Item		Sub-item	Description	Origin of information	Maturity level grade	Maturity level criteria and definitions	Rationale
0	Data base identification	Country	Italy		*N/A*	*N/A*	*N/A*
		Data Access Provider	SoSeTe (Società Servizi Telematici)	https://catalogues.ema.europa.eu/institution/3331353		*N/A*	
		Organisation type	Primary Care Medical Records			*N/A*	
I	Rationale and scope for the RWD source creation	Primary purpose for which data are collected	Pedianet is a national population database that contains anonymous patient-level data of paediatric population who received healthcare from family paediatricians (FPs) in Italy who were part of the PEDIANET network. The network links FPs distributed throughout several Italian regions designated by the Italian NHS, including Friuli-Venezia Giulia, Liguria, Lombardia, Piemonte, Veneto, Lazio, Marche, Toscana, Abruzzo, Campania, Sardegna, and Sicilia. Primary Care and Pediatric specialist Records and vaccines from public health. The database is maintained and owned by the Società Servizi Telematici Srl. The maintenance of the database is funded through different research projects. Studies carried out to date have been financed by public bodies (European Commission, Istituto Superiore di Sanità, AIFA, Consiglio Nazionale delle Ricerche, Regione Veneto, Aziende Socio Sanitarie, Istituto Zooprofilattico delle Venezie, etc.), or private groups such as pharmaceutical companies or	https://link.springer.com/chapter/10.1007/978-3-030-51455-6_13	*2*	*L1 if information is available as free text and/or online link(s)*	*Relevant for all DQ dimensions (reliability, extensiveness, coherence and timeliness) as it provides a general understandin g of the strengths and limitations of an RWD source.* *Knowing the triggers would ease the understanding of the content and motivations behind the data.*
		Criteria for the selection of the data being collected or integrated	Informed consent is required from the parents. Only participating pediatricians. The data is recorded during the medical examination carried out by the pediatrician. Pedianet is a national population database that contains anonymous patient-level data of paediatric population who received healthcare from family paediatricians (FPs) in Italy who were part of the PEDIANET network. In Italy, there is a tax-funded public healthcare system with universal access, and patients do not incur direct costs related to primary care visits. Informed consent is required from children's parents to enter the data in the database.			*L2 if information is available using standardised templates to make information easy to digest and interpret (the EMA recommends to check this tool as reference: REQuesT Tool and its vision paper [Internet]. EUnetHTA. 2019. Available from: 721 https://www.eunethta.eu/request-tool-and-its-vision-paper/.*	
		What triggers a record in the database	Triggering registration of a person in the data source: practice registration Triggering de-registration: death, los to follow-up or practice deregistration Triggering a record in the data source: visit to participating pediatrician			*L3 if the information is provided as Metadata (machine readable), including standrad formats, clear definitions and potentially some quality information*	
		Publications describing this RWD	https://link.springer.com/chapter/10.1007/978-3-030-51455-6_13				
II	Data collection or recording process	Description of data provider (geographical and oragnizational setting, nature of the data - reported by patients, HCP, etc)	Region of Veneto, Italy. The role of Pedianet not just as a database (especially for pharmacovigilance studies) but as an organised structure in which different competencies converge is essential. Pedianet is an independent network of family paediatricians established in 1998 to collect information from outpatient family paediatricians in Italy for clinical and epidemiological research (e.g., pharmacovigilance studies, studies on prescribing patterns, and studies of the efficiency of health services). The Pedianet database's beginning dates back to January 2000. The Pedianet system has the advantage of collecting data at a population level as a by-product of routine activities, therefore generating a far larger quantity of data than ad hoc studies.	https://link.springer.com/chapter/10.1007/978-3-030-51455-6_13	*1*	*L1 if information is available as free text and/or online link(s)*	*Essential to understand extensiveness and to assess reliability (that can be affected by errors or biases in the collection process). Also, essential to evaluate SOP for data collection or recording practices that may impact coherence (e.g., where "curation at source" is involved and provide hard constraints for timeliness).*
