

MANAGEMENT OF DYSLIPIDEMIA IN THE MILITARY HEALTH SYSTEM (MHS)

A National Quality Management Program Special Study

“The outcome measure for dyslipidemia management, the percentage of the population with in control of Low-Density Lipoprotein Cholesterol (LDL-C) levels, is the ultimate indicator of successful disease management. For the study population, 64 percent had a LDL-C level that was in control. This percentage was between the 50th and 75th percentile of performance for managed care plans reporting the National Committee for Quality Assurance (NCQA), Health Plan Employer and Information Set (HEDIS) measure.”

Why manage Dyslipidemia?

High blood cholesterol levels, specifically high levels of Low-Density Lipoprotein Cholesterol (LDL-C), are an important and modifiable risk factor for developing Coronary Heart Disease (CHD) and for increased mortality among individuals with diagnosed CHD. CHD continues to be the leading cause of death in the United States. The Department of Defense (DoD), in collaboration with the Veterans Health Administration (VHA), has developed a clinical practice guideline (CPG) for the prevention and management of high blood cholesterol. The guideline was available for use in December 2001.

The purpose of this study was to measure baseline adherence to the VHA/DoD CPG For The Management of Dyslipidemia In Primary Care prior to implementation, answering the following questions:

1. What percentage of eligible Medical Treatment Facility (MTF) enrollees with an elevated LDL-C and a diagnosis of CHD received antihyperlipidemic medications?
2. What percentage of eligible MTF enrollees had at least one LDL-C level within standard levels of control between 60 and 365 days following an inpatient admission for an acute cardiovascular event?

These questions were examined for the defined population by enrollment MTF service affiliation, gender and duty status.

What was the methodology?

Measure 1 - Antihyperlipidemic Medication Treatment Rate

The first measure, medication treatment for beneficiaries with an elevated LDL-C, included beneficiaries:

- Age 18 to 75 years
- Continuously enrolled to an MTF
- One or more visits to a primary care or cardiology clinic for CHD during 2001
- LDL-C \geq 120 mg/dl during 2001

Prescriptions for antihyperlipidemic medications written within 30 days after the date of the elevated LDL-C were identified for this population. Medication treatment rates were calculated for subgroups of this population.

Measure 2 - LDL-C Screening and Control Following an Acute Cardiovascular Event

The second measure, LDL-C screening and control following an acute cardiovascular event, included beneficiaries:

- Age 18 to 75 years
- Hospitalized in an MTF for an Acute Myocardial Infarction, Coronary Artery Bypass Graft or Percutaneous Transluminal Coronary Angioplasty during 2000
- Continuously enrolled to an MTF for 12 months after discharge

LDL-C laboratory tests were examined to identify members of the study population who were screened for an LDL-C level and were in control. In control was defined as at least one LDL-C test value of < 120 mg/dl, not earlier than 60 days or more than 365 days following discharge. Screening and control rates were calculated for subgroups of this population.

Supplemental analysis

Using a modified Health Plan Employer Data and Information Set (HEDIS) methodology a supplemental analysis was conducted. Eighteen of 22 months of LDL-C laboratory testing data were available. Consistent with HEDIS specifications in control was defined as and LDL-C <130 mg/dl.

What were the results?

Measure 1 - Antihyperlipidemic Medication Treatment Rate

Study population

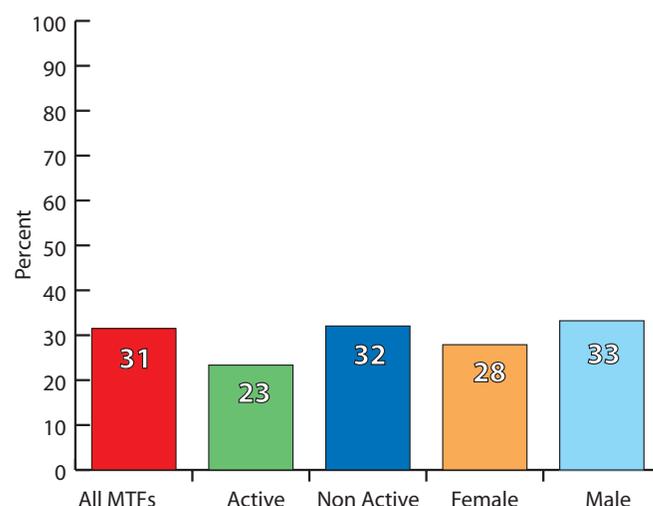
The study population contained 3,024 individuals with an LDL-C level \geq 120 mg/dl. The study population represented 23 percent of all continuously enrolled beneficiaries with a diagnosis of CHD. The other 77 percent of beneficiaries had a documented LDL-C level of < 120 mg/dl. More than two-thirds of the study cohort was male and approximately 7 percent was Active Duty (AD). Nearly half of the cohort was enrolled to Air Force MTFs, while TRICARE Regions 3 (Southeast) and 6 (Southwest) contained nearly 40 percent of the cohort members.

