Supplementary Table 1. Included Formulations by Treatment

Treatment	Generic drug name	Strength	Product name	Master form description
Oral sodium phosphate	Na phosphate, dibasic/ Na phosphate, monobasic	0.398–1.102 g	Visicol (Salix Pharmaceuticals, Ltd, Raleigh, NC)	Tablet
	Na phosphate, dibasic/ Na phosphate, monobasic	0.398–1.102 g	OsmoPrep (Salix Pharmaceuticals)	Tablet
PEG	K Cl/Na bicarbonate/Na Cl/ polyethylene glycol 3350		TriLyte with flavor packs (Alaven Pharmaceutical, LLC, Marietta, GA)	Powder for solution
	K Cl/Na bicarbonate/Na Cl/ polyethylene glycol 3350		NuLYTELY (Braintree Laboratories, Inc, Braintree, MA)	Powder for solution
	Polyethylene glycol 3350	17 g/dose		Powder for solution
	Polyethylene glycol 3350	17 g/dose	MiraLAX (Merck & Co, Inc, Whitehouse Station, NJ)	Powder for solution
	Polyethylene glycol 3350	17 g/packet	MiraLAX (Merck & Co, Inc)	Packet
	Polyethylene glycol 3350	17 g/packet	GlycoLax (Kremers Urban, LLC, Princeton, NJ)	Packet
	Polyethylene glycol 3350	17 g/dose	GlycoLax (Kremers Urban, LLC)	Powder for solution

Supplementary Table 2. Covariate Definitions

Covariate	Definition
Kidney stones	ICD-9 codes: 592.0, 592.9, 274.1 CPT codes: 50060, 50065, 50075, 50080, 50081, 50130, 50561, 50580, 50590, 52352, 50610, 50620, 50630, 50945, 50945, 51060, 51065, 50961, 50980, 52320, 52325, 52330, 52327, 52332, 52334, 52353, 05504, 05503, 09851
Hypercalciuria	ICD-9 code: 275.4
Diabetes mellitus	ICD-9 codes: 249, 250
Hypertension	ICD-9 code: 410
Hyperlipidemia	ICD-9 codes: 2720, 2721, 2722, 2724
Ischemic heart disease	ICD-9 codes: 413, 414
Heart failure	ICD-9 code: 428
Liver disease	ICD-9 codes: 571, 572, 573
Chronic kidney disease	ICD-9 codes: 403, 404, 582, 583, 585, 586, 588
Other kidney disease	ICD-9 codes: 580, 581, 582, 583, 587, 588, 589
Atrial fibrillation	ICD-9 code: 4273
Systemic lupus erythematosus	ICD-9 code: 710
Metabolic disorders	ICD-9 codes: 2762, 2768, 2752

CPT, Current Procedural Terminology; ICD-9, International Classification of Diseases, 9th revision.

Supplementary Table 3. HRs of the Risk of the Need for Dialysis in OSP Users Compared With PEG Users

