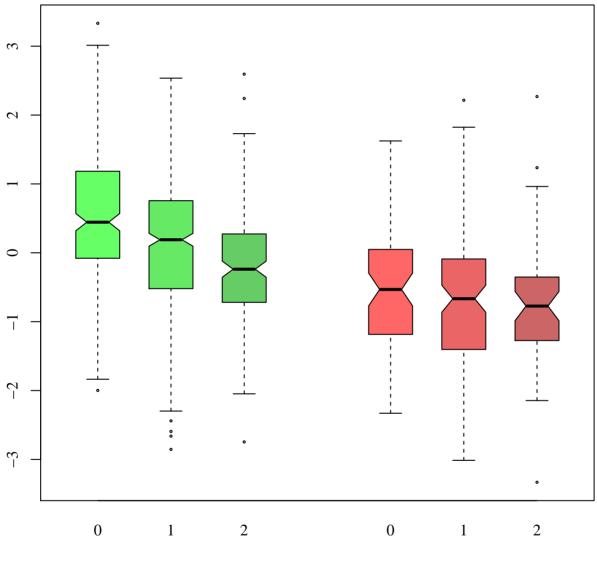
no antihypertensives



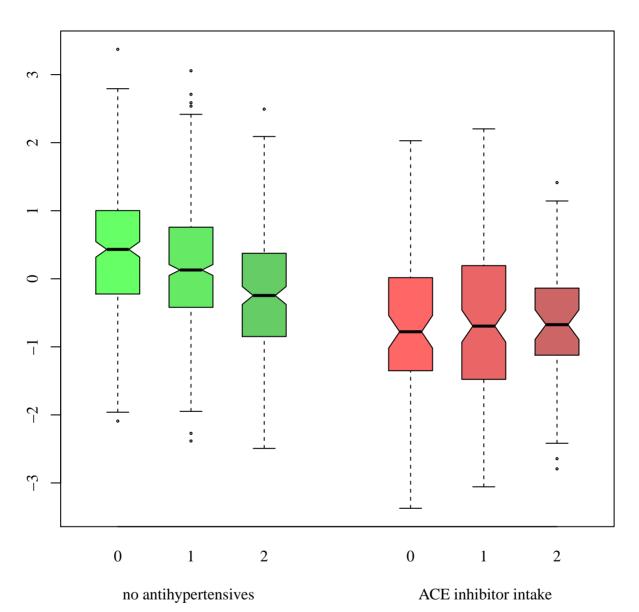
no antihypertensives



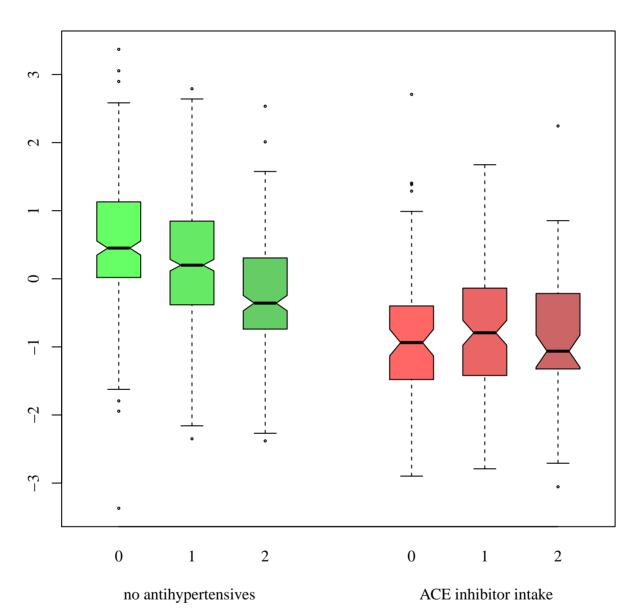
no antihypertensives



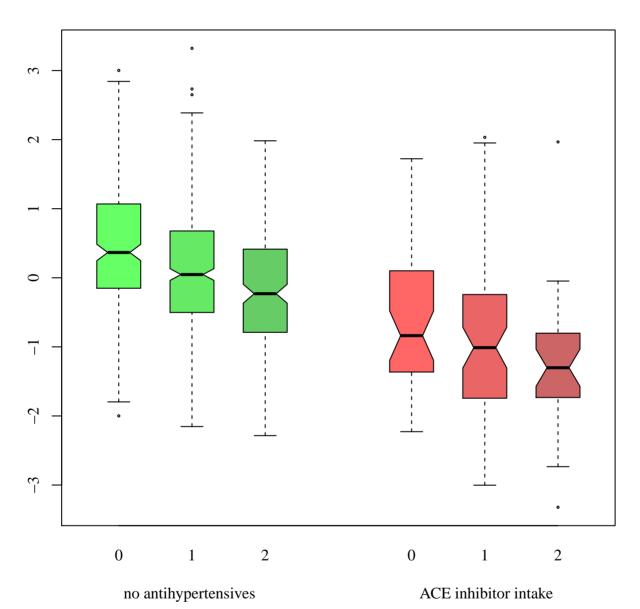
no antihypertensives



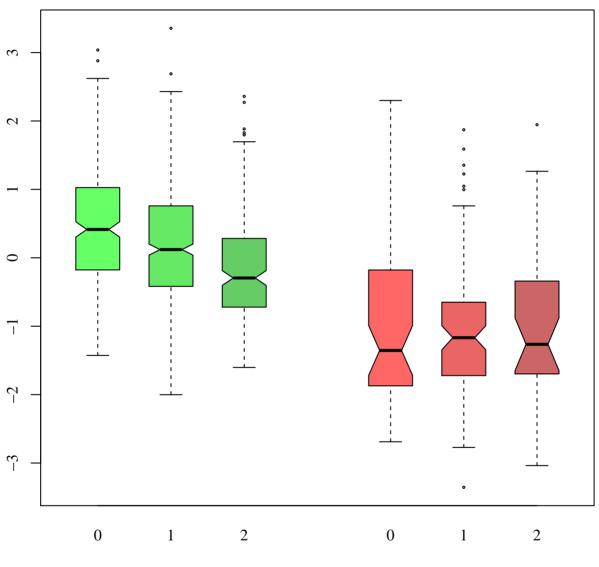
X14086 - rs4342



X14189 – rs4342

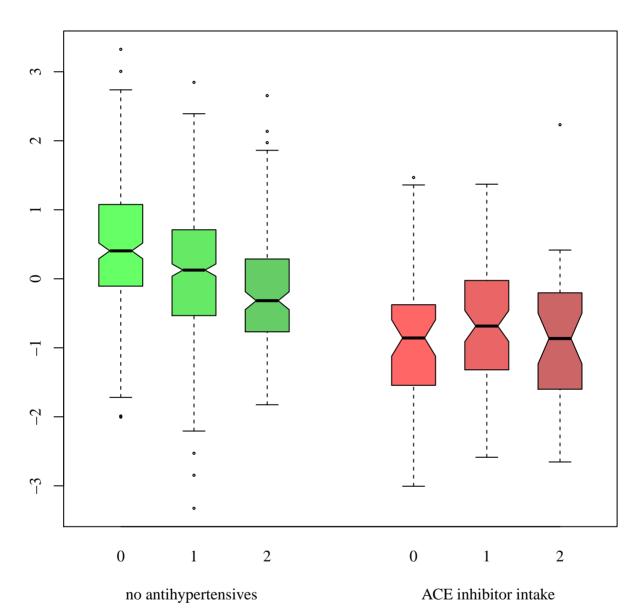


X14205 – rs4342

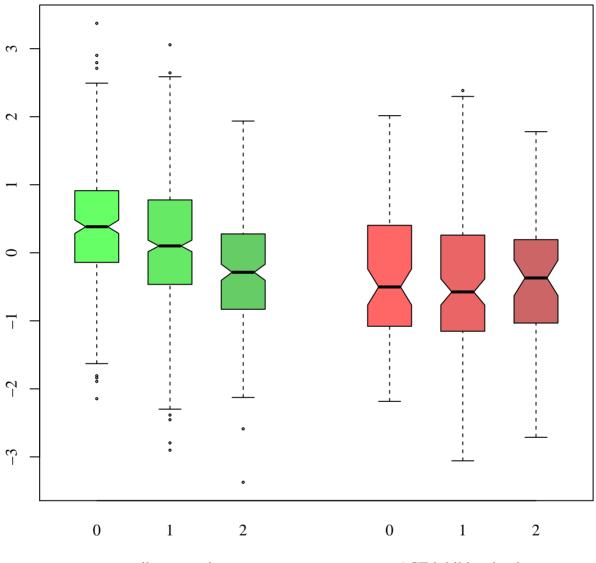


X14208 - rs4342

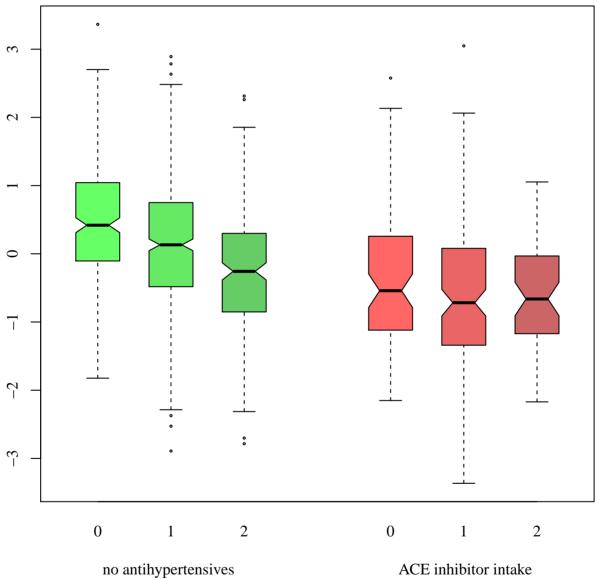
ACE inhibitor intake

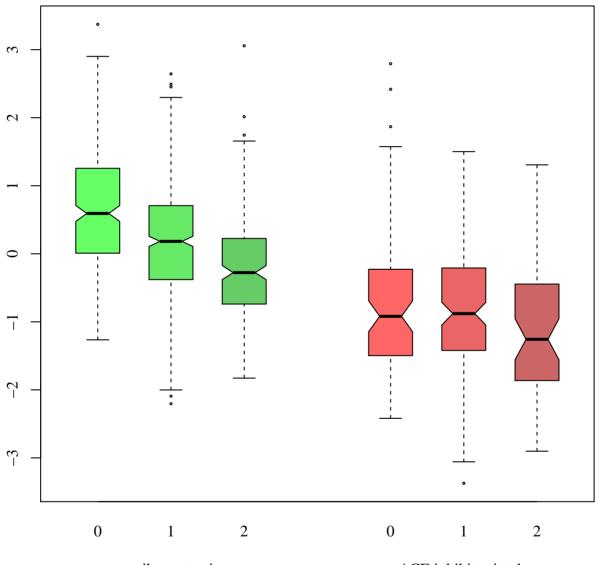


X14304 – rs4342

