

1 Table S1. Search criteria for sodium-containing medications from PCA databases

<b>Analgesics</b>	
Co-codamol	500mg/8mg effervescent tablet
	500mg/30mg effervescent tablet
Paracetamol	500mg soluble tablet
	120mg soluble tablet
Ibuprofen	200mg soluble tablet
Aspirin	300mg dispersible tablet
Aspirin+metoclopramide	No equivalent found
<b>Calcium supplements</b>	
Calcium	1000mg(1g) effervescent tablet
Calcium carbonate	1.25g effervescent tablet
Calcium gluconate	1g effervescent tablet
Calcium carbonate+coleciferol	1.5g(600mg)+10mcg(400UI) effervescent tablet
	1.25g(500mg)+11mcg(440UI) effervescent tablet
<b>Histamine-2 receptor antagonists</b>	
Ranitidine	150mg effervescent tablet
	300mg effervescent tablet
<b>Zinc supplements</b>	
Zinc sulphate	125mg effervescent tablet
	220mg effervescent tablet
<b>Phosphate supplements</b>	
Phosphate supplement (oral)	effervescent tablet
Phosphate Sandoz	tablet
<b>Vitamin supplements</b>	
Ascorbic acid	1g effervescent tablet
<b>Steroids</b>	
Prednisone	5mg soluble tablet
Betamethasone	500mcg soluble tablet

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Table S2. Search criteria for sodium-containing medications from THIN databases

Drug code	Generic name	Formulation	Strength	Units
<b>Analgesics</b>				
59452979	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets		mg+mg
93819990	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets		mg+mg
92377990	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
92417990	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets		mg+mg
94284990	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets		mg+mg
94827997	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets	500+30	mg+mg
86582998	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets	30 + 500	mg + mg
95671979	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets	500+30	mg+mg
95673979	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets		mg+mg
95678979	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
95682979	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
95684979	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
88880998	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets		mg+mg
95450998	Co-codamol 8mg/500mg effervescent tablets	soluble tablets		
95464996	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets		mg+mg
95465997	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
96753997	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
97582998	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets		
87547998	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets	30 + 500	mg + mg
95206990	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets		mg+mg
92780990	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets		mg+mg
91123997	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets		mg+mg
94489990	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
93259998	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets	500 + 30	mg +

				mg
94470990	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
96616997	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
97071990	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
93342992	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets		mg+mg
97207989	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
94157990	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
95609990	Co-codamol 30mg/500mg effervescent tablets	effervescent tablets		mg+mg
96304990	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
97876990	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
97984990	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
99674990	Co-codamol 8mg/500mg effervescent tablets	dispersible tablets	8+500	mg+mg
52678979	Paracetamol 500mg effervescent tablets	soluble tablets	500	mg
82980998	Paracetamol 500mg soluble tablets	soluble tablets	500	mg
21286978	Paracetamol 500mg effervescent tablets	effervescent tablets	500	mg
93945992	Paracetamol 500mg effervescent tablets	soluble tablets	500	mg
95576990	Paracetamol 500mg effervescent tablets	soluble tablets	500	mg
95468998	Paracetamol 500mg effervescent tablets	soluble tablets	500	mg
94488990	Paracetamol 500mg effervescent tablets	soluble tablets	500	mg
95030990	Paracetamol 500mg effervescent tablets	soluble tablets	500	mg
98467998	Paracetamol 500mg soluble tablets	soluble tablets	500	mg
99476989	Paracetamol 500mg effervescent tablets	soluble tablets	500	mg
95440990	Paracetamol 500mg effervescent tablets	soluble tablets	500	mg
95608990	Paracetamol 500mg effervescent tablets	effervescent tablets	500	mg
97858992	Paracetamol 500mg effervescent tablets	soluble tablets	500	mg
97741997	Paracetamol 120mg soluble tablets	soluble tablets	120	mg
97744998	Paracetamol 120mg soluble tablets sugar free	soluble tablets	120	mg
81659998	Ibuprofen 200mg effervescent tablets			
96129990	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg

