Assessing Quality of Care for Diabetes

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Abstract

Purpose: We held a conference with the following objectives:

- 1. Bring together scientific and clinical experts in the field of diabetes and quality measurement.
- 2. Review the state of the art in diabetes epidemiology and quality measurement science.
- 3. Plan essential research for improving technical and interpersonal quality measurement.
- 4. Provide recommendations regarding new measures of technical and interpersonal quality.
- 5. Disseminate conference conclusions.

Scope: Over the past 5-10 years, there have been substantial improvements in the processes of diabetes medical care (e.g., checking laboratory tests at indicated intervals) but less dramatic improvements in risk factor control (e.g., value of blood pressure, glycemic, or lipid control). Further, although quality measurement in diabetes has advanced beyond that of other conditions, several challenges remain in developing effective quality measures. These include constructing measures designed to improve risk factor control without causing unintended consequences and implementing patient assessments of quality.

Methods: Therefore, the Michigan Diabetes Research & Training Center's (MDRTC) Measurement Core, the Department of Veterans Affairs (VA) Quality Enhancement Research Initiative for Diabetes (QUERI-DM), and the Center for Health Policy Research organized a national multidisciplinary conference on diabetes quality measurement. The conference was held May 24-25, 2006, in Ann Arbor, MI. The conference brought together 40 key investigators and stakeholders to discuss and plan issues surrounding diabetes technical and interpersonal quality measurement.

Results: Following a lively discussion, participants suggested a series of general principles and areas for future research. Recommendations included that performance measures should (1) be constructed so that the credit for achieving the measure is commensurate with the likelihood of benefit to the patient; (2) be constructed to motivate improvements in quality while minimizing problems with patient safety and unintended consequences; (3) be improved through the use of clinically detailed data, and the limitations of measures that use only utilization data should be disclosed; and (4) incorporate patient assessments of quality.

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Assessing Quality of Care for Diabetes

Conference Final Report

Introduction

Diabetes is one of the leading causes of death in the United States. The number of adults with diabetes has increased from less than 8-million in 1990 to over 18-million today, and that number is expected to reach nearly 40 million by 2050.¹ Diabetes is associated with long-term complications and often leads to blindness, stroke, kidney failure, and amputations. Heart disease and stroke cause about 65 percent of deaths among people with diabetes.

In 1997, the Diabetes Quality Improvement Program (DQIP), with support from over 25 key organizations, including the Centers for Medicare & Medicaid Services (CMS), the National Committee for Quality Assurance (NCQA), the American Diabetes Association (ADA), and the Department of Veterans Affairs, Veterans Health Administration (VHA), developed a performance measurement set for diabetes.² The measures focused on technical quality, such as frequency of blood tests and specified exams, and proportion with poor glycemic control. These measures have been incorporated into the NCQA Health Plan Employer Data and Information Set (HEDIS), the NCQA-American Diabetes Association Provider Recognition Program, the American Medical Association Diabetes Measures Group, and the VHA External Peer Review Program.

Over the past 5-10 years, there have been substantial improvements in many processes of medical care (e.g., checking laboratory tests at indicated intervals) but less dramatic improvements in intermediate outcomes (e.g., value of blood pressure or glycemic control). Indeed, a recent NCQA report (State of Health Care 2006) shows that while appropriate monitoring rates for glycemic and lipid control are both close to 90%, nearly 30% of commercial managed care patients have poor glycemic control, and over 30% have LDL values above 130 mg/dl.³ Additionally, recent studies have shown that at least half of patients with diabetes may have suboptimal blood pressure control.⁴ These substantial quality gaps in glycemic, blood pressure and lipid control are of considerable concern.