		Standard Operating Procedures (SOPs) recording	Requested to DEAP and unable to provide		*N/A*	*L2 if information is available using standardised templates to make information easy to digest and interpret, and also standard vocabularies are available*	
		How SOPs are implemented and monitored	Requested to DEAP and unable to provide		*N/A*		
		Key data elements captured (are they always recorded, are they optional, is there a planned coverage over time, ...)	Data collection started in January 2000 with a 3-year test period and is still ongoing. The data include demographic information as well as information on inpatient diagnoses (48,000,001), drug prescriptions (31,500,001), anthropometric measures (16,400,001), specialist medical examinations (12,000,001), and physical examinations or lab tests (16,000,001). Demographic data include year of birth, age, sex, region of residence, nationality, and information about the parents (e.g., nationality, smoking habits, educational level of the mother and the socioeconomic level, were recorded). In addition, the type of breastfeeding at 1, 3, 6, 9, and 12 months after birth, parity, Apgar score at 1, 5, and 10 min after birth, gestational age, birth weight, birth height, jaundice and family illnesses are recorded. Additional information on the health status of the mother may also be available but is not routinely documented. Date and cause of death of a patient are also recorded in the Pedianet database. Information on outpatient diagnoses and symptoms includes primary and ancillary diagnoses, the date of diagnosis, and diagnostic certainty. Diagnoses are coded using the International Classification of Diseases, version 9 (ICD-9) with at least four digits. Outpatient prescriptions, treatment, including immunizations, and diagnostic procedures (laboratory tests and physical examinations) are also recorded. Outpatient prescription information, both for reimbursed and non-reimbursed drugs, includes the date of prescription and the date of dispensation, the indication, the ATC code, the Italian MinSan code, the number of prescribed packages, and the dose prescribed. Information about physical examinations and laboratory tests is generally documented, including the measured value, the date, and if necessary, the reason for performing the examination or test.	https://link.springer.com/chapter/10.1007/978-3-030-51455-6_13	*1*	*L3 if additionally SOPs specify KPIs to monitor*	
III	The selection of RWD sources and their onboarding *(Applies to RWD sources that integrate or repurpose other RWD sources)*	Criteria to accept or exclude a datasource	N/A		*N/A*	*L1 if information about selection criteria or DQ performance is available as free text and/or online link(s)* *L2 if a structure checklist and dataset version control are available*	*When data are provided by a data aggregator, ensure that all the available evidence related to systems and processes potentially affecting DQ (extensiveness and reliability especially) can be followed. Provide information of impact on both*
		Is there a DQ assessment for data sources onboarded?	N/A				

		If yes: does it follow any specific framework? Is there an assessment checklist? Are datasets versions traceable?	N/A			*L3 is only aspirational. N/A*	*reliability and evidence (as well as other dimensions if relative constraints are formulated in inclusion/exclusion (I/E) criteria)*
IV	The data management infrastructure	List of systems used to manage the RWD (either for data collection, recording, processing, etc)	The Pedianet database has been registered according to the Italian law. The network links FPs distributed throughout several Italian regions designated by the Italian NHS, including Friuli-Venezia Giulia, Liguria, Lombardia, Piemonte, Veneto, Lazio, Marche, Toscana, Abruzzo, Campania, Sardegna, and Sicilia, and who use the same software (Junior Bit®) (Padova, Italy) in their professional practice.	https://link.springer.com/chapter/10.1007/978-3-030-51455-6_13	*1*	*L1 if information is available as free text and/or online link(s)*	*Essential for reliability regarding data alterations resulting from system accidents, software errors or malicious intervention.*