Medication rates

The antihyperlipidemic medication rate for the Direct Care System (DCS) was 31 percent.

Medication rates among Non-Active Duty (NAD) were 32 percent and were higher than AD rates (23 percent). Medication rates among males were higher than among females. Figure 1 provides an overview of medication rates by duty status and gender.

Figure 1: Antihyperlipidemic Medication Rates by Duty Status, Gender



Measure 2 - LDL-C Screening and Control Following an Acute Cardiovascular Event

Study population

The final study population contained 907 beneficiaries who had an acute cardiovascular event during 2000 and were continuously enrolled to an MTF for 12 months following the event. The study population represented 29 percent of the beneficiaries who had an acute cardiovascular event in the DCS during the year 2000.

Almost 74 percent of the study cohort was male and approximately 10 percent were AD. About 41 percent of the cohort were enrolled to Air Force MTFs. Another 39 percent were enrolled to Army MTFs. TRICARE Regions 4 (Gulf South), 6 (Southwest), and 11 (Northwest) contained over 50 percent of the cohort members. Regions 1 (Northeast), 3 (Southeast), and 9 (Southern Cal.) contained almost 30 percent of the cohort.

LDL-C screening and control rates

The LDL-C screening and control rates for the study population were 72 percent and 61 percent respectively (Figure 2). Beneficiaries enrolled to Navy MTFs had the highest LDL-C screening rate (74) percent and Air Force MTF enrollees had the highest control rate (63 percent). Beneficiaries enrolled to Army MTFs had the lowest screening (70 percent) and control (59 percent) rates.

Figure 2: LDL-C Screening and Control Rates by Service

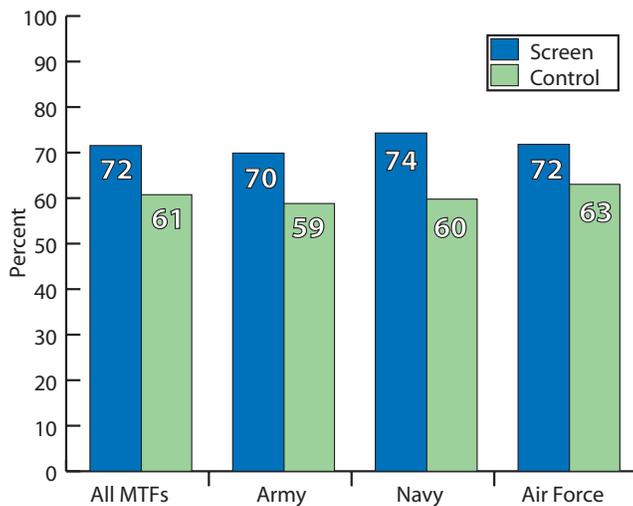
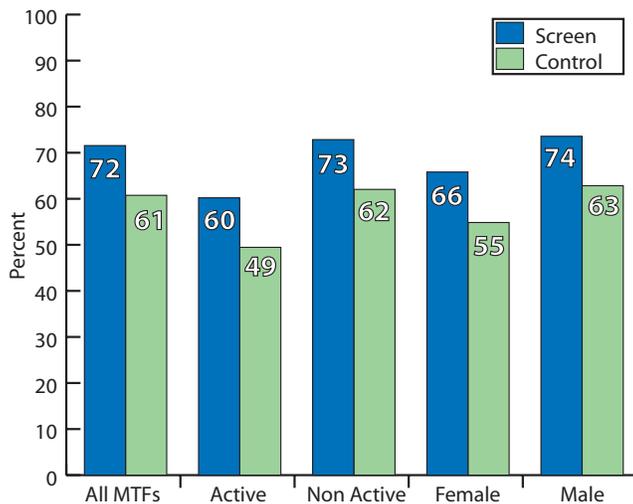


Figure 3 provides an overview of LDL-C screening and control rates by duty status and gender. NAD cohort members had LDL-C screening and control rates of 73 percent and 62 percent, respectively, while the AD rates were 60 percent for screening and 49 percent for control. Gender differences for LDL-C screening and control were less striking than duty status differences.

