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# Physician Explanations for Failing To Comply with “Best Practices”

**CONTEXT.** Substantial effort has been devoted to improving physician compliance with evidence-based guidelines.

**OBJECTIVE.** To explore physicians’ reasons for not following so-called “best practices” in caring for patients with type 2 diabetes.

**DESIGN.** Descriptive study of self-assessed compliance with five measures of performance.

**PARTICIPANTS.** Eighty-five internists who volunteered to participate in a practice-based research network created to improve clinical practice.

**DATA COLLECTION.** Physicians reviewed their own charts of patients with type 2 diabetes mellitus (1755 patient encounters) to assess compliance and offered open-ended comments concerning their reasons for not complying with “best practices.”

**RESULTS.** The physician volunteers reported not complying with the annual foot examination in 13% of encounters. A similar level of noncompliance was reported for the annual lipid profile (15%) and retinal examination (17%). Among the five measures examined, noncompliance was most common for screening urinalysis (26%) and screening microalbuminuria (46%). The physicians’ open-ended comments suggested that physician oversight, patient nonadherence, and systems issues were common reasons for noncompliance. However, noncompliance also resulted from a conscious decision by the physician, as indicated by comments about patient age and comorbid illness or, with nephropathy screening, established renal disease or current therapy with angiotensin-converting enzyme inhibitors.

**CONCLUSIONS.** Even among a self-selected group of physicians, noncompliance with best practices in diabetes is common. Although physician forgetfulness and external factors are frequently offered as reasons for noncompliance, it may also result from a conscious decision, as physicians may disagree about what constitutes “best practices.”

Physicians are under increasing pressure to comply with evidence-based guidelines and to achieve high “scores” for performance measures. Nevertheless, compliance with so-called “best practices” is far from ideal.<sup>1-3</sup> The barriers to guideline compliance have been categorized into three domains: physician knowledge (lack of awareness, lack of familiarity, or oversight), physician attitudes (lack of agreement; lack of self-efficacy—that is, the belief that a physician can perform guideline recommendations; lack of outcome expectancy—that is, skepticism that complying with the guideline would help patients; or the inertia of previous practice), and external barriers.<sup>4</sup> In most previous studies on physician compliance, the physician participants answered closed-ended survey questions, and this limited the scope of their responses to those hypothesized by the investigators.<sup>4</sup> Other methods used in the literature include focus groups,<sup>5, 6</sup> interview,<sup>7</sup> retrospective review of administrative data,<sup>8, 9</sup> and hypothetical clinical scenarios.<sup>10, 11</sup> But these previous

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studies focused on general barriers rather than on patient-specific (and encounter-specific) reasons for not following guidelines.

The two studies that did attempt to elicit clinicians' reasons for noncompliance in specific patient encounters involved acute care/hospital settings. In the first study, a retrospective chart review determined why low-risk patients admitted for chest pain were not discharged according to a local practice guideline.<sup>12</sup> The second report<sup>13</sup> prospectively evaluated compliance with an emergency department guideline for identifying patients at low risk for pneumonia. In both studies, important comorbid conditions, older age, and systems issues were among the most common reasons cited for noncompliance.

In this paper, we report on a group of physicians who volunteered to try to improve their own outpatient practice in patients with type 2 diabetes. Physicians generally reviewed their own charts and, in selected cases, offered their own explanations of why they had not followed the best practice. To our knowledge, no study analogous to ours has been reported in the ambulatory care setting.

## Methods

### Participants

The 85 internists who volunteered for this study are members of a practice-based research network called "QNet," which is short for Quality Network. The American College of Physicians–American Society of Internal Medicine (ACP–ASIM) created QNet to raise physician awareness of best practices and to provide a glimpse into the constraints and reality of everyday office-based care. To gauge physician compliance, we focused on five common conditions with substantial scientific evidence for disease management: diabetes, cholesterol screening, warfarin therapy, asthma, and congestive heart failure.

To recruit physician participants, we sent 7000 invitations to ACP–ASIM members. These 7000 names were selected from the former ASIM Practice Guidelines Network databases ( $n = 1000$ ), a randomly generated list from ACP–ASIM membership rosters ( $n = 3000$ ), and ACP–ASIM's Community Based Teaching Project's database ( $n = 3000$ ). Of the 7000 physicians invited, 800 expressed an interest in participating, and 137 completed the project. Each participating internist chose one module among the five offered. **Table 1** reports data from the 85 internists who selected the diabetes module.