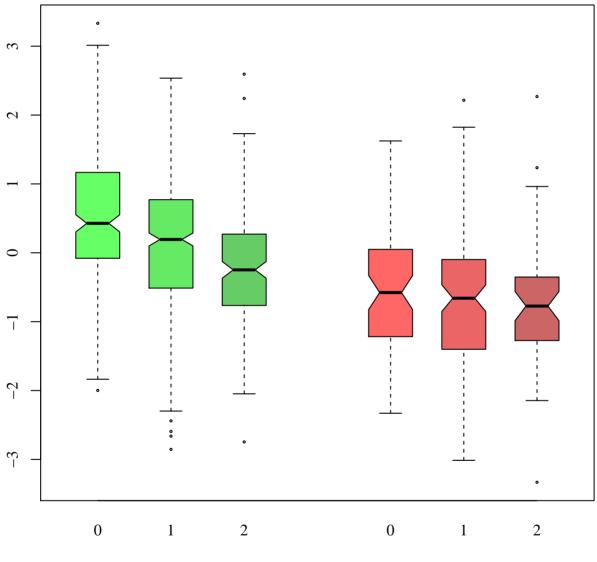


no antihypertensives

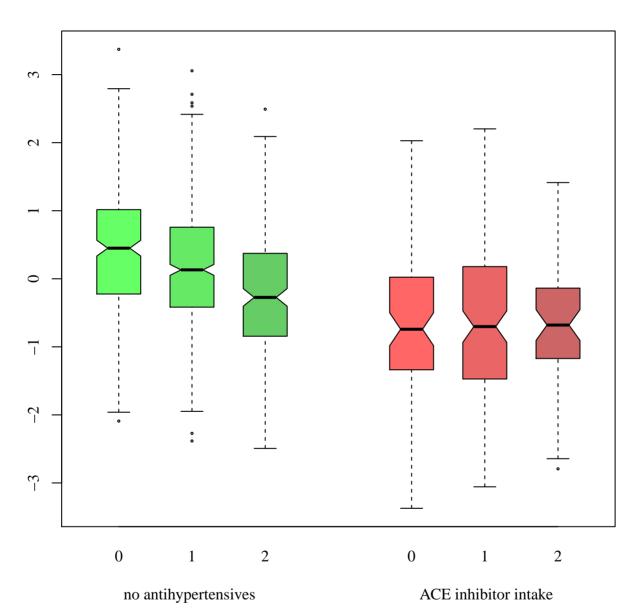




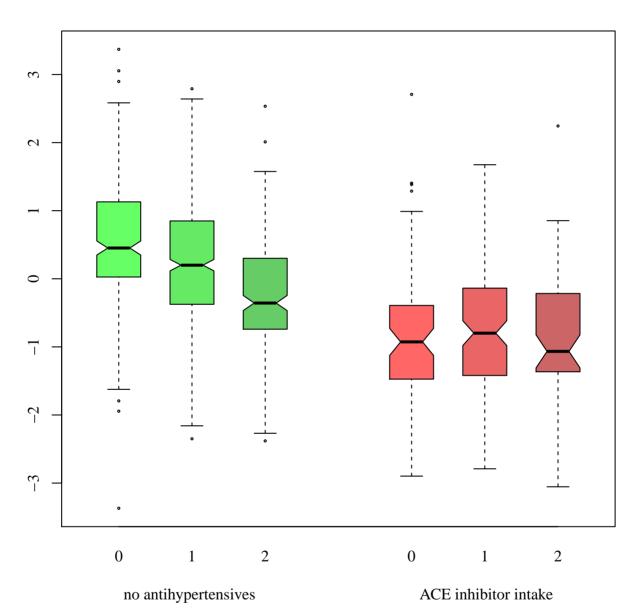
no antihypertensives



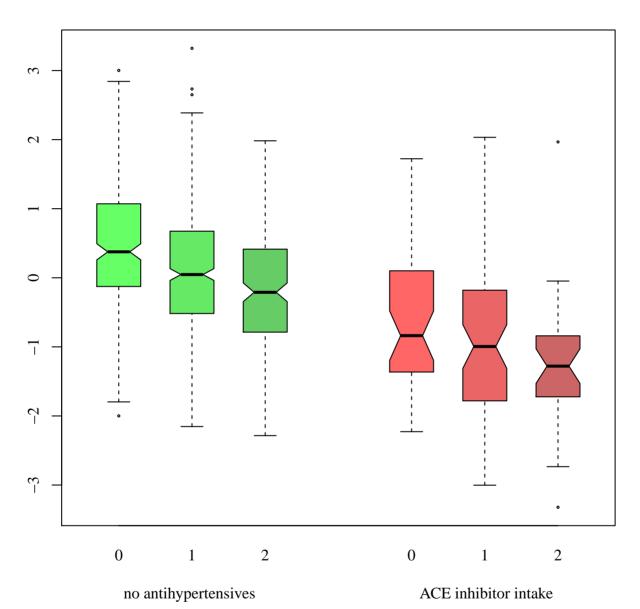
no antihypertensives



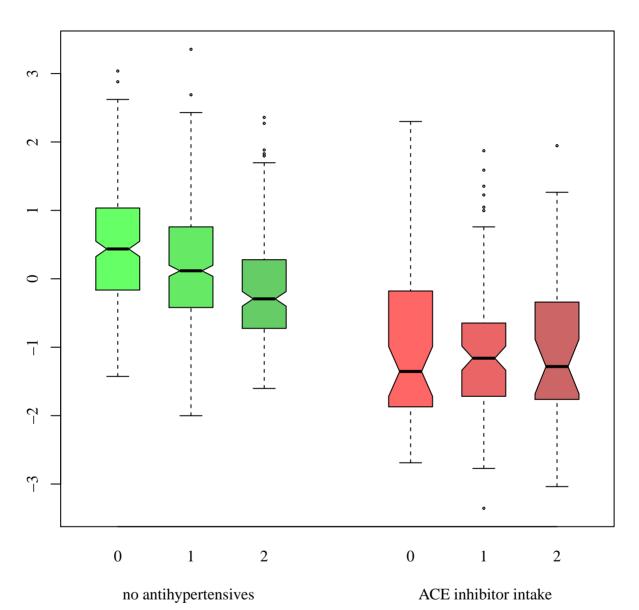
X14086 - rs4343



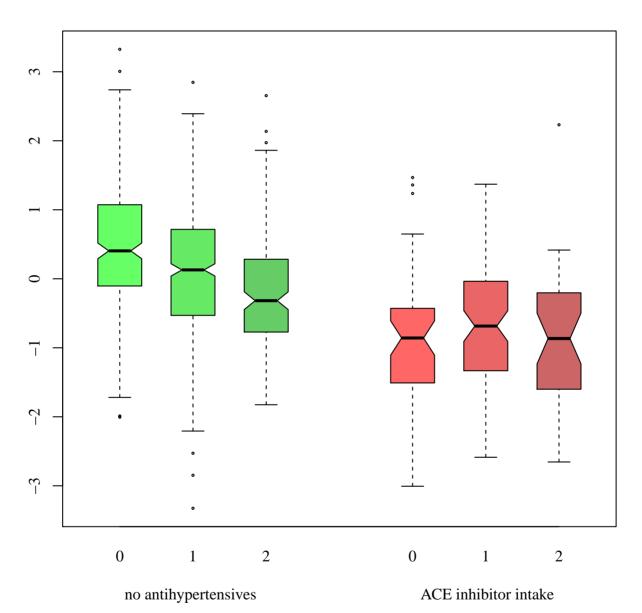
X14189 – rs4343



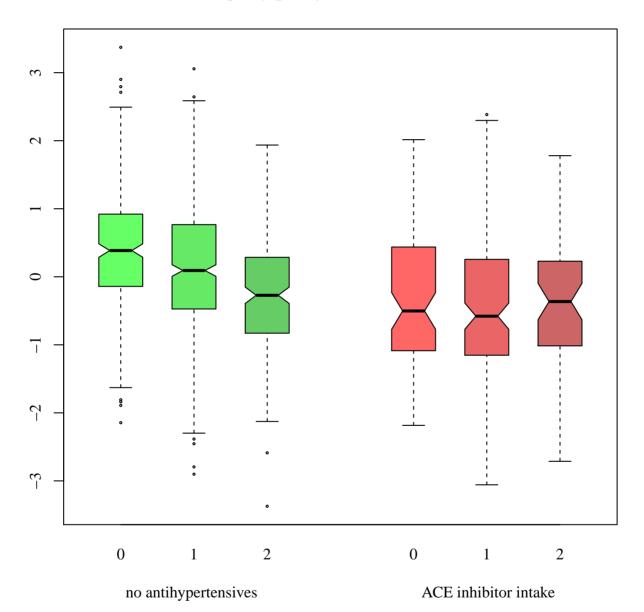
X14205 – rs4343

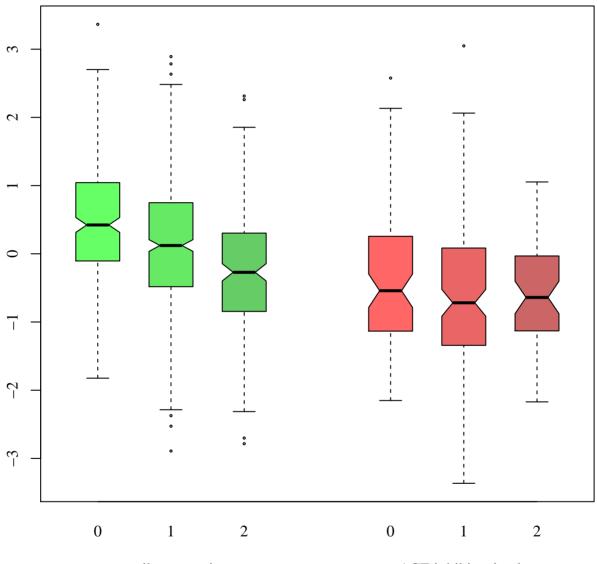


X14208 - rs4343

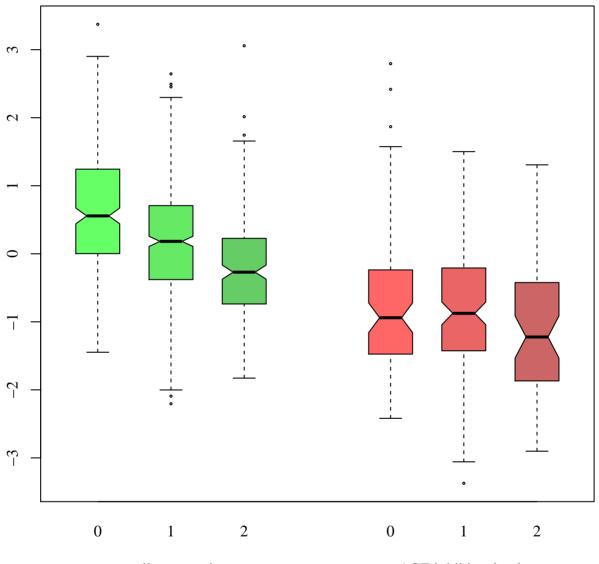


X14304 – rs4343

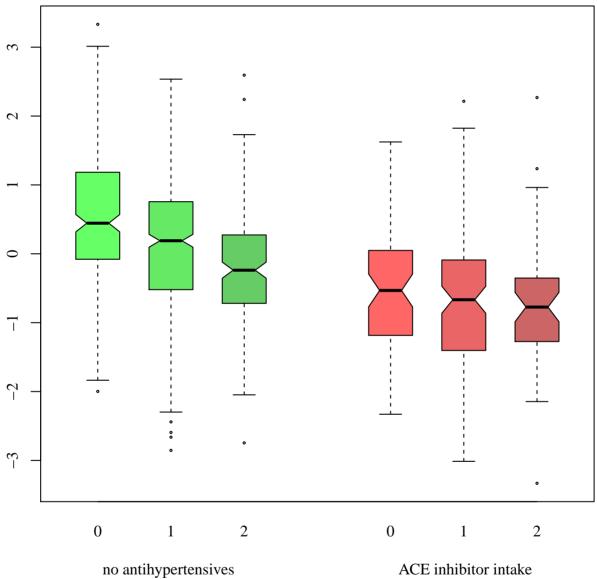


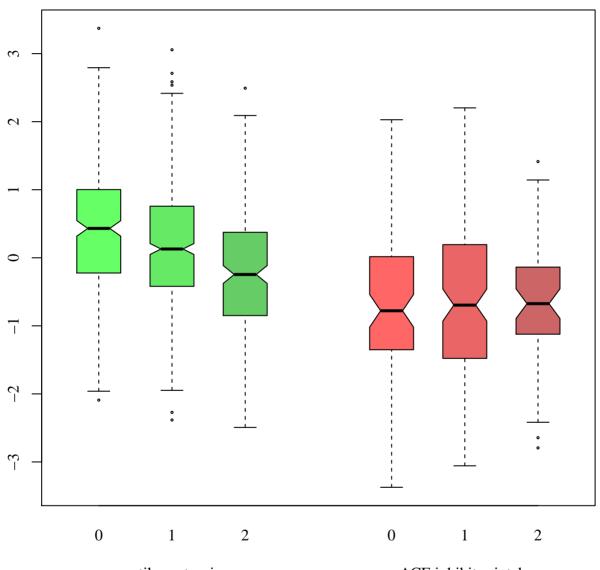