The ultimate goal of quality measurement in diabetes is to motivate quality improvement and decrease long-term diabetes complications. There is evidence that some improvements in processes of care were motivated by the quality monitoring process itself, especially when incentives for better performance were incorporated.^{3,5,6}

Although the DQIP measurement set has been used to profile performance at the facility, health plan, and even individual physician level, we do not have a clear understanding of how to further motivate quality improvements and what or who can activate change. Moreover, new measures may be needed (or existing measures modified) to stimulate further improvements in diabetes care quality. These types of measures should encourage appropriate treatment of diabetes to prevent complications and promote self-management, without creating an incentive for

undesirable (and unintended) consequences such as inefficient use of resources, polypharmacy, or risk to patient safety.

The National Diabetes Quality Improvement Alliance,[®] which represents a collaboration between 13 private and public national organizations, is the successor to DQIP. Its mission has been to maintain and update the measure set for accountability and quality improvement and to recommend areas of investigation for a next-generation measurement set for diabetes quality to improve patient outcomes. While quality measurement in diabetes has advanced beyond that of many other conditions, several challenges remain in developing these next-generation measures. These challenges include promoting good risk-factor (blood pressure, glycemic and lipid) control, considering the special needs of the elderly and those with low socioeconomic position (SEP), and incorporating patient assessments of quality.

A key challenge is constructing measures that are designed to improve metabolic, lipid, and blood pressure control and also minimize unintended consequences. The DQIP recognized that achieving optimal levels of glycemic control depends not only on health care quality, but also on patient disease severity and regimen adherence. Without case-mix adjustment, these measures could unfairly penalize some providers over others. The DQIP panel also understood that even in published randomized controlled trials (which only include patient volunteers), most intensive control studies (such as the Diabetes Complications and Control Trial [DCCT] and the UK Prospective Diabetes Study [UKPDS]) have failed to achieved an A1c < 7% in half of their intensive control patient volunteers.⁷ Therefore, the original measurement set included only a measure of inadequate care—poor glycemic control (A1c>9.5%, later changed to 9%)—intended to motivate providers to minimize the percentage of patients with poor control who have the greatest risk of poor downstream outcomes from hyperglycemia.

Since the development of the DQIP measures, there have been considerable advances in our understanding of measurement science and the treatment of diabetes, but these advances have not always been well synthesized and translated for measures of diabetes quality. For example, evidence now suggests that creating "tightly-linked" clinical action measures can reliably assess whether appropriate action was taken in response to substandard risk factor control.^{8,9} These types of measures not only identify patients with inadequate risk factor control, but they also motivate an appropriate response or action to poor control (increasing dose of a medication or adding another medication, for example).

The appropriate response may differ depending on how far control is from goal and current treatment intensity. For example, if a patient is already on three or four antihypertensive medications, one could consider that performance is adequate on the measure (i.e., that no further intensification is necessary despite suboptimal blood pressure levels), especially since neither the benefits nor the safety of using additional medications has been established. In addition, it currently is unclear the degree to which achieving the above blood pressure (BP) thresholds is important independent of being on at least moderate doses of three to four medications. Further, there are issues in defining thresholds of control in performance and quality improvement measures and in reconciling clinical guidelines and results from randomized controlled trials with goals of performance measurement.

Recently, a weighted continuous measure for A1c has been proposed. This measure gives "partial credit" to achieved A1c levels with differential credit based on potential for Quality Adjusted Life Years (QALYs) saved in different age groups of moving from 7.9–7.0 percent. In this proposed measure, individuals with A1c values of 7–7.9 percent were assigned credit based on their age group as a percentage of maximal QALYs saved in that age group, while A1c values \geq 7.9 percent (or not performed) received zero credit, and A1c values <7 percent received full credit. This approach assesses progress toward achieving thresholds, rather than whether the targets were completely met, and motivates movement toward target even if target cannot be fully achieved.¹⁰ (Note: One of the goals of the conference described in this report was for experts to seriously examine whether approaches such as tightly-linked measures and weighted continuous measures could be more effective in promoting further improvements in patient metabolic and blood pressure control.)

