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LAMPIRAN.1

Analisis primer

Population	: Penelitian dengan subjek pasien usia dewasa ≥ 35 tahun yang didiagnosis PPOK eksaserbasi dengan komorbid DM tipe-2.
Exposure	: Pasien dengan DM tipe-2
Comparator	: tidak ada
Outcome	: Prevalens ekserbasi PPOK dengan komorbid DM tipe 2.

LAMPIRAN.2

NEWCASTLE-OTTAWA QUALITY ASSESSMENT FORM FOR COHORT STUDIES

Note: A study can be given a maximum of one star for each numbered item within the Selection and Outcome categories. A maximum of two stars can be given for Comparability.

Selection

1. Representativeness of the exposed cohort
   a. Truly representative (one star)
   b. Somewhat representative (one star)
   c. Selected group
   d. No description of the derivation of the cohort

2. Selection of the non-exposed cohort
   a. Drawn from the same community as the exposed cohort (one star)
   b. Drawn from a different source
   c. No description of the derivation of the non exposed cohort

3. Ascertainment of exposure
   a. Secure record (e.g., surgical record) (one star)
   b. Structured interview (one star)
   c. Written self report
   d. No description
   e. Other

4. Demonstration that outcome of interest was not present at start of study

a. Yes (one star)
b. No

Comparability

Comparability of cohorts on the basis of the design or analysis controlled for confounders

a. The study controls for age, sex and marital status (one star)
b. Study controls for other factors (list) _____ (one star)
c. Cohorts are not comparable on the basis of the design or analysis controlled for confounders

Outcome

1. Assessment of outcome
a. Independent blind assessment (one star)
b. Record linkage (one star)
c. Self-report
d. No description
e. Other

2. Was follow-up long enough for outcomes to occur
a. Yes (one star)
b. No

Indicate the median duration of follow-up and a brief rationale for the assessment above:_____

3. Adequacy of follow-up of cohorts

a. Complete follow up- all subject accounted for (one star)
b. Subjects lost to follow up unlikely to introduce bias- number lost less than or equal to 20% or description of those lost suggested no different from those followed. (one star)
c. Follow up rate less than 80% and no description of those lost
d. No statement

Thresholds for converting the Newcastle-Ottawa scales to AHRQ standards (good, fair, and poor):

Good quality: 3 or 4 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome/exposure domain

Fair quality: 2 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome/exposure domain

Poor quality: 0 or 1 star in selection domain OR 0 stars in comparability domain OR 0 or 1 stars in outcome/exposure domain

LAMPIRAN.3.

STRATEGI PENCARIAN

1.PUBMED

Search number	Query	Filters	Search Details	Results
5	#1 AND #2 AND #3 AND #4	from 2015 - 2021	(("pulmonary disease, chronic obstructive"[MeSH Terms] OR ("pulmonary"[All Fields] AND "disease"[All Fields] AND "chronic"[All Fields] AND "obstructive"[All Fields]) OR "chronic obstructive pulmonary disease"[All Fields] OR "copd"[All Fields] OR ("pulmonary disease, chronic obstructive"[MeSH Terms] OR ("pulmonary"[All Fields] AND "disease"[All Fields] AND "chronic"[All Fields] AND "obstructive"[All Fields]) OR "chronic obstructive pulmonary disease"[All Fields] OR ("chronic"[All Fields] AND "obstructive"[All Fields] AND "pulmonary"[All Fields] AND "disease"[All Fields]))) AND 2015/01/01:2021/12/31[Date - Publication] AND (("diabetes mellitus, type 2"[MeSH Terms] OR "type 2 diabetes mellitus"[All Fields] OR "diabetes mellitus type 2"[All Fields] OR ("diabetes mellitus, type 2"[MeSH Terms] OR "type 2 diabetes mellitus"[All	15

			Fields] OR "type 2 diabetes"[All Fields]) OR ("type-2"[All Fields] AND ("dyn med"[Journal] OR "dis mon"[Journal] OR "dis manag"[Journal] OR "dm"[All Fields])) OR ("diabetes mellitus, type 2"[MeSH Terms] OR "type 2 diabetes mellitus"[All Fields] OR ("diabetes"[All Fields] AND "mellitus"[All Fields] AND "noninsulin"[All Fields] AND "dependent"[All Fields]) OR "diabetes mellitus noninsulin dependent"[All Fields])) AND 2015/01/01:2021/12/31[Date - Publication]) AND (("exacerbate"[All Fields] OR "exacerbated"[All Fields] OR "exacerbates"[All Fields] OR "exacerbating"[All Fields] OR "exacerbation"[All Fields] OR "exacerbations"[All Fields] OR "exacerbator"[All Fields] OR "exacerbators"[All Fields]) AND 2015/01/01:2021/12/31[Date - Publication]) AND (("epidemiology"[MeSH Subheading] OR "epidemiology"[All Fields] OR "prevalence"[All Fields] OR "prevalence"[MeSH Terms] OR "prevalance"[All Fields] OR "prevalences"[All Fields] OR "prevalence s"[All Fields] OR "prevalent"[All Fields] OR "prevalently"[All Fields] OR "prevalents"[All Fields]) AND 2015/01/01:2021/12/31[Date - Publication])) AND (2015:2021[pdat])	
4	Prevalence	from 2015 - 2021	("epidemiology"[MeSH Subheading] OR "epidemiology"[All Fields] OR "prevalence"[All Fields] OR "prevalence"[MeSH Terms] OR "prevalance"[All	1,206,388