no antihypertensives



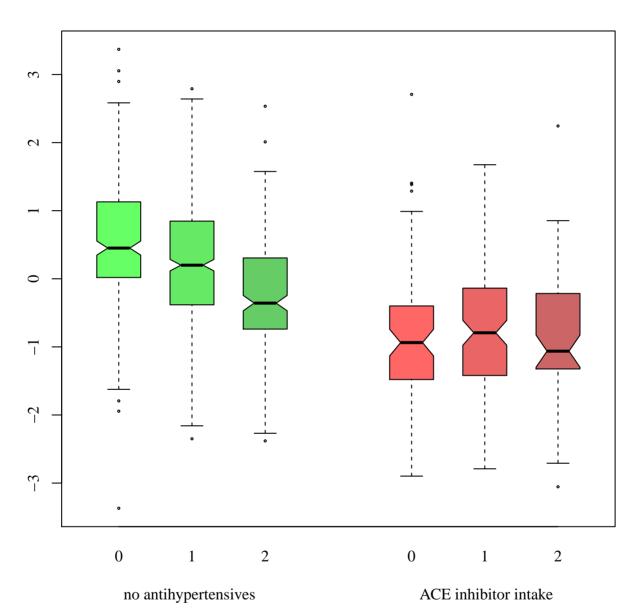
no antihypertensives



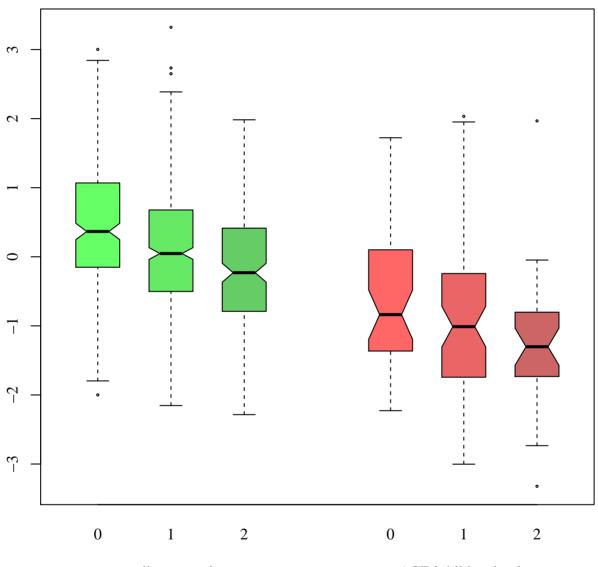


X14086 – rs4344

no antihypertensives

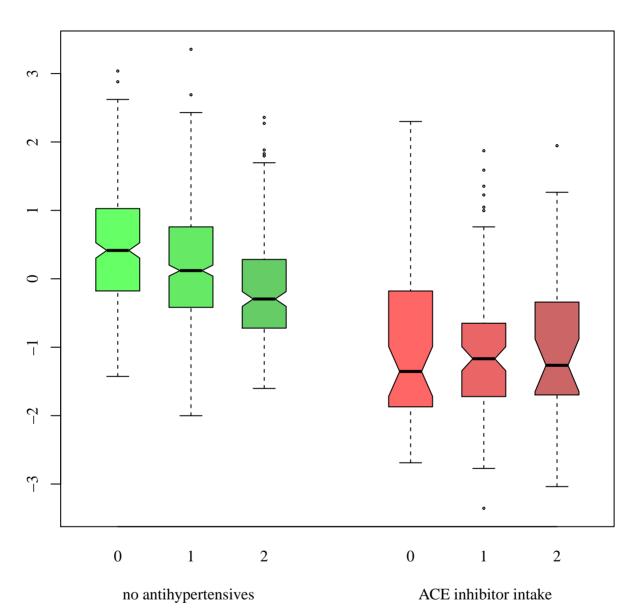


X14189 – rs4344

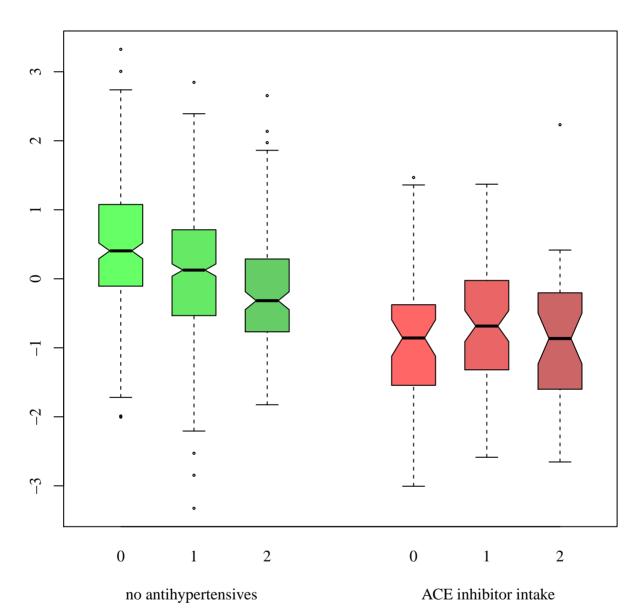


X14205 – rs4344

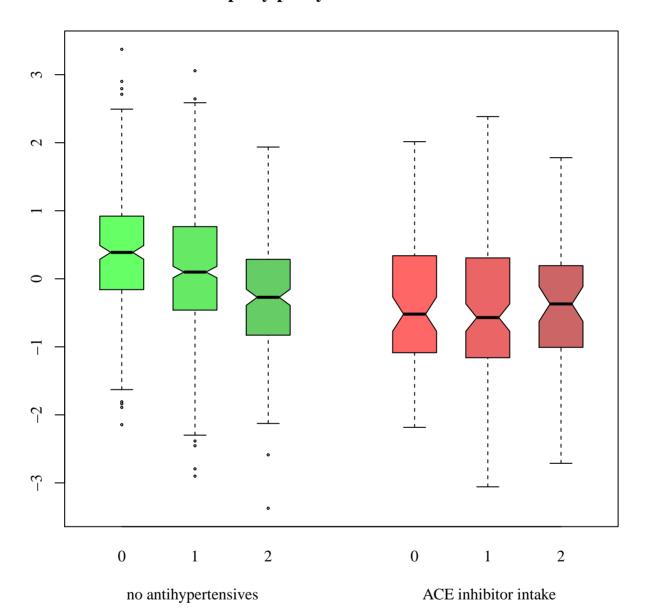
ACE inhibitor intake

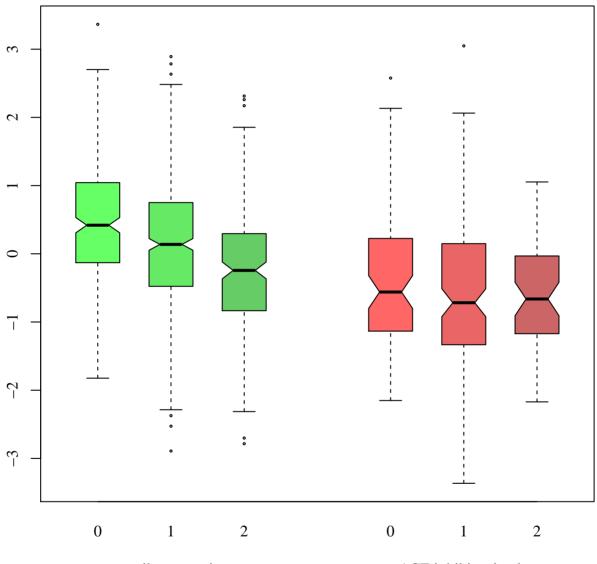


X14208 - rs4344

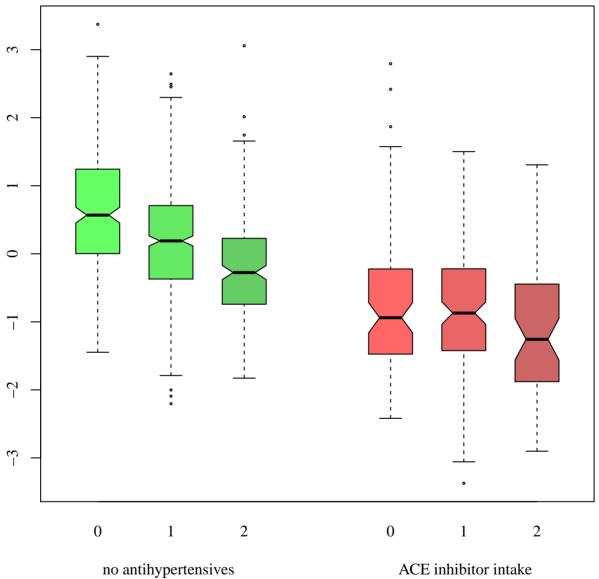


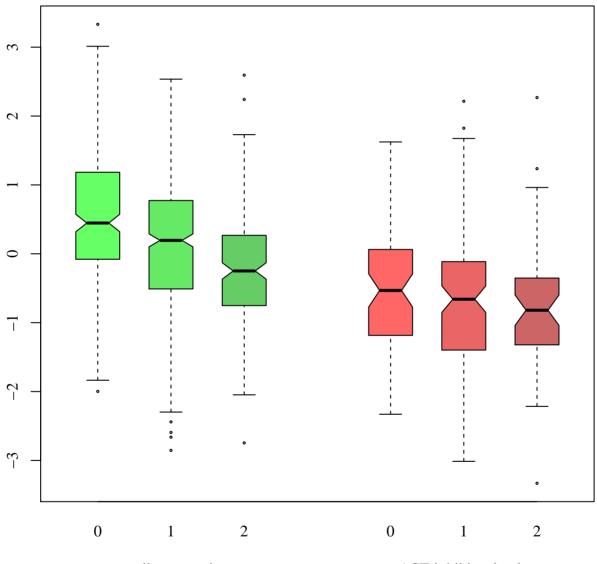
X14304 – rs4344



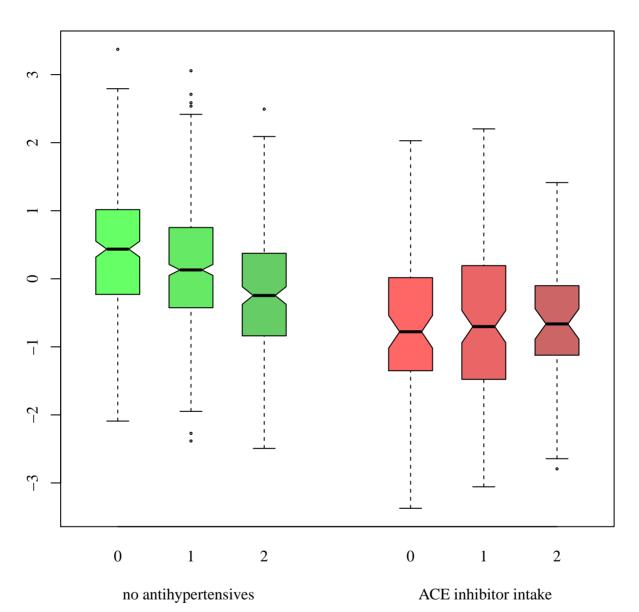


no antihypertensives