Figure 3: LDL-C Screening and Control Rates by Duty Status and Gender

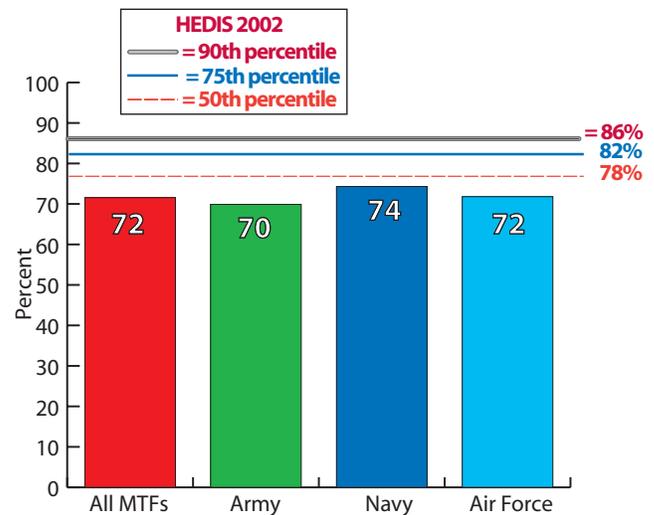


Supplemental analysis: screening and control rates compared to HEDIS

A supplemental analysis was conducted to compare the DCS performance to the HEDIS measure for

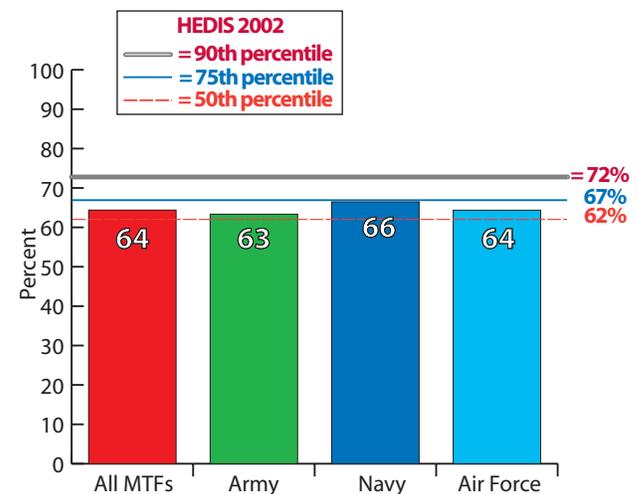
“Cholesterol Management After Acute Cardiovascular Events”. To make the comparison, control was defined as an LDL-C level < 130 mg/dl. The screening definition was not changed. The DCS screening rate of 72 percent was less than the HEDIS 50th percentile screening rate of 78 percent (Figure 4).

Figure 4: LDL-C Service Level Screening Rates Compared to HEDIS



The DCS rate of 64 percent was higher than the median performance rate reported in HEDIS, although it did not match the performance of the top 10 percent (90th percentile) of managed care plans (Figure 5). The three services reported similar control rates, with the Navy having the highest control rate.

Figure 5: LDL-C Service Level Control Rates Compared to HEDIS



Conclusions and Recommendations

- Care for beneficiaries in the DCS with dyslipidemia compares favorably with other health plans for LDL-C control.
- There were differences in the health care beneficiaries with dyslipidemia received based on duty status and gender.
- The DCS population with CHD represents a small portion, < 0.5 percent, of the MTF enrolled population.

Based on the results of the Fiscal Year 2002 study, the following actions should be considered:

- Implement the VHA/DoD Clinical Practice Guideline For The Management of Dyslipidemia In Primary Care throughout the DCS aggressively.
- Conduct a follow-up study on guideline adherence after at least one year of CPG implementation.
- Study the differences in health care based on duty status and gender in greater detail to explain factors that contribute to the differences reported in this study.
- Study provider and organizational (system) differences that affect patient care measurement and guideline adherence.

Study Limitation

This study was conducted using modified HEDIS methodology. Lab data were only available for July 2000 through September 2002. The results may not be comparable to studies based on exact HEDIS methodology

Where to go for more information?

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