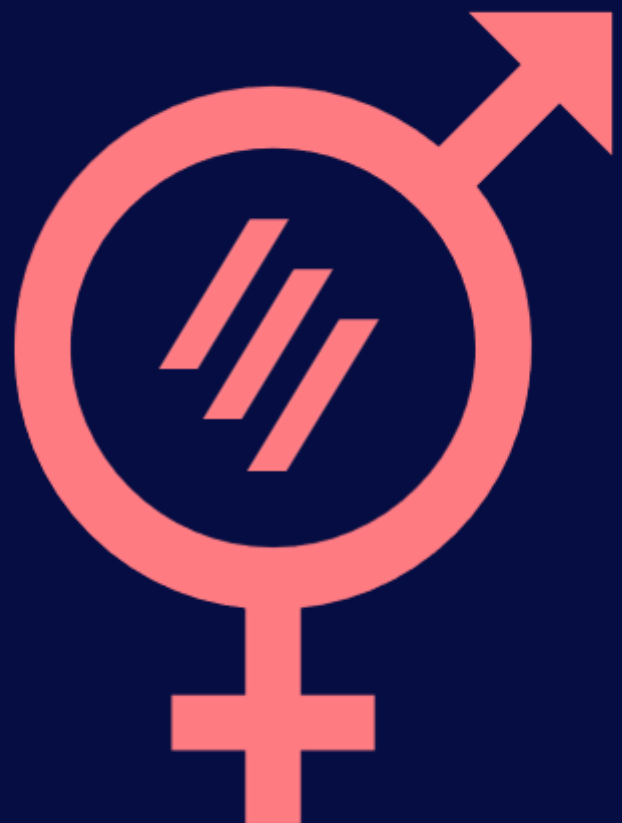


# Sex and Gender Equity in Research Guidelines Checklist

EASE Gender Policy Committee



The Sex and Gender Equity in Research (SAGER) Guidelines<sup>1</sup> are a comprehensive procedure for reporting of sex and gender information in study design, data analysis, results and interpretations of findings. They are primarily designed to guide authors in preparing their manuscripts but they are also useful for editors to integrate assessment of sex and gender in all manuscripts as an integral part of the editorial process.

The two checklists in this document are developed from the guidelines presented in the original SAGER article, with additional requirements identified by some *Lancet* journals.<sup>2</sup> They present a convenient list of items to check off when writing, reviewing or editing manuscripts.

One checklist is intended for studies including human participants and one for studies that do not include human participants, such as those using animals and cells.

This checklist was originally published as an article in the EASE journal, [European Science Editing](#)<sup>2</sup>.

## References

1. Heidari, S., Babor, T.F., De Castro, P., Tort S., Curno M. (2016) Sex and Gender Equity in Research: Rationale for the SAGER Guidelines and Recommended Use. *Research Integrity and Peer Review*, 1: 2. <https://doi.org/10.1186/s41073-016-0007-6>
2. Van Epps H, Astudillo O, Del Pozo Martin Y, Marsh J (2022) The Sex and Gender Equity in Research (SAGER) Guidelines: Implementation and Checklist Development. *European Science Editing*, 48: E86910. <https://doi.org/10.3897/ese.2022.e86910>

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## About the EASE Gender Policy Committee

Established in 2012, the EASE Gender Policy Committee works to advance gender- and sex-sensitive reporting and communication in science. The goal is not only better science, whether in the life, natural or social sciences, but also enhanced evidence-based practices, interventions and opportunities, for everyone. The Committee consists of experts with diverse backgrounds, linguistic traditions and professional experience, sharing enthusiasm to advance sex and gender equity for responsible research and innovation.

Read more about the committee on their EASE Community web pages:

<https://ease.org.uk/communities/gender-policy-committee/about-this-committee/>

**Table 1. SAGER guidelines checklist  
Studies with human participants**

Section / topic	Item number	Checklist item	Reported on page number
<b>General</b>			
	1	The terms sex/gender used appropriately	
<b>Title</b>			
	2	Title specifies the sex/gender of participants if only one included	
<b>Abstract</b>			
	3a	Abstract specifies the sex/gender of participants if only one included	
	3b	Study population described with sex/gender breakdown*	
<b>Introduction</b>			
	4a	If relevant, previous studies that show presence or lack of sex/gender differences or similarities are cited	
	4b	Mention of whether sex/gender might be an important variant and if differences might be expected	
	4c	The demographics of the study population with regard to sex/gender (eg, disease prevalence among male/female study participants) are outlined*	
<b>Methods</b>			
	5a	Method of definition of sex/gender (eg, self-report, genetic testing)	
	5b	Description of how sex/gender was considered in the design, whether authors ensured adequate representation of male and female study participants, justification of the reasons for any exclusion of male or female participants, or explanation if not considered. Justification of other sex/gender-specific interventions of study designs (eg, mandating contraception for women).* Explicit reporting of the scientific rationale for	