			Fields] OR "prevalences"[All Fields] OR "prevalence s"[All Fields] OR "prevalent"[All Fields] OR "prevalently"[All Fields] OR "prevalents"[All Fields]) AND (2015:2021[pdat])	
3	Exacerbation	from 2015 - 2021	("exacerbate"[All Fields] OR "exacerbated"[All Fields] OR "exacerbates"[All Fields] OR "exacerbating"[All Fields] OR "exacerbation"[All Fields] OR "exacerbations"[All Fields] OR "exacerbator"[All Fields] OR "exacerbators"[All Fields]) AND (2015:2021[pdat])	55,829
2	Diabetes mellitus type-2 OR type-2 diabetes OR type-2 DM OR Diabetes Mellitus, Noninsulin-Dependent	from 2015 - 2021	("diabetes mellitus, type 2"[MeSH Terms] OR "type 2 diabetes mellitus"[All Fields] OR "diabetes mellitus type 2"[All Fields] OR ("diabetes mellitus, type 2"[MeSH Terms] OR "type 2 diabetes mellitus"[All Fields] OR "type 2 diabetes"[All Fields]) OR ("type-2"[All Fields] AND ("dyn med"[Journal] OR "dis mon"[Journal] OR "dis manag"[Journal] OR "dm"[All Fields])) OR ("diabetes mellitus, type 2"[MeSH Terms] OR "type 2 diabetes mellitus"[All Fields] OR ("diabetes"[All Fields] AND "mellitus"[All Fields] AND "noninsulin"[All Fields] AND "dependent"[All Fields]) OR "diabetes mellitus noninsulin dependent"[All Fields])) AND (2015:2021[pdat])	90,740
1	COPD OR Chronic obstructive	from 2015 - 2021	("pulmonary disease, chronic obstructive"[MeSH Terms] OR ("pulmonary"[All Fields] AND "disease"[All Fields] AND "chronic"[All Fields] AND "obstructive"[All	37,706

	pulmonary disease		Fields]) OR "chronic obstructive pulmonary disease"[All Fields] OR "copd"[All Fields] OR ("pulmonary disease, chronic obstructive"[MeSH Terms] OR ("pulmonary"[All Fields] AND "disease"[All Fields] AND "chronic"[All Fields] AND "obstructive"[All Fields]) OR "chronic obstructive pulmonary disease"[All Fields] OR ("chronic"[All Fields] AND "obstructive"[All Fields] AND "pulmonary"[All Fields] AND "disease"[All Fields])))) AND (2015:2021[pdat])	

2. GOOGLE SCHOLAR :

Search strategy	Search results
COPD OR Chronic obstructive pulmonary disease AND Diabetes mellitus type-2 OR type-2 diabetes OR type-2 DM OR Diabetes Mellitus, Noninsulin-Dependent AND prevalence	121

LAMPIRAN.4

***NEW CASTLE OTTAWA SCALE* (NOS) STUDI YANG DILAKUKAN META-ANALISIS**

No	Judul	Peneliti, tahun	Seleksi	Komparabilitas	Luaran	Total skor	Peringkat
1	Glycated Hemoglobin (HbA1c) as a Predictor of Outcomes during Acute Exacerbations of Chronic Obstructive Pulmonary Disease. COPD: Journal of Chronic Obstructive Pulmonary Disease	Papathanassiou, 2021	****	*	**	7	Baik
2	Analysis of prevalence and prognosis of type 2 diabetes mellitus in patients with acute exacerbation of COPD.	Lin, 2021	****	*	**	7	Baik
3	A history of diabetes but not hyperglycaemia during exacerbation of obstructive lung disease has impact on long-term mortality: A prospective, observational cohort study.	Koskela, 2015	****	*	**	7	Baik
4	Development and validation of a predictive model to identify patients at risk of severe COPD exacerbations using administrative claims data	Annavarapu, 2018	****	*	**	7	Baik

5	Impact of diabetes mellitus on the risk of severe exacerbation in patients with chronic obstructive pulmonary disease	Figueira Gonçalves, 2020	****	*	**	7	Baik
6	Diabetes Mellitus Type 2 in Hospitalized COPD Patients: Impact on Quality of Life and Lung Function	Mekov, 2016	***	*	**	6	Baik
7	Metabolic syndrome in hospitalized patients with chronic obstructive pulmonary disease	Mekov, 2015	****	*	**	7	Baik

LAMPIRAN.5

STUDI YANG DIEKSKLUSI SETELAH MENINJAU FULL MANUSKRIP DENGAN ALASAN EKSKLUSI

No	Penulis,tahun	Judul studi	Alasan eksklusi
1	Yen, 2018	Effects of metformin use on total mortality in patients with type 2 diabetes and chronic obstructive pulmonary disease: A matched-subject design	Tujuan studi membandingkan efek terapi metformin terhadap mortalitas pasien DM tipe-2 dengan PPOK stabil dan eksaserbasi
2	Hitchings, 2015	Safety of metformin in patients with chronic obstructive pulmonary disease and type 2 diabetes mellitus	Tujuan studi membandingkan efek terapi metformin dan non-metformin pada populasi studi adalah pasien DM tipe-2 dengan PPOK eksaserbasi
3	Chen, 2021	Combination therapies with thiazolidinediones are associated with a lower risk of acute exacerbations in new-onset COPD patients with advanced diabetic mellitus: a cohort-based case–control study.	Tujuan penelitian membandingkan efek terapi obat antihiperglikemik oral pada pasien DM tipe-2 dengan PPOK
4	Gayle, 2019	Incidence of type II diabetes in chronic obstructive pulmonary disease: a nested case–control study.	Tidak didapatkan jumlah populasi pasien PPOK eksaserbasi dengan DM tipe-2
5	Castañ-Abad, 2020	Diabetes as a risk factor for severe exacerbation and death in patients with COPD: A prospective cohort study.	Tidak didapatkan jumlah populasi pasien PPOK eksaserbasi dengan DM tipe-2