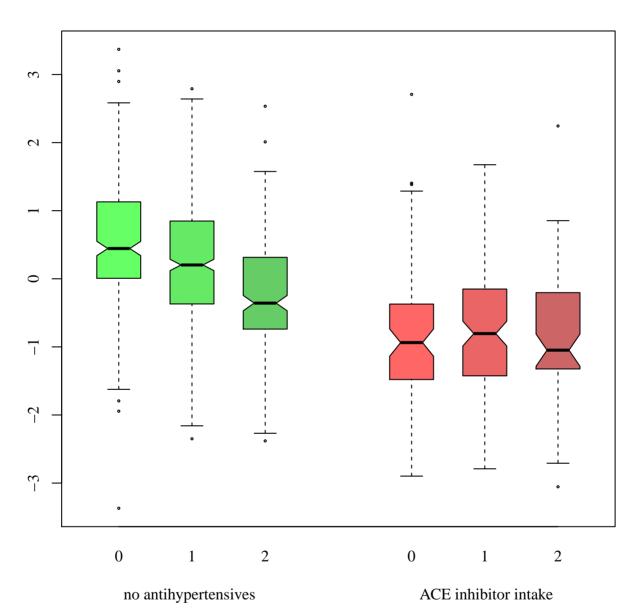




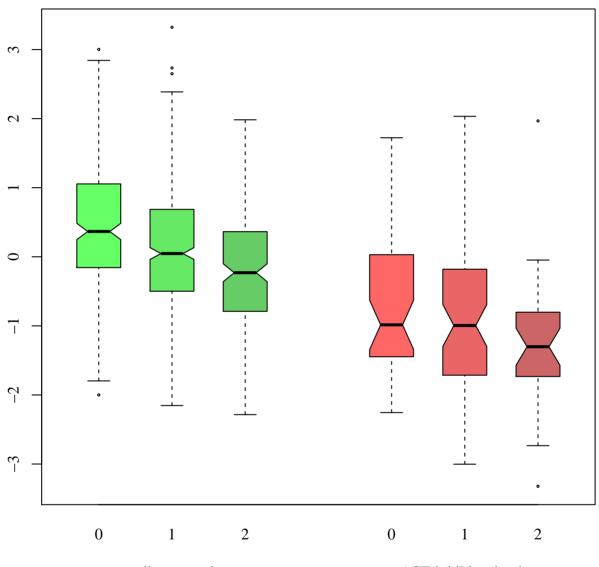
no antihypertensives



X14086 – rs4351



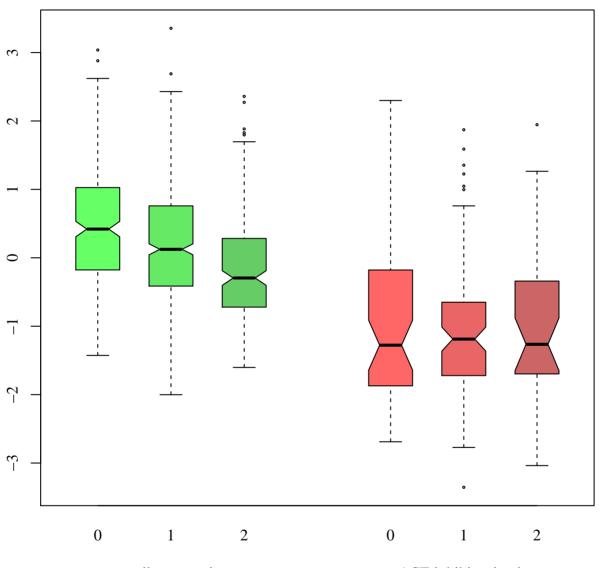
X14189 – rs4351



X14205 – rs4351

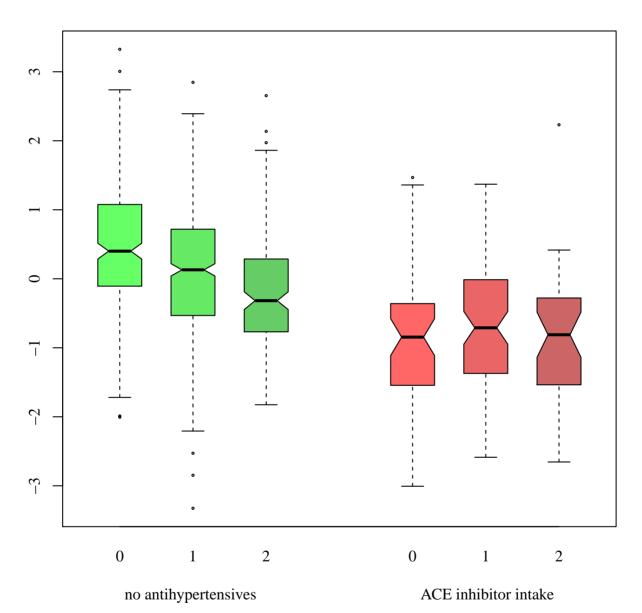
no antihypertensives

ACE inhibitor intake

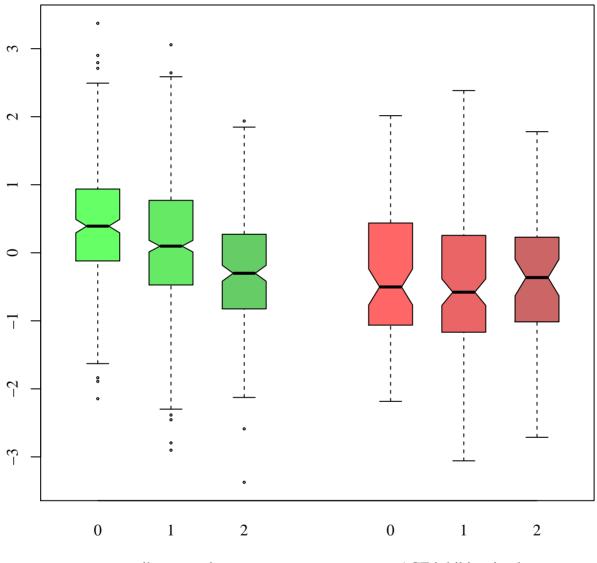


X14208 – rs4351

ACE inhibitor intake

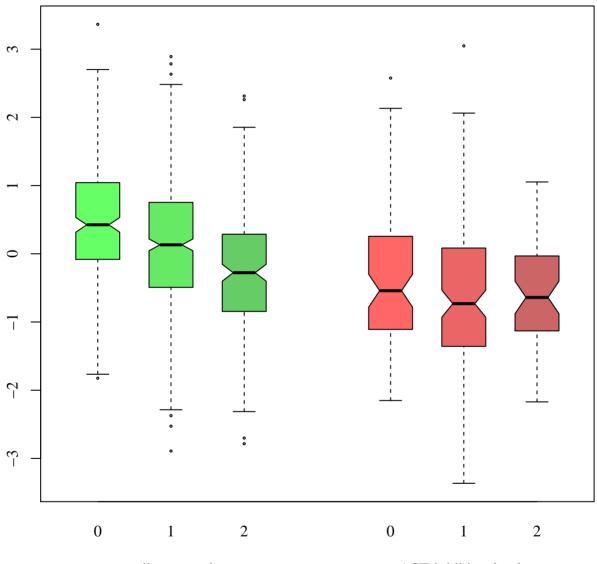


X14304 – rs4351



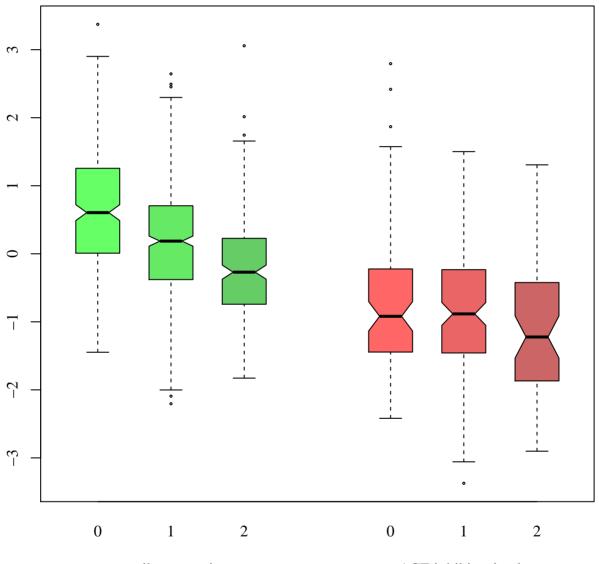
# aspartylphenylalanine – rs4353

no antihypertensives



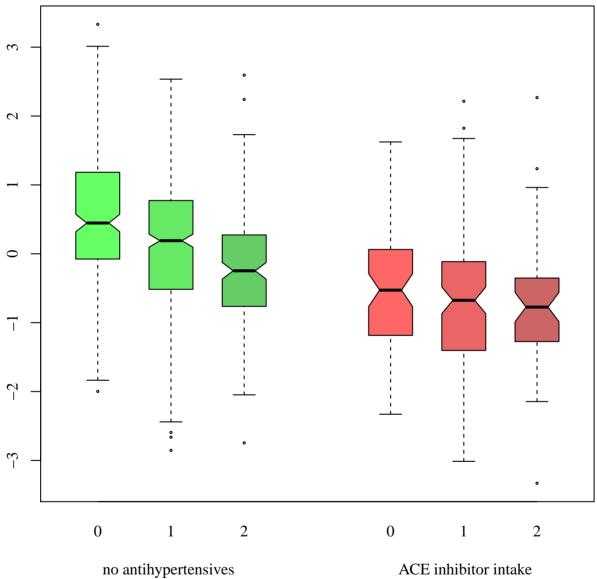
### aspartylphenylalanine/HWESASXX – rs4353

