

Supplementary

	<u>Risk of Bias</u>				<u>Applicability Concerns</u>		
	Patient Selection	Index Test	Reference Standard	Flow and Timing	Patient Selection	Index Test	Reference Standard
Bastidas 2018	?	?	+	+	?	?	+
Bisquera 2018	?	+	+	?	?	?	+
Collier 2015	?	+	+	?	?	+	+
Echevarria 2016	+	+	+	+	+	+	+
Echevarria 2019	+	+	+	+	+	+	+
Mantilla 2017	?	+	+	+	?	+	+
Nafae 2014	+	+	+	+	+	+	+
Parras 2017	?	+	+	+	+	+	+
Rabbani 2014	?	?	+	+	+	?	+
Sangwan 2017	?	+	+	?	+	?	+
Shafuddin 2018	?	?	+	-	?	?	+
Shi 2016	?	+	+	+	+	+	+
Shi 2019	+	?	+	+	+	?	+
Steer 2012	+	?	+	+	+	?	+
Xu 2017	-	-	-	?	-	-	?
Yousif 2016	?	?	+	+	+	?	+
Zidan 2015	?	+	+	+	+	+	+

● High
 ? Unclear
+ Low

Figure S1: The quality evaluation and risk of bias in included studies.

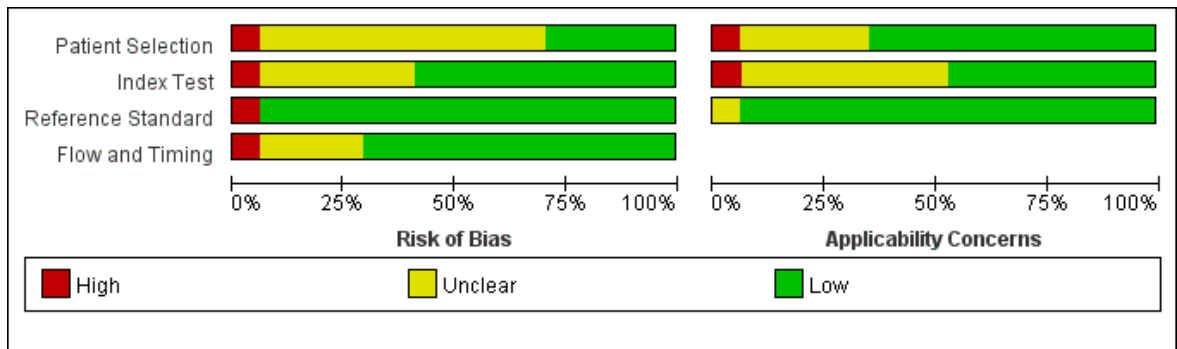


Figure S2: Methodological quality graph in included studies.

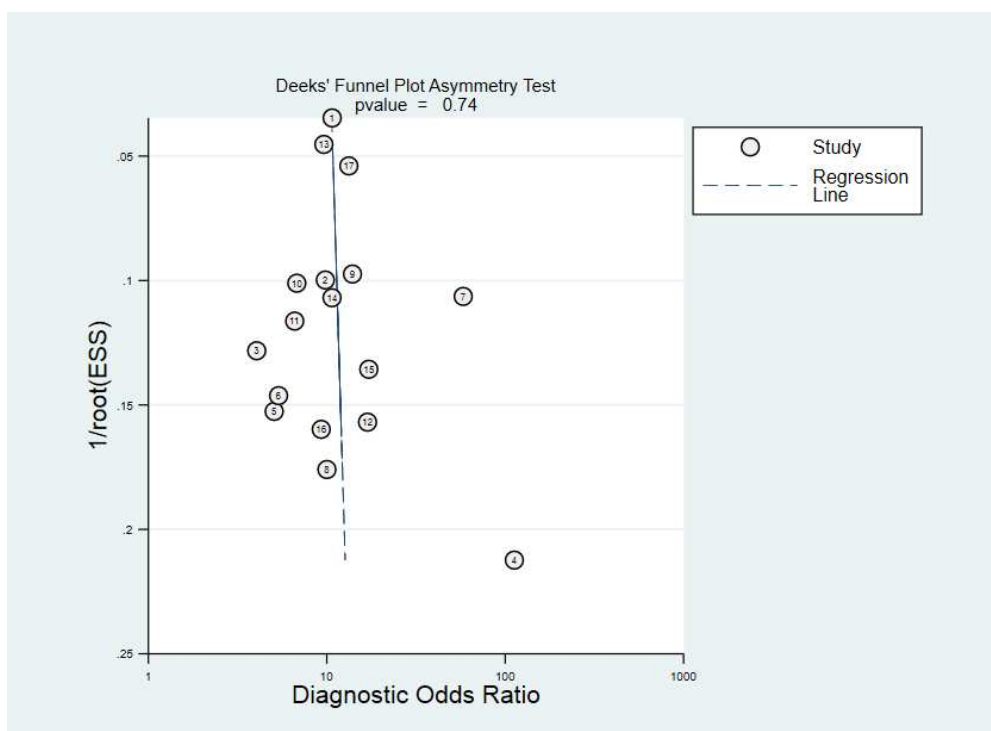


Figure S3: Deek's funnel plot asymmetry test for publication bias of studies evaluating the value of DECAF for the prognosis of AECOPD

