HOW PRICING AND REIMBURSEMENT POLICIES AFFECT THE BUDGET IMPACT OF THE TREATMENT OF SYSTEMIC JUVENILE IDIOPATHIC ARTHRITIS IN TURKEY

Tatar M[1], Tuna E[2], Oguzhan G[3], Senturk A[2], Sozeri B[4], Aktay Ayaz N[5], Turgay S[6], Turanli M[6], Makay B[7], Demirkaya E[8], Unsal E[7], Kasapcopur O[9], Ozen S[1]

[1]Hacettepe University, Ankara, Turkey, [2]Polar Health Economics and Policy Consultancy, Ankara, Turkey, [3]19 Mayis University, Samsun, Turkey, [4]Erciyes University Faculty of Medicine, Kayseri, Turkey, [5]Kanuni Sultan Suleyman Training and Research Hospital, Istanbul, Turkey, [6]Novartis Pharma, Istanbul, Turkey, [7]Dokuz Eylul University Hospital, Izmir, Turkey, [8]Gülhane Military Medical Academy, Ankara, Turkey, [9]Cerrahpasa Medical Faculty, Istanbul University, Istanbul, Turkey

Objectives

Systemic Juvenile Idiopathic Arthritis (SJIA) is defined as a subtype of juvenile idiopathic arthritis (JIA), characterized by the clinical features of remitting fever, a typical erythematous skin rash and arthritis. SJIA is a typical disease of childhood and in contrast to the other subtypes of JIA, shows no preference regarding gender or time of disease onset in the first decade of life (1).

Up to 30% of patients will still have active disease after 10 years, and morbidity within this group is high. Complications include growth failure, osteoporosis, deformities, loss of function and amyloidosis (2). The agents used to treat SJIA include nonsteroidal anti-inflammatory drugs (NSAIDs), glucocorticoids, and the biologic and non-biologic disease-modifying antirheumatic drugs (DMARDs). (3) The aim of this study was to explore the treatment protocol of Systemic Juvenile Idiopathic Arthritis (SJIA) in Turkey and to assess the impact of pricing and reimbursement policies on the treatment budget of SJIA.

Methods

Delphi panel method was used in the study. First, a group of rheumatologists answered the Delphi panel questionnaire, designed to explore the type and frequency of resources used in treatment of SJIA. This was followed by a consensus-building meeting. Budget impact was determined based on Pricing Tariff of Social Security Institution from payer perspective.

Results

The cost of diagnosis of SJIA was estimated to be 482.00 TL per patient. This cost consisted of physician visit cost, diagnostic tests cost and hospitalization cost.

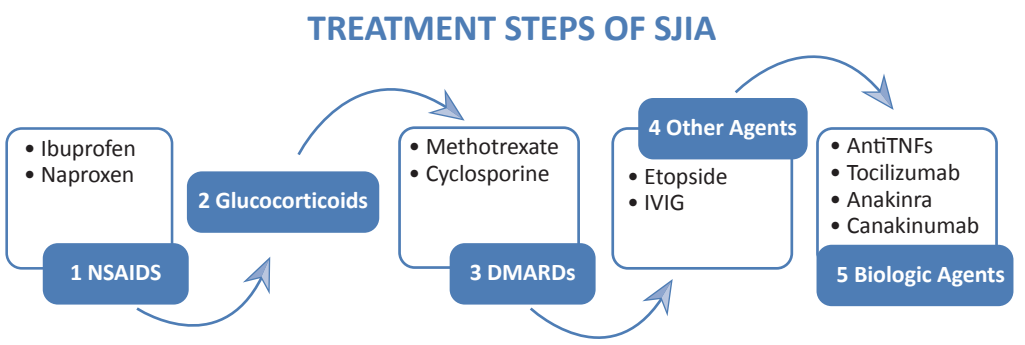
	Total cost
Diagnosis cost	482.00 TL

The cost of treatment of SJIA is estimated to be 20,414.18 TL and 39,158.29 TL for the first and second years respectively.