no antihypertensives

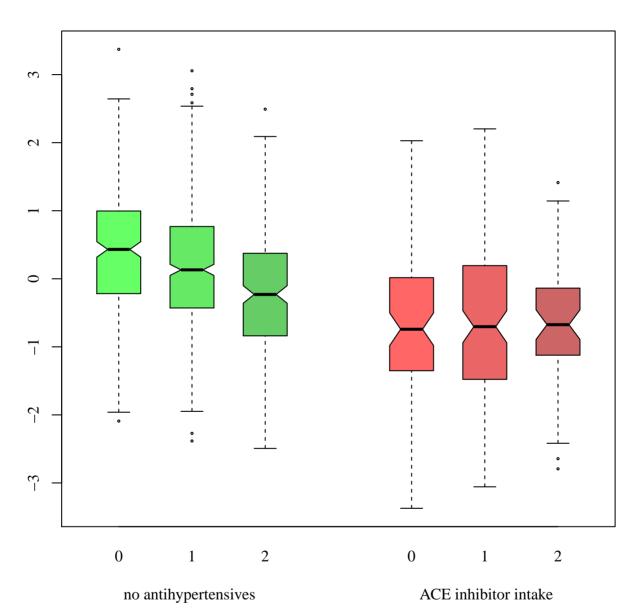


# aspartylphenylalanine/X11805 – rs4353

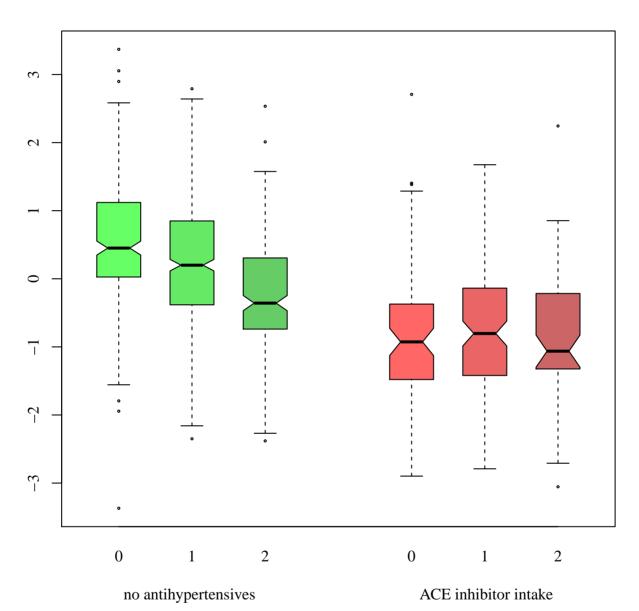
no antihypertensives



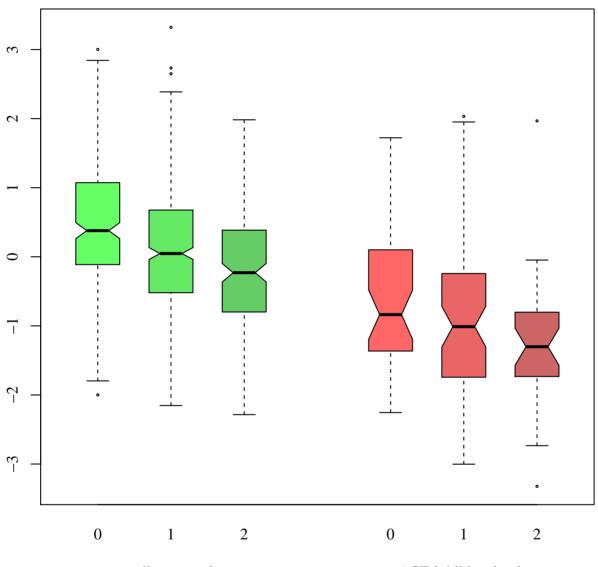
# aspartylphenylalanine/X14450 – rs4353



X14086 – rs4353

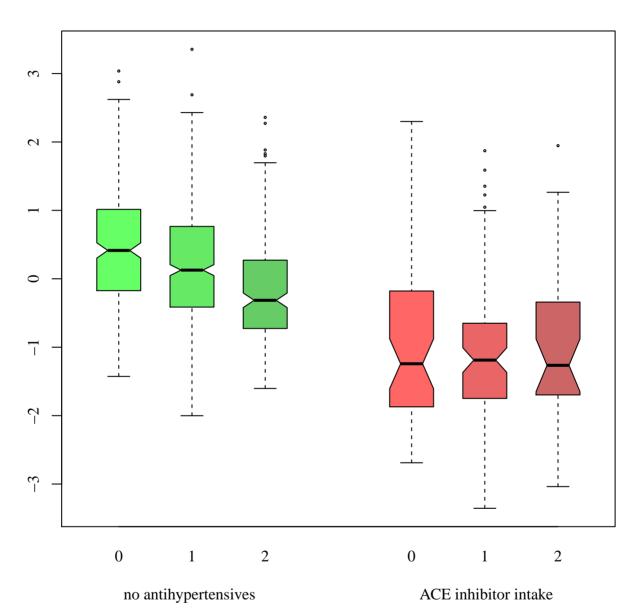


X14189 – rs4353

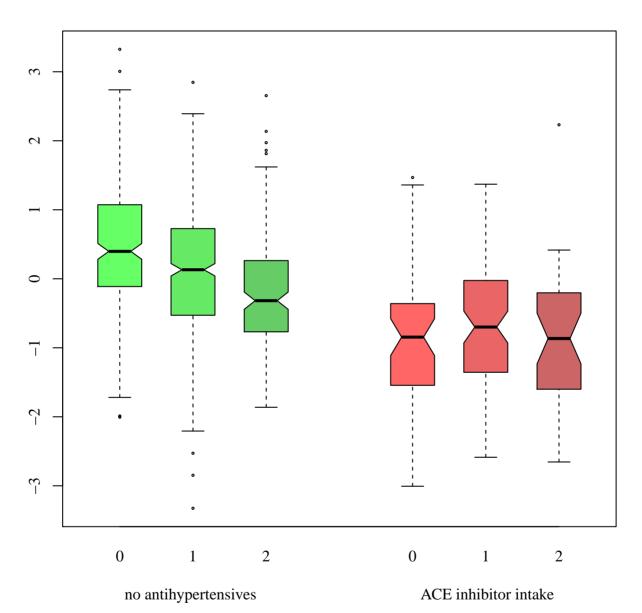


X14205 – rs4353

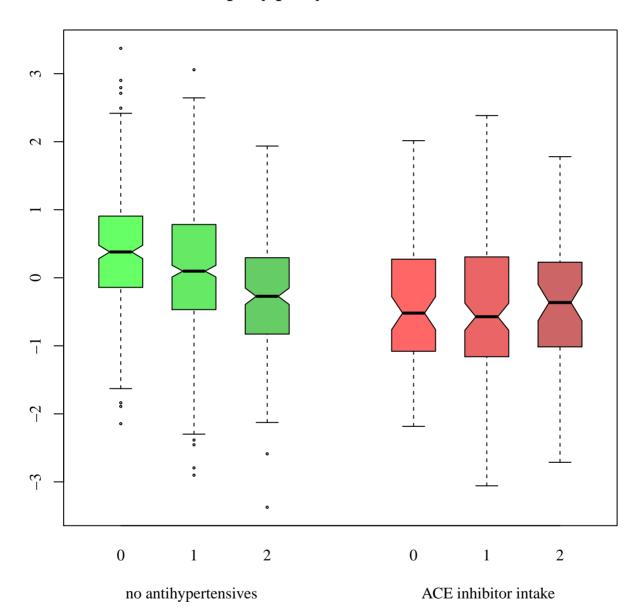
ACE inhibitor intake



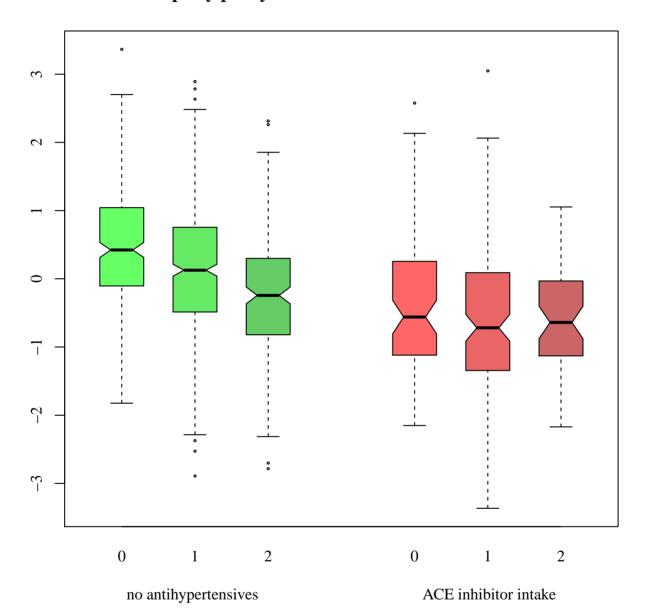
X14208 – rs4353



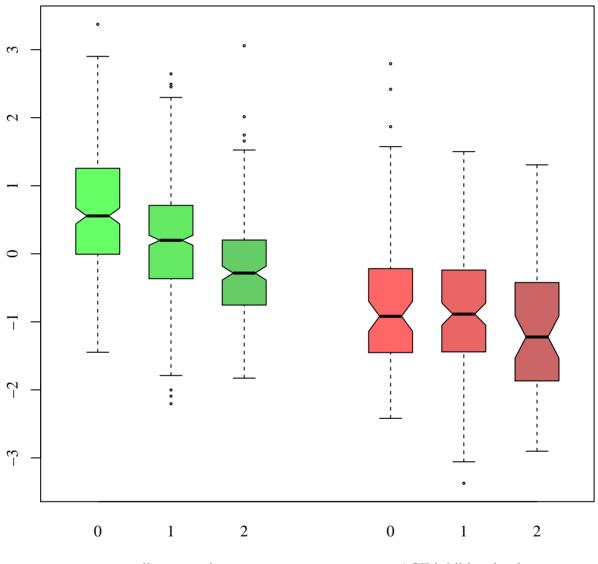
X14304 – rs4353



# aspartylphenylalanine – rs4359

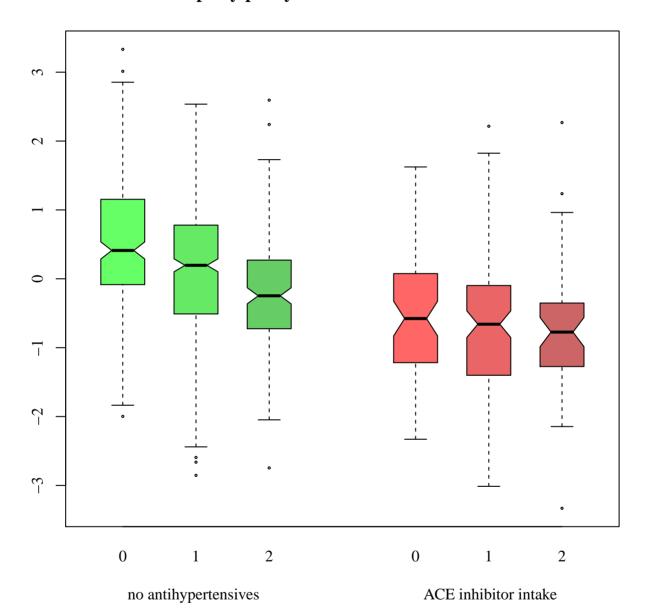


### aspartylphenylalanine/HWESASXX – rs4359

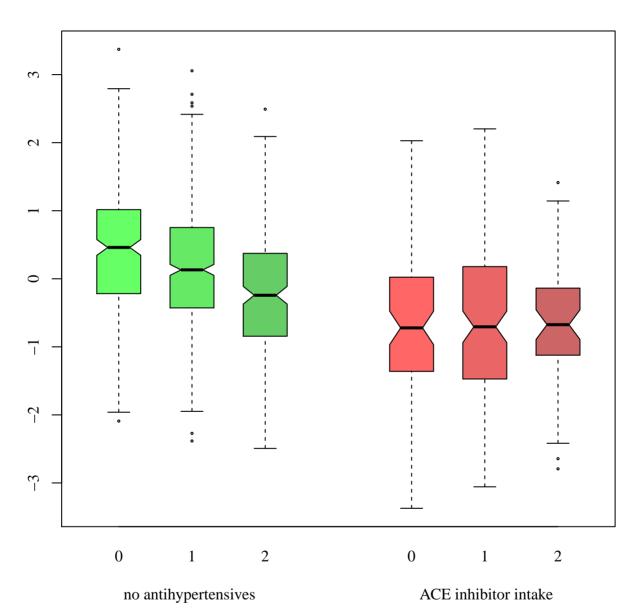