		Software testing and software quality control in place	Requested to DEAP and unable to provide		*N/A*	*L2 if the hardware or software implementation complies with recognised quality standards that can be reported*	
		Measures to prevent accidental physical data alterations (e.g.: backups, redundant systems, checksums)	Requested to DEAP and unable to provide		*N/A*	*L3 NA*	
V	Data management and governance	Data management principles being followed (e.g., GCP, ISO, FAIR, etc)	Requested to DEAP and unable to provide		*N/A*	*L1 if information is available as free text and/or online link(s)*	*Data management and governance impact reliability, as well as all quality dimensions for metadata.*
		Data management processes in place (DQ controls, KPIs, SOPs, etc)	Pedianet routinely checks their data by: 1. Checking the correspondence of data with information on the child's medical record 2. Contacting the treating doctor to ask for patient information and comparing this information with that in the Pedianet database 3.Checking for outliers 4.Ensuring that the medication prescribed to a patient is consistent with the diagnosis 5.Ensuring that the results of medical tests performed are consistent with the diagnoses. The data collected from the child's parents/tutors by paediatricians enters the dedicated cloud already encrypted and anonymised. Pedianet researchers do not know the process to anonymise the data and cannot know the owner of the data	https://link.springer.com/chapter/10.1007/978-3-030-51455-6_13	*2*	*L2 if standard best practices are being used and a direct impact on DQ is reported. There are SOPs and dat amanagement processes that adhere to the standards. The representation of metadata follows FAIR standards*	
		Measures to prevent data alterations by unauthorised parties (cybersecurity)	The data collected from the child's parents/tutors by paediatricians enters the dedicated cloud already encrypted and anonymised. Pedianet researchers do not know the process to anonymise the data and cannot know the owner of the data				
		Auditing and DQ improvement procedures in place	In regards of DQ improvements, in the near future, data will be directly transferred to the Pedianet database from the electronic health records (the so called Fascicolo Sanitario Elettronico, FSE), which collects all hospitalization, medical tests, and examinations done. From then, the validation of these data is no longer necessary, or will at least be faster.	https://link.springer.com/chapter/10.1007/978-3-030-51455-6_13		*L3 if data management and governance is implemented in the data platforms 'Digital Quality Measures' (DQMs) so that reports of performance and deviations are automated. Submitted metadata are generated "by design". Basically, if everything in L2 is automatised and generated by default*	
VI	Data manipulation steps	Frequency of data updates	Monthly	https://catalogues.ema.europa.eu/node/1128/data-flows-and-management	*1*	*L1 if free-text information, links or publications are available reporting all the mentioned features*	*Impacts reliability both in terms of accuracy (possible errors) and precision (i.e., the degree of approximatio n by which data represents reality). Essential to ensure traceability of information. Also impacts coherence and potentially timeliness.*
		Data transformations performed, data mapping steps, data cleaning	Requested to DEAP and unable to provide		*N/A*	*L2 if Tests performed follow some standard or shared set of tests, that can be re-used across RWD sources. Key performance indicators (KPIs) for data cleaning (e.g., data duplications, mislabelling, etc.) are provided. Data mapping tables and algorithms are described with a standard characterisation of their performance. Lists of standard test batteries used to detect loss of accuracy or precision are provided. All lineage information is provided as metadata associated to the dataset*	
		Information about loss of precision during data manipulation steps	Requested to DEAP and unable to provide			*L3 if information about data onboarding is directly provided by the platform, e.g.: * Transaction logs are available including deviations and actions that required manual intervention Actual data transformation code is accessible and verifiable. Quality checks and KPIs reported are automatically generated by the data platform (e.g.: unit testing) Lineage information is automatically generated by the processing platform*	
		Lineage information (e.g., justifcation of data manipulation, track of changes and versions)	Requested to DEAP and unable to provide				