The internists were asked to prospectively fill out a questionnaire at the point of service for 25 patients

**TABLE 1**  
**Characteristics of Participating Physicians**

VARIABLE	PHYSICIANS (n = 85)
Mean age	48 yr
Men	81%
Average years in practice	21 yr
Type of practice, n*	
Solo (1 or 2 physicians)	30%
Group (>2 physicians)	70%
Specialty	
General internal medicine	87%
Endocrinology	5%
Nephrology	5%
Other	4%
Number of encounters evaluated per physician	
<10 encounters	14 physicians evaluated a total of 80 encounters
10–19 encounters	13 physicians evaluated a total of 194 encounters
20–29 encounters	48 physicians evaluated a total of 1181 encounters
≥30 encounters	10 physicians evaluated a total of 300 encounters
Total	85 physicians evaluated a total of 1755 encounters

\*No information on 6 physicians.

with type 2 diabetes mellitus. Physicians received personalized reports depicting their results in comparison with those of their peers.

### Best Practices in Diabetes Survey

The survey form included questions on whether the physician had met six performance measures for type 2 diabetes. Five questions addressed whether the patient had received one of the following tests in the previous 12 months: dilated eye examination, lipid profile, comprehensive foot examination, urinalysis testing, or microalbuminuria testing.

The final question, regarding glycosylated hemoglobin, asked, "Within the past 12 months, in which of the following quarters was this patient seen at least once? (make sure you identify both the quarter and the

year). In addition, indicate quarters when this patient had at least one glycosylated hemoglobin test and the highest value for the quarter.” Because this question resulted in ambiguous responses (i.e., physicians did not clearly distinguish between year and quarter visits, resulting in ambiguous assignments of glycosylated hemoglobin values), we discarded data for this sixth performance measure.

Finally, in cases where physicians did not follow “best practices,” they had the option to provide an open-ended reason.

### Analysis of Comments

The participants reported data on 1755 diabetic patient encounters. Since each questionnaire contained five usable performance measures, physicians had the opportunity to measure compliance with 8775 best practices. For each best practice, we determined the total number of self-reports of noncompliance. Among the 2073 instances when best practices were not followed, 505 (24%) were accompanied by comments, 335 of which explained why one of the five best practices was not achieved. Review of the physicians’ reasons for noncompliance patterns showed that the reasons fell into four distinct categories.

*Conscious Decision.* In some instances, the comments suggested that the internist made a conscious decision not to follow a “best practice.” A common rationale was that the patient had more pressing medical

problems. Another was that the best practice did not apply to the patient either because of advanced age or established disease (e.g., blindness or renal failure).

*Patient Nonadherence.* In other instances, physician comments indicated that the patient declined to follow the indicated practice (e.g., failure to modify lifestyle, unwillingness to visit an ophthalmologist, or missing an appointment).