# aspartylphenylalanine/X11805 – rs4359

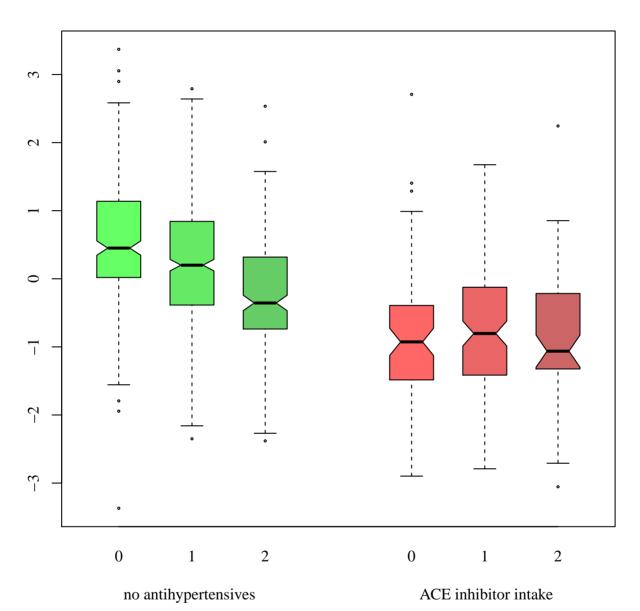
no antihypertensives



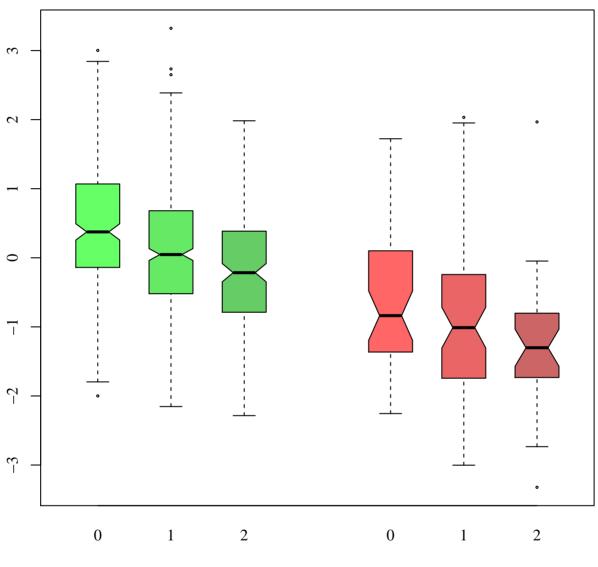
# aspartylphenylalanine/X14450 – rs4359



X14086 - rs4359



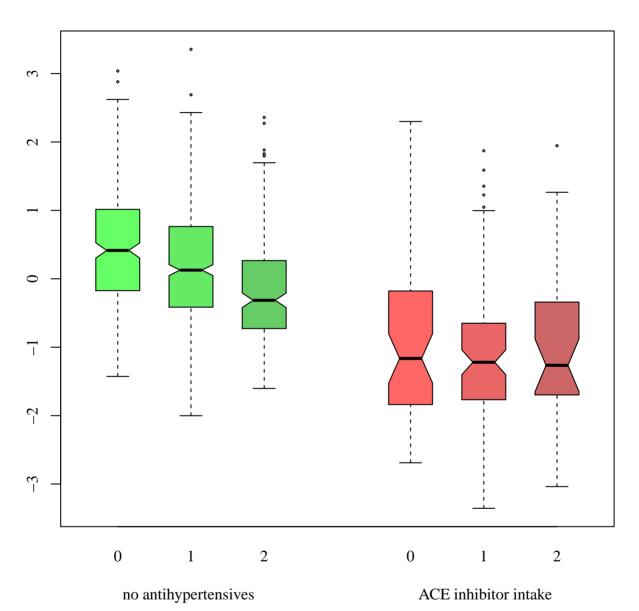
X14189 – rs4359



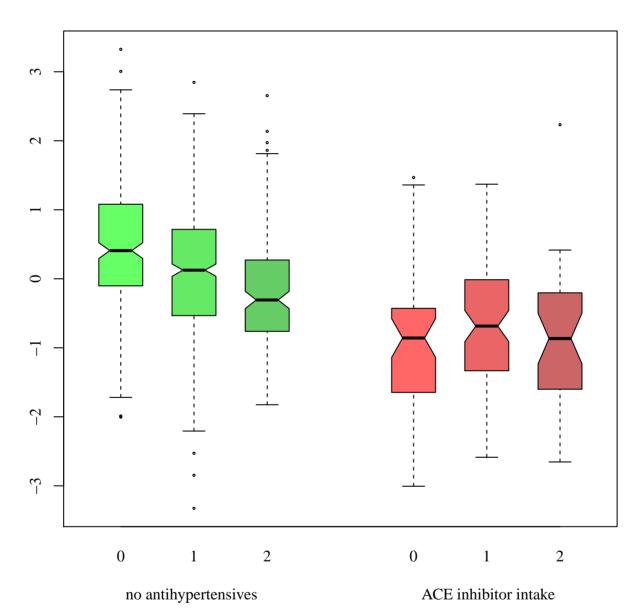
X14205 – rs4359

no antihypertensives

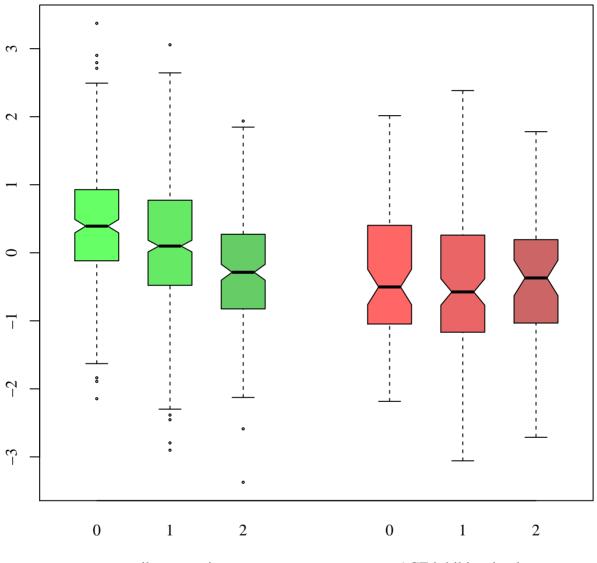
ACE inhibitor intake



X14208 - rs4359

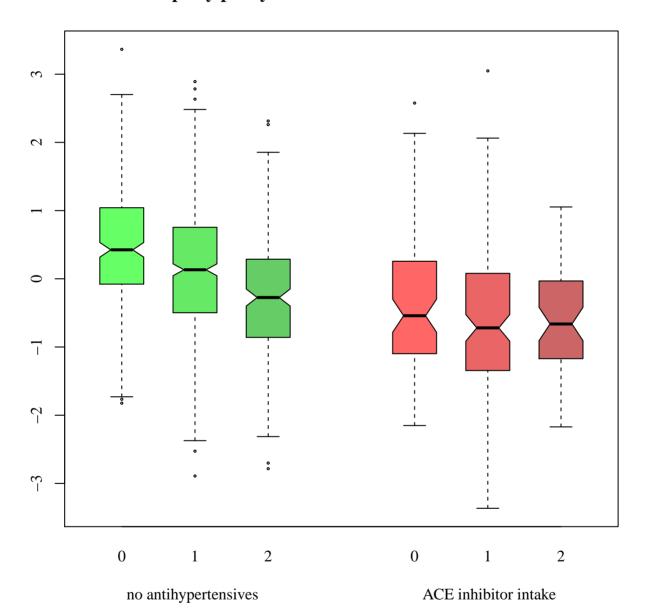


X14304 – rs4359

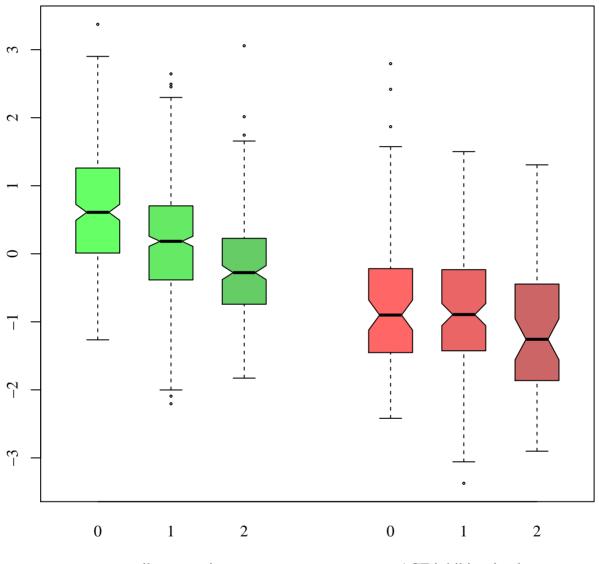


# aspartylphenylalanine – rs4362

no antihypertensives

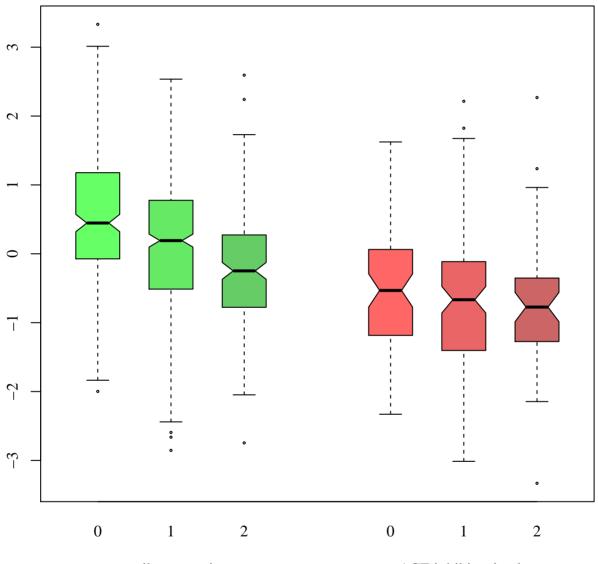


