HKCA Formal Project Assessment Rubric

Observational Studies

	Excellent	Good	Needs improvement
Title and abstract	-Indicates study's design in title or abstract -abstract: concise and clear summary of background, study design, methods, results and conclusions	- Indicates study's design in title or abstract -abstract: covers the background, study design, methods, results and conclusions	-does not identify study design -abstract: does not cover all the key components of an abstract
Introduction	-Concise and relevant background information -Clear explanation of study rationale -Research idea is novel and/or clinically impactful -Describes clearly the main objectives and hypothesis	-Provides background information -Description of study rationale given -Description of objective and hypothesis provided	-Relevant background information not provided -Rationale of the study is not clear or cannot be justified -No/inadequate description of the objective and hypothesis
Methods	-Description of study design given eg case-control, cross sectional study -Setting: Clear description of all of the following: location, dates (including period of recruitment), exposure, follow up, data collection. -Participants: Appropriate eligibility criteria Variables: Selected outcomes, exposures, predictors, potential confounders, and/or effect modifiers are clearly described and highly appropriate. Nearly all of the important variables are addressed.	-Description of study design given eg case-control, cross sectional study -Setting: Description of most of the following: location, dates (including period of recruitment), exposure, follow up, data collection Participants: Reasonably appropriate eligibility criteria Variables: Selected outcomes, exposures, predictors, potential confounders, and/or effect modifiers are described and reasonably appropriate. Most of the important variables are addressed.	-Description of study design not given -Setting: Many of the following not described: location, dates (including period of recruitment), exposure, follow up, data collection Participants: Eligibility criteria not appropriate Variables: Selected outcomes, exposures, predictors, potential confounders, and/or effect modifiers are not described and not appropriate. Many of the important variables are not addressed.

	Measurement: Method of assessing variable is appropriate Primary outcome is appropriate and clearly stated Bias: methods to address potential bias is appropriate and effective Study size: appropriate study size with good explanation Statistical methods: Methods clearly described All of the important confounders identified and controlled for appropriately Methods to evaluate subgroups described Missing data were addressed appropriately Sensitivity analysis described if applicable. Cohort studies: methods of follow up highly appropriate (including how loss of follow up is addressed) For matched studies, matching criteria are appropriate	Measurement: Method of assessing variable is appropriate Primary outcome is appropriate and clearly stated Bias: method to address bias is reasonable Study size: Reasonable study size taking into context of study centre. Reasonable explanation to justify. Statistical methods: Methods described Most of the important confounders identified and controlled for appropriately. Missing data were addressed appropriately. Sensitivity analysis described if applicable. Cohort studies: methods of follow up is generally reasonable (including how loss of follow up is addressed) For matched studies, matching criteria are appropriate	Measurement: Method of assessing variable is not appropriate Primary outcome not stated and/or not appropriate Bias: cannot be addressed with method described Study size: Unreasonable sample size Statistical methods: Methods not adequately described. Important confounders not identified and/or not adequately controlled for. Missing data not appropriately addressed. Cohort: Methods of follow up inappropriate Matching criteria not described for matching studies
Results	Number of individuals at each stage of study is given. Reasons for non-participation at each stage provided. Flow diagram used Characteristics of study participants, information on exposure, potential confounders are reported Number of participants with missing data for each variable of interest is reported	Number of individuals at each stage of the study is given Characteristics of study participants, information on exposure, potential confounders are reported	Number of individuals at each stage of the study not provided Characteristics of study participants, information on exposure, potential confounders are not reported

	Main results: Unadjusted estimates given. Confounder adjusted estimates and precision (eg 95% confidence interval) provided. Clear and appropriate explanation of which confounders were included and why. Report of other analysis: eg analysis of subgroups and interactions, sensitivity analysis	Main results: Unadjusted estimates given. Confounder adjusted estimates and precision (eg 95% confidence interval) provided.	Main results: Unadjusted and/or confounder adjusted estimates not given. Precision of results not provided.
Discussion	-highly appropriate interpretation of study results -High quality critical analysis (ie in comparison with existing literature, overall interpretation when also considering existing literature, in context of study centre) -Able to demonstrate scientific novelty and/or important clinical significance/impact. -highly appropriate explanation of generalizability of results -High quality explanation of study limitations (ie potential bias, sample size) -Conclusion: summarizes key information, appropriate interpretation of key findings. Highlights importance of findings.	-Reasonably appropriate interpretation of study results -Adequate critical analysis (ie in comparison with existing literature, overall interpretation when also considering existing literature, in context of study centre) -Able to explain the clinical significance and potential impact of the study results -generally appropriate explanation of generalizability -adequate explanation of key study limitations -Conclusion: summarizes information, provides appropriate interpretation of findings	-inaccurate interpretation of study results (including over or under exaggeration) -Inadequate critical analysis -Unable to demonstrate any clinical relevance/significance -inappropriate/inaccurate explanation of generalizability -important study limitations have been omitted or not explained -Conclusion: does not convey the important information, inappropriate interpretation of findings

Grading

Title and abstract 1-3

Introduction 1-3

Methods 1-3

Results 1-3

Discussion and conclusion 1-3