STROBE Statement.

	Item No.	Recommendation	Page/Section	Relevant text from manuscript
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	Title, Abstract	Title: "Institution-Based Cohort Review"; Abstract: "cohort of 3652 women"
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	Abstract	Structured abstract with Background, Methods, Results, Conclusion
Introduction				
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported		Rationale: Hypertensive disorders of pregnancy (HDP) are a leading cause of maternal/perinatal morbidity and mortality globally, with disproportionate burden in sub-Saharan Africa (SSA). Limited data exist on complication risks in low-resource settings like Kenya, where fragmented healthcare and diagnostic constraints amplify HDP burden. Gaps: Systematic quantification of HDP-associated complications in SSA is lacking, hindering region-specific interventions. Goal: To quantify maternal/perinatal complication risks in HDP vs. normotensive women at Kenya's largest maternity hospital, informing tailored risk-reduction strategies.
Objectives	3	State specific objectives, including any prespecified hypotheses	Background (final paragraph); Abstract (Objectives)	Objective: "To analyse the risks of maternal and perinatal complications in HDP compared with normotensive women." Hypothesis: Women with HDP have higher risks of: (1) maternal composite complications (AKI, APH, PPH); (2) perinatal composite complications (IUFD, IUGR, SGA, preterm birth, asphyxia).
Methods				
Study design	4	Present key elements of study design early in the paper	Abstract; Methods (Study Design and Setting)	Design: Retrospective cohort study. Key elements: Exposure-defined (HDP vs. normotensive), single-center, institution-based review of 3,652 women from 1 Jan 2018–31 Dec 2019.

Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	Methods (Study Design and Setting)	Setting: Pumwani Maternity Hospital (Nairobi, Kenya; largest public maternity hospital). Dates: 1 Jan 2018–31 Dec 2019. Periods: Recruitment/data collection: Entire 24-month period; Review of hospital records. Exposure: Pregnancy/delivery; Follow-up: Delivery until discharge.
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 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	Methods (Study population)	Eligibility: Inclusion: (1) Pregnant women diagnosed with HDP; (2) Received antenatal/postpartum care at facility. Exclusion: (1) Major fetal anomalies; (2) Gestational age <20 weeks; (3) Multifetal gestation. Source: Medical records from prior HDP prevalence cohort [Ref 10]. Selection: All records meeting criteria during study period (n=3,652). Follow-up: Outcomes tracked until hospital discharge (no loss to follow-up in retrospective design).
		(*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	*N/A*	Not a matched study.
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	Methods (Variables; Outcome Variables)	Exposure: HDP status (defined by Kenya National Guidelines [11]/ISSHP criteria [12]). Outcomes: Maternal: AKI, APH, PPH; Perinatal: IUFD, IUGR, SGA, preterm birth, neonatal asphyxia. Predictors/Confounders: Maternal age, cesarean delivery, gestational age. Diagnostic Criteria: AKI (serum creatinine >70.72 μmol/L [13]), APH (bleeding ≥24 weeks [16]), PPH (>500mL vaginal/>1000mL cesarean [11,17]), IUFD (fetal death ≥20 weeks/≥350g [18]), IUGR (<3rd percentile + abnormal Doppler [19,20]), preterm birth (<37 weeks [21]), asphyxia (APGAR <7 [22]).
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	Methods (Variables; Outcome Variables)	Sources: Medical records. Measurement: HDP status (clinical diagnosis); AKI (serum creatinine); APH/PPH (clinical documentation); perinatal outcomes (delivery

		one group		records/neonatal assessments). Comparability: Identical data sources/methods for HDP and normotensive groups. Limitations: Visual PPH estimation (subjectivity); AKI criteria not pregnancy-validated [14,15].
Bias	9	Describe any efforts to address potential sources of bias	Methods (Statistical analysis); Limitations	Selection bias: Included all eligible records (no sampling). Measurement bias: Standardized definitions (national/international guidelines). Confounding: Adjusted regression for age/cesarean; VIF <2.0 confirmed no multicollinearity. Residual bias: Acknowledged unmeasured confounders (e.g., BMI, HIV).
Study size	10	Explain how the study size was arrived at	Methods (Study population)	Size justification: Leveraged entire cohort (n=3,652) from prior HDP prevalence study [Ref 10] at Pumwani Hospital (2018–2019). No formal power calculation; size enabled precise estimates (e.g., CI width for RRs).