### aspartylphenylalanine/HWESASXX – rs4362



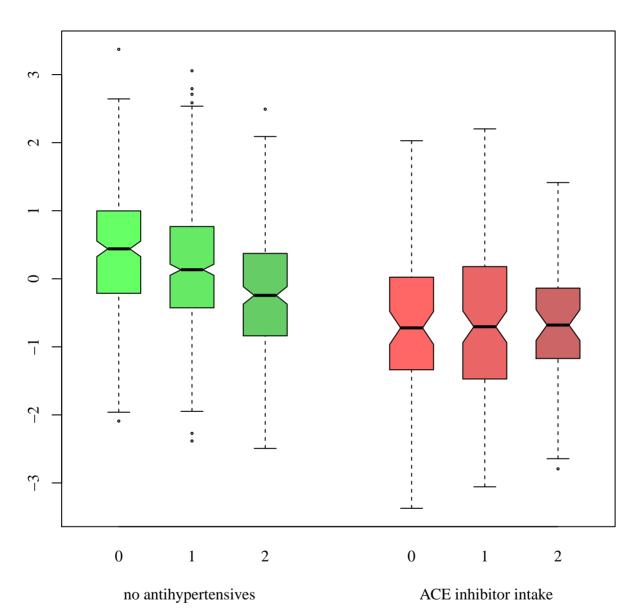
# aspartylphenylalanine/X11805 – rs4362

ACE inhibitor intake

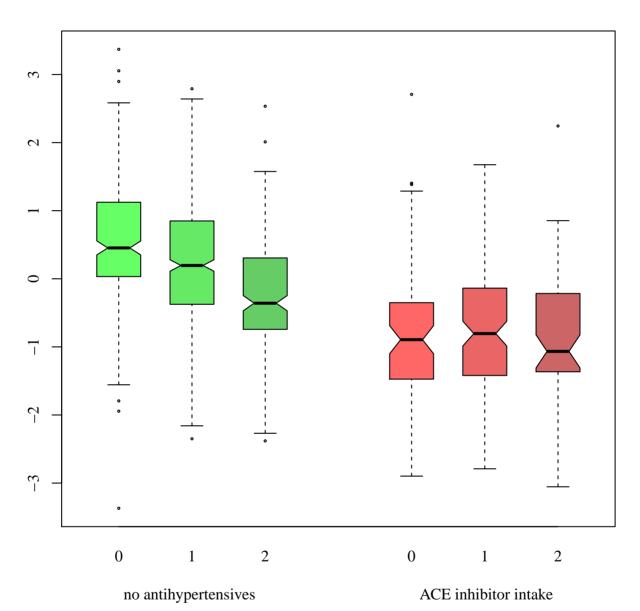


# aspartylphenylalanine/X14450 – rs4362

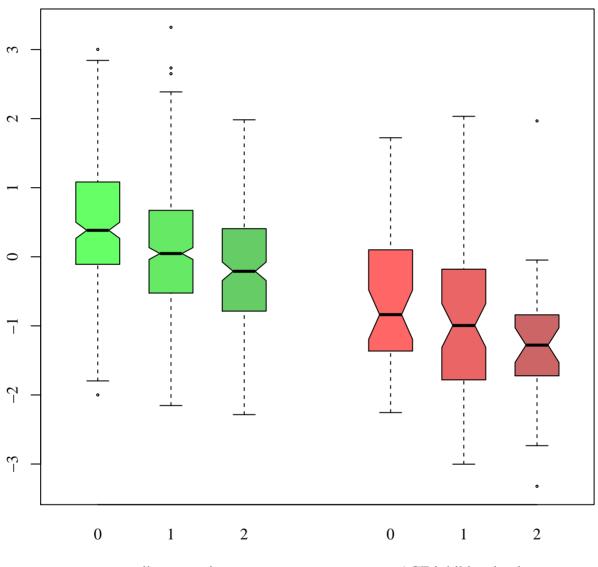
ACE inhibitor intake



X14086 - rs4362

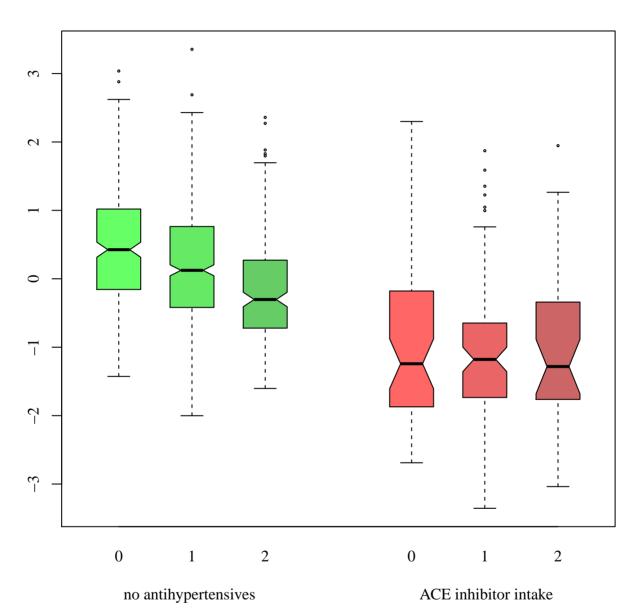


X14189 – rs4362

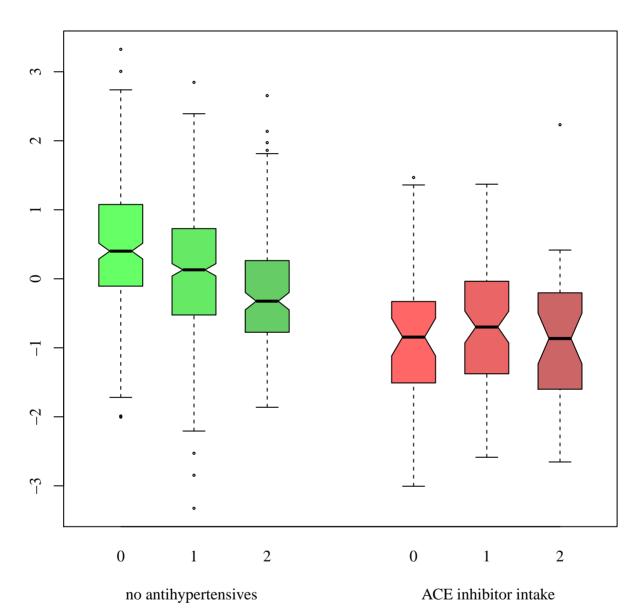


X14205 – rs4362

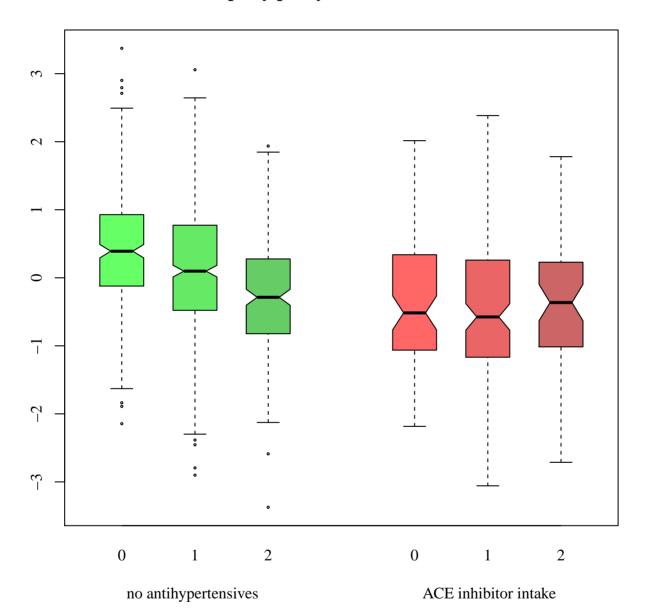
ACE inhibitor intake



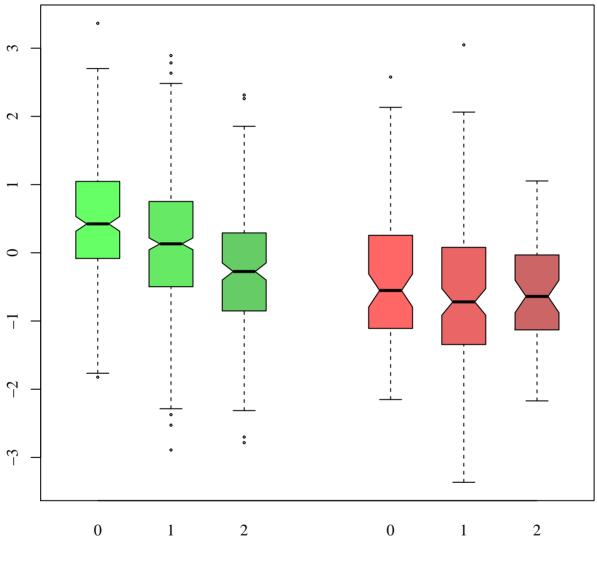
X14208 – rs4362



X14304 – rs4362

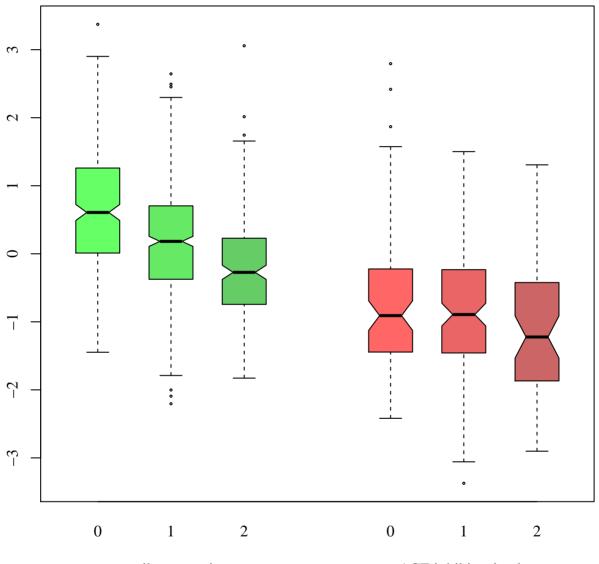


# aspartylphenylalanine – rs4363



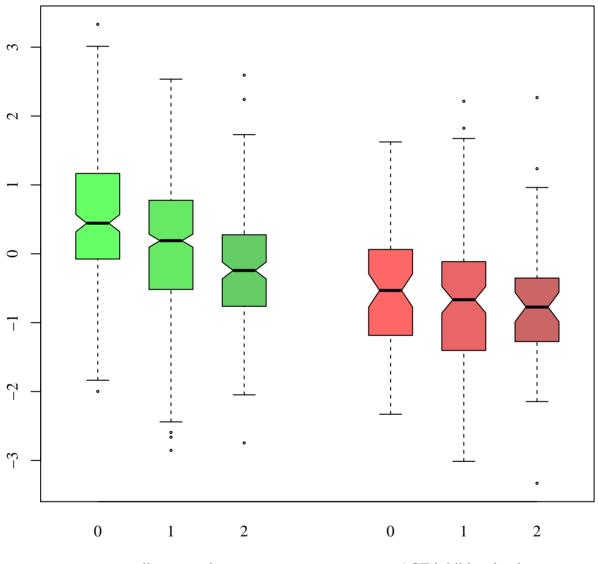
### aspartylphenylalanine/HWESASXX – rs4363

