

STROBE Statement—checklist of items that should be included in reports of observational studies

	<b>Item No.</b>	<b>Recommendation</b>	<b>Page No.</b>	<b>Relevant text from manuscript</b>
<b>Title and abstract</b>	1	(a) Indicate the study’s design with a commonly used term in the title or the abstract	1	Risk factors for fatigue and impaired function eight months after hospital admission with COVID-19  Subtitle: A COVID-19 cohort study from Copenhagen University Hospital - North Zealand, Denmark.
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	1	
<b>Introduction</b>				
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	1	<b>The introduction</b>
Objectives	3	State specific objectives, including any prespecified hypotheses	1-2	Based on experiences from the previous outbreaks of SARS and MERS as well as the growing concern regarding post-COVID fatigue we aimed to:  1: Study the burden of post-COVID-19 fatigue and evaluate changes in self-rated functional capacity as primary endpoints with HRQoL and lung disease-specific HRQoL and different aspects of fatigue as secondary endpoints 8 months after discharge from severe COVID-19 infection.  2: Explore risk factors for long-COVID fatigue and impaired functional capacity in patients with severe COVID-19
<b>Methods</b>				
Study design	4	Present key elements of study design early in the paper	2-4	Methods-section

Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	2-4	Methods-section
Participants	6	<p>(a) <i>Cohort study</i>—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up</p> <p><i>Case-control study</i>—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls</p> <p><i>Cross-sectional study</i>—Give the eligibility criteria, and the sources and methods of selection of participants</p>	2-4	<p>Study population: Patients admitted to the Copenhagen University Hospital - North Zealand, Denmark (NZH) with a positive real-time polymerase chain reaction (RT-PCR) test result for SARS-CoV-2 between March 1st and June 15th 2020 were included as described previously [6]. Approximately 8 months after discharge patients, who were not nursing home residents, were offered a follow-up appointment in the out-patient clinic at the Department of Pulmonary and Infectious Diseases, NZH. All data were registered using an electronic data capture tools hosted by the Capital Region of Denmark. This study was approved by the Danish Patient Safety Authority (project ID 31-1521-266). Due to the retrospective nature of the study, the requirement for informed consent was waived.</p>
		<p>(b) <i>Cohort study</i>—For matched studies, give matching criteria and number of exposed and unexposed</p> <p><i>Case-control study</i>—For matched studies, give matching criteria and the number of controls per case</p>		

Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	2-4	Method section – subheadings “Clinical data and variables from hospital stay” and “Data from follow-up”.
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	2-4	Method section – subheadings “Clinical data and variables from hospital stay” and “Data from follow-up”.
Bias	9	Describe any efforts to address potential sources of bias	2	Non-participation bias – compared enrolled subjects with patients lost to follow-up.
			6	Small sample size and recall bias mentioned in discussion
Study size	10	Explain how the study size was arrived at	2	All eligible patients invited

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Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why		
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding	3	Statistical analysis – section
		(b) Describe any methods used to examine subgroups and interactions	3	Variables that were associated $p < 0.1$ with the outcome were included in multiple linear regression analyses (general linear model) of the associations between included independent variables and outcomes. Interactions between sex and other categorical independent variables were tested.
	(c) Explain how missing data were addressed	4	As this is not a controlled study but data from clinical work missing data is almost inevitable. Missing data is mainly due to technical flaws (questionnaires not filed right or blood samples failed to be analysed – we do not recognize any “pattern” in missing data points	
	(d) <i>Cohort study</i> —If applicable, explain how loss to follow-up was addressed <i>Case-control study</i> —If applicable, explain how matching of cases and controls was addressed <i>Cross-sectional study</i> —If applicable, describe analytical methods taking account of sampling strategy	4	The included patients were comparable to the ones lost to follow up with regard to gender, age at admission, presence of co-morbidities and admission length (data not shown).	
		(e) Describe any sensitivity analyses	5	As female sex was associated with a worse outcome in all aspects of fatigue (mental and physical domains) and all evaluated aspects of HRQoL compared to male sex

we stratified for menopausal status – which did not change the association.

<b>Results</b>				
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	4	Of 172 eligible patients (76 females), 39 (22.6%) died during or after admission, 14 were excluded as they were residents at nursing homes, 7 were followed-up at other hospitals and therefore not invited, and 29 declined the offer of follow-up, leaving 83 patients for further analysis. The included patients were comparable to the ones lost to follow up with regard to gender, age at admission, presence of co-morbidities and admission length (data not shown).
		(b) Give reasons for non-participation at each stage	4	See above
		(c) Consider use of a flow diagram	X	Not possible – only a small number of figures allowed in the paper.
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	4	Results-section
		(b) Indicate number of participants with missing data for each variable of interest	Tables 1-4	
		(c) <i>Cohort study</i> —Summarise follow-up time (eg, average and total amount)	Results	8.5 ± 1.5
Outcome data	15*	<i>Cohort study</i> —Report numbers of outcome events or summary measures over time	NA	
		<i>Case-control study</i> —Report numbers in each exposure category, or summary measures of exposure		
		<i>Cross-sectional study</i> —Report numbers of outcome events or summary measures		
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	Table 2 and 3	
		(b) Report category boundaries when continuous variables were categorized	NA	
		(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	NA	

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Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	3-5	<p>Results section: Female sex was associated with a worse outcome in all aspects of fatigue (mental and physical domains) and all evaluated aspects of HRQoL compared to male sex (Table 3). Stratifying for menopausal status did not change this (data not shown).</p> <p>Levels of CRP during admission did not differ between men and women (p=0.517) and was not associated with fatigue (p=0.319) or changes in functional status (p=0.847) at follow-up (data not shown).</p> <p>Both fatigue and decreased functional status were significantly correlated to both generic HRQoL (EQ-5D-5L-VAS: Fatigue (R=-0.57; p&lt;0.001); functional status (R=0.515; p&lt;0.001)) and lung disease-specific HRQoL (K-BILD: Fatigue (R=-0.582; p&lt;0.001); Functional status (R=-0.435; p&lt;0.001)).</p>
<b>Discussion</b>				
Key results	18	Summarise key results with reference to study objectives	5-6	Discussion
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	5-6	Discussion
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	5-6	Discussion
Generalisability	21	Discuss the generalisability (external validity) of the study results	5-6	Discussion
<b>Other information</b>				
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	

\*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](http://www.strobe-statement.org).