

Background

Accurate handoff is vital to patient safety, but despite numerous tools available nurses often do not use a structured approach.

- Half of nurses incorporate physician notes into their handoff process.

Artificial intelligence (AI) tools show potential to enhance handoff quality by improving clarity, conciseness, and consistency.

- Little research has examined nurses' perceptions of AI-generated handoffs compared to physician-written summaries.
- AI-generated summaries utilized an AI tool that summarizes, charts, and drafts clinical notes.
- The summary provides an overview of the patient and is updated by the latest electronic health record documentation.

Methods

Three clinical nurses independently reviewed and compared AI-generated summaries to physician-written summaries for patients admitted to the surgery service line.

- The validated Physician Documentation Quality Instrument (PDQI-9) tool was used.
- The nurse evaluation team met prior to scoring to ensure consistency of interpretation and scoring of the PDQI-9 domains.

PDQI-9 Items		
Q1: Up-to-date	Q4: Useful	Q7: Succinct
Q2: Accurate	Q5: Organized	Q8: Synthesized
Q3: Thorough	Q6: Comprehensive	Q9: Internally Consistent

Purpose

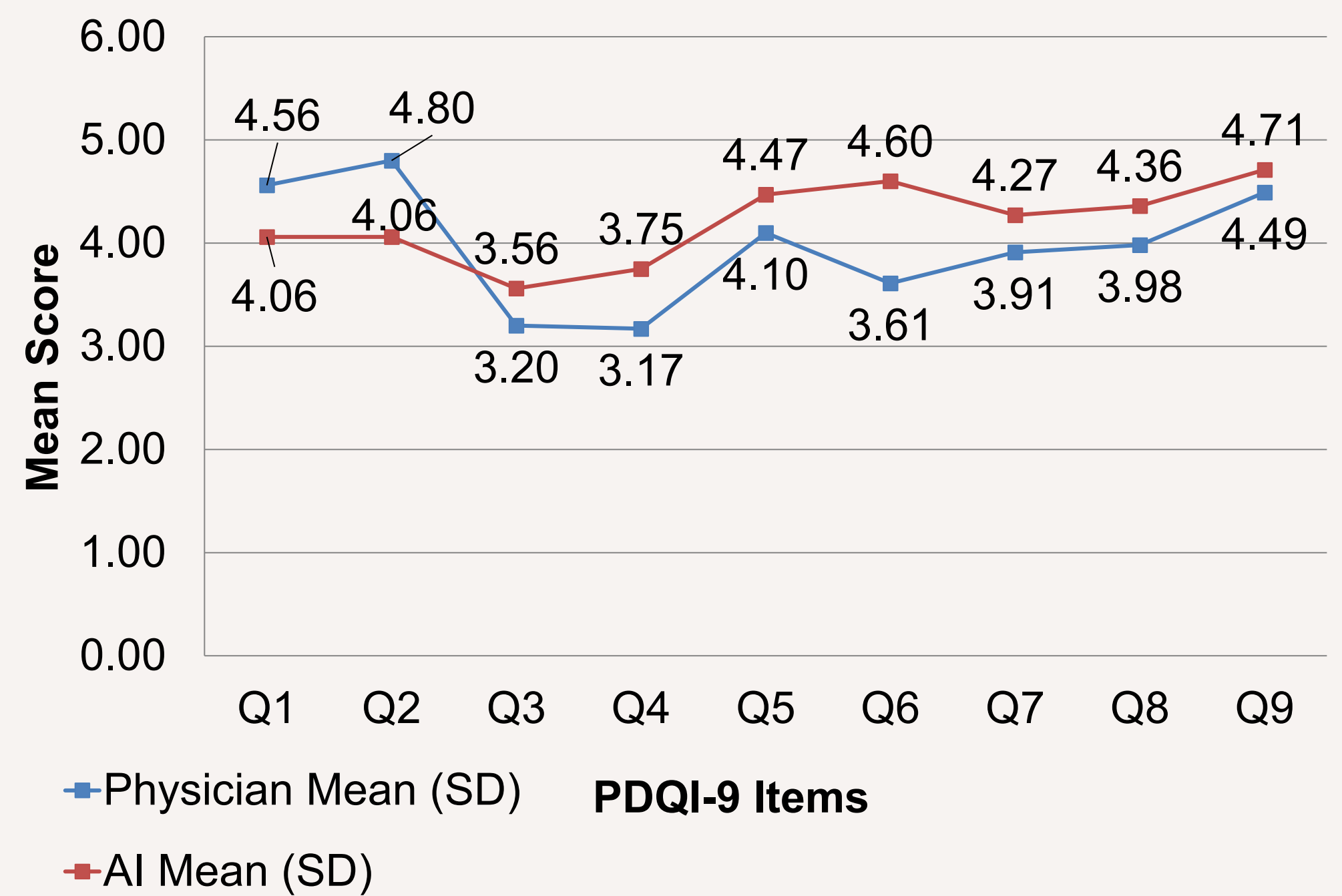
To compare the performance of artificial AI-generated and physician-written handoff summaries in a pediatric surgery population from nurses' perspective, utilizing a validated quality assessment tool.

