

STROBE Statement—Checklist of items that should be included in reports of *cohort studies*

	Item No	Recommendation
Title and abstract	1	(a) Indicate the study’s design with a commonly used term in the title or the abstract Time trends in intracranial bleeding and the new oral anticoagulants: a five year cohort. (b) Provide in the abstract an informative and balanced summary of what was done and what was found Done page 2 and 3.
Introduction		
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported Done page 4.
Objectives	3	State specific objectives, including any prespecified hypotheses Page 4, ‘We aimed to analyze the trend in the number of intracranial bleeds treated at a Canadian neurosurgical centre during the introduction of the direct oral anticoagulants.’
Methods		
Study design	4	Present key elements of study design early in the paper Start of the Methods, page 6. ‘This study had two components. The first part was a health records review and the second, a provincial oral anticoagulant prescription review. The study was approved by the Ottawa Health Sciences Network research ethics board.’
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection Methods section pages 6-8.
Participants	6	(a) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up Methods section pages 6-8. (b) For matched studies, give matching criteria and number of exposed and unexposed Not applicable.
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable Methods section pages 7 and 8.
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 Details on data extraction, electronic medical record in methods section.
Bias	9	Describe any efforts to address potential sources of bias Data extractors were not aware of the purpose of the study.
Study size	10	Explain how the study size was arrived at We chose 2009 as the start date because there was no DOAC prescription until 2010. The DOACs were licensed one at a time between 2010 and 2014. As this was primarily a descriptive study we did not base our sample on a predicted sample size.
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why Most of our data was categorical (use of an anticoagulant, use of an antiplatelet, site of bleed) and hence frequencies were presented. The main outcome was the rate of new intracranial bleeding, therefore Poisson regression was chosen for analysis of trend.
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding

Methods, page 8 ‘Poisson regression analysis was applied as a test for time trend by fitting a regression line to the monthly intracranial bleed incidence, regressed on year. Poisson regression was chosen as a model which fits the assumption of small independent count data (in this case, the rate). Quality of data extraction was evaluated using the kappa coefficient. We used the Mann-Whitney U test to compare serum creatinine between the warfarin and the direct oral anticoagulant medications.’

(b) Describe any methods used to examine subgroups and interactions

Time trends were calculated for both anticoagulant-associated intracranial bleeding and nonanticoagulant-associated intracranial bleeding.

(c) Explain how missing data were addressed

Methods page 7.

(d) If applicable, explain how loss to follow-up was addressed

Not applicable.

(e) Describe any sensitivity analyses

Not applicable.

Results

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 Figure 1.</p> <p>(b) Give reasons for non-participation at each stage Figure 1.</p> <p>(c) Consider use of a flow diagram Figure 1.</p>
Descriptive data	14*	<p>(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders Table 1</p> <p>(b) Indicate number of participants with missing data for each variable of interest First paragraph, page 10.</p> <p>(c) Summarise follow-up time (eg, average and total amount) Not applicable.</p>
Outcome data	15*	Report numbers of outcome events or summary measures over time Figures 2 and 3, and Table 2.
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 Time trend tested unadjusted. Separate time trend for antiplatelet prescription performed. Association with creatinine level and type of anticoagulant tested.</p> <p>(b) Report category boundaries when continuous variables were categorized None categorized.</p> <p>(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period Not applicable.</p>
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses No other analyses.

Discussion

Key results	18	Summarise key results with reference to study objectives Page 12, paragraph 1
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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 Limitations section, page 14.
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence Conclusion section page 14.
Generalisability	21	Discuss the generalisability (external validity) of the study results Page 14.
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 Paragraph at end of paper.

*Give information separately for exposed and unexposed groups.

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 <http://www.strobe-statement.org>.