Diagnostic stewardship for *Clostridioides difficile* testing in an acute care hospital: A quality improvement intervention

Supplemental Digital Content 1: Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) and Standards for Quality Improvement Reporting Excellence (SQUIRE) 2.0 Guidelines

	Item No.	STROBE items	Location	SQUIRE items	Location
Title and Abstract					
	1	(a) Indicate the study's design with a commonly used term in the title or the abstract (b) Provide in the abstract an informative and balanced summary of what was done and what was found	a) Abstract - Design b) Abstract – Methods, Results	Title: Indicate that the article concerns an initiative to improve healthcare. Abstract: This is a summary of your work and is the most important section to attract a reader's attention. Please ensure you include a brief background to the problem, the method for your quality improvement project, the overall results and conclusion.	Title line and abstract section (brief background not included in abstract)
Introduction					
Background rationale	2	Explain the scientific background and rationale for the investigation being reported	Introduction – paragraph 2, 3, 4	Background information about the problem and up-to-date, research and knowledge from the literature.	Introduction – paragraph 2, 3, 4
Objectives	3	State specific objectives, including any prespecified hypotheses	Introduction – paragraph 4 – last sentence	Summarize your problem and the focus of your project.	Introduction – paragraph 4
Methods					
Study Design	4	Present key elements of study design early in the paper	Methods – Study Intervention, paragraph 1	Describe any reasons or assumptions that were used to develop the intervention(s) and reasons why you expected them to work.	Not described in the methods

Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	Methods – Study setting, paragraph 1, - Outcomes and data sources, paragraph 2		
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 *(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	Methods - Study intervention, paragraph 2		
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable.	Methods – Outcomes and Data sources, paragraph 1, 3	Explain your strategy for improvement and discuss how you implemented your study.	Methods – Study Intervention, paragraph 1
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	Methods – Outcomes and Data sources, paragraph 1, 2, 3		
Bias	9	Describe any efforts to address potential sources of bias	Not described		
Study size	10	Explain how the study size was arrived at	Methods – Statistical Methods, paragraph 1		
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen, and why	Methods – Outcomes and data sources, paragraph 3, - statistical methods, paragraph 1		
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding (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 (e) Describe any sensitivity analyses	Methods – Statistical Methods, paragraph 1		
Results					

Participants	13	(a) Report the numbers of individuals at each stage of the study (*e.g.*, numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analyzed) (b) Give reasons for non-participation at each stage. (c) Consider use of a flow diagram	Results – paragraph 1 – Clinically non-indicated (completed) orders, paragraph 1 ("participants" are "orders")		
Descriptive data	14	(a) Give characteristics of study participants (*e.g.*, demographic, clinical, social) and information on exposures and potential confounders (b) Indicate the number of participants with missing data for each variable of interest (c) *Cohort study* - summarize follow-up time (*e.g.*, average, and total amount)	N/A, there are no participants in this study, the participants are the orders		
Outcome data	15	*Cohort study* - Report numbers of outcome events or summary measures over time *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	Results – Clinically non-indicated (completed) orders, paragraph 1, - *C. difficile* HAI, paragraph 1, 2 - *C. difficile* antimicrobial days of therapy, paragraph 1		
Main results	16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (e.g., 95% confidence interval). Make	Results – Clinically non-indicated (completed) orders, paragraph 1, - *C. difficile* HAI, paragraph 1	Provide a summary of what your results showed. Comment on whether there were any unintended consequences such as	Results, all paragraphs

		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		unexpected benefits, problems, failures, or costs associated with the intervention(s).	
Other analyses	17	Report other analyses done—e.g., analyses of subgroups and interactions, and sensitivity analyses	Results – *C. difficile* HAI, paragraph 2		
Discussion					
Key results	18	Summarize key results with reference to study objectives	Discussion – paragraph 1	Comment on the strengths of the project. Describe any problems you faced and how you navigated these.	Discussion – paragraph 2, 6
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 – paragraph 7	Reflect on your project's limitations.	Discussion – paragraph 7
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	Discussion – paragraph 2, 3, 4, 5	Describe whether chance, bias, or confounding have affected your results and whether there was any imprecision in the design or analysis of the project. Are more data points required?	Discussion – paragraph 6, 7
Generalizability	21	Discuss the generalizability (external validity) of the study results	Discussion – paragraphs 3, 6	Comment on the limits of generalizability.	Discussion – paragraphs 3, 6