

Supplemental File

Searches

Medline

Period: January 1st 2010 to January 7th 2022

Results: 1635

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((("child"[MeSH Terms] OR "child"[Title/Abstract] OR "children"[Title/Abstract] OR "child s"[Title/Abstract] OR "children s"[Title/Abstract] OR "childrens"[Title/Abstract] OR "childs"[Title/Abstract] OR ("infant"[MeSH Terms] OR "infant"[Title/Abstract] OR "infants"[Title/Abstract] OR "infant s"[Title/Abstract] OR ("paediatrics"[Title/Abstract] OR "pediatrics"[MeSH Terms] OR "pediatrics"[Title/Abstract] OR "paediatric"[Title/Abstract] OR "pediatric"[Title/Abstract]) OR ("adolescences"[Title/Abstract] OR "adolescence"[Title/Abstract] OR "adolescent"[MeSH Terms] OR "adolescent"[Title/Abstract] OR "adolescence"[Title/Abstract] OR "adolescents"[Title/Abstract] OR "adolescent s"[Title/Abstract]))))
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AND

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("respiratory distress syndrome"[MeSH Terms] OR ("respiratory"[All Fields] AND "distress"[All Fields] AND "syndrome"[All Fields]) OR "respiratory distress syndrome"[All Fields] OR ("respiration disorders"[MeSH Terms] OR ("respiration"[All Fields] AND "disorders"[All Fields]) OR "respiration disorders"[All Fields] OR ("respiration"[All Fields] AND "disorder"[All Fields]) OR "respiration disorder"[All Fields]) OR ("respiratory tract diseases"[MeSH Terms] OR ("respiratory"[All Fields] AND "tract"[All Fields] AND "diseases"[All Fields]) OR "respiratory tract diseases"[All Fields] OR ("respiratory"[All Fields] AND "tract"[All Fields] AND "disease"[All Fields]) OR "respiratory tract disease"[All Fields]) OR ("asthma"[MeSH Terms] OR "asthma"[All Fields] OR "asthmas"[All Fields] OR "asthma s"[All Fields] OR (("virally"[All Fields] OR "virals"[All Fields] OR "virology"[MeSH Terms] OR "virology"[All Fields] OR "viral"[All Fields]) AND ("respiratory sounds"[MeSH Terms] OR ("respiratory"[All Fields] AND "sounds"[All Fields]) OR "respiratory sounds"[All Fields] OR "wheeze"[All Fields] OR "wheezes"[All Fields] OR "wheezing"[All Fields] OR "wheezed"[All Fields])))) OR ("bronchiolitis"[MeSH Terms] OR "bronchiolitis"[All Fields] OR "bronchiolitides"[All Fields]))
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AND

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(((((("oxygen saturation"[MeSH Terms] OR ("oxygen"[Title/Abstract] AND "saturation"[Title/Abstract]) OR "oxygen saturation"[Title/Abstract] OR ("peripheral"[Title/Abstract] AND "oxygen"[Title/Abstract] AND "saturation"[Title/Abstract]) OR "peripheral oxygen saturation"[Title/Abstract]) AND ("target"[Title/Abstract] OR "targetability"[Title/Abstract] OR "targetable"[Title/Abstract] OR "targeted"[Title/Abstract] OR "targeting"[Title/Abstract] OR "targetings"[Title/Abstract] OR "targets"[Title/Abstract] OR "targetted"[Title/Abstract] OR "targetting"[Title/Abstract])))) OR ("oxygen saturation"[MeSH Terms] OR ("oxygen"[Title/Abstract] AND "saturation"[Title/Abstract]) OR "oxygen saturation"[Title/Abstract] OR "spo2"[Title/Abstract]) OR ("oxygen saturation"[MeSH Terms] OR ("oxygen"[Title/Abstract] AND "saturation"[Title/Abstract]) OR "oxygen saturation"[Title/Abstract] OR ("blood"[Title/Abstract] AND "oxygen"[Title/Abstract] AND "levels"[Title/Abstract]) OR "blood oxygen levels"[Title/Abstract]))))
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NOT ("preterm"[Title] OR "neonatal"[Title] OR "neonate"[Title] OR "neonates"[Title] OR "premature"[Title] OR "newborn"[Title]) AND 2010/01/01:2022/01/07[Date - Publication])  
NOT ("Animals"[MeSH Terms] NOT "Humans"[MeSH Terms])
```

The colours represent individual search records, written in full due to alterations to the fields components.

Embase

Period: January 1st 2010 to January 7th 2022

Results: 1448

No.	Query	Results	Date
#4	#1 AND #2 AND #3 AND [humans]/lim AND [english]/lim AND [2010-2022]/py	1448	6 Jan 2022
#3	'child'/de OR 'infant'/de OR 'adolescent'/de	3401047	6 Jan 2022
#2	'respiratory tract disease'/de OR 'respiratory tract inflammation'/de OR 'respiratory distress'/de OR 'acute respiratory tract disease'/de	118862	6 Jan 2022
#1	'oxygen therapy'/de OR 'oxygen saturation'/de	96883	6 Jan 2022

Cochrane

Period: January 1st 2010 to January 7th 2022

Results: 301

ID	Search	Hits
#1	(child OR infant OR pediatric OR adolescent):ti,ab,kw	278282
#2	("oxygen saturation" OR spo2 OR "blood oxygen level" OR "supplemental oxygen" OR "oxygen therapy"):ti,ab,kw	19665
#3	("respiratory tract infection" OR "respiratory distress" OR "respiratory disease")	18539
#4	(preterm OR premature OR neonate OR neonatal OR newborn):ti	19751
#5	hyperbaric:ti	1706
#6	surfactant:ti	1079
#7	(pregnant OR pregnancy):ti	15831
#8	#1 AND #2 AND #3 NOT #4 NOT #5 NOT #6 NOT #7 with Cochrane Library publication date from Jan 2010 to present, in Cochrane Reviews, Trials	301

Risk of bias

In the table below the risk of bias per domain as assessed with the Cochrane RoB-2 tool for all randomized controlled trials included in the systematic review.

Author	Outcome	Risk of bias per domain					
		RoB1	RoB2	RoB3	RoB4	RoB5	Overall
Schuh 2014	- Admission rates	+	+	+	+	+	+
	- Unscheduled visits	+	+	+	+	+	+
Cunningham 2015	- Length of disease	+	+	+	+	+	+
	- Return to feeding	+	+	+	+	+	+
	- Return to normal health	+	+	+	+	+	+
	- Length of stay	+	+	+	+	+	+
	- Readmissions / re-attendance	+	+	!	+	+	!
	- Cost-effectiveness	+	+	+	+	+	+
Peters 2018	- Mortality	!	!	+	+	+	+
	- Length fo stay	!	!	+	!	+	!
Patel 2019	- % of patients with PtCO2 rise of >4 mmHg at 60 minutes	!	+	+	+	+	!
	- Asthma score at 60 minutes	!	+	+	-	+	-
Maitland 2021	- Mortality at 48 hours	+	+	+	+	+	+
	- Mortality at 28 days	+	+	+	+	+	+
	- Length of stay	+	+	+	!	+	!
	- Treatment failure	+	+	+	-	+	-
	- Neurocognitive sequelae at 28 days	+	+	!	!	+	!

Supplemental Table: risk of bias per domain for each RCT in the systematic review.

RoB1: randomisation process. RoB2: Deviations from intended interventions. RoB3: Missing outcome data. RoB4: Measurement of the outcome. RoB5: Selection of the reported result.

-  Low risk
-  Some concerns
-  High risk