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

	Item No.	Recommendation	Page No.	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	2	Clinical data from the GWTG-Stroke registry were weighted using a Bayesian interpolation method anchored to observations from the National Inpatient Sample (NIS).
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	2	We use the Get With The Guidelines® (GWTG) – Stroke registry to apply post-stratification survey weights to generate national assessment of AIS epidemiology, hospital care quality, and in-hospital outcomes.
Introduction				
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	4	Timely and accurate national surveillance of stroke and cardiovascular disease remains an immense challenge in the U.S. due to the lack of integration of various paper and electronic health record systems
Objectives	3	State specific objectives, including any prespecified hypotheses	4	Developing a national AIS surveillance system would allow for monitoring and responding to AIS burden, health equity, and quality of care.

Methods				
Study design	4	Present key elements of study design early in the paper	4-5	To determine the total number of AIS hospitalizations for 2019 in the U.S., marginal counts stratified by population characteristics are used to anchor post-stratification weights for GWTG-stroke.
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	5	These estimates were derived from 2012 to 2018 from National Inpatient Sample (NIS) sponsored by the Agency for Healthcare Research and Quality. NIS is a structured random sample of U.S. hospitalizations that is then weighted to represent national hospital utilization.
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	6	GWTG-Stroke includes 1,300-1,500 hospitals per year (out of approximately 5,300 U.S. community or federal hospitals nationally) and details are previously described.[15–17] Hospitals participating in the GWTG program do so on a voluntary basis
		(*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	In the NIS, AIS is defined using the primary discharge diagnosis from the first listed International Classification of Diseases, Ninth Revision (ICD-9) code or the beta Clinical Classifications Software (CCS) code "CIR020". Supplemental Material Table S1-S4
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*	Supplement: Race/Ethnicity data is based on administrative coding within the electronic health record for both the NIS and GWTG-Stroke. Insurance status is determined by the primary payer categorization for both NIS and GWTG-Stroke. Hospital characteristics are obtained through American Hospital Association Annual Survey of Hospitals for both the National Inpatient Sample and GTWG-Stroke *Ascertainment of medical history is based on chart abstracted review in GWTG-Stroke. Comorbidities were captured using ICD-10 or Clinical Classification Software (CCS) codes for the NIS: Atrial

				fibrillation/flutter (I48.0-I48.93), CAD/Prior Myocardial Infarction (CCS CIR011), Carotid Stenosis (ICD-10 I65.29, I63.139, I63.239), Diabetes Mellitus (CCS END002, END003), Peripheral Vascular Disease (CCS CIR026) , Hypertension (CCS CIR007, CIR008, PRG020), Smoker, Dyslipidemia (CCS END010), Heart Failure (CCS CIR019 or ICD10 I09.81, I11.0, I13.0, I13.02), Obesity (CCS END009), Chronic Renal Insufficiency (CCS GEN003 or ICD-10 Z94.0, Z99.2, Z91.15, or Z49.01-Z49.31) (Supplement, Table S1-S4)
Bias	9	Describe any efforts to address potential sources of bias		Participating hospitals may provide higher quality care relative to hospitals not participating in the GWTG-Stroke program.[24,25] Non-participating hospitals likely treat a smaller portion of AIS patients. Nevertheless, our estimates for care quality might be on the higher end of true national performance.
Study size	10	Explain how the study size was arrived at	4-5	To determine the total number of AIS hospitalizations for 2019

			in the U.S., marginal counts stratified by population characteristics are used to anchor post-stratification weights for GWTG-stroke.

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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	N/A	
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	6	Annual AIS population counts stratified by patient (age group, sex, and race/ethnicity) and hospital factors (size, rurality, ownership, teaching status) were obtained between 2012 and 2018. Annual stratified population counts were linearized, and predictions made for the 2019 AIS population in the U.S. The derived 2019 NIS population counts were used to generate post-stratification weights for 2019 GWTG-Stroke observations using Bayesian population interpolation method previously validated.
		(*b*) Describe any methods used to examine subgroups and interactions	N/A	
		(*c*) Explain how missing data were addressed		Only complete cases were included. No imputation was performed.
		(*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		
		(*e*) Describe any sensitivity analyses	N/A	
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	N/A	
		(b) Give reasons for non-participation at each stage	N/A	
		(c) Consider use of a flow diagram	N/A	
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on	7	In 2019, there were an estimated

		exposures and potential confounders		552,476 AIS hospitalizations in the U.S. with a median age of 71 years (IQR, 60-81), 48.8% (95% CI, 48.5-49.2%) female, and 63.1% (95% CI, 62.7-63.5%) white (Table 1).
		(b) Indicate number of participants with missing data for each variable of interest	N/A	
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount)	7	Length of stay data
Outcome data	15*	*Cohort study*—Report numbers of outcome events or summary measures over time	*7*	In terms of outcomes, the median hospital stay was 4 days (IQR, 2-6 days) (Table 2). Disposition at discharge included 275,033 (49.8%, 95% CI 49.4-50.1%) to home, 208,289 (37.7%, 95% CI 37.4-38.0%) to another health care facility primarily for skilled nursing or inpatient rehabilitation, 21,908 (4.0%, 95% CI 3.8-4.1%) died, and 16,987 (3.1%, 95% CI 3.0-3.2%) were discharged to hospice facilities.
		Case-control study—Report numbers in each exposure category, or summary measures of exposure	N/A	
		Cross-sectional study—Report numbers of outcome events or summary measures	N/A	
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	N/A	
		(*b*) Report category boundaries when continuous variables were categorized	20	NIHSS categories
		(*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	N/A
Discussion			
Key results	18	Summarise key results with reference to study objectives	7-8
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	10
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	10
Generalisability	21	Discuss the generalisability (external validity) of the study results	10
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	12

*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.