VII	Data augmentation steps (e.g., imputation or linkage)	Is any augmentation happening in this datasource?	It is possible to identify family members (brothers and sisters) within the database. Veneto paediatricians can integrate their outpatient routine clinical care data with data from the regional vaccination registry, hospital admissions, emergency department visits, and the COVID-19 swab registry. They can access the patient's Electronic Health Records and integrate these data into their pediatric primary care database. Only children in Friuli Venezia Giulia can be linked to the immunization registry.	https://link.springer.com/chapter/10.1007/978-3-030-51455-6_13 https://catalogues.ema.europa.eu/node/1128/data-flows-and-management#darwin-data-source-linkage	*1*	*L1 if free-text information, links or publications are available reporting all the mentioned features*	*Data augmentation steps impact accuracy (reliability) and extensiveness. We consider here data transformations that produce new information subject to reliability issues: e.g.: imputation of missing values, or extraction of codes via natural language processing.*
		If yes, which are the methods applied	Sibiling	https://catalogues.ema.europa.eu/node/1128/quantitative-descriptors		*L2 if algorithms are published and their performance documented. Information on which values result from imputation is provided as part of the dataset (e.g., presented in metadata or a data dictionary)*	
		If yes, which algorithms and assumptions applied	Requested to DEAP and unable to provide		*N/A*		
		If yes, which is the error rate when conducting the augmentation	Requested to DEAP and unable to provide			*L3 if an automatised process for data linkage/mapping exists*	
VIII	Known quality issues and independent QA assessment of the RWD source	Known DQ issues (e.g., poor overall completeness in Q3 2020 due to COVID-19)	A major strength of the Pedianet database is its size. The database counts 265,000 Italian children aged from 0 to 16 years old. The main limitations of the database include the lack of information of the family environment, an underreporting of hospitalization and immunization data, and the lack of many OTC prescriptions. This makes Pedianet not fully appropriate for studies on non-specific outcomes. However, these studies can be performed through prospective observational cohort studies which have been successfully carried out using the Pedianet network.	https://link.springer.com/chapter/10.1007/978-3-030-51455-6_13	*2*	*L1 if free-text information, links or publications are available reporting all the mentioned features*	*Explicit description of known DQ issues, as well as external validation performed (all dimensions affected)*
		Validation studies and publications resulting from this RWD source	Asthma, acute otitis media and liver injury diagnoses have been previously validated. Pedianet also informs internal procedures to validate their data: https://link.springer.com/chapter/10.1007/978-3-030-51455-6_13	https://www.sciencedirect.com/science/article/pii/S0264410X20301535?via%3Dihub https://pubmed.ncbi.nlm.nih.gov/12674038/ https://pubmed.ncbi.nlm.nih.gov/23190626/ https://pubmed.ncbi.nlm.nih.gov/28025733/		*L2 if standard procedures are set for external/internal validation of the data* *L3 if the mechanism provided includes notification of automatically detected DQ issues*	
IX	The RWD source representation	Description of data model or models used (OMOP, FHIR, ...)	ConcePTION (ETL frequency: every 4 months) OMOP (In progress, see link)	https://catalogues.ema.europa.eu/node/1128/data-flows-and-management#darwin-data-source-linkage	*3*	*L1 if free-text information, links or publications are available reporting all the mentioned features*	*Descriptive of the intended coherence DQ of a dataset and its metadata.*

		Data ontology (dictionaries and vocabularies) being used, and if in standard formats that allow mapping across different languages (e.g., UMLS)	ICD-9, ATC, AIC, Free-text	https://cataloques.ema.europa.eu/node/1128/data-flows-and-management#darwin-data-source-linkage		*L2 if the description refers to a model such as OMOP, I2B2, FHIR, others, or an extension of them. Data dictionaries are standard (and if non-standard, jusified why)* *L3 if a standard CDM is used, the datasource has been mapped to one or more than one CDM, and if data dictionaries are provided using standard formats that facilitate the mappings across different vocabularies and across languages*	
