JAMSA Journal of Asian Medical Students' Association

J Asian Med Stud Assoc. 2020;8(4 Suppl2):1-9

Assessment of factors associated with suboptimal adherence of HIV antiretroviral therapy in Asia: a systematic review

Jessica Audrey[1], Ayers Gilberth Ivano Kalaij[1], Fanny Michelle[1]

[1]Faculty of Medicine, Universitas Indonesia, Indonesia

Correspondence should be addressed to: Jessica Audrey, Faculty of Medicine, Universitas Indonesia, Jl. Salemba Raya No. 6, Jakarta 10430, Indonesia. E-mail: jsaudrey8@gmail.com

Cite this article as: Audrey J, Kalaij AGI, Michelle F. Assessment of factors associated with suboptimal adher-ence of HIV antiretroviral therapy in Asia: a systematic review. J Asian Med Stud Assoc. 2020;8(4 Suppl2):1-9

Appendix 1. Studies quality assessment based on STROBE's criteria

	Item No	Recommendation	Kim J et al	Nguyen NT et al	Yathiraj BA et al	Jiamsakul A et al	Negi BS et al	Train BX et al	Pokhrel KN et al	Wasti SP et al	Weaver ER et al	Sagaon-Teyssier et al	Wang X et al	Wang YY et al	Ventakesh KK et al	Wang H et al	Lee S et al	Xu L et al	Muessig KE et al	Pahari et al	Bhattacharya et al	Abdulrahman et al
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Introduction																						
Background/ rationale	2	Explain the scientific background and	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

		rationale for the investigation being reported																				
Objectives	3	State specific objectives, including any prespecified hypotheses	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Methods																						
Study design	4	Present key elements of study design early in the paper	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Participants	6	(*a*) *Cohort study*—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up *Case-control study*—Give the eligibility criteria, and the sources and methods of case ascertainment	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

		and control selection. Give the rationale for the choice of cases and controls *Cross-sectional study*—Give the eligibility criteria, and the sources and methods of selection of participants																				
		(*b*) *Cohort study*—For matched studies, give matching criteria and number of exposed and unexposed *Case-control study*—For Yesmatched studies, give matching criteria and the number of controls per case	Yes	N/A	N/A	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A	N/A
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	Yes	*Yes*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	*Yes*	*Yes*
Bias	9	Describe any efforts to address potential sources of bias	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	No	No	Yes	No
Study size	10	Explain how the study size was arrived at	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	No
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
		(*b*) Describe any methods used to examine	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes

		subgroups and interactions																				
		(*c*) Explain how missing data were addressed	No	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	No	No	No	No
		(*d*) *Cohort study*—If applicable, explain how loss to follow-up was addressed *Case-control study*—If applicable, explain how matching of cases and controls was addressed *Cross-sectional study*—If applicable, describe analytical methods taking account of sampling strategy	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		(*e*) Describe any sensitivity analyses	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	No	No	No	No
Results																						
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible,	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

		examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed																			
		(b) Give reasons for non-participation at each stage	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	No
		(c) Consider use of a flow diagram	Yes	Yes	No	No	Yes	No	Yes	No	No	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	No	No
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		(b) Indicate number of participants with missing data for each variable of interest	Yes	No	Yes	No	No	No	No	Yes	No	No	Yes	No	No	Yes	Yes	Yes	No	No	No	No
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount)	Yes	N/A	N/A	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A	N/A
Outcome data	15*	*Cohort study*—Report numbers of outcome events or	Yes	N/A	N/A	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A	*N/A*	*N/A*	N/A	*N/A*

		summary measures over time																			
		Case-control study—Report numbers in each exposure category, or summary measures of exposure	*N/A*	*N/A*	N/A	*N/A*	*N/A*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
		Cross-sectional study—Report numbers of outcome events or summary measures	*N/A*	Yes	Yes	N/A	N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		(*b*) Report category boundaries when continuous variables were categorized	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		(*c*) If relevant, consider	N/A	N/A	N/A	Yes	N/A	N/A	N/A	Yes	Yes	No	Yes	No	No	Yes	Yes	No	No	No	No	No	No

		translating estimates of relative risk into absolute risk for a meaningful time period																				
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes	Yes	No	No	Yes	No
Discussion																						
Key results	18	Summarise key results with reference to study objectives	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

		studies, and other relevant evidence																			
Generalisability	21	Discuss the generalisability (external validity) of the study results	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes
Other information																						
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
		TOTAL	**20.6**	**20.5**	**21.47**	**21.36**	**21.47**	**18.14**	**20.27**	**20.47**	**19.80**	**18.13**	**19.27**	**20.27**	**18.80**	**20.8**	**20.6**	**20.47**	**17.74**	**18.74**	**17.74**	**17**

*Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.