In addition to scientific issues on how to formulate the next generation of diabetes quality measures, many experts suggest we should develop a better understanding of the issues faced by special populations (especially the elderly, racial and ethnic minorities, and those of low socioeconomic position (SEP) and low health literacy) in attaining common diabetes quality standards, as well as the implications of these challenges to quality measurement. In particular, nearly 50 percent of patients with diabetes are aged 65 or older,¹¹ and those individuals often have different benefits and risks from clinical interventions to improve risk factor control.

Recently, the ADA guidelines and others have acknowledged this heterogeneity,^{12,13,14} but these factors have not been translated to quality measures. In addition, experts have suggested the possibility of stratifying quality results by race or SEP in order to better understand the presence of disparities.¹⁵ As recently summarized in a review by Brown and colleagues, research suggests that patients with diabetes of low SEP have less access to care, higher diabetes-related complications, and inferior processes of care.¹⁶ African-Americans with diabetes have been shown to have worse metabolic control, higher rates of complications, and inferior processes of care compared to white patients.^{17,18,19,20} While these issues have been raised as areas of concern, whether and how to incorporate issues of SEP in performance measurement have been unresolved.

Finally, the DQIP measurement set, while a great advance in the area of standardizing technical quality assessment, did not agree upon measures for the assessment of interpersonal quality (although the initial report did include several test measures). Diabetes is a complicated chronic condition that requires patients to take charge of many aspects of their care. Good self-management has been shown to improve glycemic control and decrease the rates of diabetes complications. Providing adequate information, good patient-physician communication, and the use of participatory decisionmaking are critical to enhancing patient self-management. Measures that assess patients' satisfaction with the information they are provided and the adequacy of self-management support should be considered as additions to technical measures for the evaluation of quality; some measures are included as part of the NCQA/ADA Diabetes Physician Recognition Program and as part of the research efforts of the Improving Chronic Illness Care Program (ICIC).²¹ Additionally, collecting data from patients would allow us to understand differences in measurement results by race and SEP. While there are several survey instruments that evaluate dimensions of interpersonal care, the scientific community has not assessed which

of these may be appropriately adapted for diabetes quality assessment, and what other factors (such as patient comorbidity, disease severity and SES) would need to be considered before using these measures to profile providers or evaluate quality deficits.

Conference Organization and Objectives

As discussed here, there are many remaining challenges in the valid and effective measurement of diabetes quality, as well as in the improvement of metabolic, blood pressure, and lipid control for patients with diabetes. Therefore, the Michigan Diabetes Research & Training Center's (MDRTC) Measurement Core, the VHA's Quality Enhancement Research Initiative for Diabetes (QUERI-DM), and the Center for Health Policy Research, University of California, Irvine, organized a national multidisciplinary conference on diabetes quality measurement. The Agency for Healthcare Research and Quality (AHRQ), the National Institute for Diabetes and Digestive and Kidney Diseases (NIDDK), and the VA's Office of Quality and Performance provided support for the conference.

The conference brought together 40 scientific and clinical experts in the fields of diabetes and quality measurement, to review the state of the art in diabetes epidemiology and quality measurement, discuss necessary next steps for measurement development, and plan essential research for improving technical and interpersonal quality measurement. The ultimate goal of the conference was to improve diabetes outcomes.

The conference built upon the mission and working relationships already established through the National Diabetes Quality Improvement Alliance,[®] expanded the discussion by addressing recent research and clinical findings and essential issues of measurement science, and focused on developing and testing new measures designed to further improve diabetes outcomes. While the main focus of the conference was on assessment of technical quality, many of the scientific issues discussed span technical and interpersonal quality assessment. The organizers of this conference sought to set the stage for inclusion of more measures that assess self-management support and interpersonal quality of diabetes care.

Specifically, the conference objectives were to:

- Bring together scientific and clinical experts in the fields of diabetes and quality measurement.
- Review the state of the art in diabetes epidemiology and quality measurement science.
- Recommend and plan essential research for improving technical and interpersonal quality measurement.
- Provide recommendations regarding new measures of technical and interpersonal quality (or refinement of current measures).
- Disseminate conference conclusions.