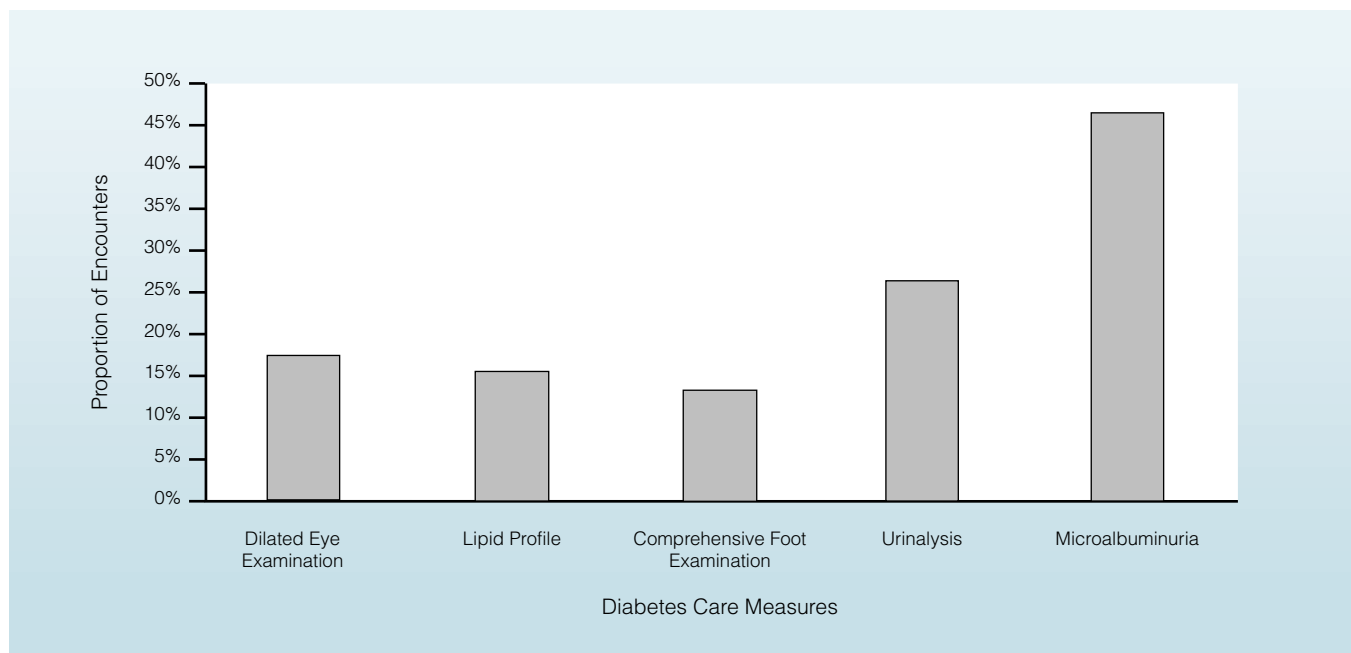
*Systems Issues.* There were other instances in which the physician comment indicated some discontinuity of care not clearly attributable to either the physician or patient (e.g., lack of communication between providers caring for the same patient, seasonal change in patient residence, or inadequate insurance coverage).

*Oversight.* The oversight category comprises instances in which physicians acknowledged forgetting to apply the best practice.

Analysis of the physicians’ comments was performed by using a qualitative software package (NVivo Nudist QSR International, Victoria, Australia).

### Results

The self-assessed performances of the 85 internists revealed an overall noncompliance rate of 24% (2073 of 8775 instances). **Figure 1** shows noncompliance for each of the five diabetes care measures. Noncompliance ranged from 46% of all encounters for annual screening microalbuminuria to 13% for annual foot examination.