	1st year	2nd year	Total cost
Treatment cost	20,414.18 TL	39,158.29 TL	59,572.47 TL

This cost was consisted of the drugs used in treatment. According to the Delphi results; treatment of SJIA starts with NSAIDs, followed by glucocorticoids and DMARDS.

Then approximately 40% of the patients, who has not responded to the agents stated above, continue treatment with biologic agents including anti-TNF agents (etanercept, infliksimab, adalimumab), IL-1 (canakinumab) or IL-6 inhibitors (tocilizumab).



All drugs used for treatment of SJIA are listed in following table with their usage and response rates.

Drugs used in treatment of SJIA	Usage rate	Response rate
NSAID	% 100	% 0-1
Ibuprofen	% 75	% 0-1
Naproksen	% 75	% 0-1
Glucocorticoids	% 100	% 50
DMARDs		
methotrexate	% 58	% 40
cyclosporine	% 10	% 85
Other agents		
Etoposid (by hematologist advice)	% 1-2	% 50
IVIG	% 2	% 50
Biologic agents	% 40	
Anti TNFs	% 10	% 60
Tocilizumab	% 10-15	% 90
Anakinra	% 50-60	% 80
Canakinumab	% 15-20	% 90

The cost of monitorization is estimated to be 256.00 TL and 128.00 TL for the first and the second year respectively. This cost consisted of physician visit cost, diagnostic tests cost and hospitalization cost.

Conclusion

Considering all the costs stated above, treatment cost had the largest share in the total cost.

	1st Year Costs	2nd Year Costs	Total Costs
Diagnosis	482,00 TL	0	482,00 TL
Treatment	20.414,18 TL	39.158,29 TL	59.572,47 TL
Follow-up	256,00 TL	128,00 TL	384,00 TL
Emergency	38,74 TL	0	38,74 TL
Total Costs	21.190,92 TL	39.286,29 TL	60.477,22 TL

Among the treatment costs, biologic agents had the largest share mainly because of their relatively higher prices. Some biologics are imported from abroad through the Turkish Pharma Association as they are included in pre-licence early access program. This means that they are not exposed to cost containment measures in terms of pricing and reimbursement and accordingly they are contributing to the high cost dilemma.

References

1. M. Frosch, J. Roth, New insights in systemic juvenile idiopathic arthritis—from pathophysiology to treatment, Rheumatology 2008;47;121–125

2. Woo P., Systemic juvenile idiopathic arthritis: diagnosis, management, and outcome, Nature Reviews Rheumatology 2, 28-34 (January 2006)

3.http://www.uptodate.com/contents/systemic-juvenile-idiopathic-arthritis-treatment#H1

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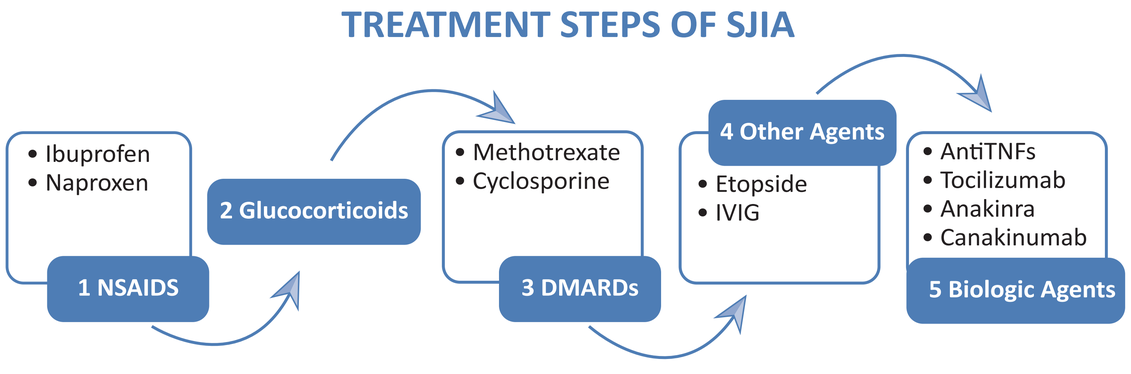

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