#### Title

The diagnostic accuracy of lung auscultation in adult patients with acute pulmonary pathologies: a metaanalysis.

#### **Authors**

Luca Arts<sup>1,2</sup> (MD), Endry Hartono Taslim Lim<sup>1,2</sup> (MD), Peter Marinus van de Ven<sup>3</sup> (PhD, MSc, MA), Leo Heunks<sup>1,2,4</sup> (PhD, MD), Pieter Roel Tuinman<sup>1,2,4,\*</sup> (PhD, MD)

<sup>1</sup>Amsterdam UMC, location Vrije Universiteit Amsterdam, Department of Intensive Care Medicine, <sup>2</sup>Research Vrije Universiteit Intensive Care (REVIVE) and <sup>4</sup>Amsterdam Cardiovascular Sciences, De Boelelaan 1117, 1081 HV, Amsterdam, The Netherlands

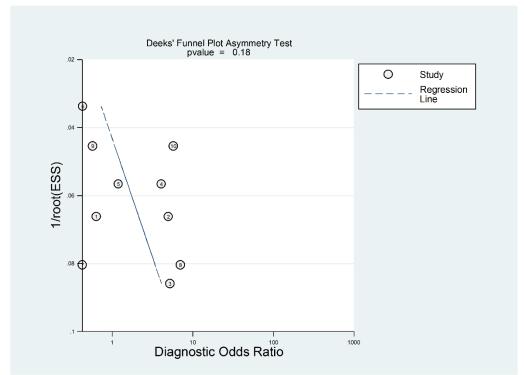
<sup>3</sup>Amsterdam UMC, Vrije Universiteit Amsterdam, Department of Biostatistics and Epidemiology, De Boelelaan 1117, 1081 HV, Amsterdam, The Netherlands

### Corresponding author\*

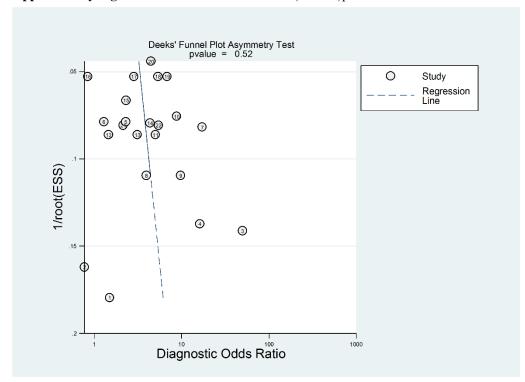
Dr. P. R. Tuinman, Amsterdam UMC, Vrije Universiteit Amsterdam, Department of Intensive Care Medicine, De Boelelaan 1117, 1081 HV Amsterdam, The Netherlands

E: p.tuinman@amsterdamumc.nl, T: +31204444444

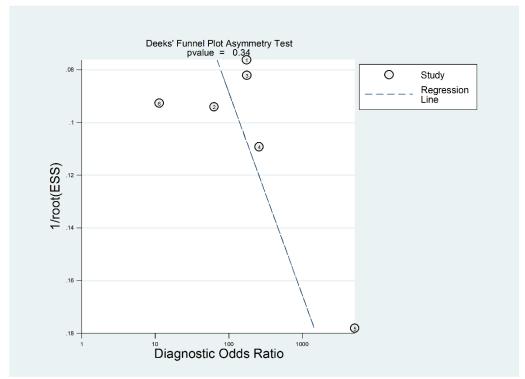
# **Supplementary Figure 1A** – Deeks' Funnel Plot for congestive heart failure.



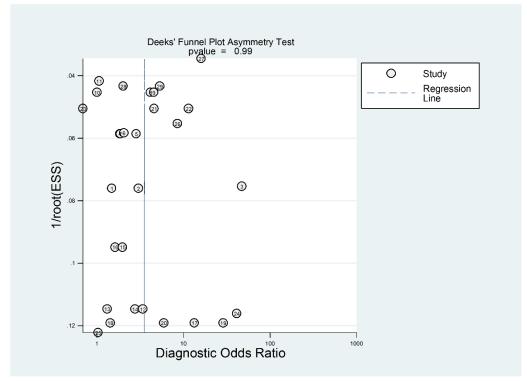
# $\label{eq:continuous} \textbf{Supplementary Figure 1B} - \textbf{Deeks' Funnel Plot for (hemato)} pneumothorax.$



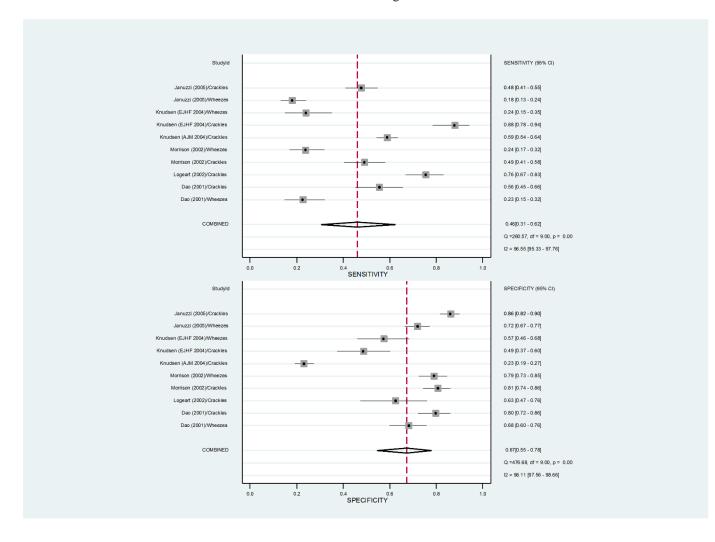
# **Supplementary Figure 1C** – Deeks' Funnel Plot for obstructive lung disease.