94709997	Aspirin 300mg effervescent tablets sugar free	effervescent tablets	300	mg
90377998	Aspirin 300mg effervescent tablets sugar free		300	mg
91961979	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
91962979	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
91963979	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
95911992	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
97918989	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
99283989	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
99807989	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
99808989	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
99810989	Aspirin 300mg dispersible tablets	soluble tablets	300	mg
94513997	Aspirin 300mg effervescent tablets	effervescent tablets	300	mg
97400998	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
93368998	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
96566989	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
98419997	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
96414990	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
94589997	Aspirin 300mg effervescent tablets	effervescent tablets	300	mg
98142989	Aspirin 300mg dispersible tablets	soluble tablets	300	mg
95351990	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
97974989	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
98592988	Aspirin 300mg dispersible tablets	dispersible tablets	300	mg
98280998	Aspirin & metoclopramide 450mg+5mg effervescent tablets	effervescent tablets	5 + 450	mg + mg
99422998	Aspirin & metoclopramide 325mg+5mg effervescent tablets	effervescent tablets	5 + 325	mg + mg
<b>Calcium supplements</b>				

99158997	Calcium lactate gluconate 2.263g / Calcium carbonate 1.75g effervescent tablets sugar free	effervescent tablets		mg
96896997	Calcium lactate gluconate 2.263g / Calcium carbonate 1.75g effervescent tablets sugar free	effervescent tablets	1000	mg
83457998	Calcium lactate gluconate 2.263g / Calcium carbonate 1.75g effervescent tablets sugar free	effervescent tablets		mg
82967998	Calcium lactate gluconate with calcium carbonate and colecalciferol 600mg calcium with 400iu effervescent tablets	effervescent tablets		
84286998	Colecalciferol 400unit / Calcium carbonate 1.5g effervescent tablets	soluble tablets	1.5+10	g+mcg
92136979	Calcium carbonate 1.25g effervescent tablets sugar free	effervescent tablets	500	mg
93613998	Calcium carbonate 1.25g effervescent tablets sugar free	effervescent tablets	500	mg
93614998	Calcium carbonate 1.25g effervescent tablets sugar free	effervescent tablets	1.25	g
85977998	Calcium carbonate 1.25g effervescent tablets sugar free	effervescent tablets	1.25	g
97218998	Calcium gluconate 1g effervescent tablets	effervescent tablets	1	g
97008992	Calcium carbonate 1.25g effervescent tablets sugar free	effervescent tablets	500	mg
89439998	Colecalciferol 440unit / Calcium carbonate 1.25g effervescent granules sachets	granules	500 + 440	mg + iu
96959996	Colecalciferol 440unit / Calcium carbonate 1.25g effervescent granules sachets	granules	1.25+440	g+iu
<b>Histamine-2 receptor antagonists</b>				
94763996	Ranitidine 150mg effervescent tablets	effervescent tablets	150	mg
94764996	Ranitidine 150mg dispersible tablets	dispersible tablets	150	mg
95583990	Ranitidine 300mg effervescent tablets	effervescent tablets	300	mg
95889990	Ranitidine 300mg effervescent tablets	effervescent tablets	300	mg
95890990	Ranitidine 150mg effervescent tablets	effervescent tablets	150	mg
95914990	Ranitidine 300mg effervescent tablets	effervescent tablets	300	mg
95915990	Ranitidine 150mg effervescent tablets	effervescent tablets	150	mg

95812990	Ranitidine 150mg effervescent tablets	effervescent tablets	150	mg
96947998	Ranitidine 300mg effervescent tablets	effervescent tablets	300	mg
95332996	Ranitidine 300mg effervescent tablets	effervescent tablets	300	mg
95332997	Ranitidine 150mg effervescent tablets	effervescent tablets	150	mg
95333996	Ranitidine 150mg dispersible tablet	dispersible tablets	150	mg
<b>Zinc supplements</b>				
98342992	Zinc sulphate 220 mg tab	effervescent tablets	220	mg
98346992	Zinc sulfate 220mg effervescent tablets	effervescent tablets	220	mg
95608998	Zinc sulfate monohydrate 125mg effervescent tablets sugar free	effervescent tablets	125	mg
95611998	Zinc sulfate monohydrate 125mg effervescent tablets sugar free	dispersible tablets	200	mg
64552979	Zinc sulfate 220mg effervescent tablets sugar free			
<b>GI motility agents</b>				
81919998	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
81938998	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
81959998	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
60079979	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
60080979	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
60081979	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
82692998	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
82693998	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
54399979	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
89619979	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
82445998	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
82446998	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
86509979	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet

87282998	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
92212998	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free powder	3.5	g/sachet
97408998	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
97409998	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
95346998	Ispaghula husk 3.5g effervescent granules sachets gluten free sugar free	sugar free granules	3.5	g/sachet
	<b>Phosphate supplements</b>			
93810998	Sodium dihydrogen phosphate anhydrous 1.936g effervescent tablets	soluble tablets	16.1	mmol
99245998	Sodium dihydrogen phosphate anhydrous 1.936g effervescent tablets	soluble tablets		
	<b>Vitamin supplements</b>			
73603978	Ascorbic acid 1g effervescent tablets			
69994979	Ascorbic acid 1g effervescent tablets			
69995979	Ascorbic acid 1g effervescent tablets			
89303998	Ascorbic acid 1g effervescent tablets		1	g
94600997	Ascorbic acid 1g effervescent tablets	dispersible tablets	1	g
94602998	Ascorbic acid 1g effervescent tablets	dispersible tablets	1	g
	<b>Steroids</b>			
26124978	Prednisolone 5mg soluble tablets	soluble tablets	5	mg
51132978	Prednisolone 5mg soluble tablets	soluble tablets	5	mg
95487992	Prednisolone 5mg soluble tablets	soluble tablets	5	mg
91788990	Prednisolone 5mg soluble tablets	soluble tablets	5	mg
93075998	Prednisolone 5mg soluble tablets	soluble tablets	5	mg
96577990	Prednisolone 5mg soluble tablets	soluble tablets	5	mg
93368979	Prednisolone 5mg soluble tablets	soluble tablets	5	mg
93369979	Prednisolone 5mg soluble tablets	soluble tablets	5	mg

93370979	Prednisolone 5mg soluble tablets	soluble tablets	5	mg
55590979	Betamethasone 500microgram soluble tablets sugar free	soluble tablets	500	mcg
92861998	Betamethasone 500microgram soluble tablets sugar free	soluble tablets	500	mcg
93647992	Betamethasone 500microgram soluble tablets sugar free	soluble tablets	500	mcg
93435979	Betamethasone 500microgram soluble tablets sugar free	soluble tablets	500	mcg
98394998	Betamethasone 500microgram soluble tablets sugar free	soluble tablets	500	mcg



Table S3. Sensitivity analysis 1: ITSA of monthly prescribing data on sodium-containing medications and control medications 30 months before and after intervention time, THIN data.

	Baseline level (95% CI)	Baseline slope (95% CI)	Change in level (95% CI)	P-value	Change in slope (95% CI)	P-value
<b>Prescribing rate</b>						
Sodium overall	68.42 (65.68, 71.16)	0.03 (-0.07, 0.14)	1.29 (-1.14, 3.70)	0.299	-0.340 (-0.48, -0.20)	<0.001
Non-sodium overall (control)	765.07 (732.71, 797.43)	1.11 (-0.10, 2.32)	38.86 (10.25, 67.47)	<b>0.008</b>	0.307 (-1.35, 1.96)	0.716
<b>Proportion of patients</b>						
Sodium overall	55.27 (53.48, 57.06)	0.06 (-0.01, 0.13)	0.80 (-0.76, 2.35)	0.316	-0.32 (-0.41, -0.22)	<0.001
Non-sodium overall (control)	553.74 (536.69, 570.80)	0.88 (0.22, 1.53)	25.98 (11.19, 40.77)	<b>0.001</b>	0.41 (-0.47, 1.29)	0.358

Table S4. Sensitivity analysis 2: ITSA of monthly prescribing data on sodium-containing medications and control medications between 2014-2015 versus 2016-2017, THIN data.

	Baseline level (95% CI)	Baseline slope (95% CI)	Change in level (95% CI)	P-value	Change in slope (95% CI)	P-value
<b><i>Prescribing rate</i></b>						
Sodium overall	70.24 (67.27, 73.20)	-0.23 (-0.37, -0.10)	-2.33 (-4.90, 0.24)	0.075	-0.24 (-0.41, -0.06)	<b>0.007</b>
Non-sodium overall (control)	826.56 (785.09, 868.03)	2.54 (0.72, 4.36)	-21.97 (-58.89, 14.95)	0.244	-5.37 (-7.76, -2.99)	<b>&lt;0.001</b>
<b><i>Proportion of patients</i></b>						
Sodium overall	57.68 (55.87, 59.49)	-0.20 (-0.28, -0.12)	-1.78 (-3.35, -0.21)	<b>0.026</b>	-0.19 (-0.29, -0.08)	<b>0.001</b>
Non-sodium overall (control)	597.88 (578.38, 617.38)	2.10 (1.25, 2.96)	-13.69 (-31.05, 3.69)	0.122	-4.11 (-5.23, -2.99)	<b>&lt;0.001</b>