X	The RWD source declared Service Level Agreements (SLA)	Guaranteed frequency of updates and incident response time (e.g., corrections in case of errors)	Requested to DEAP and unable to provide		*N/A*	*L1 if free-text information and links are available reporting all the mentioned features* *L2 if details of established data processess by the provider are available* *L3 if SLA compliance is assessed and reported automatically*	*Descriptive of guaranteed timeliness and possible variations of extensivenes s/reliability provided.*
		Processes and resources accompanying the data, such as documentation, training materials or help desk contact	Requested to DEAP and unable to provide				
		Possibility to collect additional data if needed	Patients can be re-contacted through the participating paediatrician to gather additional information.	https://link.springer.com/chapter/10.1007/978-3-030-51455-6_13	*1*		
XI	The RWD source licensing and restrictions	Data use agreements that may limit data use or access (consent, limitations of use), accessibility policies, licensing constraints, standard policies of use, data retention	Data are included in the database only after written informed consent is obtained from the parents of the child. Data are collected anonymously on a central server in Padua, where it is validated and prepared for research. Access to the database is allowed only for Pedianet researchers in the context of research projects that have been approved by both the Steering Committee and the Ethics Review Board (if required). It is not permitted to give third parties access to the data. Patient level data cannot be shared, however aggregated data may be shared with research partners, e.g., for pooled analysis. The coordination of the projects and data analysis is carried out by a scientific committee that includes internationally well-known paediatricians, epidemiologists, and researchers.	https://link.springer.com/chapter/10.1007/978-3-030-51455-6_13	*2*	*L1 if free-text information and links are available reporting all the mentioned features* *L2 if policies and licensing are standardised to a broad range of RWD* *L3 N/A*	*Descriptive of aspects that can limit extensiveness and coherence in downstream data aggregations.*
XII	Feedback	Is there a data ecosystem in place so that quality assessment by data consumers can provide feedback to improve the data collection and production process, thus allowing a continuous monitoring and improvement of DQ?	General contact available: https://pedianet.it/	https://pedianet.it/	*1*	*L1 if a person of contact is provided for Q&A* *L2 if the contact provided allows tracking of issues and follow-up* *L3 if the mechanism provided includes notification of automatically detected DQ issues*	*Descriptive of feedback mechanisms in place to improve all aspects of DQ*

Dimension	Sub-dimension	Metrics	Description	Origin of information
Timeliness	Currency	How often is the database updated (i.e., frequency of updates)	Twice a year (every 6 months)	https://catalogues.ema.europa.eu/node/1128/quantitative-descriptors
		The time gap between the latest available data and date when data is delivered to user. (i.e., how up-to-date data are when it reach the user)	At least 6 months plus the lag of delivery	Provided by DEAP
		The time elapsed from when a user requests the data to when they actually receive it	Requested to DEAP and unable to provide	
		Median time (years) between first and last available records for unique individuals	14 years	https://catalogues.ema.europa.eu/node/1128/quantitative-descriptors
Extensiveness	Coverage	Percentage of a target population present in a database	3% of the Italian Paeditraic Population (<15 years)	https://catalogues.ema.europa.eu/node/1128/quantitative-descriptors
	Completeness	% of subjects in the data with a recorded birth date	Month and year of birth are recorded for 100% of subjects; day is defaulted to the 15th for anonymization	
		% of subjects in the data, irrespective of vital status, that have a recorded date of death	0%	https://zenodo.org/records/13384860 Provided by DEAP
		% of subjects in the data with a record of sex	100%	https://zenodo.org/records/13384860
		% of subjects in the data who had an event with a code for the event	100%	https://zenodo.org/records/13384860
		% of subjects in the data who had a prescription/dispensing with a recorded code for the medicine	100%	https://zenodo.org/records/13384860
