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Comparison of Quality of Care in VA and Non-VA Settings: A Systematic Review

EXECUTIVE SUMMARY

September 2010

Prepared for:
Department of Veterans Affairs
Veterans Health Administration
Health Services Research & Development Service
Washington, DC 20420

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PREFACE

HSR&D's Evidence-based Synthesis Program (ESP) was established to provide timely and accurate syntheses of targeted healthcare topics of particular importance to VA managers and policymakers, as they work to improve the health and healthcare of Veterans. The ESP disseminates these reports throughout VA.

HSR&D provides funding for four ESP Centers and each Center has an active VA affiliation. The ESP Centers generate evidence syntheses on important clinical practice topics, and these reports help:

- develop clinical policies informed by evidence,
- the implementation of effective services to improve patient outcomes and to support VA clinical practice guidelines and performance measures, and
- set the direction for future research to address gaps in clinical knowledge.

In 2009, an ESP Coordinating Center was created to expand the capacity of HSR&D Central Office and the four ESP sites by developing and maintaining program processes. In addition, the Center established a Steering Committee comprised of HSR&D field-based investigators, VA Patient Care Services, Office of Quality and Performance, and VISN Clinical Management Officers. The Steering Committee provides program oversight and guides strategic planning, coordinates dissemination activities, and develops collaborations with VA leadership to identify new ESP topics of importance to Veterans and the VA healthcare system.

Comments on this evidence report are welcome and can be sent to Nicole Floyd, ESP Coordinating Center Program Manager, at nicole.floyd@va.gov.

Recommended citation:
Asch, S, Glassman P, Matula S, Trivedi A, Miake-Lye I and Shekelle P. Comparison of Quality of Care in VA and Non-VA Settings: A Systematic Review. VA-ESP Project # 05-226; 2010.

This report is based on research conducted by the Evidence-based Synthesis Program (ESP) Center located at the West Los Angeles VA Medical Center, Los Angeles, CA funded by the Department of Veterans Affairs, Veterans Health Administration, Office of Research and Development, Health Services Research and Development. The findings and conclusions in this document are those of the author(s) who are responsible for its contents; the findings and conclusions do not necessarily represent the views of the Department of Veterans Affairs or the United States government. Therefore, no statement in this article should be construed as an official position of the Department of Veterans Affairs. No investigators have any affiliations or financial involvement (e.g., employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties) that conflict with material presented in the report.

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BACKGROUND

It remains unclear where the Veterans Health Administration (VA) finds itself in the spectrum of care currently available in the United States. The quality of care provided by the VA has been subject to debate since, and well before, the VA's system transformation starting in the mid-90s. Media and entertainment vehicles have, rightly or wrongly, not infrequently portrayed VA care in less than optimal light, although there have been notable exceptions[1]. Regardless of media views, the VA has established itself as an innovative healthcare system, including implementation of its advanced electronic medical record, with broad clinical and educational missions.

The immediate objective of this project is to conduct a systematic literature review of the published literature comparing the quality of medical and surgical care provided by the VA to relevant non-VA healthcare facilities and systems.

The Key Question was:
Compare and contrast studies that assess VA and non-VA quality of care for surgical, non-surgical and other medical conditions.

METHODS

We were first given a list of articles by VA Central Office that represented examples of articles addressing possible VA and non-VA comparisons. Once these were reviewed, we then completed a Medline search for similar types of articles. Between the initial list and the subsequent search, we retrieved 222 articles. These were then screened by two physicians trained in the critical analysis of literature. Articles that both agreed were to be included were then reviewed, and all data were narratively summarized. When differences in the initial assessment (inclusion vs not) occurred, the specific articles were then discussed with at least one other senior member of the review team.

RESULTS

Of the 222 articles, mentioned above, 175 unique articles were identified and screened. Of these, 98 articles were initially rejected because there was no comparison of quality in VA and non-VA settings in the United States. After 22 articles were excluded because the comparisons were found to be non-contemporaneous, or had unequal or unrepresentative samples, used dissimilar or indirect measures of quality, had methodological problems, or were published before 1990 (which was used as an a priori cut off point), our first data abstraction included 55 articles. The 55 articles were categorized as either addressing surgical conditions (n=17) or medical and other non-surgical conditions (n=38).

Surgical Conditions

Ten of the seventeen articles, or more than half the available studies, came from the Patient Safety and Surgery Study, which was performed between 2001 and 2004, and grew out of collaboration between the American College of Sugeons and VA's National Surgical Quality Improvement Program.

Of four general surgery studies, three revealed no significant differences in adjusted postoperative

morbidity rates while one found significantly lower rates of postoperative morbidity in the VA setting compared with the private sector. Three of the four studies assessed risk adjusted mortality rates and of these, two found no significant difference across settings. One study found significantly higher risk adjusted rates of postoperative mortality among male patients at the VA compared with the private sector. All four of these studies were part of the Patient Safety in Surgery Study.