The 2-day conference was held May 24-25, 2006 in Ann Arbor, MI. The conference consisted of a series of presentations by national experts in measurement science, epidemiology, and diabetes clinical care. There was ample opportunity discussion. Speakers were selected on the basis of

their national reputation and expertise in the topic areas. Our goal was to include experts with a variety of perspectives in order to make the conference constructive and inclusive.

Speakers and participants included key representatives from specialty societies (including the American Medical Association, the American Diabetes Association, the American Academy of Family Physicians, the American College of Physicians, and others) and measurement groups (including the National Committee for Quality Assurance, the Centers for Medicare & Medicaid Services, the Department of Veterans Affairs, the Centers for Disease Control and Prevention, and the Joint Commission on Accreditation of Healthcare Organizations).

Our planning committee^{*} helped to structure the agenda and nominated speakers and discussants for the proposed topics. The conference organizers talked by phone with each of the speakers prior to the conference to discuss conference objectives and goals, as well as the specific goals for each session. The conference organizers also spoke by phone with each assigned moderator. In addition, all participants received a CD-ROM approximately 2 weeks before the conference with conference objectives, questions for each session, and selected readings and publications. See appendix A for the bibliography provided to participants. Appendix B presents a list of conference participants, and appendix C presents the final conference agenda.

Results

The first part of the conference focused on the scientific basis for quality measurement and new developments in quality assessment. Participants debated in particular how to translate guidelines into performance measures and when it was (or was not) appropriate to use general guideline targets (such as an A1c<7 percent) as dichotomous threshold definitions of care quality for use in performance measurement.

Participants also discussed the science and practicality of using more clinically based measures, such as tightly linked clinical action measures and weighted continuous measures, as well as measures that track assessment of performance by individuals of lower socioeconomic position and low literacy. A session also dealt specifically with applicability of performance measures to older adults.

These discussions set the stage for the more specific examinations and recommendations on measures to assess and improve glycemic, blood pressure, and lipid control, as well as measures to assess and promote patient self-management support. We will highlight the discussion that centered around assessing glycemic control because it represents well the challenges we face in constructing and promoting performance measures that improve any intermediate outcomes (e.g., glycemic, blood pressure, and lipid outcomes) without causing unintended consequences. We also will summarize several additional issues examined during the conference and highlight general recommendations for practice and research.

^{*} Planning committee members were Eve A. Kerr, MD, MPH; Sheldon Greenfield, MD; Greg Pawlson, MD, MPH; Barbara Fleming, MD, PhD; Michael Engelgau, MD, MS; and Rodney Hayward, MD.

Assessing Glycemic Control

This conference took place immediately following decisions by the NCQA Committee on Performance Measurement to revise its diabetes performance measurement set, including adding dichotomous stringent blood pressure and glycemic control measures. The dichotomous stringent glycemic control measure specifies that plans should measure what proportion of their adult members 75 years of age and under have a glycosylated hemoglobin level (A1c) <7.0 percent, as well as what proportion have poorly controlled A1c (>9 percent).

Although it was purely coincidental that the scientific conference on diabetes quality assessment took place 2 weeks after this decision, it did set the stage for what turned out to be a rather lively and productive discussion on the benefits and problems with performance measures that attempt to asses care that is stringently defined by guidelines. In order to better capture that debate, we present the issues discussed as arguments supportive of a stringent control measures and arguments opposing this position. Similar arguments apply to measures specifying stringent blood pressure and lipid control. Alternative recommendations for assessing good glycemic control are also discussed.