no antihypertensives



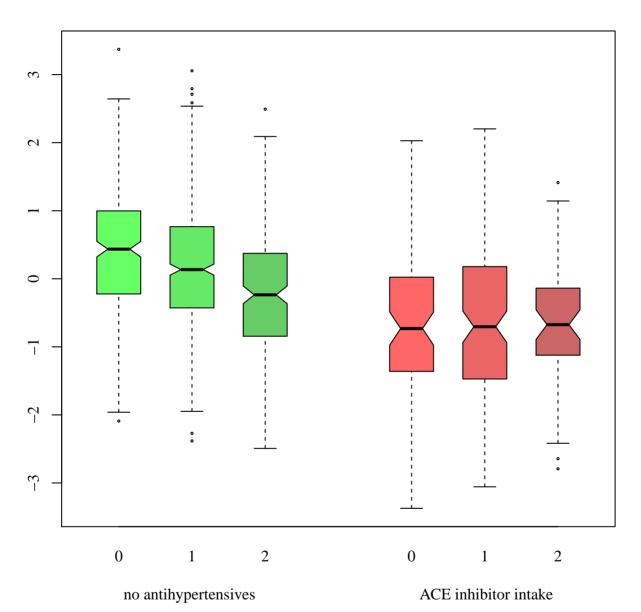
# aspartylphenylalanine/X11805 – rs4363

no antihypertensives

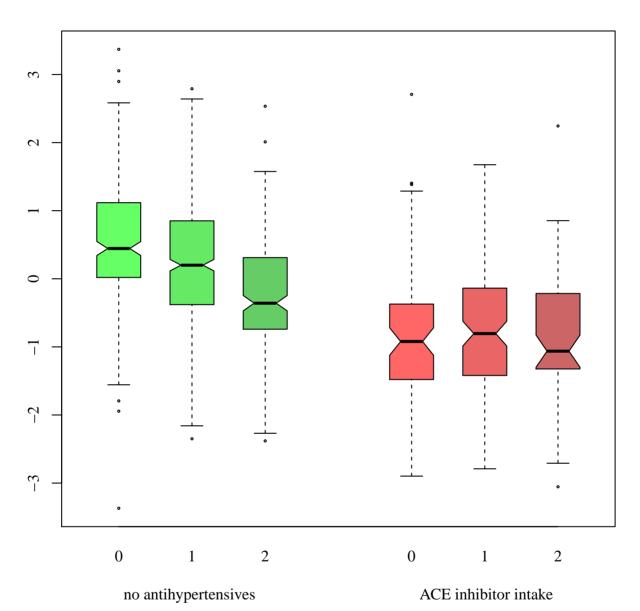


# aspartylphenylalanine/X14450 – rs4363

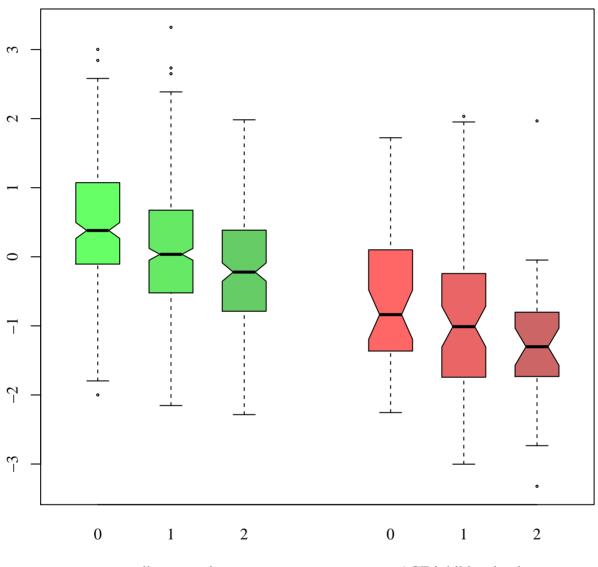
ACE inhibitor intake



X14086 – rs4363

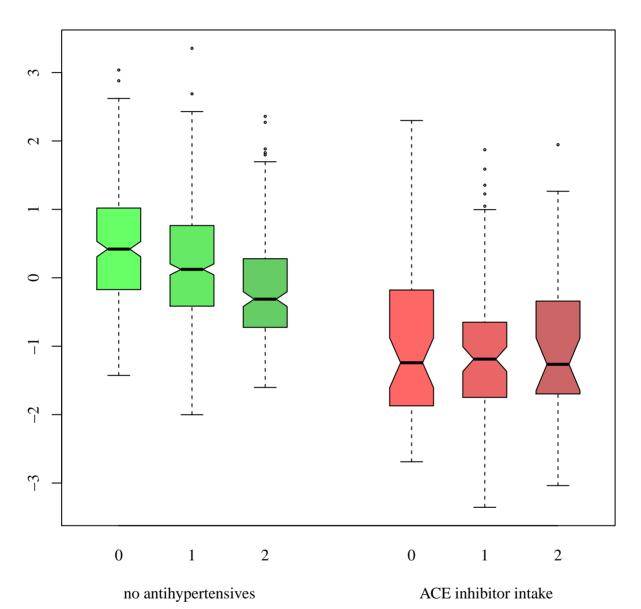


X14189 – rs4363

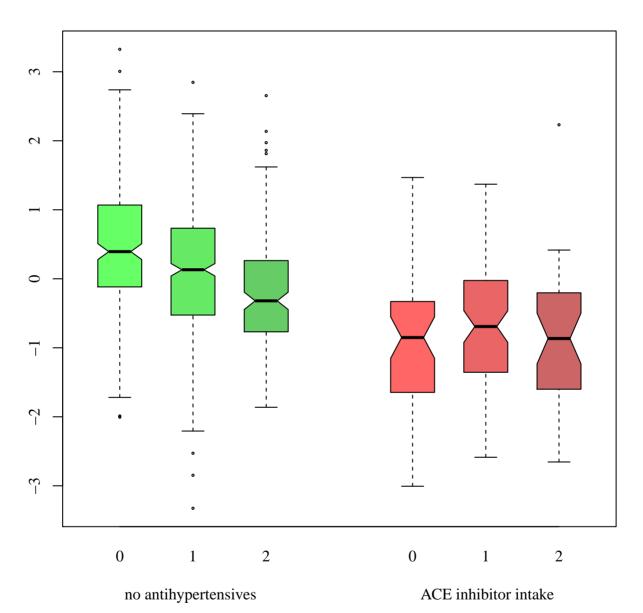


X14205 – rs4363

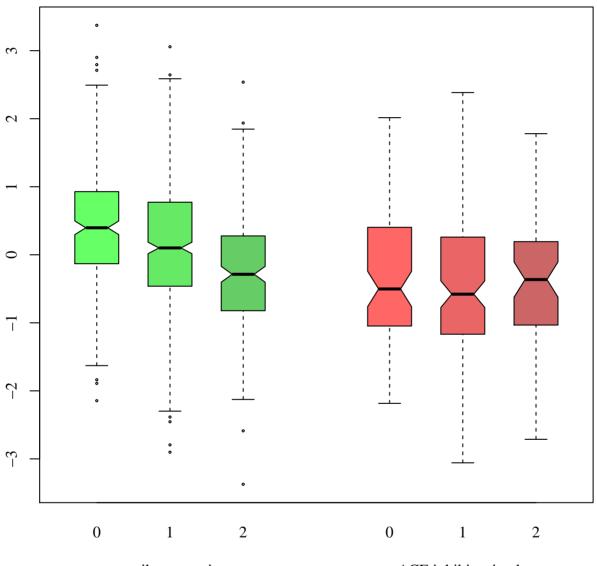
ACE inhibitor intake



X14208 – rs4363

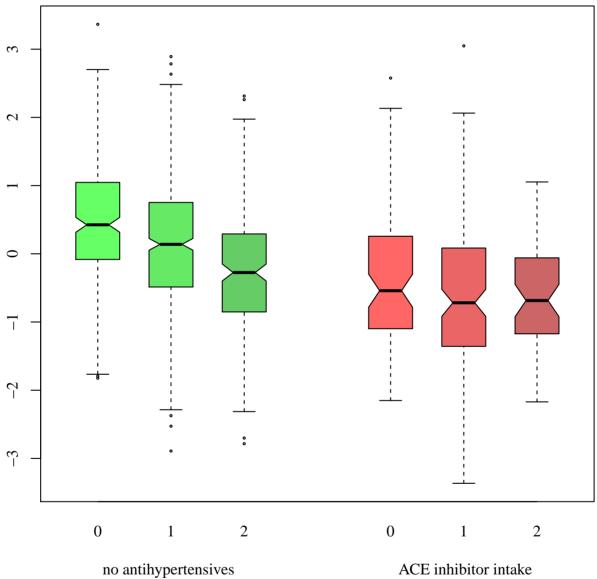


X14304 – rs4363

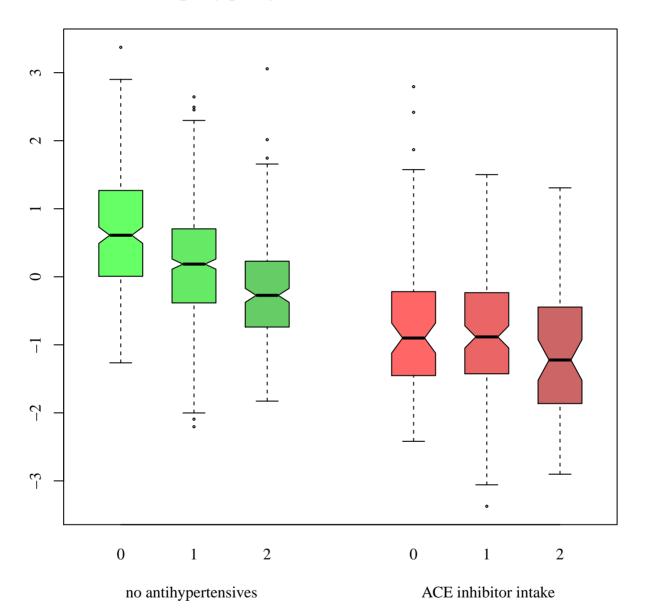


# aspartylphenylalanine – rs1055086

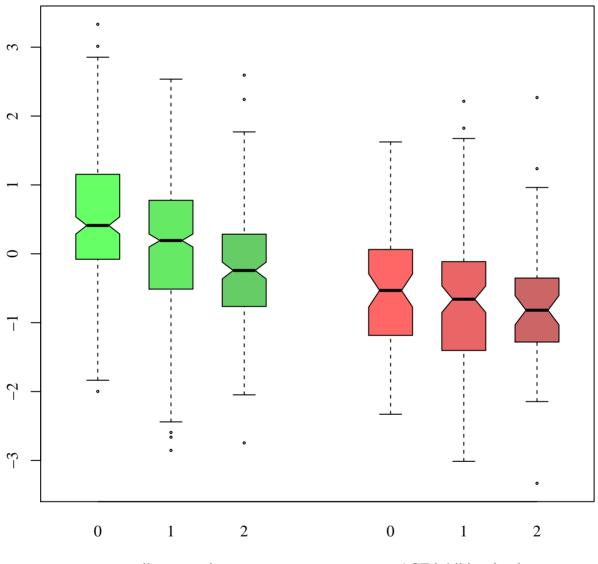
no antihypertensives



### aspartylphenylalanine/HWESASXX – rs1055086

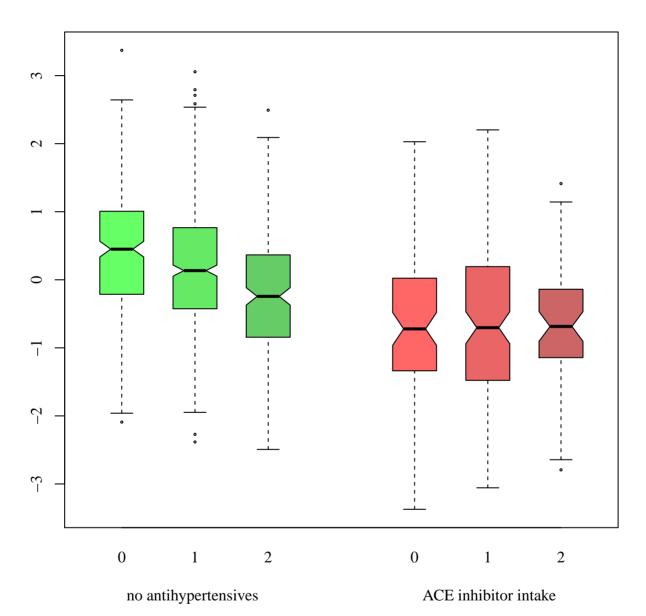


### aspartylphenylalanine/X11805 – rs1055086

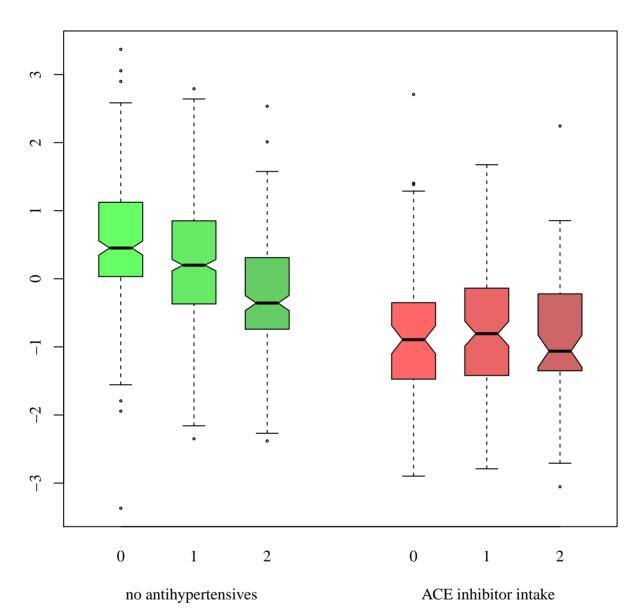


### aspartylphenylalanine/X14450 – rs1055086

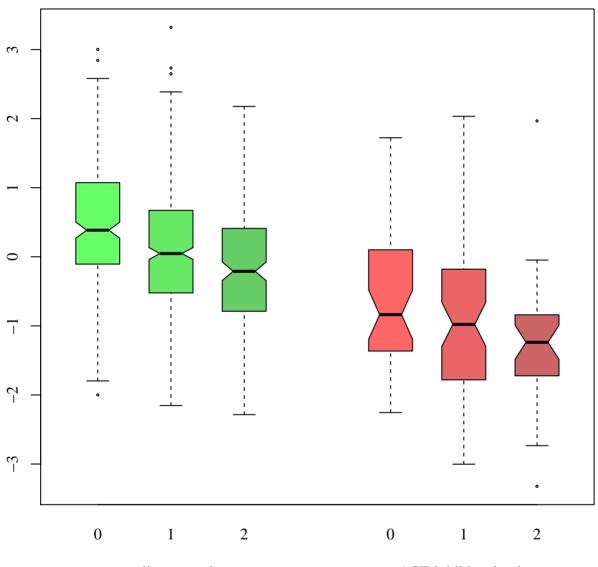
ACE inhibitor intake



X14086 - rs1055086

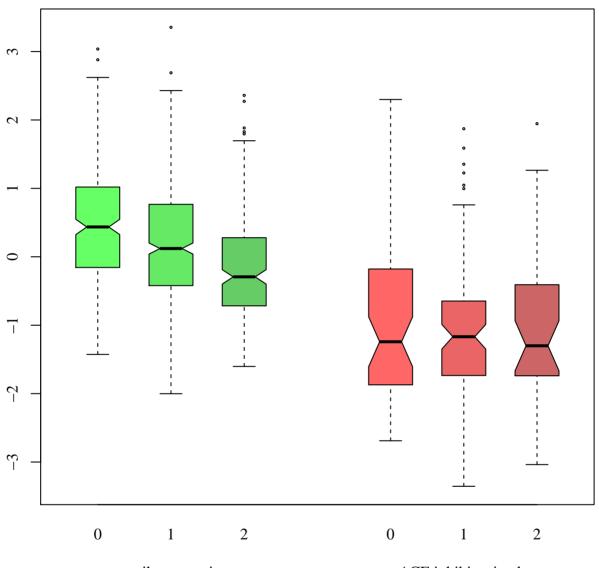


X14189 - rs1055086

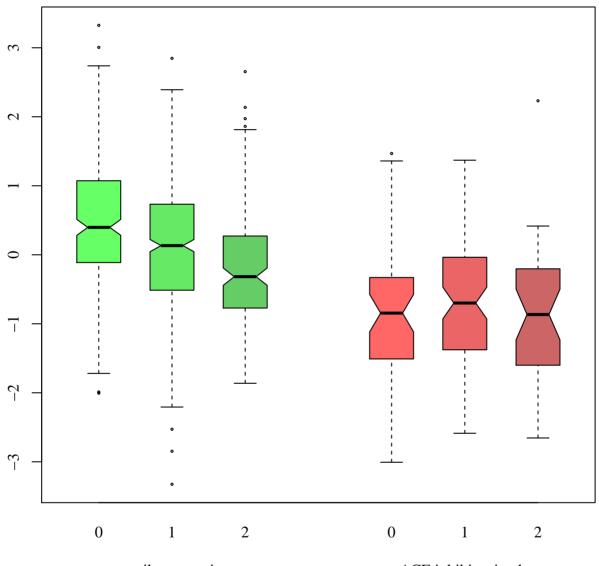


X14205 - rs1055086

ACE inhibitor intake



X14208 - rs1055086



X14304 - rs1055086