**FIGURE 1.** Self-reported noncompliance in five measures of diabetes performance in 1755 patient encounters.

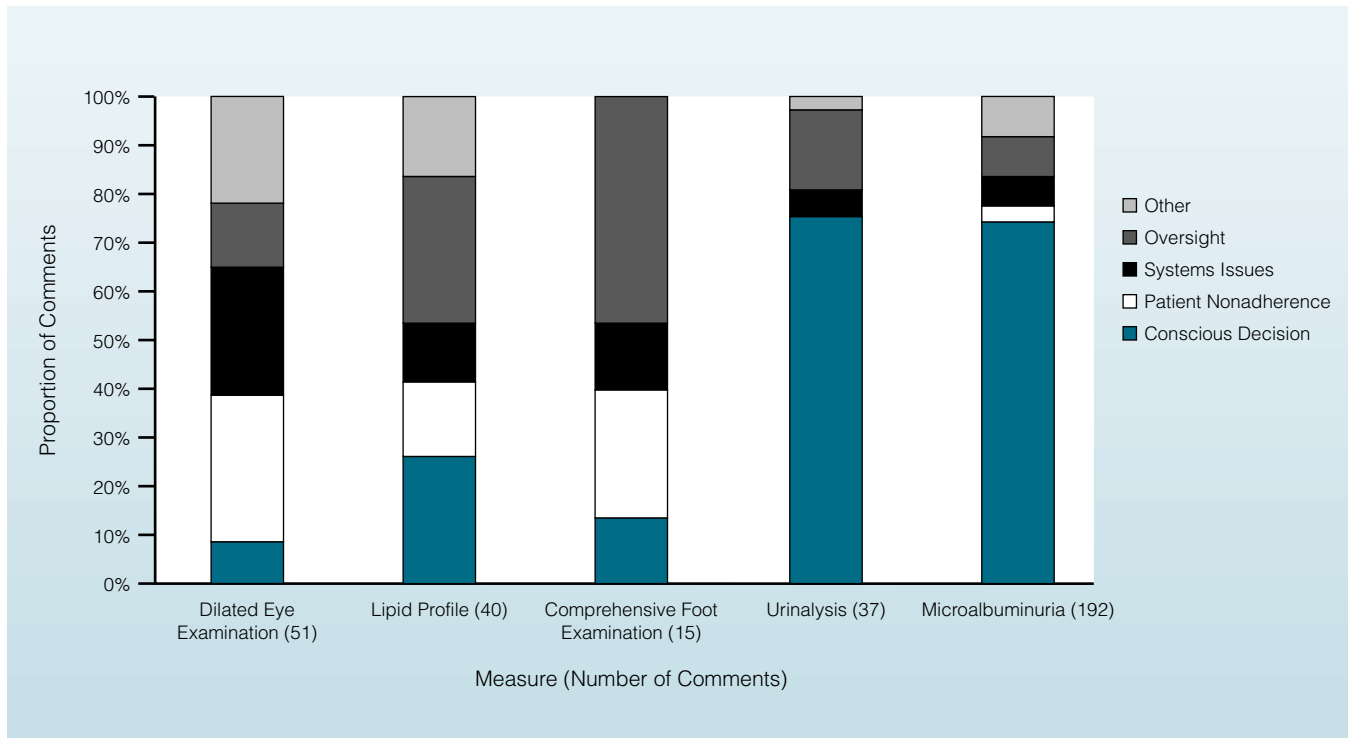
TABLE 2

## Selected Physician Explanations for Noncompliance with Best Practices

CATEGORY	EXPLANATION
Conscious decision	<p>“Patient is blind—she sees eye [doctor] only for symptoms.”</p> <p>“Blind.”</p> <p>“Patient is 85 years old and lipids 5/99 total cholesterol 225, LDL 133, HDL 62.”</p> <p>“...A[trial] fib[rilation], CVA, increased lipids, CHF hx, bronchitis, obesity, sleep apnea.”</p> <p>“I do not routinely check lipid profile in 85-year-old women.”</p> <p>“Patient is 87 years old therefore I’m choosing not to monitor lipids and UA or urine microalb[umin].”</p> <p>“Patient had arm fracture and elbow replacement 1/99 which interfered with F/U on recommendations for podiatric F/U.”</p> <p>“It is difficult to obtain UA secondary to orthopedic pathology.”</p> <p>“Patient with chronic cystitis and resultant proteinuria.”</p> <p>“N/A—in renal failure.”</p> <p>“Patient on maximal dose ACE inhibitor—checking microalbumin would not affect management.”</p> <p>“Had gross proteinuria.”</p> <p>“Patient with overt nephropathy.”</p> <p>“? utility of urine microalbumin in 75-year-old patient.”</p>
Patient non-adherence	<p>“His ophthalmologist has requested he come in but he has not made the appointment as yet.”</p> <p>“Patient had eye appointment—he cancelled.”</p> <p>“Patient refuses to fast.”<sup>†</sup></p> <p>“She sees her diabetes as a minor problem. It is managed solely with diet and has not followed the recommendations to change her diet, return for a lipid profile, see an ophthalmologist or a foot doctor.”</p> <p>“...patient declined urine microalbumin.”</p>
Systems issues	<p>“Many of our local ophthalmologists who do eye care on diabetics do not send us reports on dilated eye exams that they may be performing on our patients.”</p> <p>“Re: eye exam: hard to get some eye MDs to send reports.”</p> <p>“No eye exam due to no insurance.”</p> <p>“Primary care taker got ill. She slipped through the cracks.”</p> <p>“Foot exam done here but lives in Florida 6 months/year. So recent exam not done.”</p> <p>“No Rx coverage and [the patient] can’t afford med[ication]s for CAD, increased chol[esterol], hypertension, so no indication for urine microalb[umin]”</p> <p>“Tested for microalbumin but not reported as yet.”</p>
Oversight	<p>“Just not done, e.g. lipid was 224 several years ago.”</p> <p>“Last done 12/97—oversight.”</p> <p>“Oversight apparently.”</p> <p>“Not sure why she has not had a lipid profile.”</p> <p>“Foot exam was overdue—done today.”</p> <p>“Always came for problems (should have done microalbumin and hemoglobin A<sub>1c</sub>).”</p>

\*ACE = angiotensin-converting enzyme; CAD = coronary artery disease; CHF = congestive heart failure; CVA cerebrovascular accident; F/U = follow-up; HDL = high-density lipoprotein; hx = history; LDL = low-density lipoprotein; N/A = not applicable; Rx = prescription; UA = urinalysis.