Arguments supporting a stringent control measure. Several participants felt strongly that setting stringent performance measures will help move more patients toward better control, with resulting improvements in downstream outcomes. They argued that the goal of performance measurement should be quality improvement, and if a stringent control measure helps to move the majority of the population toward optimal control, then it will have benefited the population and improved outcomes. In addition, they suggested that it is important to align performance measures with recommended guideline goals, both to minimize confusion on the part of clinicians and to be able to gauge success in working toward the stringent, guideline level of control. Having only a poor control measure (A1c >9 percent), which previously had been the only measure of glycemic control in the diabetes measurement set, might send the wrong message that getting the A1c lower than 9 percent is adequate care.

Further, it was suggested that for control measures achieving 100 percent adherence is not really the goal, but rather the effort is aimed at gauging relative progress towards a stated guideline. That is, it would be expected that not all individuals could or should reach the stringent control standard, and that plans and providers need not strive for that standard on 100% of patients, but rather some lower percentage. This understanding of the purpose of control measures, they maintained, should reduce gaming and unnecessary treatment of patients with contraindications to tight control or whose disease is so severe or dietary and medication adherence so poor that tight control is not a realistic goal. A stringent control measure could continue to use the value of the last A1c in the reporting period, thus not requiring any additional data collection.

Arguments opposing a stringent control measure. Many participants at the conference did not agree with the NCQA Committee on Performance Measurement decision to set dichotomous stringent performance measures (i.e., A1c < 7.0 percent and BP < 130/80). They felt that optimal control measures represent unadjusted outcome measures. Without any case-mix adjustment, these measures seemed to them more likely to reflect the underlying severity of illness in the patient population than the quality of care delivered by providers. The result would probably be

that health plans and physicians caring for older and sicker patients would not be fairly compared with those caring for younger patients and patients who are not as sick.

Even more troubling, they argued, setting goals for tight control in the absence of consideration of current treatment intensity criteria carries a substantial risk of harming patients by encouraging over-treatment. This would open up the potential for unwarranted health care costs, patient burden, and perhaps even patient safety problems resulting from poly-pharmacy. This is particularly problematic for older patients, who are less likely to benefit from tight glycemic control but could be subjected to an additional medication burden and side effects.

In particular, it was brought out that a dichotomous stringent control measures does not consider patient comorbidities, disease severity, the amount of treatment the patient is already receiving, and whether the patient is close to (A1c = 7.2) vs. far away from (A1c = 8.7) the ideal goal. Because the individual benefits of achieving tight glycemic control vary widely, mainly based on age and life expectancy, they argued, a single cut-off for "good control" runs counter to the evidence.

Alternative recommendations for a good control measure. Despite these diverse viewpoints, even those opposing the dichotomous stringent control measure agreed that a measure of "good" glycemic control (and blood pressure control), if implemented correctly, could further improve risk factor control and outcomes for patients with diabetes. These "good control" measures, they suggested, should consider treatment regimen intensity (at least for blood pressure and lipid control) and the likelihood of benefit in downstream outcomes. For A1c, there was general agreement that a continuous weighted A1c measure, as described above, would be greatly preferable to a dichotomous stringent control measure because it would take into account the likely benefit of tight blood pressure control based on patient age. Thus, it would be less likely to promote costly and potentially harmful treatment among those who are not likely to benefit from it.

This measure also would not require any additional data collection beyond the last A1c of the reporting period. Another alternative would be higher threshold values to define "good" control (such as 8 percent). Tightly linked clinical action measures and those based on longitudinal data (to track improvement among individual patients identified with poor control in a previous reporting period) are attractive alternatives but would require access to more detailed clinical data and expansion of the patient population assessed, thereby increasing the complexity of the measurement process.

Other Key Discussion Items

Assessing blood pressure and lipid control. As mentioned earlier, a similar discussion ensued around performance measures targeted at stringent blood pressure and lipid control. In these cases, however, there was some debate not only about the performance measure target itself, but also what guideline goals should be recommended. Nonetheless, the arguments supporting and opposing stringent control measures were similar to the ones stated above. Suggested alternatives to dichotomous stringent control measures to promote good blood pressure and lipid control included:

- Clearly specifying the population eligible (by age, risk factors, etc.) for different thresholds of blood pressure and lipid levels.
- Promoting tightly-linked clinical action measures that take into account current treatment intensity so that full credit is received if the patient is already on three or four antihypertensive medications or maximum dose statin medication, even if the guideline lipid level has not been achieved.
- Considering use of continuous measures that incorporate the relationship between risk factor control and downstream outcomes (i.e., through the use of QALY metrics).