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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	Methods (Statistical analysis); Table 1	Handling: Continuous variables (maternal age, birthweight) were categorized for clinical relevance: - Maternal age: <20, 20–34, ≥35 years (standard obstetric categories) - Birthweight: <2500g (low), 2500–4000g (normal), >4000g (macrosomia) - Gestational age: Dichotomized as term (≥37 weeks) vs. preterm (<37 weeks) per WHO guidelines [21].
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	Methods (Statistical analysis)	Methods: - Descriptive statistics (frequencies, percentages, mean±SD) - Group comparisons: χ^2/Fisher's exact tests (categorical), t-tests (continuous) - Risk ratios (RRs) via log-binomial regression - Confounding control: Adjusted for maternal age ≥35 years and cesarean delivery (identified as imbalanced in Table 1; VIF <2.0 confirmed no multicollinearity).
		(*b*) Describe any methods used to examine subgroups and interactions	Results; Limitations	Subgroups: Not performed due to: (1) Missing data for education (45.2%); (2) Most HDP cases unclassified (n=407/528). Interactions: Not examined.
		(*c*) Explain how missing data were addressed	Methods (Statistical analysis)	Approach: Complete-case analysis. Rationale: Missing data ≤5% for most variables; assumed missing at random. Education missingness (45.2%) precluded subgroup analysis but did not affect primary exposure-outcome models.
		(*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	*N/A*	Addressed: Not applicable (retrospective design with outcomes measured at delivery/discharge; no loss to follow-up).

		taking account of sampling strategy		
		(*e*) Describe any sensitivity analyses	*N/A*	Not performed.
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	Results; Figure 1	Flow Diagram: Figure 1. Diagram: Recommended addition. Manuscript Text: - Total records: 3,652 - HDP group: 528 (14.5%) - Normotensive group: 3,124 (85.5%) - Exclusions: "fetal anomalies, GA<20 weeks, multifetal gestation" in Methods..
		(b) Give reasons for non-participation at each stage	Methods (Study population)	Exclusions: (1) Major fetal anomalies; (2) Gestational age <20 weeks; (3) Multifetal gestation.
		(c) Consider use of a flow diagram		Figure 1
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Table 1	Reported: Sociodemographics (age, education, occupation, marital status, residence), parity, antenatal care, gestational age, delivery mode, birthweight. Stratified by HDP status.
		(b) Indicate number of participants with missing data for each variable of interest	Table 1	Occupation (1.9%), marital status (0.1%), residence (0.5%), parity (0.1%), ANC (0.1%), mode of delivery (0.03%).
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount)	*N/A*	Not applicable (outcomes measured at delivery/discharge; no longitudinal follow-up).
Outcome data	15*	*Cohort study*—Report numbers of outcome events or summary measures over time	Results; Table 2, Table 3	Maternal complications: 46/3,652 (1.3%); HDP vs. normotensive: 17/528 (3.2%) vs. 29/3,124 (0.9%) Perinatal complications: 474/3,652 (13.0%); HDP vs. normotensive: 89/528 (16.9%) vs. 385/3,124 (12.3%). Individual outcomes (e.g., IUFD, AKI) reported.
		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-	Table 4; Results	Unadjusted RR:

	adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	- Maternal complications: RR 3.55 (95% CI 1.94–6.51) - Perinatal complications: RR 1.44 (95% CI 1.12–1.85) Adjusted RR (for age ≥35, cesarean):
	(*b*) Report category boundaries when continuous variables were categorized	- Maternal complications: RR 3.34 (95% CI 1.81–6.16) - Perinatal complications: RR 1.38 (95% CI 1.07–1.77)
	(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	

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Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses		Performed: Individual complication analyses (AKI, PPH, IUFD, IUGR) alongside composite outcomes. No sensitivity/subgroup analyses.
Discussion				
Key results	18	Summarise key results with reference to study objectives	Abstract; Discussion	Summary: HDP associated with 3.34× higher maternal complications (AKI, PPH) and 1.38× higher perinatal complications (IUFD, IUGR). Consistent with global literature but highlights AKI under detection in resource-limited settings.
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	Discussion (Limitations)	Reported: (1) Single-center design (limits generalizability); (2) Unclassified HDP subtypes (77.1% uncategorized); (3) Residual confounding (unmeasured BMI/HIV); (4) Retrospective AKI assessment (underestimation likely); (5) Wide CIs for rare outcomes (e.g., IUGR). Bias direction: Likely underestimates true HDP-complication associations.
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	Discussion	Cautious interpretation: - Strong HDP-complication links align with pathophysiological mechanisms (e.g., placental dysfunction). - AKI rates lower than global estimates, suggesting systemic underdiagnosis in Kenya. - Clinical priority: Enhanced surveillance for AKI/PPH in HDP patients.
Generalisability	21	Discuss the generalisability (external validity) of the study results	Discussion (Limitations)	External validity: Findings reflect tertiary hospital context in urban Kenya; may not generalize to rural/peripheral facilities. HDP prevalence (14.5%) higher than global average, indicating region-specific burden.
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	Declarations (Funding)	Source: "No funding was received for this study." Role: N/A.

	article is based

*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.