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

	Item No	Recommendation	Page No	Relevant text from the Manuscript
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	1	Retrospective follow-up study
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	2	A Retrospective follow-up study was conducted from September 19, 2021, to January 1, 2023 , among 423 low birth weight neonates in Northwest Ethiopia Comprehensive Specialized Hospitals. A Simple random sampling technique was used. The Data were collected using a data extraction checklist from the medical registry of neonates. The collected data were entered into EPI-DATA 4.6 and analyzed using STATA version 14. The Kaplan-Meier failure curve and Log-rank test were employed. Bi-variable and multivariable Weibull regression was carried out to identify predictors of respiratory distress syndrome. Statistical significance was declared at a P-value of ≤0.05 Result: The incidence rate of Respiratory distress syndrome was found to be 10.78 (95% CI: 9.35-12.42) per 100 neonate days. Fifth minute APGAR score <7 (AHR=1.86;95% CI: 1.18-2.92), Multiple pregnancy (AHR=1.43;95% CI:1.04-1.96), Caesarean section delivery (AHR=0.62; 95%: 0.41- 0.93)), prematurity (AHR=1.56;95% CI: (1.06-2.30)), and birth weight < 1000gram (AHR=3.14;95% CI:1.81-5.40) and 1000-1499 gram

				(AHR=2.06;95% CI:1.42-2.83); 95% CI:) were significant predictors.
Introduction				
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	3,4	
Objectives	3	State specific objectives, including any prespecified hypotheses	2	To assess the incidence of respiratory distress syndrome among low birth weight neonates in the first seven days in Northwest Ethiopia Comprehensive Specialized Hospitals,2023. To determine predictors of respiratory distress syndrome among low birth weight neonates in the first seven days in Northwest Ethiopia Comprehensive Specialized Hospitals,2023.
Methods				
Study design	4	Present key elements of study design early in the paper	4,	
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	4,5,6,7	
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	4,5, 6	

		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 matched studies, give matching criteria and the number of controls per case		
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	6&7	**Respiratory distress syndrome:** It is defined as the presence of the following two or more signs: abnormal respiratory rate, expiratory grunting, nasal flaring, and chest wall recession with or without cyanosis **Event:** LBW neonates who develop respiratory distress syndrome during the 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	6,7	
Bias	9	Describe any efforts to address potential sources of bias		
Study size	10	Explain how the study size was arrived at	6	

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	7&8	
		(*b*) Describe any methods used to examine subgroups and interactions		
		(*c*) Explain how missing data were addressed		
		(*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		**Censored:** LBW neonates who did not develop respiratory distress syndrome, discharged against medical advice, transferred/referred and lost the follow up during the follow-up.
		(*e*) Describe any sensitivity analyses		

Continued on next page

Results

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		
		(b) Give reasons for non-participation at each stage		
		(c) Consider use of a flow diagram		
Descriptive	14	(a) Give characteristics of study	9-14	

data	*	participants (eg demographic, clinical, social) and information on exposures and potential confounders		
		(b) Indicate number of participants with missing data for each variable of interest		
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount)	11&12	
Outcome data	15 *	*Cohort study*—Report numbers of outcome events or summary measures over time	11	During the follow-up from the total enrolled LBW early neonates 47.16% (95% CI: 42.80-52.55) were developed the event of interest (RDS). In this study, the overall incidence rate of RDS was found to be 10.78 per 100 neonates' day observation (95% CI: 9.35-12.42).
		Case-control study—Report numbers in each exposure category, or summary measures of exposure		
		Cross-sectional study—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		
		(*b*) Report category boundaries when continuous variables were categorized		
		(*c*) If relevant, consider 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		
Discussion				
Key results	18	Summarise key results with reference to study objectives	13-17	
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any	1	

		potential bias		
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	13-17	
Generalisability	21	Discuss the generalisability (external validity) of the study results	15-17	
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	18	Funding not applicable

*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.