Assessing self-management support. Another important discussion revolved around how to implement measures to assess patients' perspectives of quality of care. It was noted that assessments of patient satisfaction with care are already widely used at the health plan level through the use of the CAHPS[®] Health Plan (CAHPS-HP) Survey.²² However, this survey does not capture important elements of how patients with chronic disease perceive the quality of the care that they receive and, particularly, how they assess the support they get for improving self-management. While the new CAHPS[®] Clinician and Group (CAHPS-CG) Survey does focus more on the physician-patient interaction, especially for patients with chronic illness, there still are only a few questions that relate directly to how well self-management support is provided.

Expanded measures currently exist and have been used mainly in research settings.²³ A performance measurement focused on self-management support would encourage providers to increase the focus, through care reorganization, on patient goal setting, education, and between-visit care. Because self-management is a critical component of good patient outcomes, a performance measure based on the quality of self-management support provided to patients should enhance both patient care and downstream outcomes.

Although the measures to assess self-management support were generally perceived to be important and valid, conference participants' principal main concern with their widespread use was the additional cost of implementing a survey for patients with diabetes or chronic diseases (the current CAHPS-HP survey is sent to a random sample of plan participants). Several alternatives were presented to make gathering patient assessments more attractive.

- First, the cost could be minimized by keeping the survey short and administering it every other year instead of yearly.
- Second, some patient assessments could be routinely collected during the course of clinical care. For example, self-management and treatments goals could be collected in an automated fashion at the point of a clinic encounter and entered into an electronic template with extractable data fields. These variables could then be used in performance assessment.
- Third, to assess and improve self-management support, surveys could focus not only on how patients perceive that support, but also what structural improvements medical groups and health plans have made to advance patient self-management.

Such assessments identify success (or problems) with progress in instituting the chronic care model—for example, movement toward team-based care, use of an electronic health record, and so forth. While not substituting for patients' assessments, such structural performance measures could help advance the organization of care in groups and plans to better support patient-centered care.

The need for better data. Most participants agreed that getting to the next generation of diabetes measures would require access to more clinically detailed data than currently available. Some felt that promoting tightly linked clinical action measures and patient assessments was impractical because those measures do not use currently available data. Most participants, however, felt strongly that we need to push for the systematic collection of detailed patient-centered data in order to construct measures that are clinically meaningful and actionable. If we persist in promoting only measures that can be constructed given current data constraints, they argued, health care organizations will never be motivated to improve their data systems to allow for the systematic collection of, for example, medication doses, vital signs, or patient assessments.

Participants recognized that in most health systems, using more detailed clinical data would increase the complexity and cost of data collection. To truly assess quality, and not utilization proxies for quality or outcomes that are not risk-adjusted, participants suggested that a transformation is needed in the types of data that are available for quality assessment. Such a transformation will not happen unless we begin to insist on some measures that utilize more clinically meaningful data.

Overall Recommendations

Improving Performance Measures

- Performance measures should be constructed so that the credit for achieving the measure is commensurate with the likelihood of benefit to the patient, consistent with the Institute of Medicine definitions of quality. The most credit should be given for achieving goals or clinical actions with large potential benefits in downstream outcomes for the patient (e.g., based on life expectancy, comorbidity, etc.).
- Performance measures should be constructed so that the eligible population reflects the population(s) that will receive the benefit.
- Performance measures should motivate improvements in quality while minimizing problems with patient safety and unintended consequences.
- Performance measures should be improved through the use of clinically detailed data, and the limitations of measures that use only utilization data should be disclosed.