		% of subjects in the data who got vaccinated with a recorded code for the vaccine	A register of vaccination with a code for the vaccine is recorded for 100% of individuals who are known to have been vaccinated	https://zenodo.org/records/13384860
Reliability	Accuracy	The population distribution in the data source aligns with that of the country	It is as expected, and in previous studies it has been reported to be representative in gender and age distributions with their national statistics, even if it enrolls only a sample of the population (pediatrics). To note, there is a higher proportion of toddlers and children (28 days to 12 y) active in respect to the population size, compared to other agebands. Active population size (302204): Neonate: 920 (0.3%) Infants and toddlers (28 days – 23 months): 24572 (8.1%) Children (2 to < 12 years): 182785 (60.5%) Adolescents (12 to < 18 years): 93927 (31.1%)	https://catalogues.ema.europa.eu/node/1128/quantitative-descriptors https://www.sciencedirect.com/science/article/pii/S0264410X20301535 https://www.ema.europa.eu/en/documents/report/observational-data-real-world-data-subgroup-report_en.pdf
		Records of diagnostics, exposures or medical observations that do not agree with common expectations and knowledge or feasible ranges (e.g., pregnancy records in males, a human with 4 arms, systolic pressure higher than 250mmHg, etc)	Requested to DEAP and unable to provide	
		Records of healthcare events (diagnoses, prescriptions, admissions, etc) with logical inconsistencies (e.g., and admission occurs after death)	Date values before birth: 0-4.8%	https://zenodo.org/records/13384860
		Variables that are based in imputation, derivation or inference (e.g., end of treatment date is derived from treatment start date and treatment cycle length)	Requested to DEAP and unable to provide	
	Precision	Exposures codes precision level, including medicines and vaccines (e.g., active principle, therapeutic group, ...)	Active principle (ATC level 5 codes)	Provided by DEAP
		Precision of date of birth (e.g., day, month, year)	Day, month, year	Provided by DEAP
		Precision of date of death (e.g., day, month, year)	Day, month, year	Provided by DEAP
		Precision of date of the event/diagnosis (e.g., day, month, year)	Day, month, year	Provided by DEAP
		Precision of date of the exposure (e.g., day, month, year)	Day, month, year	Provided by DEAP
	Traceability	Provenance of event records	primary care diagnosis, emergency, hospital diagnosis, exemption, primary care event, diagnosis_event_hospitalisation_automatically_referred_to_PC, vaccination_centre_event, specialist diagnosis	https://zenodo.org/records/13384860
		Provenance of medicines/vaccines records	prescription in primary care, administration at a paediatrician, administration by public health authority	https://zenodo.org/records/13384860
Coherence	Format coherence	For dates, formatting constraint being followed	Character, length 6: YYmmdd	Provided by DEAP
		For sex, formatting constraint being followed	M (male), F (female)	Provided by DEAP
	Relational	% of records with the Person ID in the PERSONS table	100%	https://zenodo.org/records/13384860
	Semantic coherence - to determine whether the	For EVENTS definitions, codelists/data dictionaries being employed according to external standards	ICD9CMP (is an ad hoc coding system taking into account exemption codes too), Free text	Provided by DEAP
		For EXPOSURES, codelists/data dictionaries being employed according to external standards	ATC, MPID	https://zenodo.org/records/13384860
	Uniqueness	Number of records flagged as potential duplicates	Requested to DEAP and unable to provide	

Scientific research question		Evaluate the effectiveness of nirsevimab against RSV-respirato						
Design elements	**Operationalization of definitions**	**Data elements for valid capture of variables**	**Criticality of the quality of the element**	**Extensiveness assessment (if applicable)**	**Reliability assessment (if applicable)**	**Coherence assessment (if applicable)**	**Timeliness assessment (if applicable)**	**Origin of information**
Study population	**Inclusion criteria**							
	Infants ≤12 months of age at the beginning of the RSV season	Date of birth	*High*	Available for 100% of patients	High	According to previous studies, RSV seasonality is considered between October 1st and March 31st	As data is updated twice yearly, is to bear in mind that information extracted will be at least 6 months old. Median time between first and last records for unique active individuals is ~14 years. Since deadline of the project is in spring 2026, whole data of 2025-2026 could not be included. In case of extension of project, data of 2025-2026 season will be available	Provided by DEAP