Of three solid organ transplant articles, two found no significant differences in patient survival when comparing VA patients with non-VA patients. Additionally, one of these found no significant difference in graft survival between these two groups. This study also included a sub-analysis of health related quality of life (HRQOL) among heart and liver transplant recipients and found no significant difference in functional status or mental component scoring, but noted a trend toward lower physical component scores among VA patients by 7 years post-transplant. One study found that compared with privately insured patients, VA patients with end-stage renal disease were both less likely to be listed for a kidney transplant and less likely to receive a transplant when listed.

Of the three vascular surgery studies, two found significantly lower risk adjusted rates of postoperative morbidity in the VA and one found no significant difference in morbidity rates. There were no significant differences in risk adjusted mortality rates throughout these three studies. Two of the three vascular surgery studies were part of the Patient Safety in Surgery Study.

Of the three studies pertaining to surgical oncology, two focused on pancreatic cancer and one focused on breast cancer. One of the pancreatic cancer studies based on the National Cancer Data Base (NCDB) found no significant difference in postoperative mortality. The other study on pancreatic cancer based on the Patient Safety in Surgery Study found increased risk adjusted postoperative rates of morbidity and mortality in VA. The breast cancer study found no significant difference in risk adjusted postoperative morbidity among female patients. Two of the three surgical oncology studies came from the Patient Safety in Surgery Study (one pancreatic cancer study, one breast cancer study).

Two articles pertained to cardiac surgery. Of these, one focused on patient perceptions of numerous aspects of patient care after coronary artery bypass grafting in VA and non-VA hospitals. This study found that, after risk adjustment, VA patients were more likely than non-VA patients to report a problem with patient care. The second article compared severity adjusted mortality rates after CABG among VA and non-VA hospitals. After adjusting for patient-level predictors and hospital volume, the study found that the odds of death were higher in VA patients than in private sector patients.

In both of the endocrine surgery studies, there were no significant differences in postoperative morbidity or adverse event rates. Both endocrine surgery studies came out of the Patient Safety in Surgery Study.

Medical and Other Non-surgical Conditions

Of 10 general comparative studies assessing use of preventive services, acute and chronic care for multiple medical acute and chronic medical conditions, changes in broad health status including risk-adjusted morality, and patient satisfaction, each showed superior performance, as measured by greater adherence to accepted processes of care, better health outcomes or improved patient ratings of care, for care delivered in the VA compared with care delivered outside the VA. The studies used

data from 1995 to 2004.

Of the 6 studies that assessed cardiovascular outcomes, 5 studies of mortality following an acute myocardial infarction or percutaneous coronary transluminal angioplasty found no clear survival differences between VA and non-VA settings and one study found greater control of blood pressure in the VA. Of the 3 studies that assessed use of processes of care following an acute myocardial infarction, all three found greater rates of evidence-based drug therapy in VA, and one study found lower use of clinically-appropriate angiography in the VA. Of note, all of these cardiovascular studies use data that are between 7 to 18 years old.

Four studies of the quality of diabetes care demonstrate a performance advantage on some measures for the VA compared with commercial managed care and other non-VA populations.

Studies of the quality of hospital and nursing home care demonstrate similar risk-adjusted mortality rates in VA facilities compared with non-VA facilities. VA hospitals had somewhat better patient safety outcomes compared with non-VA hospitals. Veterans in VA nursing homes were less likely to develop a pressure ulcer but more likely to experience functional decline compared to veterans in community nursing homes. In addition, the VA had higher use of infection control practices, but greater readmission rates and equivalent racial mortality differences.

Studies of the quality of mental health care demonstrate that the quality of antidepressant prescribing is slightly better in VA compared to private sector settings. One study of national data found VA patients with schizophrenia were more likely to receive an antipsychotic medication in the outpatient setting, but a study of data from two states found VA outpatients were less likely to receive an antipsychotic medication and psychosocial services. Among patients discharged after a hospitalization for schizophrenia, readmission and outpatient visit follow-up rates were worse in the VA, but continuity of care was better compared to the private sector.

Elderly VA patients were less likely to be prescribed potentially inappropriate medications than elderly patients in Medicare managed care plans. A study of survival following a diagnosis of lung carcinoma in Pennsylvania found worse survival for VA patients in that state. Stroke patients receiving rehabilitation in VA settings were discharged with better functional outcomes. VA patients had greater satisfaction with hearing aid fittings and somewhat greater self-reported benefit from hearing aid placement.

CONCLUSIONS

Overall, the available literature suggests that the care provided in the VA compares favorably to non-VA care systems, albeit with some caveats. Studies that used accepted process of care measures and intermediate outcomes measures, such as control of blood pressure or hemoglobin A1c, for quality measurements almost always found VA performed better than non-VA comparison groups. Studies looking at risk-adjusted outcomes generally have found no differences between VA and non-VA care, with some reports of better outcomes in VA and a few reports of worse outcomes in VA, compared to non-VA care. The studies of processes of care are mostly those about medical conditions, while the studies of outcomes are mostly about surgical conditions and interventional procedures.