

Newcastle-Ottawa Scale adapted for cross-sectional and cohort studies.

Selection:

1. Representativeness of the sample:

- a. Truly representative of the average in the target population. * (all subjects or random sampling)
- b. Somewhat representative of the average in the target group. * (non-random sampling)
- c. Selected group of users/convenience sample.
- d. No description of the derivation of the included subjects.

2. Sample size:

- a. Justified and satisfactory (including sample size calculation). *
- b. Not justified.
- c. No information provided

3. Non-respondents:

- a. Proportion of target sample recruited attains pre-specified target or basic summary of non-respondent characteristics in sampling frame recorded. *
- b. Unsatisfactory recruitment rate, no summary data on non-respondents.
- c. No information provided

4. Ascertainment of the exposure (risk factor):

- a. Vaccine records/vaccine registry/clinic registers/hospital records only. **
- b. Parental or personal recall and vaccine/hospital records. *
- c. Parental/personal recall only.

Comparability: (Maximum 2 stars)

1. Comparability of subjects in different outcome groups based on design or analysis. Confounding factors controlled.

- a. Data/ results adjusted for relevant predictors/risk factors/confounders e.g. age, sex, time since vaccination, etc. **
- b. Data/results not adjusted for all relevant confounders/risk factors/information not provided.

Outcome:**1. Assessment of outcome:**

- a. Independent blind assessment using objective validated laboratory methods. **
- b. Unblended assessment using objective validated laboratory methods. **
- c. Used non-standard or non-validated laboratory methods with gold standard. *
- d. No description/non-standard laboratory methods used.

2. Statistical test:

- a. Statistical test used to analyze the data clearly described, appropriate, and measures of the association presented including confidence intervals and probability level (p-value). *
- b. Statistical test not appropriate, not described, or incomplete.

Cross-sectional Studies:**Very Good Studies: 9-10 points**

Good Studies: 7-8 points

Satisfactory Studies: 5-6 points

Unsatisfactory Studies: 0 to 4 points

This scale has been adapted from the Newcastle-Ottawa Quality Assessment Scale for cohort studies to provide a quality assessment of cross-sectional studies¹².

1. Herzog R, Álvarez-Pasquin M, Díaz C, Del Barrio JL, Estrada JM, Gil Á. Are healthcare workers' intentions to vaccinate related to their knowledge, beliefs, and attitudes? A systematic review. *BMC Public Health*. 2013 Dec;13(1):1-7.

2. Stang A: Critical evaluation of the Newcastle-Ottawa scale for the assessment of the quality of nonrandomized studies in meta-analyses. *European journal of epidemiology* 2010, 25(9):603-605.

Articles to assess unfavorable outcomes and their predictors in patients treated for perforated peptic ulcer disease in Ethiopia: systematic review and meta-analysis

I. Assessment Results for Cross-sectional Studies

Note that

- No star

* 1 point

** 2 points

Id	Studies	Raters	Representativeness of the sample (*)	Sample size (*)	Non-respondents (*)	Ascertainment of the exposure (**, *)	Comparability(**)	Assessment of the outcome (**, *)	Statistical test(*)	Average
1	Alemayehu et al.,2021	MGT,	*	*	*	**	**	**	*	10
		AMD	*	*	*	**	**	**	*	
2	Bejiga et al., 2022	MGT,	*	-	*	**	**	**	*	9
		AMD	*	*	*	**	*	**	*	
3	Bekele et al.,2017	MGT,	*	*	*	**	**	**	*	9
		AMD	*	*	*	**	**	**	*	
4	Deresse et al.,2023	MGT,	*	*	*	**	*	**	*	9
		AMD	*	*	*	**	**	**	-	
5	Seyoum et al.,2020	MGT,	*	*	*	**	**	**	*	10
		AMD	*	*	*	**	**	**	*	
6	Tadesse et al.,2021	MGT,	*	*	*	**	**	**	*	10
		AMD	*	*	*	**	**	**	*	
7	Teshome et al.,2020	MGT,	*	*	*	**	**	**	*	10
		AMD	*	*	*	**	**	**	*	
8	Zerefa et al.,2020	MGT,	*	*	*	**	**	**	-	9
		AMD	*	*	*	**	**	**	-	

II. Assessment Results for Cohort Studies

Id	Authors		Selection				Comparability	Outcome			Average
			Representativeness of the exposed cohort	Selection of the non-exposed cohort	Ascertainment of exposure	Demonstration that outcome of interest was not present at start of study	Comparability of cohorts on the basis of the design or analysis	Assessment of outcome	Was follow-up long enough for outcomes to occur	Adequacy of follow up of cohorts	
1	Bupicha et al.,2020	MGT,	*	-	*	**	**	**	*	*	9
		AMD	*	-	*	**	**	**	*	*	