Practice Implications/Conclusion

This is the first study to examine how nurses evaluate the quality and usefulness of AI-generated summaries in their practice. Artificial intelligence-generated physician summaries improve the quality of handoff for nurses by providing clear and concise information, reducing variability, and providing structure for information sharing. Integration into practice may improve communication, enhance nursing workflow, and improve patient safety.

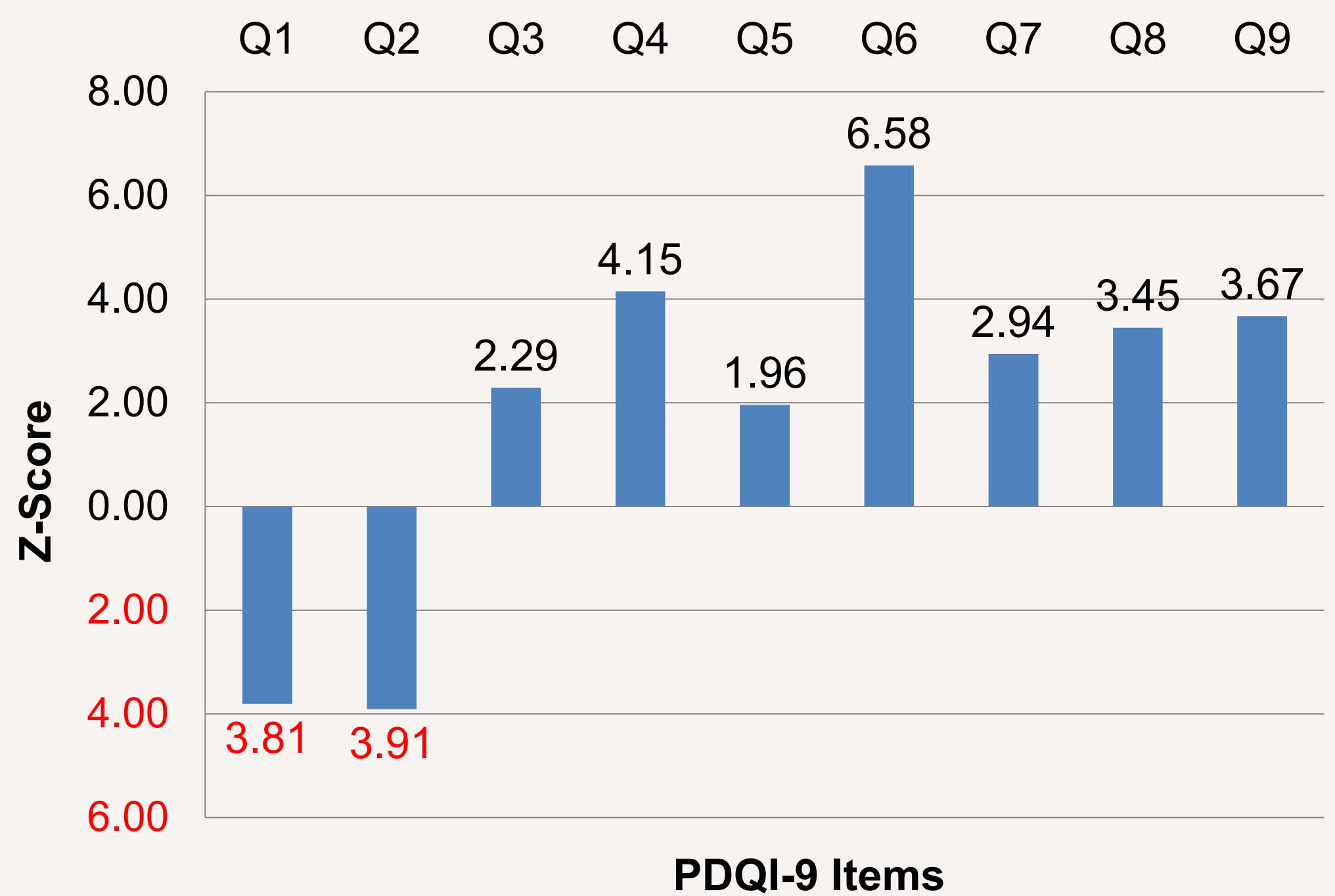
Results

AI vs Physician PDQ-9 Mean Scores



- 117 patient summaries outperformed physician written summaries in seven PDQI-9 domains
- Nurses significantly ranked AI-generated summaries higher than physician summaries ($Z=3.89, p < .001$).

Z-Scores for AI vs Physician Comparisons



- AI-generated summaries outperformed physician written summaries in seven PDQI-9 domains.
- The results showed fair agreement for five domains and slight agreement for four domains, highlighting the need and complexity of multi-rater review of clinical summaries.