		contraception requirements and exclusions for pregnancy and lactation should be required*	
<b>Results</b>			
	6a	Study population description with complete gender/sex breakdown for all categories considered*	
	6b	Where appropriate, data presented disaggregated by sex/gender, and sex/gender differences and similarities are described	
	6c	Sex- and gender-based analyses reported regardless of outcome (in main paper if pre-specified; otherwise in appendix)*	
	6d	For clinical trials, adverse event data disaggregated by sex/gender (in main paper if pre-specified; otherwise in appendix)*	
	6e	Patient-reported outcome data disaggregated by sex/gender (in main paper if pre-specified; otherwise in appendix)*	
	6f	For epidemiological studies, the effects of other exposures on health problems examined for all genders and analysed critically from a gender perspective	
	6g	Table 1 includes separate rows for male sex/gender, female sex/gender and other categories if collected*	
<b>Discussion</b>			
	7a	Potential implications of sex/gender on the study results and analyses, including the extent to which the findings can be generalized to all sexes/genders in a population	
	7b	If a sex/gender analysis not done, a rationale is given and implications of the lack of such analysis on the interpretation of the results are discussed	
Adapted from SAGER guidelines. Sex and Gender Equity in Research: rationale for the SAGER guidelines and recommended use. Research Integrity and Peer Review 1, Article number: 2 (2016) <a href="https://researchintegrityjournal.biomedcentral.com/articles/10.1186/s41073-016-0007-6">https://researchintegrityjournal.biomedcentral.com/articles/10.1186/s41073-016-0007-6</a> .			
* These points extend beyond the original SAGER table			

**Table 2. SAGER guidelines checklist**  
**Other studies (applied sciences, biological sciences)**

Section / topic	Item number	Checklist item	Reported on page number
<b>General</b>			
	1	The terms sex/gender used appropriately	
<b>Title</b>			
	2a	Title specifies the sex of animals or any cells, tissues, and other material derived from these	
	2b	In applied sciences (technology, engineering, etc.), the title indicates if the study model was based on one sex/gender or the application was considered for the use of one specific sex/gender	
<b>Abstract</b>			
	3a	Abstract specifies sex of animals or any cells, tissues, and other material derived from these	
	3b	In applied sciences (technology, engineering, etc.), the abstract indicates if the study model was based on one sex/gender or the application was considered for the use of one specific sex/gender	
<b>Introduction</b>			
	4a	If relevant, previous studies that show presence or lack of sex or gender differences or similarities are cited	
	4b	Mention of whether sex/gender might be an important variant and if differences might be expected	
<b>Methods</b>			
	5a	In cell biological, molecular biological, or biochemical experiments, the origin and sex chromosome constitutions of cells or tissue cultures are stated. If unknown, the reasons are stated	
	5b	For studies testing devices or technology, explanation of whether the product will be applied or used by all genders and if it has been tested with a user's gender in mind	
	5c	If relevant, description of how sex/gender was considered in the design	

	5d	For in-vivo and in-vitro studies using primary cultures of cells, or cell lines from humans or animals, or ex-vivo studies with tissues from humans or animals, the sex of the subjects or source donors is stated (except for immortalized cell lines, which are highly transformed)	
<b>Results</b>			
	6	For studies using animal models, present a sex breakdown of the animals*	
<b>Discussion</b>			
	7	If relevant, potential implications of sex/gender on the study results and analyses, including the extent to which the findings can be generalized to all sexes/genders in a population	
Adapted from SAGER guidelines. Sex and gender equity in research: rationale for the SAGER guidelines and recommended use. Research Integrity and Peer Review 1, Article number: 2 (2016) <a href="https://researchintegrityjournal.biomedcentral.com/articles/10.1186/s41073-016-0007-6">https://researchintegrityjournal.biomedcentral.com/articles/10.1186/s41073-016-0007-6</a> . *These points extend beyond the original SAGER table.			