

Implementing a Pain Assessment Initiative Does Not Improve Quality of Pain Management

Mularski RA, White-Chu F, Overbay D, et al. Measuring pain as the 5th vital sign does not improve quality of pain management. *J Gen Intern Med* 2006;21:607–12.

Study Overview

Objective. To compare providers' pain management before and after implementation of a pain management quality improvement initiative (pain as "the 5th vital sign").

Design. Retrospective review of medical records.

Setting and participants. The study was conducted at a Veterans Affairs outpatient general medicine clinic. 300 patient visits to the clinic before October 1999 (preimplementation) and 300 patient visits after January 2001 (postimplementation) were randomly selected, and data from the computerized patient record system were extracted for review. To obtain the sample, for each of the 15 attending physicians at the clinic, 20 visits from 100 sequential eligible visits were randomly selected.

Main outcome measures. Seven process indicators of quality pain management were developed to measure physician recognition, evaluation, and treatment of pain. The indicators were subjective assessment, exam for pain complaint, any orders to assess pain, new pain prescription, change in pain prescription, any other pain treatment, and follow-up plans. Subgroup analyses examined whether a pain score ≥ 4 (0 = no pain, 10 = worst possible pain) would trigger a comprehensive pain assessment and prompt intervention by the physician.

Main results. Pain management was unchanged after implementation across all 7 process indicators ($P > 0.05$ for all comparisons): subjective physician assessment (49.3% versus 48.7%), pain exam (26.3% versus 26.0%), orders to assess pain (11.7% versus 8.3%), new analgesic (8.7% versus 11.0%), change in existing analgesics (6.7% versus 4.3%), other pain treatment (11.7% versus 13.7%), and follow-up plans (10.0% versus 8.7%). Patients included in the subgroup analysis ($n = 79$) often did not receive recommended care. 22% of patients had no pain documented in the medical record, 27% had no further assessment documented, and 52% received no new or adjusted therapy for pain at that visit.

Conclusion. Measuring pain as the 5th vital sign did not

increase the quality of pain management. Patients with substantial pain often had inadequate pain management.

Commentary

Acute or chronic pain is a common presenting complaint in the outpatient setting. Despite the prevalence of pain and the abundance of research indicating that most pain can be successfully managed, inadequate pain assessment and treatment continues to exist across all care settings and patient populations [1,2]. In 1995, the American Pain Society published guidelines aimed at improving pain management, which emphasized that the first step is assessing and recording patients' report of pain [3]. As of January 2001, pain assessment and pain management have become components of the survey and accreditation process for the Joint Commission on Accreditation of Healthcare Organizations. Started in 1998, the Veterans Health Administration "Pain as the 5th Vital Sign" initiative requires intake nurses to assess pain and intensity for outpatient visits and record the results in the medical record with the vital signs.

This study makes a unique first attempt to identify if improved documentation of pain and its intensity in the outpatient setting improves overall pain management. Previous studies have evaluated pain management interventions in the inpatient setting and have shown mixed results in pain management outcomes, suggesting that different approaches are necessary for targeted pain improvement [4,5]. Although pain assessment and documentation may be improved by such interventions, most studies have demonstrated that the disconnect in overall reduction of patient severity of pain remains [4,6]. Mularski et al found that physician management of pain was unchanged after the initiative was implemented and that patients who reported substantial pain had no improvement in their care.

The findings should be interpreted in light of the limitations of the study design. It is possible that failures in communication may have undermined the effectiveness of pain documentation. Additionally, the use of retrospective medical record review for quality measures may have limited the findings; it has been demonstrated that chart abstraction may underestimate the quality of care for common outpatient general medical conditions when compared with

standardized patient reports [7,8].

Applications for Clinical Practice

Although this study found no statistically significant association between documenting pain scores and improved quality of pain management, this should in no way suggest that pain assessment and its documentation be discontinued. This study indicates that the evaluation and documentation of pain alone may not be enough to change practice patterns. Pain assessment, however, is still a critical first step in improving the quality of pain management.

—Review by Ula Hwang, MD, MPH

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