	Born at ≥29 weeks gestational age	Gestational age at birth	*High*	Unknown exact missingness, but is expected to be minimal, as there is a registered exemption from the payment of medication for this subgroup	High		As data is updated twice yearly, is to bear in mind that information extracted will be at least 6 months old. Median time between first and last records for unique active individuals is ~14 years	
	Exclusion criteria							
	Ongoing RSV infection	Diagnostic codes Laboratory test results	*High*	Event codes available for 100% of patients				
	Participation in another RSV prophylaxis trial	Electronic data regarding informed consent document	*High*	Not available				
	No informed consent from the parents	Electronic data regarding informed consent document	*High*	Informed consent is already required from children's parents to enter the data in the database and to have Pedianet data linked to other databases, making this criterion potentially redundant				https://pmc.ncbi.nlm.nih.gov/articles/PMC10196108/pdf/fped-11-1143735.pdf
	The mother has received RSV vaccine during the pregnancy	Medication code Mother-baby ID Date of start of pregnancy Date of end of pregnancy	*High*	The search of medication codes aims to exclude presence of nirsevimab ATC code. For those patients born since 2024, there is a field regarding maternal vaccination for family pediatricians to complete (however, maternal RSV immunization is rare in Italy since it is not reimbursed apart from some specific local health units)	Sibling linkage is explicitely described, but no information is available about mother-offspring linkage			Provided by DEAP
	The infant is eligible to receive palivizumab	Gestational age at birth Diagnostic codes	*High*	Unknown exact missingness of gestational age at birth, but is expected to be minimal, as there is a registered exemption from the payment of medication for this subgroup Event codes (in this case, of predisponent conditions that make an infant eligible to receive palivizumab) available for 100% of patients	High		As data is updated twice yearly, is to bear in mind that information extracted will be at least 6 months old. Median time between first and last records for unique active individuals is ~14 years	
Treatment/exposure	Nirsevimab	Medication code	*High*	Medication codes available for 100% of patients				
Comparator group (if applicable)	Standard care (no injection)	Medication code	*High*	The search of medication codes aims to exclude presence of nirsevimab ATC code				
Key endpoint(s)	Hospitalization for RSV-associated LRTI (hospital admission with an RSV-positive test result, during the RSV season)	Diagnostic codes Laboratory test results Hospitalization admission Date of hospitalization admission	*High*	Event codes available for 100% of patients	According to previous studies with same database analysing pediatric LRTI, the total number of bronchiolitis tested for pathogens in patients which are only visited on Emergency Departments (and not requiring hospitalization) is unknown, which may underestimate the incidence of RSV-associated LRTI. Nevertheless, all children being hospitalized with LRTI are tested for a panel of viruses including RSV, so the overall missingness of RSV-associated LRTI is expected to be minimal.		As data is updated twice yearly, is to bear in mind that information extracted will be at least 6 months old. Median time between first and last records for unique active individuals is ~14 years	https://pmc.ncbi.nlm.nih.gov/articles/PMC10196108/pdf/fped-11-1143735.pdf (published analysis on prior versions of PEDIANET) https://zenodo.org/records/13384860 Information provided by DAP
	Hospitalization for LRTI	Diagnostic codes Hospitalization admission	*High*	Event codes available for 100% of patients				https://zenodo.org/records/13384860
	Medically-attended LRTI	Diagnostic codes	*High*	Event codes available for 100% of patients				https://zenodo.org/records/13384860
Confounders	Age at the start of the RSV season	Date of birth	*Low*	Available for 100% of patients				Provided by DEAP
	Gestational age	Gestational age	*Low*	Unknown exactly missingness				Provided by DEAP
	Congenital cardiac diseases	Diagnostic code	*Low*	Diagnostic codes available for 100% of patients				