- Performance measures should incorporate, when possible, considerations of patient preferences and patient choice.
- Performance measures should incorporate patient assessments of quality.
- When operationalizing performance measures, differences in quality across special population groups should be assessed so that appropriate quality improvement interventions can be implemented, as necessary.

Recommendations for Future Research

Participants identified many avenues of possible future research and questions to be tested. The main themes included:

- Test alternate specifications for technical quality measures for their potential to improve risk factor control and motivate or minimize unintended consequences. Measures to be tested should include tightly linked clinical action measures, continuous weighted measures (including those incorporating QALY metrics), longitudinal measures, and dichotomous stringent control measures.
- Work with health plans and health care organizations to develop and test methods to systematically capture detailed clinical data (e.g., pharmacy, laboratory) for incorporation into technical quality measures; test the reliability of measures constructed with these data.
- Test alternate specifications of patient-reported quality measures for their potential to improve risk factor control and motivate or minimize unintended consequences.
- Develop and implement measures that incorporate patient preferences and clinical factors as components of quality assessments. In particular, test methods that incorporate factors such as medication intolerance, frailty, life-expectancy, and comorbidities into risk-factor control assessments of patient preferences and goals.

Next Steps

Research ideas and potential research projects to test some of the above recommendations are being discussed with the National Committee for Quality Assurance, Kaiser Permanente of Northern California, and the Department of Veterans Affairs, Veterans Health Administration.

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Appendix A. Reference List for Diabetes Quality Assessment Conference

Technical Quality Measurement for Diabetes: The State of the Science

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Appendix B. Participant List

Marlene Abbott, RN, MS, CNAA Resultant – SLSD Project Greater Detroit Area Health Council

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Russell Glasgow, PhD

Senior Research Scientist Kaiser Permanente, Colorado

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Sandeep Vijan, MD, MPH

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Michael Weiss

Chair, National Board of Directors American Diabetes Association

Appendix C. Final Agenda

	Wednesday, May 24, 2006
7:30 – 8:00am	Continental Breakfast and Welcome
8:00 – 8:15am	Introductions and Agenda Eve Kerr, MD, MPH University of Michigan Health System, VA Quality Enhancement Research Initiative for Diabetes Mellitus (QUERI-DM), and Michigan Diabetes Research and Training Center (MDRTC)
8:15 – 10:00am	Overview of Measurement Issues
	The Challenges of Quality Measurement for Diabetes: An Overview Sheldon Greenfield, MD Center for Health Policy Research, University of California – Irvine
	Reconciling Guidelines and Performance Measurement Elizabeth McGlynn, PhD RAND Health
	A Framework for Developing and Choosing Diabetes Quality Measures Greg Pawlson, MD, MPH National Committee for Quality Assurance
	<i>Discussion</i> Facilitator: Sheldon Greenfield, MD →Discussion Question: What are essential criteria we should consider when deciding upon quality assessment measures for diabetes?
10:00 – 10:15am	Refreshment Break
10:15 – 12:00pm	Technical Issues in Measurement
	Beyond Simple Process and Outcomes: Alternate Approaches Eve Kerr, MD, MPH
	Considerations in Measurement Aggregation Sherrie Kaplan, PhD University of California, Irvine

