

All Babies Are at Risk RSV's Heavy Toll: 34,7 Billion TL!

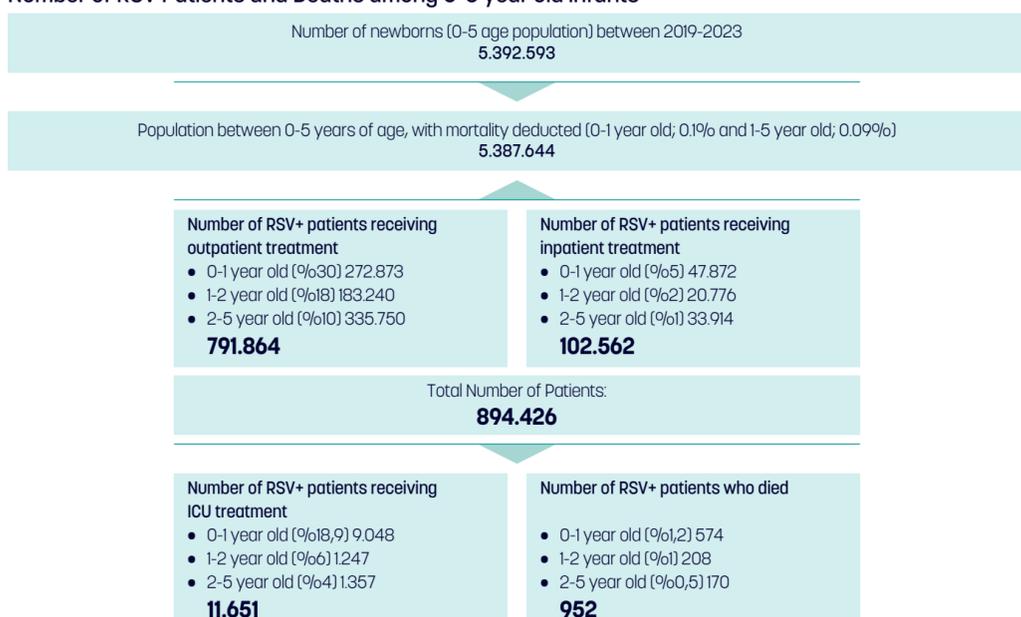
Section 1: What is RSV?

Respiratory Syncytial Virus (RSV) is a common, seasonal virus that affects the respiratory tract, especially in infants, young children, elderly individuals, and people with weak immune systems. It can cause a clinical spectrum ranging from mild upper respiratory tract infections to life-threatening severe lower respiratory tract infections (especially bronchiolitis and pneumonia). It is a major cause of lower respiratory tract infections in infants and children worldwide and leads to significant morbidity and mortality.

Approximately 50% of infants are infected during their first RSV season, while about 95% are infected with RSV within the first two years of life. Due to the lack of lasting immunity, recurrent RSV infections can occur, and the long-term consequences of RSV may include recurrent wheezing, exacerbation of asthma, and COPD.

Based on Turkish Statistical Institute (TÜİK) birth statistics, expert panel input, and scientific sources related to RSV, the number of RSV cases and deaths in the 0-5 year old population in Turkey has been determined as follows:

Number of RSV Patients and Deaths among 0-5 year old infants



Section 2: The Economic Burden of RSV Disease

The primary objective of the Cost of Illness (COI) methodology is to assess the economic burden that a disease imposes on society. In our study, a bottom-up cost approach was used in accordance with this methodology; national data were extracted and used from the literature review, and expert opinion was sought where data were unavailable.

In cost of illness studies, direct and indirect costs are generally considered the main components:

- **Direct Costs:** These include the direct economic costs of the disease, such as treatment, hospitalization, medications, and other healthcare services.
 - Direct Medical Costs: Costs of healthcare services used directly for the treatment of patients.
 - Direct Non-Medical Costs: Costs not directly related to treatment but still associated with the illness, such as transportation expenses.
- **Indirect Costs:** These cover more indirect expenses such as loss of labor, reduced productivity, and leaving work or reduced working hours due to the illness.