<sup>†</sup>This reason was frequently offered.



**FIGURE 2. Physician explanations for not complying with best practices in specific patient encounters during the past 12 months (total number of comments = 335).**

We grouped physician reasons for noncompliance into the four categories listed in **Table 2**. This table also provides selected examples of comments in each category. **Figure 2** shows how the pattern of explanation according to these four categories varied for specific performance measures.

For annual screening microalbuminuria and urinalysis, most comments suggested that the physician had made a conscious decision not to comply with the best practice. In many cases, physicians reported that patients already had gross proteinuria or end-stage renal disease. Moreover, in more than one third of the comments on patient encounters involving failure to perform annual microalbuminuria screening, physicians reported that the patient was already receiving treatment with angiotensin-converting enzyme (ACE) inhibitors and that test results would not change their management decisions.

For the annual dilated eye examination, patient nonadherence and systems issues were the most common reasons given for noncompliance. Patients would not make or keep appointments with the ophthalmologists; ophthalmologists in turn would not send their examination results to the primary care provider. The most frequently offered reason for not performing the annual lipid profile and foot examination was physician oversight.

## Discussion

Because the physicians provided explanatory remarks, we gained insight into clinicians' patient-specific reasons for providing care that diverged from best practices. Although the reason most often discussed in the literature has been physician oversight, we found that a substantial amount of noncompliance was attributable to other factors, such as systems issues and patient nonadherence. Furthermore, our research clearly indicates that physicians occasionally made a conscious decision not to comply with a best practice. This raises questions about the appropriateness of the term *best practice*.

In our study, this was particularly true for nephropathy screening. Many physicians raised valid questions about the utility of performing microalbuminuria or urinalysis in patients with end-stage renal disease. Some physicians also judged annual screening for microalbuminuria to be inappropriate when their patients were already receiving ACE inhibitor therapy because patient management would remain the same regardless of the test result. Conscious decisions not to comply with screening were also reported in the care of patients with important comorbid conditions or limited life expectancy.

Our study has several limitations. It involved only members of the QNet, a group of volunteer internists interested in quality improvement; therefore, the results are not generalizable to all internists or physicians. Because the data reflect only the self-reports of volunteers, our noncompliance estimates are probably lower than the actual figures in general practice. Furthermore, because the physicians chose when to provide comments, we believe that the physician participants were more likely to write a comment if they believed noncompliance was justified; therefore, we suspect that we have underestimated the role of physician oversight as an explanation. Despite these caveats, our study offers a brief account of the various limitations physicians encounter in their day-to-day practice.

In summary, QNet participants have provided some insights into why physicians do not always comply with best practices. Our data suggest that failure to follow guidelines is not necessarily explained by “bad doctors” or forgetfulness; rather, noncompliance may reflect valid questions about the usefulness and applicability of a best practice to an individual patient. As Vijan pointed

out, “Not all patients are the same. Treating them as such not only minimizes autonomy but is also a recipe for inefficiency.”<sup>14</sup> The difficult task for the future will be to determine how such factors as comorbid illness, age, and patient wishes can be incorporated into performance measures to more accurately reflect the intricacies of quality care in clinical practice.

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### Take-Home Points

- Considerable effort is being devoted to developing systems that increase compliance with practice guidelines. The question of why physicians don't follow guidelines has received less attention.
- Eighty-five internists who volunteered to review their own compliance with best practices in the care of patients with type 2 diabetes provided some explanations for noncompliance in specific patient encounters.
- Noncompliance was common among these physicians, particularly for screening urinalysis (26% of encounters) and screening microalbuminuria (46% of encounters).
- The internists' comments suggested that physicians often chose not to comply with a guideline. Frequently offered reasons for noncompliance included patient age, comorbid illness, or in the case of nephropathy screening, established renal disease or current therapy with angiotensin-converting enzyme inhibitors.
- Physicians may consciously choose not to follow a guideline because of clinical considerations.

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