Profiling & Measurement Error

	Tim Hofer, MD, MS University of Michigan Health System; Ann Arbor VA Center for Practice Management and Outcomes Research; Michigan Diabetes Research and Training Center (MDRTC)
	Risk Stratification in Quality Measurement Rodney Hayward, MD University of Michigan Health System; Ann Arbor VA Center for Practice Management and Outcomes Research; Michigan Diabetes Research and Training Center (MDRTC)
	Discussion Facilitator: Eve Kerr, MD, MPH →Discussion Question: How can we incorporate important technical and conceptual measurement issues into mainstream diabetes measures? What timeframe should we establish for moving toward more clinically actionable measures?
12:00 – 12:15pm	Refreshment Break
12:15 – 2:00pm	Measurement Considerations for Special Populations Working Lunch
12:15 – 1:15pm	Older Adults
	Carol Mangione, MD, MPH David Geffen School of Medicine at UCLA UCLA Resource Center for Minority Aging Research / Center for Health Improvement of Minority Elderly
	Sheila Roman, MD, MPH Centers for Medicare & Medicaid Services (by teleconference)
	Discussion Facilitator: Carol Mangione →Discussion Question: How should we construct quality measures to address issues of relevance to older adults?
1:15 – 2:00pm	Race, Ethnicity and English Proficiency
	Arleen Brown, MD David Geffen School of Medicine at UCLA
	Quyen Ngo-Metzger, MD, MPH University of California-Irvine

	Discussion Facilitator: Carol Mangione, MD, MPH →Discussion Question: How should we incorporate issues of race, ethnicity and English proficiency into standard quality assessment for diabetes? What timeframe should we establish for incorporating these issues into reporting?
2:00 – 3:30pm	Translating Epidemiology to Quality Measurement: Glycemic Control
	Judith Fradkin, MD National Institute of Diabetes & Digestive & Kidney Diseases (NIDDK)
	Michael Engelgau, MD, MS Centers for Disease Control and Prevention
	Discussion Facilitator: Sandeep Vijan, MD, MPH University of Michigan Health System; Ann Arbor VA Center for Practice Management and Outcomes Research →Discussion Question: What quality measures would most effectively motivate improvements in glycemic control and outcomes without causing unintended consequences?
3:30 – 3:45pm	Refreshment Break
3:45 – 5:15	Translating Epidemiology to Quality Measurement: Blood Pressure Control
	George Bakris, MD Rush University Medical Center Rodney Hayward, MD
	Discussion Facilitator: Mark Molitch, MD Northwestern Feinberg School of Medicine →Discussion Question: What quality measures would most effectively motivate improvements in blood pressure control and outcomes without causing unintended consequences?
5:15 – 5:30pm	First Day Wrap Up and Charge for Day 2
6:00 – 7:30pm	Reception Hosted by the University of Michigan Division of General Medicine and the Michigan Diabetes Research and Training Center (MDRTC) Zanzibar Restaurant, 216 South State Street See Map in conference folder

Thursday, May 25, 2006

7:30 – 8:00am	Welcome and Agenda; Continental Breakfast
8:00 – 9:30am	Translating Epidemiology to Quality Measurement: Lipid Control
	Alan Garber, MD, PhD Baylor College of Medicine
	Joe Selby, MD, MPH Kaiser Permanente, Northern California
	Discussion Facilitator: Len Pogach, MD, MBA Department of Veterans Affairs →Discussion Question: What quality measures would most effectively motivate improvements in lipid control and outcomes without causing unintended consequences?
9:30 – 9:45am	Refreshment Break
9:45 – 11:15am	Using Patient Reports to Assess Technical and Interpersonal Quality
	Michael Weiss Chair, National Board of Directors -ADA, 2002-2003
	Russell Glasgow, PhD Kaiser Permanente, Colorado
	Discussion Facilitator: Michele Heisler, MD, MPA Ann Arbor VA Center for Practice Management and Outcomes Research; University of Michigan Health System; and Michigan Diabetes Research and Training Center (MDRTC) →Discussion Question: How do we measure quality from a patient perspective?
11:30 – 2:30	Moving Forward on Diabetes Quality Working Lunch
11:30 – 12:15pm	<i>Summary of Proposals in Days 1 and 2</i> Sheldon Greenfield, MD Eve Kerr, MD, MPH
12:15 – 2:00pm	<i>Discussion of Challenges and Recommendations</i> Facilitator: Greg Pawlson, MD, MPH

2:00pm – 2:30pm

Next Steps Sheldon Greenfield, MD Eve Kerr, MD, MPH