RSV-Related Direct Medical Cost among 0-5 year old infants (TL)

	Outpatient	Inpatient	Intensive Care Unit
Polyclinic	2.033,66	451,26	3.521,15
Laboratory and Imaging	2.368,53	2.811,75	5.337,5
Hospital			
ICU-Service		7.493,70	19.540,87
Medicine and Application	1.477,30	19.797,47	17.991,05
Average Cost per Patient (TL)	5.879,49	30.554,19	46.390,57

*The co-payment has been included.

RSV-Related Direct Non-Medical Cost among 0-5 year old infants (TL)

	Patient Rate (%)	Unit Cost per Patients	Total Cost
Out of Town Patients	%25	2.400	1.534.447.986
In-City Patients - Public Transportation	%5	140	17.901.893
In-City Patient - Private Vehicle	%35	775,01	693.705.521,17
In-City Patient - Taxi	%35	563,4	504.296.331
Total Non-Medical Direct Cost		3.074,99	2.750.351.731

RSV-Related Indirect Costs among 0-5 year old infants (TL)

Indirect Cost	%	Unit Cost per Patients	Total Cost
Parental Report Requirement	%15	2.861,22	383.872.910,99
Need For Professional Caregivers	%15	13.300	1.784.379.530,50
Need For Non-Professional Caregivers	%15	9.357,40	1.279.576.369,98
Cost Of Early Death		21.581.805	20.541.473.295,16
Total Indirect Cost		26.820,90	23.989.302.107

RSV-Related Total Cost among 0-5 year old infants(TL)

Direct Cost	
Direct Cost Per Patient	8.915,18
Total Direct Cost	7.973.967.188,68
Non-Medical Direct Cost	
Non-Medical Direct Cost Per Patient	3.074,99
Total Non-Medical Direct Cost	2.750.351.731,14
Indirect Costs	
Indirect Cost Per Patient	26.820,90
Total Indirect Cost	23.989.302.106,63
TOTAL RSV COST - TL	34.713.621.026,46
TOTAL RSV COST - Dollars	799.668.763,57

Cost Distribution According to Age Breakdowns

Age	Direct Cost	TL	\$
0-1 year old	%35	3.753.511.622	86.466.520
1-2 year old	%25	2.681.079.730	61.761.800
2-5 year old	%40	4.289.727.568	98.818.880
	Indirect Cost		
0-1 year old	%35	8.396.255.737	193.417.548
1-2 year old	%25	5.997.325.527	138.155.391
2-5 year old	%40	9.595.720.843	221.048.626
	Distribution of Total Cost by Age		
0-1 year old	%35	12.149.767.359	279.884.067
1-2 year old	%25	8.678.405.257	199.917.191
2-5 year old	%40	13.885.448.411	319.867.505

1\$=43,41TL

Among infants and children aged 0-5, the total cost associated with RSV represents a significant economic burden, accounting for **1.47%** of **total 2024** healthcare expenditure, **3.73%** of **total 2024** Social Security Institution (SGK) health, 0.40% of the Ministry of Health's 2024 budget, and 0.88% of the 2023 SGK budget.

What one can do with 34.7 billion TL?

- 31 large-scale pediatric hospitals could be built.¹

Section 3: Conclusion

RSV is a common cause of childhood lower respiratory tract infections (LRTIs) worldwide and is a major reason for hospital visits and admissions among young children, **placing a significant burden on healthcare services.**

This burden primarily manifests as emergency department overcrowding, increased inpatient rates, higher intensive care unit (ICU) load, overload in outpatient clinics and primary healthcare services, pressure on healthcare personnel, and financial and emotional strain on families.

An **effective immunization strategy against RSV** would have a positive impact on both the risk of mortality and the overall burden. A comprehensive strategy that can protect all infants against RSV is needed to **prevent disease burden and long-term outcomes** among infants, and to **reduce both the direct and indirect costs** on the healthcare system.

References: Türkiye'de 0-5 yaş Çocuklarda Respiratuar Sinsiyal Virüs (RSV) Ekonomik Yüku, Simten Malhan. 1. T.C. Resmi Gazete (2024). "Mimarlık ve Mühendislik Hizmet Bedellerinin Hesabında Kullanılacak 2024 Yılı Yapı Yaklaşık Birim Maliyetleri Hakkında Tebliğ", Sayı: 32464, 20.02.2024. <https://www.resmigazete.gov.tr/eskiler/2024/02/20240220-2.htm>.



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