

**Appendix 1: a stepwise analysis for the primary outcome**

A stepwise analysis with significant level of 0.3 to entry and 0.35 to stay showed that the adjusted exposure odds ratio (OR) for sodium- rich drug formulations was 1.164 (1.117 – 1.213) compared to standard formulations.

The correlation matrix for the analysis are shown in table below.

**Spearman Correlation Coefficients, N = 122144**

Prob > |r| under H0: Rho=0

	smoking	bmi	angina	peripheral vascular disease	migraine	diabetes	chronic kidney disease	oesophageal disease	hypertension	other cardiovascular drugs	ace/arb	proton pump inhibitors	anti-psychotoc drugs	steroids	nsaids
<b>smoking</b>	1	-0.29108 <.0001	0.07266 <.0001	0.01935 <.0001	0.02896 <.0001	0.09207 <.0001	0.11866 <.0001	0.01345 <.0001	0.07052 <.0001	0.14527 <.0001	0.18723 <.0001	0.16095 <.0001	0.02728 <.0001	0.05125 <.0001	0.13088 <.0001
<b>bmi</b>	-0.29108 <.0001	1	-0.02001 <.0001	-0.02449 <.0001	-0.05007 <.0001	0.00207 <.0001	-0.04387 <.0001	-0.0083 <.0001	-0.05143 <.0001	-0.03539 <.0001	-0.05595 <.0001	-0.10377 <.0001	-0.02593 <.0001	-0.03879 <.0001	-0.11533 <.0001
<b>angina</b>	0.07266 <.0001	-0.02001 <.0001	1	0.06812 <.0001	0.00691 <.0001	0.08191 <.0001	0.0454 <.0001	0.00404 <.0001	-0.10637 <.0001	0.26792 <.0001	0.12161 <.0001	0.06775 <.0001	0.03598 <.0001	0.00954 <.0001	0.02012 <.0001
<b>peripheral vascular disease</b>	0.01935 <.0001	-0.02449 <.0001	0.06812 <.0001	1	-0.00167 <.0001	0.06834 <.0001	0.04503 <.0001	0.00212 <.0001	-0.00641 <.0001	0.09431 <.0001	0.05835 <.0001	0.03254 <.0001	0.00782 <.0001	0.01096 <.0001	0.01205 <.0001
<b>migraine</b>	0.02896 <.0001	-0.05007 <.0001	0.00691 <.0001	-0.00167 <.0001	1	-0.01127 <.0001	-0.00386 <.0001	0.00435 <.0001	-0.00607 <.0001	0.0322 <.0001	0.0111 <.0001	0.05626 <.0001	0.0722 <.0001	0.01324 <.0001	0.05826 <.0001
<b>diabetes</b>	0.09207 <.0001	0.00207 <.0001	0.08191 <.0001	0.06834 <.0001	-0.01127 <.0001	1	0.10057 <.0001	0.00128 <.0001	0.02695 <.0001	0.15792 <.0001	0.23398 <.0001	0.04125 <.0001	0.00598 <.0001	0.00023 <.0001	0.00978 <.0001
<b>chronic kidney disease</b>	0.11866 <.0001	-0.04387 <.0001	0.0454 <.0001	0.04503 <.0001	-0.00386 <.0001	0.10057 <.0001	1	0.0035 <.0001	0.0308 <.0001	0.1458 <.0001	0.25174 <.0001	0.14505 <.0001	0.04137 <.0001	0.05258 <.0001	0.03889 <.0001
<b>oesophageal disease</b>	0.01345 <.0001	-0.0083 <.0001	0.00404 <.0001	0.00212 <.0001	0.00435 <.0001	0.00128 <.0001	0.0035 <.0001	1	-0.00178 <.0001	0.0121 <.0001	0.00685 <.0001	0.04233 <.0001	0.00278 <.0001	0.00811 <.0001	0.00186 <.0001
<b>hypertension</b>	0.07052 <.0001	-0.05143 <.0001	-0.10637 <.0001	-0.00641 <.0001	-0.00607 <.0001	0.02695 <.0001	0.0308 <.0001	-0.00178 <.0001	1	-0.06271 <.0001	0.1424 <.0001	0.01138 <.0001	-0.01649 <.0001	-0.01855 <.0001	0.01418 <.0001
<b>other cardiovascular drugs</b>	0.14527 <.0001	-0.03539 <.0001	0.26792 <.0001	0.09431 <.0001	0.0322 <.0001	0.15792 <.0001	0.1458 <.0001	0.0121 <.0001	-0.06271 <.0001	1	0.31158 <.0001	0.16864 <.0001	0.1002 <.0001	0.05336 <.0001	0.04881 <.0001
<b>ace/arb</b>	0.18723 <.0001	-0.05595 <.0001	0.12161 <.0001	0.05835 <.0001	0.0111 <.0001	0.23398 <.0001	0.25174 <.0001	0.00685 <.0001	0.1424 <.0001	0.31158 <.0001	1	0.1636 <.0001	0.03201 <.0001	0.04229 <.0001	0.07328 <.0001
<b>proton pump inhibitors</b>	0.16095 <.0001	-0.10377 <.0001	0.06775 <.0001	0.03254 <.0001	0.05626 <.0001	0.04125 <.0001	0.14505 <.0001	0.04233 <.0001	0.01138 <.0001	0.16864 <.0001	0.1636 <.0001	1	0.10576 <.0001	0.1127 <.0001	0.13231 <.0001
<b>anti-psychotoc drugs</b>	0.02728 <.0001	-0.02593 <.0001	0.03598 <.0001	0.00782 <.0001	0.0722 <.0001	0.00598 <.0001	0.04137 <.0001	0.00278 <.0001	-0.01649 <.0001	0.1002 <.0001	0.03201 <.0001	0.10576 <.0001	1	0.04604 <.0001	0.08104 <.0001
<b>steroids</b>	0.05125 <.0001	-0.03879 <.0001	0.00954 <.0001	0.01096 <.0001	0.01324 <.0001	0.00023 <.0001	0.05258 <.0001	0.00811 <.0001	-0.01855 <.0001	0.05336 <.0001	0.04229 <.0001	0.1127 <.0001	0.04604 <.0001	1	0.05738 <.0001
<b>nsaids</b>	0.13088 <.0001	-0.11533 <.0001	0.02012 <.0001	0.01205 <.0001	0.05826 <.0001	0.00978 <.0001	0.03889 <.0001	0.00186 <.0001	0.01418 <.0001	0.04881 <.0001	0.07328 <.0001	0.13231 <.0001	0.08104 <.0001	0.05738 <.0001	1