Search Strategies

1. Pubmed

Search (((("Pulmonary Disease, Chronic Obstructive"[Mesh]) OR (((((((((((COPD[Title/Abstract]) OR Chronic Obstructive Pulmonary Disease[Title/Abstract]) OR Chronic Airflow Obstructions[Title/Abstract]) OR Chronic Airflow Obstruction[Title/Abstract]) OR COAD[Title/Abstract]) OR Chronic Obstructive Airway Disease[Title/Abstract]) OR Airflow Obstruction, Chronic[Title/Abstract]) OR Airflow Obstructions, Chronic[Title/Abstract]) OR Chronic Obstructive Lung Disease[Title/Abstract]) OR Chronic Obstructive Lung Disease[Title/Abstract]) OR airways obstruction[Title/Abstract]) OR obstructive lung disease[Title/Abstract]) OR emphysema[Title/Abstract]) OR bronchitis[Title/Abstract]))) AND ((DECAF score[Title/Abstract]) OR DECAF[Title/Abstract])

2. The Cochrane Library

- #1 MeSH descriptor: [undefined] explode all trees
- #2 (Chronic Obstructive Lung Disease):ti,ab,kw
- #3 (Chronic Obstructive Pulmonary Disease):ti,ab,kw
- #4 (COPD):ti,ab,kw
- #5 (COAD):ti,ab,kw
- #6 (Chronic Obstructive Airway Disease):ti,ab,kw
- #7 (Airflow Obstruction, Chronic):ti,ab,kw
- #8 (Chronic Airflow Obstruction):ti,ab,kw
- #9 (Airflow Obstructions, Chronic):ti,ab,kw
- #10 (Chronic Airflow Obstructions):ti,ab,kw
- #11 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10
- #12 MeSH descriptor: [Lung Diseases, Obstructive] explode all trees
- #13 (Pulmonary Disease, Obstructive):ti,ab,kw
- #14 (Obstructive Pulmonary Diseases):ti,ab,kw
- #15 (Obstructive Lung Diseases):ti,ab,kw
- #16 (Obstructive Lung Disease):ti,ab,kw
- #17 (Lung Disease, Obstructive):ti,ab,kw
- #18 (Pulmonary Diseases, Obstructive):ti,ab,kw
- #19 (Obstructive Pulmonary Disease):ti,ab,kw
- #20 #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19
- #21 MeSH descriptor: [Pulmonary Emphysema] explode all trees
- #22 (Emphysema, Centrilobular):ti,ab,kw
- #23 (Centrilobular Emphysema):ti,ab,kw
- #24 (Emphysemas, Pulmonary):ti,ab,kw
- #25 (Emphysema, Pulmonary):ti,ab,kw
- #26 (Pulmonary Emphysemas):ti,ab,kw
- #27 (Emphysema, Panlobular):ti,ab,kw

#28 (Panlobular Emphysema):ti,ab,kw
#29 (Focal Emphysema):ti,ab,kw
#30 (Emphysema, Focal):ti,ab,kw
#31 #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30
#32 MeSH descriptor: [Bronchitis, Chronic] explode all trees
#33 (Chronic Bronchitis):ti,ab,kw
#34 #32 or #33
#35 #11 or #20 or #31 or #34
#36 MeSH descriptor: [Pulmonary Disease, Chronic Obstructive] explode all trees
#37 #35 or #36
#38 (DECAF):ti,ab,kw
#39 (DECAF score):ti,ab,kw
#40 #38 or #39
#41 #37 and #40

3. Web of Science (WOS)

1 TOPIC: (Pulmonary Disease, Chronic Obstructive) OR TOPIC: (COPD) OR TOPIC: (Chronic Obstructive Pulmonary Disease) OR TOPIC: (COAD) OR TOPIC: (Chronic Obstructive Airway Disease) OR TOPIC: (Chronic Obstructive Lung Disease) OR TOPIC: (Airflow Obstruction, Chronic) OR TOPIC: (Airflow Obstructions, Chronic) OR TOPIC: (Chronic Airflow Obstructions) OR TOPIC: (Chronic Airflow Obstruction) OR TOPIC: (Lung Diseases, Obstructive) OR TOPIC: (Lung Disease, Obstructive) OR TOPIC: (Obstructive Lung Disease) OR TOPIC: (Obstructive Lung Diseases) OR TOPIC: (Obstructive Pulmonary Diseases) OR TOPIC: (Obstructive Pulmonary Disease) OR TOPIC: (Pulmonary Disease, Obstructive) OR TOPIC: (Pulmonary Diseases, Obstructive) OR TOPIC: (Bronchitis, Chronic) OR TOPIC: (Chronic Bronchitis) OR TOPIC: (Pulmonary Emphysema) OR TOPIC: (Emphysema)
2 TOPIC: (DECAF) OR TOPIC: (DECAF score) OR TOPIC: (decaf score)
3 #2 AND #1

4. Embase

#5 #3 AND #4
#4 decaf:ab,ti OR 'decaf score':ab,ti
#3 #1 OR #2
#2 'chronic airflow obstruction':ab,ti OR 'chronic airway obstruction':ab,ti OR 'chronic obstructive bronchitis':ab,ti OR 'chronic obstructive bronchopulmonary disease':ab,ti OR 'chronic obstructive lung disorder':ab,ti OR 'chronic obstructive pulmonary disease':ab,ti OR 'chronic obstructive pulmonary disorder':ab,ti OR 'chronic obstructive respiratory disease':ab,ti OR copd:ab,ti OR 'lung chronic obstructive disease':ab,ti OR 'lung disease, chronic obstructive':ab,ti OR 'lung diseases, obstructive':ab,ti OR 'obstructive lung disease':ab,ti OR 'obstructive lung disease, chronic':ab,ti OR 'obstructive pulmonary disease':ab,ti OR 'obstructive respiratory disease':ab,ti OR 'obstructive respiratory tract disease':ab,ti OR 'pulmonary disease, chronic obstructive':ab,ti OR 'pulmonary disorder, chronic

obstructive':ab,ti

#1 'chronic obstructive lung disease'/exp