

Supplementary Online Content

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eTable 1. List of Medications Assessed During the Baseline and Follow-up Periods and List of *ICD* Codes Used to Exclude Patients

eTable 2. Baseline Characteristics of Cohort 1

eTable 3. Cohort 1 Results of IPTW

This supplementary material has been provided by the authors to give readers additional information about their work.

eTable 1. List of Medications Assessed During the Baseline and Follow-up Periods and List of ICD Codes Used to Exclude Patients

<p>PTU, Propylthiouracil, 6-N Propylthiouracil, Methimazole, Felimazole, Northyx, Tapazole, Thiamazole, Carbimazole, Benzylthiouracil, Methylthiouracil), lithium carbonate, amiodarone hydrochloride, phenytoin, interferon alfa, interleukin 2, gefitinib, erlotinib, sorafenib, sunitinib, dasatinib and lenvatinib, imatinib, cabozantinib, or vandetanib.</p> <p>Pregnancy: V22X, V23X, V24X, V27X, Z34X, O09X, Z3AX Hypopituitarism: 2537, 2532, E230, E893 Thyroid cancer: 193X, C73X</p>
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eTable 2. Baseline Characteristics of Cohort 1

	Pre-IPTW			After IPTW		
	Generic L-thyroxine (N=15,299)	Brand L-thyroxine (N=2,299)	SD	Generic L-thyroxine (N=15,299)	Brand L-thyroxine (N=2,299)	SD
Initiating Dose (mcg)						
<= 50	86.6%	81.6%	0.14	85.9%	85.6%	0.01
51 to 100	11.8%	15.5%	0.11	12.3%	12.4%	0.00
101 to 200	1.7%	2.9%	0.08	1.8%	2.0%	0.01
TSH Category Baseline (mIU/L)						
4.5 to 9.9	87.2%	88.2%	0.03	87.3%	87.4%	0.00
10-19.9	12.8%	11.8%	0.03	12.7%	12.6%	0.00
TSH Baseline (mIU/L)						
Mean (SD)	7.0 (2.8)	6.9 (2.8)	0.04	7.0 (2.77)	7.0 (2.90)	0.00
Age (years)						
Mean (SD)	55.8 (16.2)	50.4 (13.7)	0.36	55.1 (16)	54.0 (15.6)	0.02
Sex						
Female	68.0%	75.1%	0.16	69.0%	72.0%	0.04
Male	32.0%	24.9%	0.16	31.0%	29.0%	0.04
Race/Ethnicity						
Asian	4.3%	4.7%	0.02	4.3%	4.1%	0.01
Black	8.4%	7.7%	0.03	8.3%	8.5%	0.01
Hispanic	10.3%	9.0%	0.04	10.1%	10.0%	0.00
White	73.8%	75.4%	0.04	74.0	74.3%	0.01

Unknown	3.3%	3.3%	0	3.3%	3.1%	0.01
Health Plan						
Commercial	68.8%	88.4%	0.49	71.4%	75.2%	0.08
Medicare Advantage	31.2%	11.6%	0.49	28.6%	24.8%	0.08
Census Region						
Midwest	12.8%	9.2%	0.12	12.3%	11.3%	0.03
Northeast	9.8%	9.2%	0.02	9.7%	9.8%	0.00
South	59.0%	68.5%	0.20	60.3%	60.7%	0.01
West	18.4%	13.1%	0.15	17.7%	18.2%	0.01
Charlson Baseline						
Mean (SD)	1.1 (1.9)	0.7 (1.4)	0.24	1.0 (1.9)	1.0 (1.8)	0.03
Conditions Affecting L-thyroxine Absorption						
Inflammatory bowel disease	0.7%	1.0%	0.03	1.0%	1.0%	0.02
Anemia	5.8%	5.2%	-0.03	6.0%	6.0%	0.03
Estrogen Use (90 days prior)	10.8%	16.4%	0.16	11.0%	12.0%	0.00
Prescribing Provider Specialty						
Endocrinologist	4.7%	19.1%	0.46	6.6%	6.8%	0.01
General Provider	74.2%	65.6%	0.19	73.0%	74.3%	0.03
Missing/Other	21.1%	15.4%	0.15	20.4%	18.9%	0.04

Includes adult patients who newly filled either generic or brand L-thyroxine preparations between January 1, 2008 and October 1, 2017.

eTable 3. Cohort 1 Results of IPTW

	Generic L-thyroxine (N=15,299)	Brand L-thyroxine (N=2,299)	p-value
TSH Category Result			
Normal (0.3 to 4.4 mIU/L)	72.9% (71.3, 74.0)	75.4% (73.4, 80.5)	0.07

TSH levels within 3 months of initiation of brand vs generic L-thyroxine among weighted population of patients with abnormal baseline TSH levels (4.5 to 19.9 units)