

# **Estimated impact of Nirsevimab on the incidence of Respiratory Syncytial Virus infections requiring hospital admission in children <1 year, weeks 40, 2023, to 8, 2024, Spain**

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## 1. Official recommendations for administration of nirsevimab in the 19 Spanish Autonomous Communities

Table S1. Minimum date of birth for eligibility for immunisation with nirsevimab (children born on or after the given dates were eligible, under different indications) in the 19 autonomous communities

Autonomous community	Immunisation of newborns*	Catch-up immunisation	Children at increased risk (exc.premature)**	Premature children***
Andalusia	01/10/2023	01/04/2023	01/10/2021	01/10/2022
Aragon	01/10/2023	01/04/2023	01/10/2021	01/10/2022
Asturias	02/10/2023	01/04/2023	01/10/2021	01/10/2022
Balearic Islands	20/11/2023	01/04/2023	01/10/2021	01/10/2022
Canary Islands	05/10/2023	01/04/2023	01/10/2021	01/10/2022
Cantabria (not participating in SARI surveillance)	01/10/2023	01/04/2023	01/10/2021	01/10/2022
Castille - La Mancha	02/10/2023	01/04/2023	01/10/2021	01/10/2022
Castille and Leon	01/10/2023	01/03/2023	01/10/2021	01/10/2022
Catalonia	02/10/2023	01/04/2023	01/10/2021	01/10/2022
Valencian Community	01/10/2023	01/04/2023	01/10/2021	01/10/2022
Extremadura	30/10/2023	01/05/2023	01/10/2021	01/10/2022
Galicia	25/09/2023	01/04/2023	01/10/2021	01/10/2022
Madrid	01/10/2023	01/04/2023	01/10/2021	01/10/2022
Murcia	25/09/2023	01/04/2023	01/10/2021	01/10/2022
Navarre****(not participating in SARI surveillance)	01/10/2023	Not recommended	01/10/2021	01/10/2022
Basque Country (only syndromic SARI surveillance)	13/11/2023	01/07/2023	01/10/2021	01/10/2022
La Rioja (only syndromic SARI surveillance)	01/10/2023	01/04/2023	01/10/2021	01/10/2022
Ceuta	06/10/2023	01/04/2023	01/10/2021	01/10/2022
Melilla	17/10/2023	01/04/2023	01/10/2021	01/10/2022

\* The recommendation is to administrate nirsevimab as soon as possible after birth, normally in the first 48 hours (in the maternity or hospital), or alternatively in the first pediatric consultation, happening generally before 10 days of life.

\*\* Children with increased risk of severe RSV infection were previously recommended palivizumab and this season are targeted for nirsevimab instead. Conditions defining high risk are the following: Bronchopulmonary dysplasia, congenital heart disease with significant hemodynamic alteration (those receiving treatment for congestive heart failure, those with moderate or severe pulmonary hypertension and children with cyanotic heart disease), congenital metabolic disorders, Down syndrome, cystic fibrosis, diseases neuromuscular lung diseases or malformations of the airways that hinder the ability to eliminate secretions from

the upper respiratory tract, severe immunosuppression due to oncohematological processes, primary immunodeficiencies (especially combined and congenital agammaglobulinemia), confirmed HIV infection and under continuous treatment with immunosuppressants, infants in palliative care

\*\*\* Born with <35 weeks gestational age

\*\*\*\* Campaign finishing on 31 December with the possibility of extension

## 2. Results from syndromic surveillance of Acute Respiratory Infections (ARI) and Severe ARI (SARI) in Spain, seasons 2021-22 to 2023-24

Figure S1. Weekly incidence of Acute Respiratory infections (ARI) attended in primary care, by age group, SiVIRA, seasons 2021-22 to 2023-24

