

**Supplementary Table 1.** ICD-9-CM and ICD-10-CM diagnosis codes used to identify conditions of interest.

<b>Condition</b>	<b>ICD-9-CM</b>	<b>ICD-10-CM</b>
Functional digestive disorders	564.XX	K59.XX
Chronic constipation	564.0X (excluding 564.02)	K59.0X (excluding K59.02)
Irritable bowel syndrome	564.1X	K58.XX
Depressive disorder	290.21; 292.84; 296.2X; 296.3X; 296.82; 298.0X; 300.4X; 309.0X; 309.1X; 311.XX	F32.0X; F32.1X; F32.2X; F32.3X; F32.4X; F32.5X; F32.9X; F33.0X; F33.1X; F33.2X; F33.41; F33.42; F33.9X

ICD-9-CM, International Classification of Disease, Ninth Revision, Clinical Modification; ICD-10-CM, International Classification of Disease, Tenth Revision, Clinical Modification.

**Supplementary Table 2.** SSRIs and CIC-related drugs evaluated during pre-index and follow-up periods.

<b>CIC-related drugs</b>	<b>SSRIs</b>
Linaclotide	Citalopram
Lubiprostone	Escitalopram
Lactulose	Fluoxetine
MiraLAX	Paroxetine
	Sertraline

CIC, chronic idiopathic constipation; SSRI, selective serotonin reuptake inhibitor.

**Supplementary Table 3.** Baseline characteristics of all patients with CIC<sup>a</sup>.

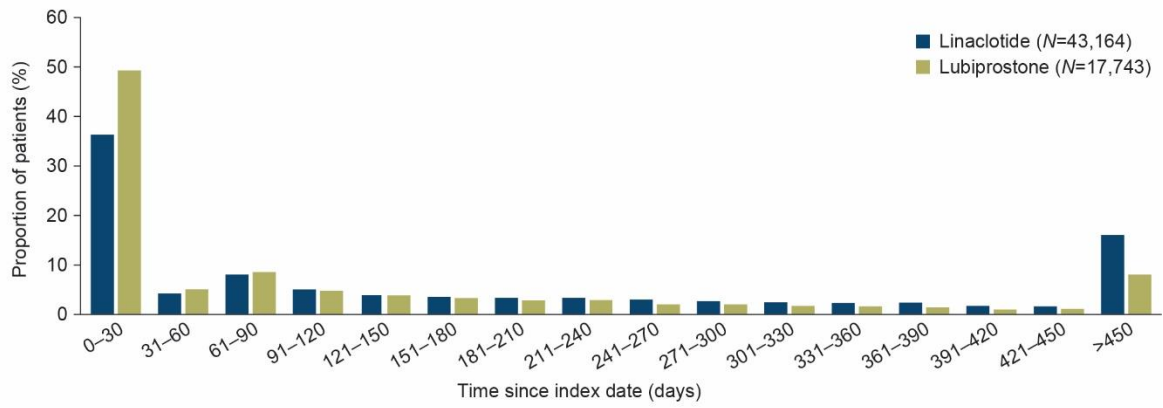
<b>Characteristic</b>	<b>Linacotide (N=43,164)</b>	<b>Lubiprostone (N=17,743)</b>
Mean (SD) age, years	47.1 (13.5)	47.5 (14.2)
Women, <i>n</i> (%)	37,143 (86.1)	14,720 (83.0)
Plan type, <i>n</i> (%)		
Commercial	26,622 (61.7)	10,723 (60.4)
State Children's Health Insurance Program	7 (<0.1)	5 (<0.1)
Medicare Risk/Medicare Advantage	388 (0.9)	281 (1.6)
Self-insured	16,147 (37.4)	6734 (38.0)
Region, <i>n</i> (%)		
North-east	8150 (18.9)	3671 (20.7)
South	22,877 (53.0)	8757 (49.4)
Midwest	9056 (21.0)	3908 (22.0)
West	2853 (6.6)	1220 (6.9)
Other	228 (0.5)	187 (1.1)
Evidence of IBS at any time during pre-index period or follow-up	17,321 (40.1)	6662 (37.5)
Use of CIC-related drugs during pre-index period, <i>n</i> (%)		
Linacotide	–	2217 (12.5)
Lubiprostone	4510 (10.5)	–
Lactulose	2217 (5.1)	1015 (5.7)
MiraLAX	19 (<0.1)	9 (0.1)
Any of the above	6333 (14.7)	3049 (17.2)
Use of an SSRI <sup>b</sup> , <i>n</i> (%)	10,219 (23.7)	4283 (24.1)
Mean (SD) follow-up, days	534.9 (328.7)	544.6 (345.0)

<sup>a</sup>Includes patients who began treatment with linacotide or lubiprostone from January 1, 2013, to December 31, 2015.

<sup>b</sup>Includes any of the following: citalopram, escitalopram, fluoxetine, paroxetine and sertraline.

CIC, chronic idiopathic constipation; IBS, irritable bowel syndrome; SD, standard deviation; SSRI, selective serotonin reuptake inhibitor.

**Supplementary Figure 1.** Distribution of patients with CIC by duration of treatment.

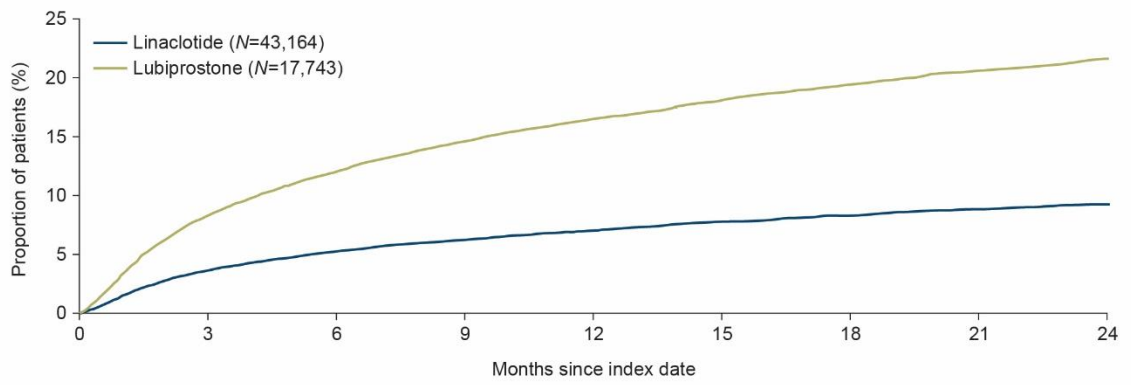


**Number of patients**

Linaclotide	15,697	8787	3483	2138	1682	1513	1964	1468	1309	1179	1050	987	1039	729	681	6943
Lubiprostone	1802	908	1532	846	683	577	503	509	380	377	299	286	253	182	188	1433

CIC, chronic idiopathic constipation.

**Supplementary Figure 2.** Time to therapy switching in all patients with CIC.



**Number at risk**

Linaclotide	43,164	38,591	34,747	31,256	26,198	21,698	17,458	13,824	10,936
Lubiprostone	17,743	15,088	13,276	11,693	9,514	7,762	6,236	4,981	4,021

CIC, chronic idiopathic constipation.