

ADHERENCE TO GOLD CRITERIA STRATEGY IN TREATMENT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) PATIENTS: COST IMPLICATIONS IN TURKEY

Tatar M.¹, Tuna E.¹, Şentürk A.¹, Sariöz F.², Konya A.³,

¹Polar Health Economics and Policy Consultancy Company, Ankara, Turkey, ²Novartis Turkey, Market Access & External Affairs Department, Istanbul, Turkey, ³Novartis Turkey, Medical Department, Istanbul, Turkey

OBJECTIVES

COPD, a major cause of mortality and morbidity globally and in Turkey, is a progressive respiratory disease predominantly caused by smoking. The Global Initiative for Chronic Lung Disease (GOLD) strategy provides an evidence based approach for treatment and prevention of COPD. This study had two main aims as to compare the clinical practice and GOLD recommendations and to assess the cost implications of adherence or non-adherence.

METHODS

A two-staged methodology was adopted for the study. First, treatment strategies of 1,610 patients were compared to the recommendations of GOLD 2013 and adherence to the GOLD recommendations were assessed. Second, the costs of treatment with GOLD recommendations and clinical practice were calculated by using the Turkish Social Security Institute's (SSI) price tariff.

RESULTS

There were major differences in GOLD recommendations and clinical practice. Although LABA+LAMA+ICS treatment is not recommended for GOLD A, B and C patients, this combination was the most widely prescribed treatment (49.5%, 61.2% and 70.3% of patients respectively). Treatment strategies of GOLD 2013 and treatment strategies in clinical practice are summarized in Table 1.

Table 1: Treatment strategies of GOLD 2013 and treatment strategies in clinical practice

		LABA	LAMA	LABA + LAMA	LABA+ ICS	LABA + LAMA + ICS	SABA - SAMA	Others
GOLD A	Recommendation	16,7	16,7	0	0	0	66,7	0
	Clinical practice	2,3	10	4,4	21	49,5	8,6	4,2
GOLD B	Recommendation	25	25	50	0	0	0	0
	Clinical practice	0,6	8,7	6,9	17,9	61,2	2,1	2,7
GOLD C	Recommendation	16,7	41,7	16,7	25	0	0	0
	Clinical practice	0	2,4	1,9	18,9	70,3	4,2	2,4
GOLD D	Recommendation	0	29,2	12,5	29,2	29,2	0	0
	Clinical practice	0	3,2	2	11,7	78,9	2,2	2
Total	Recommendation	14,6	28,1	19,8	13,5	7,3	16,7	0
	Clinical practice	1,1	7	3,8	17,8	62	5,1	3,1

Daily cost of treatment for each active ingredient category is summarized in Table 2.

Table 2: Daily cost of treatment for each active ingredient category

	Daily Treatment Costs (TRY)
LABA	0.77
LAMA	1.20
LABA + LAMA	1.97
LABA + ICS	2.00
LABA + LAMA + ICS	3.20
LABA + PDE-4	2.67
LAMA + PDE-4	3.10
LABA + ICS + PDE-4	3.90
SABA - SAMA	4.41

In all GOLD groups, except GOLD A category, the annual cost of treatment was higher in clinical practice compared to GOLD recommendations. Although the annual treatment cost per patient by GOLD recommendations was 540,16TRY (164€) for GOLD B, in actual practice the cost per patient was 981,53 TRY (298€). Additionally, costs were 763,82 TRY (232€) vs. 1,063.50 TRY (322€) for GOLD C and 944,55 TRY (286€) vs. 1,085.07 TRY (329€) for GOLD D (Table 3).

Table 3: Treatment costs based on strategies of GOLD 2013 and based on treatment strategies in clinical practice

	GOLD A		GOLD B		GOLD C		GOLD D		Total	
	%	Annual Cost (TRY)	%	Annual Cost (TRY)	%	Annual Cost (TRY)	%	Annual Cost (TRY)	%	Annual Cost (TRY)
LABA	17	47.08	25	70.6	-	-	-	-	10	29.43
LAMA	17	72.98	25	109.45	25	109.45	17	72.98	21	91.19
LABA + LAMA	-	-	50	360.11	17	120.06	13	90.03	20	142.53
LABA + ICS	-	-	-	-	25	182.11	17	121.43	10	75.9
LABA + LAMA + ICS	-	-	-	-	-	-	29	340.2	7	85.02
LABA + PDE-4	-	-	-	-	17	162.73	-	-	4	40.71
LAMA + PDE-4	-	-	-	-	17	188.63	13	141.44	7	82.49
LABA + ICS + PDE-4	-	-	-	-	-	-	13	177.77	3	44.51
SABA - SAMA	67	1072.74	-	-	-	-	-	-	17	268.22
Total	100	1,192.8	100	540.16	100	762.97	100	943.85	100	860.01

CONCLUSION

Although GOLD is widely referred to as a gold standard of care, adherence to its recommendations may not always be the case. The results of our study demonstrate that when clinicians do not follow GOLD recommendations, this non-adherence has negative cost implications for the reimbursement agency.

This study was sponsored by Novartis Turkey.