		Crude				Adjusted		PS matched			
Analysis	Exposure	N	Events (%)	HR	95% CI	HR	95% CI	N	Events (%)	HR	95% CI
Whole sample	PEG	429,430	1874 (0.4)	–	–	–	–	121,203	322 (0.3)	–	–
	Sodium phosphate	121,266	281 (0.2)	0.53	0.47–0.60	0.86	0.75–0.97	121,203	281 (0.2)	0.87	0.74–1.02
On ACEi/ARB	PEG	153,440	1254 (0.8)	–	–	–	–	38,204	201 (0.5)	–	–
	Sodium phosphate	38,248	180 (0.5)	0.58	0.49–0.67	0.88	0.75–1.03	38,204	180 (0.5)	0.89	0.73–1.09
With CKD	PEG	5201	506 (9.7)	–	–	–	–	788	49 (6.2)	–	–
	Sodium phosphate	791	33 (4.2)	0.43	0.30–0.61	0.54	0.38–0.77	788	33 (4.2)	0.68	0.44–1.05
≥60 y	PEG	198,486	1215 (0.6)	–	–	–	–	45,806	194 (0.4)	–	–
	Sodium phosphate	45,895	171 (0.4)	0.61	0.52–0.72	0.96	0.82–1.13	45,806	171 (0.4)	0.88	0.72–1.08
With diabetes	PEG	68,371	923 (1.4)	–	–	–	–	15,101	136 (0.9)	–	–
	Sodium phosphate	15,117	116 (0.8)	0.57	0.47–0.69	0.80	0.66–0.98	15,101	116 (0.8)	0.85	0.67–1.09
With kidney stones	PEG	7969	60 (0.8)	–	–	–	–	2202	9 (0.4)	–	–
	Sodium phosphate	2210	5 (0.2)	0.30	0.12–0.75	0.47	0.18–1.19	2202	5 (0.2)	0.56	0.19–1.67
Hypercalciuria	PEG	1864	22 (1.2)	–	–	–	–	547	3 (0.6)	–	–
	Sodium phosphate	558	3 (0.5)	0.45	0.14–1.51	0.60	0.14–2.57	547	3 (0.6)	1.00	0.20–4.96
On NSAIDs	PEG	118,078	488 (0.4)	–	–	–	–	33,300	81 (0.2)	–	–
	Sodium phosphate	33,321	81 (0.2)	0.59	0.47–0.74	0.93	0.74–1.19	33,300	81 (0.2)	1.00	0.73–1.36
On thiazides	PEG	108,878	669 (0.6)	–	–	–	–	28,433	114 (0.4)	–	–
	Sodium phosphate	28,468	102 (0.4)	0.58	0.47–0.72	0.92	0.74–1.13	28,433	102 (0.4)	0.89	0.68–1.17

ACEi, angiotensin-converting enzyme inhibitor; ARB, angiotensin receptor blocker; NSAID, nonsteroidal anti-inflammatory drug.

Supplementary Table 4. HRs of the Risk of AKI Requiring Dialysis in OSP Users Compared With PEG Users

		Crude				Adjusted		PS matched			
Analysis	Exposure	N	Events (%)	HR	95% CI	HR	95% CI	N	Events (%)	HR	95% CI
Whole sample	PEG	429,430	236 (0.05)	–	–	–	–	121,203	41 (0.03)	–	–
	Sodium phosphate	121,266	29 (0.02)	0.63	0.55–0.72	0.86	0.75–0.99	121,203	29 (0.02)	0.71	0.44–1.14
With CKD	PEG	5201	61 (1.17)	–	–	–	–	788	7 (0.89)	–	–
	Sodium phosphate	791	5 (0.63)	0.74	0.48–1.15	0.91	0.58–1.43	788	5 (0.63)	0.71	0.23–2.23
≥60 y	PEG	198,486	167 (0.08)	–	–	–	–	45,806	30 (0.07)	–	–
	Sodium phosphate	45,895	19 (0.04)	0.67	0.56–0.79	0.83	0.70–0.99	45,806	19 (0.04)	0.63	0.36–1.13
With diabetes	PEG	68,371	111 (0.16)	–	–	–	–	15,101	15 (0.10)	–	–
	Sodium phosphate	15,117	13 (0.09)	0.60	0.47–0.76	0.77	0.60–0.98	15,101	13 (0.09)	0.87	0.41–1.82
With kidney stones	PEG	7969	10 (0.13)	–	–	–	–	2202	1 (0.05)	–	–
	Sodium phosphate	2210	0 (0.00)	0.80	0.41–1.60	1.01	0.49–2.07	2202	0 (0.00)		
Hypercalciuria	PEG	1864	2 (0.11)	–	–	–	–	547	0 (0.0)	–	–
	Sodium phosphate	558	1 (0.18)	1.67	0.57–4.88	2.80	0.84–9.29	547	1 (0.18)		
On ACEi/ARB	PEG	153,440	146 (0.10)	–	–	–	–	38,204	21 (0.05)	–	–
	Sodium phosphate	38,248	19 (0.05)	0.70	0.59–0.83	0.89	0.75–1.05	38,204	19 (0.05)	0.90	0.49–1.68
On NSAIDs	PEG	118,078	65 (0.06)	–	–	–	–	33,300	12 (0.04)	–	–
	Sodium phosphate	33,321	10 (0.03)	0.63	0.49–0.81	0.84	0.65–1.08	33,300	10 (0.03)	0.83	0.36–1.93
On thiazides	PEG	108,878	87 (0.08)	–	–	–	–	28,433	16 (0.06)	–	–
	Sodium phosphate	28,468	11 (0.04)	0.65	0.52–0.81	0.82	0.66–1.02	28,433	11 (0.04)	0.69	0.32–1.48

