

Appendix 1: Focused Explicit System

For the focused explicit system we used the VA quality assessment system for outpatient care. The indicators in this system had been developed on the basis of conditions that were targeted for quality improvement. (Kizer et al. 2000), (Perlin et al. 2004) and many of the indicators also mirrored indicators contained in the contemporaneous version of HEDIS. (Mencke et al. 2000). We used the most current abstraction instrument available at the time of our data abstraction (the 2001 3rd Quarter External Peer Review Program Clinical Guidelines and Prevention Indicators modules), making some adaptations for this study as follows. We dropped one indicator, use of spironolactone in CHF, because evidence for this was not yet available at the start of the time that care was provided in this study (October 1, 1997). We dropped the indicator for colon cancer screening because during the usual VA EPRP abstraction this indicator often required information that might not be within two years of paper records. Additionally, nutrition and exercise counseling for obesity, tobacco use cessation, and depression screening and referral indicators were considered prevention indicators in scoring. The scoring of some prevention indicators was revised so that refusals were counted in the numerator to parallel the global instrument scoring. Finally, in our analysis we used only process indicators, dropping indicators such as whether patients achieved a certain A1c or blood pressure level. The final set of indicators used is available from the authors. (For the purposes of the review, they are included on the next page).

<i>Focused System Indicator Descriptions</i>
PREVENTION
Patients who are 65 or older or at high risk should have received pneumococcal vaccination.
Patients who are 65 or older or at high risk should have received influenza immunization during the last year.
Women aged 52 to 69 should have had a mammogram within the past two years.
Women less than 65 should have had a pap test to screen for cervical cancer in the last three years.
Men between 50 and 69 should have received education regarding prostate cancer and screening during the last year.
Among those at high risk, hyperlipidemia screening should have been done within the last two years.
Patients, except those in an alcohol use recovery program or who have not used any alcohol in the past year, should be screened using a standardized alcohol use instrument annually.
Patients whose screening suggests problematic use of alcohol should be further assessed.
All patients should be screened annually regarding tobacco use.
Smokers should have received counseling about smoking cessations 3X annually or at each visit.
Patients with a BMI>27 should have received nutrition counseling/advice within the last two years.
Patients with a BMI>27 should have received exercise counseling/advice within the last two years.
Patients should be screened annually for depression, unless already under treatment for depression.
Patients whose depression screen is positive, should receive further evaluation by the PCP or a mental health professional.
HYPERTENSION
Patients with hypertension should have received exercise counseling/advice within the last two years.
Patients with hypertension should have received exercise counseling/advice within the last two years.
Patients with hypertension should have a blood pressure recorded annually.
DIABETES
Patients with diabetes should have their feet inspected annually.
Patients with diabetes should have pedal pulses checked annually.
Patients with diabetes should have a sensory exam of the feet annually.
Patients with diabetes who have a finding on a foot exam that indicates high risk should be referred for further evaluation.
Patients with diabetes should have an annual Hemoglobin A1c.
Patients with diabetes should have periodic retinal eye exams, with the time period based on A1c, insulin use, results of the last exam.
Patients with diabetes should have regular renal testing
Patients with diabetes should have had a lipid profile in the last two years.
Patients with diabetes should have had an LDL-C measured in the last two years.
Patients with diabetes should have blood pressure recorded at least annually.
COPD
Patients with COPD should have received influenza vaccine in the last year.
Patients with COPD should have received pneumococcal vaccine.
Patients with a diagnosis of COPD should have spirometry testing.
Patients with COPD whose FEV1 <50% should be on an Anticholinergic or Beta2agonist
Patients with COPD who received an initial diagnosis since 1995, should have had spirometry within 6 mos of the diagnosis.
IHD
Patients who have a history of AMI, should have been on ASA at the most recent visit.
Patients who have a history of AMI, should have been on Beta Blockers at the most recent visit
Patients who have a history of AMI, should have a Cholesterol Management Plan documented (treatment or advice re: cholesterol management).
Patients who have a history of AMI and whose LVEF is <40% should have been on ACEI at the most recent visit,
Patients who have a history of AMI should have had an LDL-C measured within the last 2 years.
CHF
Patients with a diagnosis of CHF should have their LVEF documented
Patients with a diagnosis of CHF and whose LVEF is < 40 should be on an ACEI or its equivalent.
If a patient with CHF is on an ACEI, their LVEF should have been documented

Global Explicit System

For the global explicit system we used a modified version QA Tools (McGlynn et al. 2003; Asch et al. 2004), a quality assessment instrument that covers acute care, chronic conditions and preventive care. The indicators included in the QA Tools system were developed after reviewing established national guidelines and the medical literature, and were chosen to cover the spectrum of care (screening, diagnosis, treatment, and follow-up) for acute and chronic conditions and preventive care processes which represent the leading causes of morbidity, mortality, and utilization among the adult population. Four 9-member, multi-specialty expert panels were convened to assess the validity of the proposed indicators using the RAND/UCLA modified Delphi method. The indicators were rated on a 9-point scale (1=not valid; 9=very valid), and those with a median validity score of 7 or higher were accepted.

Because of the small numbers of women in the study sample, we omitted abstraction modules that focused on quality of care for women's health (e.g., breast cancer treatment, hormone replacement therapy, prenatal care). Several other indicators were dropped due to study design. For example, one of the BPH indicators required patient report for determining eligibility, and patient survey was not a part of this study. The final set of indicator descriptions can be found at <http://www.annals.org/cgi/reprint/141/12/938.pdf>.

Structured Implicit Review

Details of the development of the structured implicit review system have been described elsewhere (Hofer et al. 2004). The instrument required identification of conditions and rating of the processes of care for hypertension, diabetes, and COPD, other chronic conditions, acute conditions, preventive care, and overall care. Specific sections on hypertension, diabetes, and

COPD were developed because of planned comparisons to the explicit instruments which both had indicators for these conditions. Within each section reviewers first identify whether the patient had the condition(s), then rated specific domains of care and finally rated the overall quality for the condition or set of conditions. After identifying conditions, rating generally took the following form and each rating was made on this six-point scale: “very good” “good” “adequate” “borderline poor” “poor” or “very poor”. The structured implicit review overall quality ratings for diabetes, hypertension, COPD, all chronic, prevention, and overall quality were used in the analysis.