

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

	Item No	Recommendation
<b>Title and abstract</b>	1	<p>(a) Indicate the study’s design with a commonly used term in the title or the abstract Observational, Cross-sectional : <b>Pages (5-6)</b></p> <p>(b) Provide in the abstract an informative and balanced summary of what was done and what was found: <b>Pages (5-6)</b></p> <p>Patients hospitalized over a 10-year period with both ACS and GI bleeding were identified using (ICD9-CM) codes. Performing GIE was associated with lower mortality and a shorter length of stay.</p>
<b>Introduction</b>		
Background/rationale	2	<p>Explain the scientific background and rationale for the investigation being reported: <b>(Pages 8-9)</b></p> <p>GI bleeding in patients with ACS is associated with a higher 30-day mortality rate (9.6%) as compared to ACS patients without GI bleeding (1.4%). Studies evaluating the safety of GI endoscopy in ACS patients with GIB are limited by their relatively small size and the focus has generally been on upper GI bleeding and EGD only.</p>
Objectives	3	<p>State-specific objectives, including any prespecified hypotheses.: <b>Page 9</b></p> <p>Determining how safe an endoscopic procedure is in a patient with ACS and GI bleeding</p>
<b>Methods</b>		
Study design	4	<p>Present key elements of study design early in the paper : <b>Pages (10-11)</b></p> <p>Patients &gt;18 years of age with the diagnosis of acute coronary syndrome and gastrointestinal (GI) bleeding (upper and/or lower GI bleeding) during the same admission were included in the study</p>
Setting	5	<p>Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection: <b>Pages (10-11)</b></p> <p>Study population and variables of interest January 2005 and December 2014 were evaluated as in subsequent years ICD-10 codes were used to populate the NIS database.</p>
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: <b>Pages (10-11) and Supplemental material</b></p> <p>Patients &gt;18 years of age with the diagnosis of acute coronary syndrome and gastrointestinal (GI) bleeding (upper and/or lower GI bleeding) during the same admission were included in the study. Study population and variables of interest January 2005 and December 2014 were evaluated as in subsequent years ICD-10 codes were used to populate the NIS database.</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</p>

controls per case

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Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable: <b>Please see pages 10-11 in the manuscript</b>
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: <b>Pages 10-12</b>  The study population was identified from the Healthcare Cost and Utilization Project databases (HCUP). The Nationwide Inpatient Sample (NIS) database is the largest HCUP database and it contains unweighted data from over 7 million hospital admission each year. Study population and variables of interest January 2005 and December 2014 were evaluated using ICD-9 codes
Bias	9	Describe any efforts to address potential sources of bias: <b>Pages (11-12)</b>  Large sample size, wide geographic representation, variable size, and type of hospital (community vs academic) were used to overcome selection bias and confounding.
Study size	10	Explain how the study size was arrived at: <b>Page 10</b>  All eligible patients from 2005 to 2014 in the NIS were included
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why: <b>See manuscript pages 10-12</b>
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding Rao-Scott Chi-square test, Student's t-test. Univariate analysis and multivariate logistic regression models. <b>See pages 11-12</b>  (b) Describe any methods used to examine subgroups and interactions: <b>See pages 11-12</b>  (c) Explain how missing data were addressed: N/A  (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: <b>see pages 11-12</b>  (e) Describe any sensitivity analyses

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<b>Results</b>		
Participants	13*	<p>(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>Pages (13-14) and Table 1</b></p> <p>35,612,318 patients with ACS were identified between January 2005 and December 2014 and 269,483 (0.75%) of the patients with ACS developed concomitant GI bleeding during the same admission</p> <p>(b) Give reasons for non-participation at each stage: N/A</p> <p>(c) Consider use of a flow diagram: <b>see figure-1 in the manuscript</b></p>
Descriptive data	14*	<p>(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders: <b>Pages (13-14), Tables 1-3 and figure 1</b></p> <p>(b) Indicate number of participants with missing data for each variable of interest</p> <p>(c) <i>Cohort study</i>—Summarise follow-up time (eg, average and total amount)</p>
Outcome data	15*	<p><i>Cohort study</i>—Report numbers of outcome events or summary measures over time</p> <p><i>Case-control study</i>—Report numbers in each exposure category, or summary measures of exposure</p> <p><i>Cross-sectional study</i>—Report numbers of outcome events or summary measures</p> <p><b>Pages 13-14, Tables 1-3 and figure 1</b></p>
Main results	16	<p>(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>See Pages (13-14 ), Tables 2-3</b></p> <p>(b) Report category boundaries when continuous variables were categorized: <b>See Pages (13-14 ), Tables 2-3</b></p> <p>(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period: N/A</p>
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses: N/A
<b>Discussion</b>		
Key results	18	<p>Summarise key results with reference to study objectives: <b>Page 15</b></p> <p>0.75 % of patients admitted with ACS and between 2005-2014 developed GI bleeding</p> <p>Performing GIE (EGD, small intestinal endoscopy, colonoscopy or flexible sigmoidoscopy) in patients with ACS and GIB was associated with significantly lower mortality and shorter hospital stay as compared to the group not undergoing endoscopy</p>
Limitations	19	<p>Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias</p> <p><b>See limitations on page 18</b></p>
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence: <b>Pages 15-17</b>
Generalisability	21	<p>Discuss the generalisability (external validity) of the study results:</p> <p>The large sample size, wide geographic representation and variable size and type (community vs academic) hospitals enhances the generalizability of the findings: <b>Pages 18-19</b></p>
<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 . <b>No funding was required</b>

\*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).