ACEi, angiotensin-converting enzyme inhibitor; ARB, angiotensin receptor blocker; NSAID, nonsteroidal anti-inflammatory drug.

Supplementary Table 5. HRs of the Risk of Any Renal Failure in OSP Users Compared With PEG Users

		Crude				Adjusted		PS matched			
Analysis	Exposure	N	Events (%)	HR	95% CI	HR	95% CI	N	Events (%)	HR	95% CI
Whole sample	PEG	429,430	3366 (0.8)	–	–	–	–	121,203	653 (0.5)	–	–
	Sodium phosphate	121,266	562 (0.5)	0.59	0.54–0.65	0.87	0.80–0.96	121,203	562 (0.5)	0.86	0.77–0.96
With CKD	PEG	5201	735 (14.1)	–	–	–	–	788	80 (10.2)	–	–
	Sodium phosphate	791	58 (7.3)	0.51	0.39–0.66	0.63	0.48–0.82	788	58 (7.4)	0.72	0.51–1.01
≥60 y	PEG	198,486	2274 (1.2)	–	–	–	–	45,803	378 (0.8)	–	–
	Sodium phosphate	45,895	342 (0.8)	0.65	0.58–0.73	0.91	0.81–1.02	45,803	342 (0.8)	0.91	0.78–1.05
With diabetes	PEG	68,371	1501 (2.2)	–	–	–	–	15,101	238 (1.6)	–	–
	Sodium phosphate	15,117	198 (1.3)	0.56	0.51–0.69	0.80	0.69–0.93	15,101	197 (1.3)	0.83	0.69–1.00
With kidney stones	PEG	7969	107 (1.3)	–	–	–	–	2202	23 (1.0)	–	–
	Sodium phosphate	2210	18 (0.8)	0.61	0.37–1.01	0.85	0.51–1.41	2202	18 (0.8)	0.78	0.42–1.45
Hypercalciuria	PEG	1864	35 (1.9)	–	–	–	–	547	8 (1.5)	–	–
	Sodium phosphate	558	8 (1.4)	0.76	0.35–1.64	1.18	0.49–2.83	547	8 (1.5)	1.00	0.38–2.66
On ACEi/ARB	PEG	153,440	2264 (1.5)	–	–	–	–	38,204	420 (1.1)	–	–
	Sodium phosphate	38,248	367 (1.0)	0.65	0.58–0.72	0.90	0.81–1.01	38,204	367 (1.0)	0.87	0.76–1.00
On NSAIDs	PEG	118,078	940 (0.8)	–	–	–	–	33,300	174 (0.5)	–	–
	Sodium phosphate	33,321	165 (0.5)	0.62	0.53–0.73	0.89	0.75–1.05	33,300	165 (0.5)	0.95	0.77–1.17
On thiazides	PEG	108,878	1282 (1.2)	–	–	–	–	28,433	257 (0.9)	–	–
	Sodium phosphate	28,468	214 (0.8)	0.64	0.55–0.74	0.89	0.77–1.03	28,433	213 (0.8)	0.83	0.69–0.99

ACEi, angiotensin-converting enzyme inhibitor; ARB, angiotensin receptor blocker; NSAID, nonsteroidal anti-inflammatory drug.