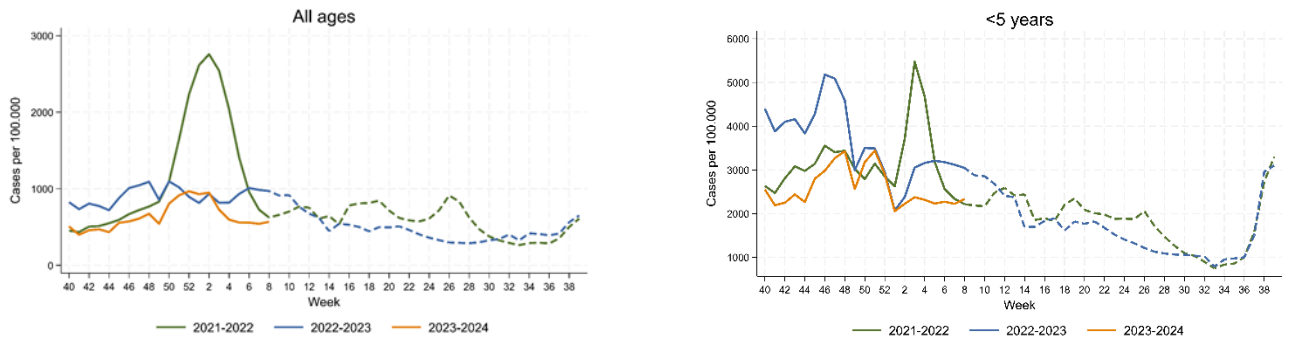
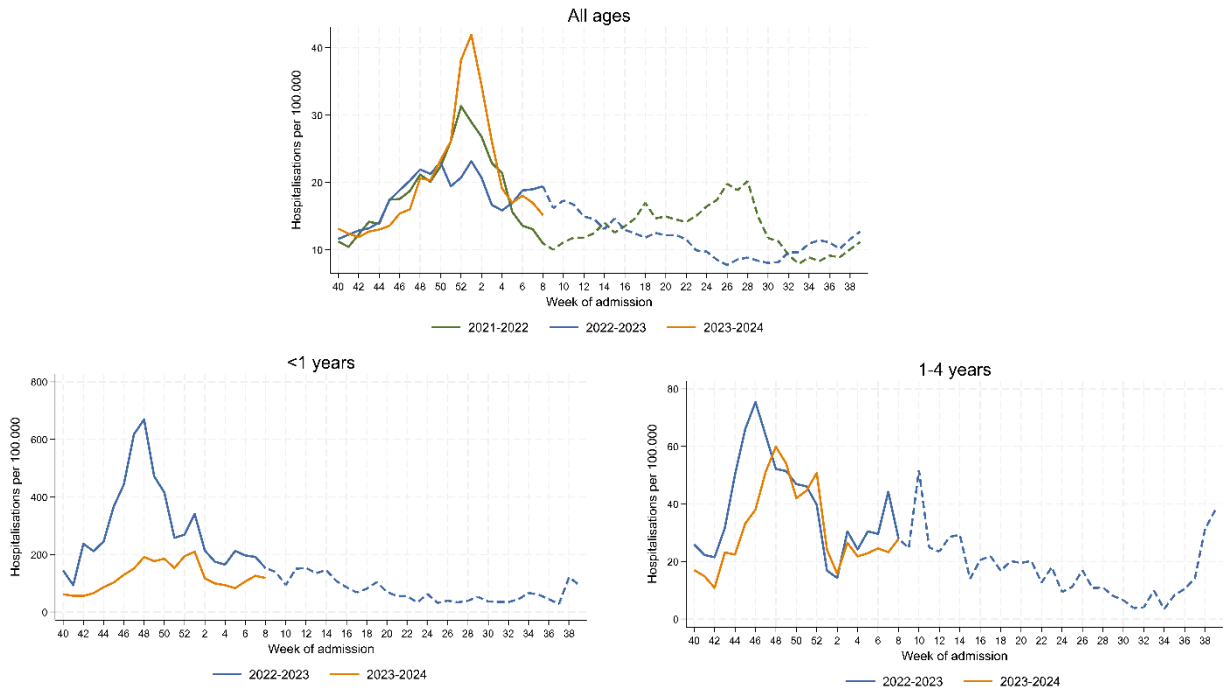


Figure S2. Weekly incidence of Severe Acute Respiratory infections (SARI) in hospitals, by age group, SiVIRA, seasons 2021-22 to 2023-24

