

Lung Ultrasound versus Chest X Ray for the Detection of Fluid Overload in Critically Ill Children: a Systematic Review

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Search Strategy – Online Supplemental Data

Ovid Medline Search Strategy

1	exp Radiography, Thoracic/
2	((chest or lung* or thora* or pulm*) adj4 (xray* or x-ray* or radiograph* or radiogram* or radiolog* or roentgen*)).mp.
3	1 or 2
4	exp Ultrasonography/
5	((chest or lung* or thora* or pulm*) adj4 (sonogra* or ultrasound* or ultrasonic* or ultrasonogra* or ultrasound* or ultra-sonic* or ultra-sonogra*)).mp.
6	4 or 5
7	exp Extravascular Lung Water/ or exp Water-Electrolyte Imbalance/ or exp Fluid Therapy/ or exp Water-Electrolyte Balance/ or exp Pulmonary Edema/
8	((pulm* or lung*) adj3 (edema* or oedema*)).mp.
9	((extravascular or extra-vascular) adj3 (water or fluid)).mp.
10	(fluid overload or excess total body water or hypervolemia or wet lung).mp.
11	7 or 8 or 9 or 10
12	3 and 6 and 11

Ovid Embase Search Strategy

1	exp thorax radiography/ or ((chest or lung* or thoracic or thorax or pulmonary) adj3 (xray* or x-ray* or radiograph* or radiogram* or radiolog* or roentgen*)).mp.
2	echography/ or contrast-enhanced ultrasound/ or doppler ultrasonography/ or endoscopic ultrasonography/ or interventional ultrasonography/ or intravascular ultrasound/ or real time echography/ or exp ultrasound/ or ((chest or lung* or thoracic or thorax or pulmonary) adj3 (sonogra* or ultrasound* or ultrasonic* or ultrasonogra* or ultra-sound* or ultra-sonic* or ultra-sonogra*)).mp.
3	exp hypervolemia/ or exp fluid therapy/ or exp lung edema/ or exp lung extravascular fluid/
4	(fluid overload or excess total body water or hypervolemia or wet lung).mp.
5	((extravascular or extra-vascular) adj3 (water or fluid)).mp.
6	((pulm* or lung*) adj3 (edema* or oedema*)).mp.
7	3 or 4 or 5 or 6
8	1 and 2 and 7

Cochrane Search Strategy

#1	MeSH descriptor: [Radiography, Thoracic] explode all trees
#2	(chest or lung* or thora* or pulm*) NEAR/4 (xray* or x-ray* or radiograph* or radiogram* or radiolog* or roentgen*)
#3	#1 OR #2
#4	MeSH descriptor: [Ultrasonography] explode all trees
#5	(chest or lung* or thora* or pulm*) NEAR/4 (sonogra* or ultrasound* or ultrasonic* or ultrasonogra* or ultra-sound* or ultra-sonic* or ultra-sonogra*)
#6	#4 OR #5
#7	MeSH descriptor: [Extravascular Lung Water] explode all trees
#8	MeSH descriptor: [Water-Electrolyte Balance] explode all trees
#9	MeSH descriptor: [Water-Electrolyte Imbalance] explode all trees
#10	MeSH descriptor: [Fluid Therapy] explode all trees
#11	MeSH descriptor: [Pulmonary Edema] explode all trees
#12	#7 OR #8 OR #9 OR #10 OR #11
#13	(pulm* or lung*) NEAR/3 (edema* or oedema*)
#14	(extravascular or extra-vascular) NEAR/3 (water or fluid)
#15	fluid overload OR excess total body water OR hypervolemia OR wet lung
#16	#12 OR #13 OR #14 OR #15
#17	#3 AND #6 AND #16

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<u>Condition</u>	"pulmonary edema" OR "pulmonary oedema" OR "extravascular water" OR "extravascular fluid" OR "extra-vascular water" OR "extra-vascular fluid" OR "fluid overload" OR "excess total body water" OR hypervolemia OR "wet lung"
<u>Other terms</u>	(xray OR x-ray OR radiograph OR radiogram OR radiology OR roentgen) AND (sonogram OR sonography OR ultrasound OR ultrasonic OR ultrasonogram OR ultrasonography OR ultra-sound OR ultra-sonic OR ultra-sonogram OR ultra-sonography)

Dissertations and Theses

S5	((chest or lung* or thora* or pulm*) N/4 (xray* or x-ray* or radiograph* or radiogram* or radiolog* or roentgen*)) AND ((chest or lung* or thora* or pulm*) N/4 (sonogra* or ultrasound* or ultrasonic* or ultrasonogra* or ultra-sound* or ultra-sonic* or ultra-sonogra*)) AND (((pulm* or lung*) N/3 (edema* or oedema*)) OR ((extravascular or extra-vascular) N/3 (water or fluid)) OR (fluid overload OR excess total body water OR hypervolemia OR wet lung))Limits applied
S4	((chest or lung* or thora* or pulm*) N/4 (xray* or x-ray* or radiograph* or radiogram* or radiolog* or roentgen*)) AND ((chest or lung* or thora* or pulm*) N/4 (sonogra* or ultrasound* or ultrasonic* or ultrasonogra* or ultra-sound* or ultra-sonic* or ultra-sonogra*)) AND (((pulm* or lung*) N/3 (edema* or oedema*)) OR ((extravascular or extra-vascular) N/3 (water or fluid)) OR (fluid overload OR excess total body water OR hypervolemia OR wet lung))
S3	((pulm* or lung*) N/3 (edema* or oedema*)) OR ((extravascular or extra-vascular) N/3 (water or fluid)) OR (fluid overload OR excess total body water OR hypervolemia OR wet lung)
S2	(chest or lung* or thora* or pulm*) N/4 (sonogra* or ultrasound* or ultrasonic* or ultrasonogra* or ultra-sound* or ultra-sonic* or ultra-sonogra*)
S1	(chest or lung* or thora* or pulm*) N/4 (xray* or x-ray* or radiograph* or radiogram* or radiolog* or roentgen*)