Additional file 2: STROBE Statement – checklist of items that should be included in reports of cohort studies

Manuscript: Medication Safety and Quality of Care on an Interprofessional Training Ward vs Conventional Care in Gastroenterology and Hepatology: A 2-Year Cohort Study. Line numbers refer to the submitted manuscript.

Section/Topic	Item No	Recommendation	Reported on line(s)	Comment
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or the abstract	1–3, 23	Title: "A 2-Year Cohort Study"; abstract, Methods: "retrospective cohort study"
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	15–50	Structured abstract
Introduction				
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	60–95	Medication safety, clinical pharmacy, interprofessional training wards, research gap
Objectives	3	State specific objectives, including any prespecified hypotheses	95–102	Objective and hypothesis (medication safety at least as high as on the conventional ward)
Methods				
Study design	4	Present key elements of study design early in the paper	108–111	Retrospective cohort study of prospectively documented medication reviews
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	108–141	2 gastroenterology/hepatology wards, University Hospital Regensburg; June 2024 to June 2026; description of both care models and the weekly review process
Participants	6	(a) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up	131–132, 143–147	All adult inpatients with ≥1 pharmacist-led medication review; exclusion criteria; follow-up by weekly reviews during the hospital stay
		(b) For matched studies, give matching criteria and number of exposed and unexposed	–	Not applicable (unmatched)
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	117–130, 149–157, 161–166	Exposure: care on the interprofessional training ward; primary outcome: interventions per prescribed drug; secondary outcomes; covariates age and length of stay; ATC, PCNE V9.1, NCC MERP, ICD-10
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	131–141, 149–157	Identical review procedure, references and documentation on both wards; consensus grading of NCC MERP severity
Bias	9	Describe any efforts to address potential sources of bias	131–141, 154–157, 162–169	Identical review procedures on both wards; consensus classification; adjustment for age and length of stay; cluster-robust SE; sensitivity analyses (first review per admission, GEE); discussed in Strengths and Limitations (348–359)
Study size	10	Explain how the study size was arrived at	143–145	All eligible medication reviews during the 2-year study period were included; no a priori sample

				size calculation
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	162–169, 230–232; Table 2	Number of prescribed drugs as offset; length of stay log-transformed; time per review in 3 categories; rare ATC classes combined as "Various"
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding	159–173	Negative binomial regression with offset, covariates and cluster-robust SE; χ^2 (Monte Carlo), Fisher exact, Mann–Whitney U tests; Benjamini–Hochberg correction
		(b) Describe any methods used to examine subgroups and interactions	–	Not performed
		(c) Explain how missing data were addressed	144–147; Additional file 1: Figure S1	Complete-case analysis; reviews with missing age, patient identifier or medication data were excluded
		(d) If applicable, explain how loss to follow-up was addressed	–	Not applicable (in-hospital observation; repeated reviews within patients accounted for by cluster-robust SE)
		(e) Describe any sensitivity analyses	166–169; Additional file 1: Table S1	Drugs as covariate instead of offset; omission of length of stay; GEE with exchangeable correlation; restriction to first review per admission
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	181–185; Additional file 1: Figure S1	1075 documented reviews, 946 included (540 reviews/351 patients/399 admissions vs 406 reviews/344 patients/385 admissions)
		(b) Give reasons for non-participation at each stage	183–184; Additional file 1: Figure S1	Exclusion reasons and rates (11.6% vs 12.5%)
		(c) Consider use of a flow diagram	Additional file 1: Figure S1	Flow chart
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	186–194; Table 1	Sex, age, length of stay, main diagnoses
		(b) Indicate number of participants with missing data for each variable of interest	Additional file 1: Figure S1	Reviews excluded because of missing data, by ward
		(c) Summarise follow-up time (eg, average and total amount)	Table 1	Length of stay, mean (SD)
Outcome data	15*	Report numbers of outcome events or summary measures over time	195–205, 260–276; Tables 2–4	Interventions (881 vs 773), DRPs, causes, interventions, acceptance, outcome and severity
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	196–205; Table 2; Additional file 1: Table S1	Unadjusted IRR 0.79 (0.70–0.88); adjusted for age and length of stay IRR 0.80 (0.72–0.90)
		(b) Report category boundaries when continuous variables were categorized	Table 2	Time per review: <10, 10–30, >30 min
		(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	197–200; Table 2	Absolute rates per 100 prescribed drugs and per review
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	202–205, 224–276; Tables 3–4; Additional file 1: Tables S1–S5, Figure S2	Sensitivity analyses; ATC, PCNE and NCC MERP analyses; top drugs
Discussion				

Key results	18	Summarise key results with reference to study objectives	283–290	
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	348–359	Retrospective, single-center, nonrandomized design; residual confounding; unblinded pharmacists; process outcome; review frequency; retrospective severity grading
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	291–346	
Generalisability	21	Discuss the generalisability (external validity) of the study results	358–359	Single specialty and training ward model; multicenter studies needed
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	Declarations, Funding (391–392)	No external funding

**Give information separately for exposed and unexposed groups.*

Source: von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP; STROBE Initiative. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. Checklist available at https://www.strobe-statement.org.