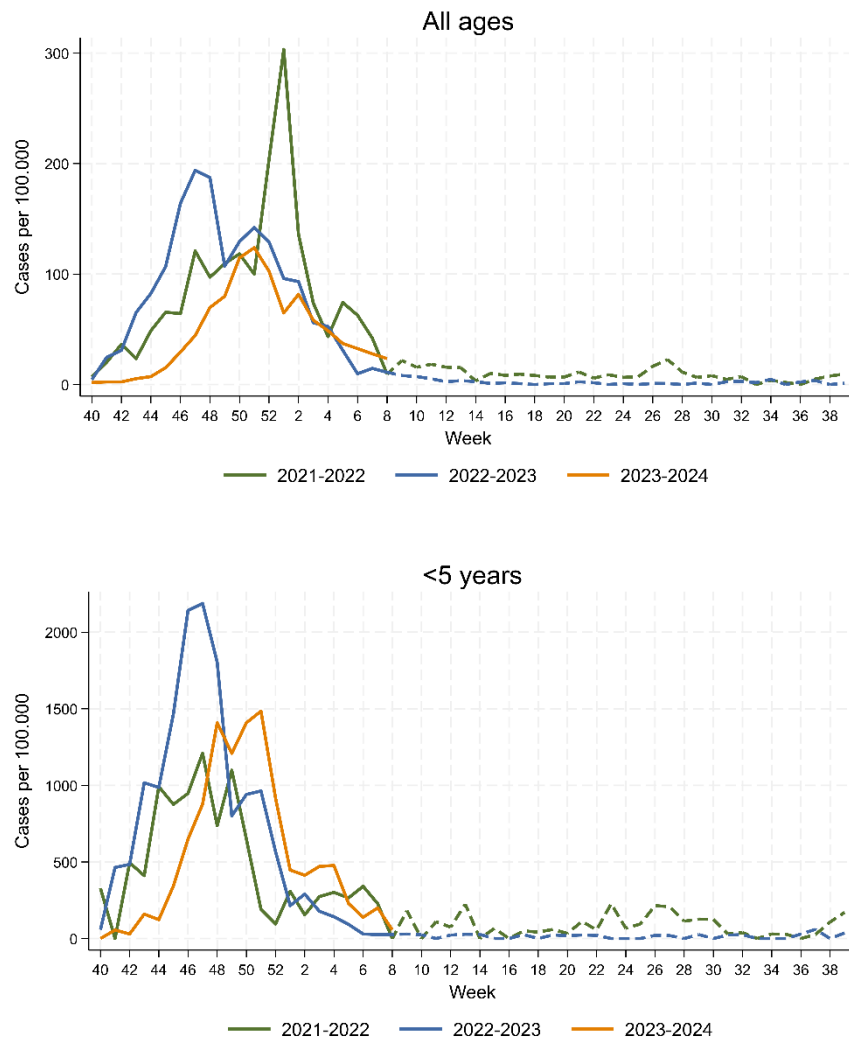


**3. Respiratory Syncytial Virus (RSV) positivity and incidence of RSV infections medically attended in primary healthcare in Spain, seasons 2022-23 and 2023-24**

**Table S2. Number of ARI and SARI patients tested for RSV and number and proportion of RSV positives, by age group and season, SiVIRA, seasons 2022-23 and 2023-24**

Age group (years)	RSV positivity in ARI patients						Age group (years)	RSV positivity in SARI patients					
	40/2022 - 8/2023			40/2023 - 8/2024				40/2022 - 8/2023			40/2023 - 8/2024		
	Tests	Positives	%	Tests	Positives	%		Tests	Positives	%	Tests	Positives	%
<5	2526	509	20,2	2225	458	20,6	<1	566	374	66,1	702	273	38,9
5-14	2627	180	6,9	2117	126	6,0	1-4	409	148	36,2	464	206	44,4
15-44	5696	306	5,4	4831	171	3,5	5-14	131	21	16,0	212	25	11,8
45-64	4536	397	8,8	4282	193	4,5	15-44	141	10	7,1	342	16	4,7
≥65	3446	345	10,0	3108	205	6,6	45-64	519	36	6,9	1169	71	6,1
							65-79	943	86	9,1	2128	170	8,0
							≥80	1438	172	12,0	2740	277	10,1
<b>All ages</b>	18831	1737	9,2	16563	1153	7,0	<b>All ages</b>	4147	847	20,4	7757	1038	13,4

**Figure S3. Weekly incidence of RSV infections\* in primary care by age group, SiVIRA, seasons 2021-22 to 2023-24**



\* The incidence of RSV infections\* is obtained by multiplying the ARI syndromic rates by the proportion of laboratory tests positive for RSV among a representative sample of those ARI that are systematically swabbed and tested.

**Table S3. Age distribution of confirmed RSV infections in primary care and RSV hospitalisations, SiVIRA, seasons 2022-23 and 2023-24.**

Age group (years)	RSV cases in primary care				Age group (years)	RSV hospitalizations			
	40/2022 - 8/2023		40/2023 - 8/2024			40/2022 - 8/2023		40/2023 - 8/2024	
	n	%	n	%	n	%	n	%	
<5	274725	32,4	199874	41,2	<1	13120	40,0	3357	14,5
5-14	108569	12,8	68398	14,1	1-4	4494	13,7	4357	18,8
15-44	137833	16,2	72460	14,9	5-14	734	2,2	606	2,6
45-64	164978	19,4	55105	11,4	15-44	855	2,6	385	1,7
≥65	162323	19,1	89483	18,4	45-64	1664	5,1	1847	8,0
					65-79	4351	13,3	4956	21,3
					≥80	7589	23,1	7704	33,2
<b>All ages</b>	<b>848428</b>	<b>100</b>	<b>485320</b>	<b>100</b>	<b>All ages</b>	<b>32808</b>	<b>100</b>	<b>23213</b>	<b>100</b>