	Bronchopulmonary dysplasia	Diagnostic code	*Low*	Diagnostic codes available for 100% of patients				
	Neuromuscular disorders	Diagnostic code	*Low*	Diagnostic codes available for 100% of patients				
	Lung malformations	Diagnostic code	*Low*	Diagnostic codes available for 100% of patients				
	Congenital or acquired immunodeficiency	Diagnostic code	*Low*	Diagnostic codes available for 100% of patients				
	Receipt of immunosuppressive therapy, such as anti-cancer chemotherapy or radiation therapy, within the preceding 6 months; or long-term systemic corticosteroid therapy (prednisone or equivalent for more than 2 consecutive weeks within the past 3 months)	Medication code Date of prescription/dispensing Date of discontinuation or duration of treatment	*Low*	Medicaton codes available for 100% of patients Unknown missingness for exemption from medical treatment, although it is expected to be mnimal	Exemption from medical treatment will be used to exclude children with cancer and other diseases that require immunosupressive therapy Duration will be determined using a proxy based on diagnosis needing corticosteroides for more than 2 weeks and drugs prescriptions			Provided by DEAP
	Down syndrome	Diagnostic code	*Low*	Diagnostic codes available for 100% of patients				
	Previous RSV infection	Diagnostic code	*Low*	Diagnostic codes available for 100% of patients				
	Receipt of nirsevimab [only for the control group]	Medication code	*Low*	Medication codes available for 100% of patients				
	Death	Date of death	*High*	Diagnostic codes available for 100% of patients Life status available, although 0% of patients have date of death recorded				
Follow-up time needed per patient in the study	6 months	6 months (including recruitment and follow-up)	*Low*				As data is updated twice yearly, is to bear in mind that information extracted will be at least 6 months old. Median time between first and last records for unique active individuals is ~14 years, so this time-window seems achievable.	
Minimum time in the data source for lookback assessment	At least 9 months of feedback based on the exclusion criteria "the mother has received RSV vaccine during the pregnancy"	9 months	*High*				As data is updated twice yearly, is to bear in mind that information extracted will be at least 6 months old. Median time between first and last records for unique active individuals is ~14 years, so this time-window seems achievable.	
	Estimated sample size: 7,408 participants			Considering that PEDIANET includes data on 24,572 toddlers aged between 28 days and 23 months, and ~ 30K birth every year, the target sample sizes seems feasible.				Provided by DEAP

Case study	RWD source	Sample size estimation form the hypotetical trial protocol	Feasibility assessment *(yes/yes, with limitations/no)*	Rationale for the feasibility assessmernt	Limitations identified during the feasibility assessment and categorisation	Description of potential impact of the identified limitations on the study results
8 (Nirsevimab against RSV-respiratory tract infection in infants)	**PEDIANET**	With an approximate estimated sample size of 7,408 individuals, and considering that PEDIANET includes data on 24,572 toddlers aged between 28 days and 23 months, and ~ 30K birth every year.	Yes	Elements with high criticality are available and seem fairly reliable. Data recency of 6 months before extraction, reasonably enough for the research question. The time elapsed from when a user requests the data to when they actually receive it is unknown. Sample size can be reached.	·Potentially major: For those patients born since 2024, some unknown maternal RSV immunisation is expected. ·Minor: The total number of bronchiolitis tested for pathogens is unknown. ·Minor: Unknown exact missingness of gestational age at birth. ·Minor: Duration of treatment is not available.	Some underdetection of maternal RSV immunisation is expected. However, maternal RSV inmunization is rare in Italy since it is not reimbursed apart from some specific local health units. Since duration of immunosupressive therapy is not available, it will be determined using a proxy based on diagnosis needing corticosteroides for more than 2 weeks and drugs prescriptions Previous studies using the same database to analyze pediatric lower respiratory tract infections (LRTIs) did not report the total number of bronchiolitis cases tested for pathogens. This omission may result in an underestimation of the incidence of RSV-associated LRTIs.