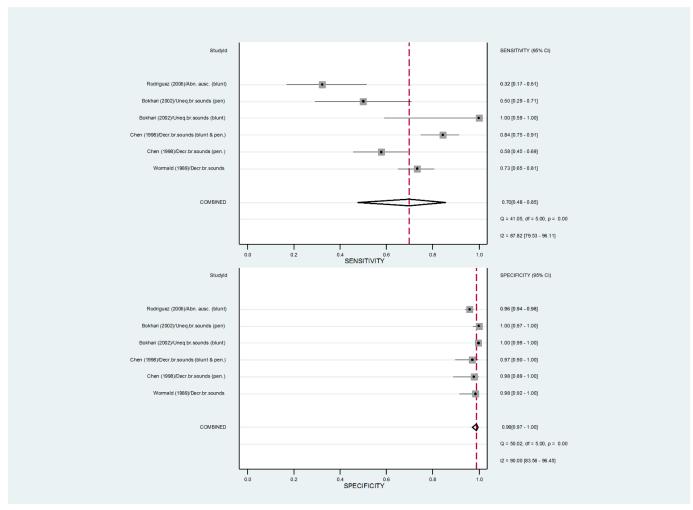
**Supplementary Figure 1D** – Deeks' Funnel Plot for pneumonia.



**Supplementary Figure 2** – Six studies showing the range of sensitivity and specificity together with their 95% confidence intervals of different breath sounds for the detection of congestive heart failure.

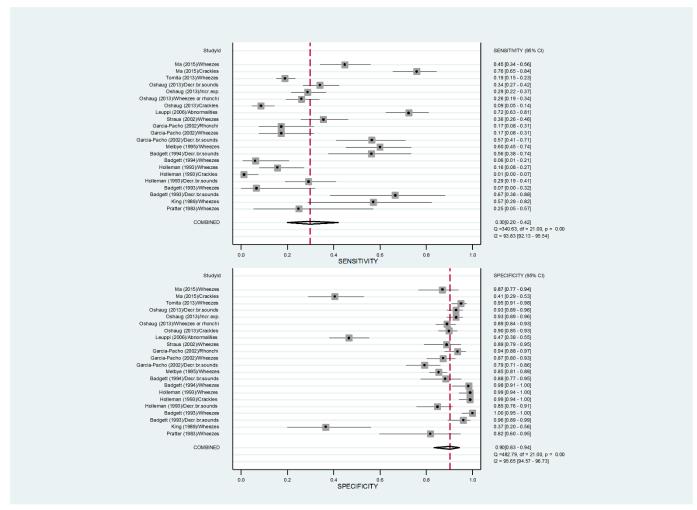


**Supplementary Figure 3** – Five studies showing the range of sensitivity and specificity together with their 95% confidence intervals of different breath sounds for the detection of (hemato)pneumothorax.



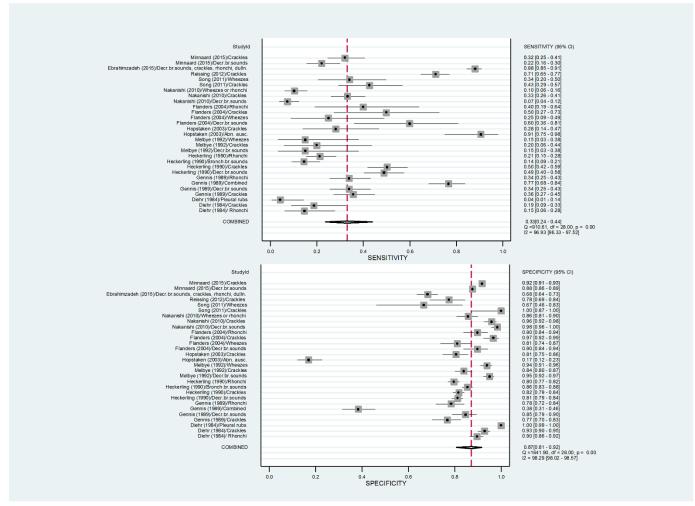
Abbreviations: Abn. ausc.: abnormal auscultation; Uneq. br. sounds: unequal breath sounds; Decr. br. sounds: decreased breath sounds; pen.: penetrating.

**Supplementary Figure 4** – Eight studies showing the range of sensitivity and specificity together with their 95% confidence intervals of different breath sounds for the detection of obstructive lung disease.



Abbreviations: COPD: chronic obstructive pulmonary disease; Incr. exp: increased expiration; Decr. br. sounds: decreased breath sounds; Air. Obstr.: airway obstruction.

**Supplementary Figure 5** – Eleven studies showing the range of sensitivity and specificity together with their 95% confidence intervals of different breath sounds for the detection of pneumonia.



Abbreviations: Decr. br. sounds: decreased breath sounds.