

## Overactive Bladder: Defining the Disease

**Dr. Abrams:** I think as specialists we have reached a consensus on the definition of OAB [overactive bladder], and we need to make sure the use of this definition is extended to a broad-based community of physicians and other healthcare providers. Within the next year, Dr. Wein and I hope to produce a definitive article justifying the revision of the definition of OAB, with the intent of converting it to an ICS [International Continence Society] standardization report. Our concept is based on a patient's symptoms. If he or she has symptoms, OAB can be diagnosed. This fits nicely with our goal of obtaining an ICD-10 [International Classification of Diseases, 10th Revision] classification for OAB. With an ICD-10 classification, symptoms and corresponding syndromes can be recognized and coded, so a definitive diagnosis also can be given a code. Other urinary tract problems, including interstitial cystitis and prostatitis, would also fit in this same paradigm.

**Dr. Chokroverty:** Dr. Wein, do you still use the term *dyssynergia* to characterize discoordination between the detrusor activity and the sphincter?

**Dr. Wein:** Yes. *Dyssynergia* means inappropriate contraction of either the smooth sphincter area or the striated sphincter area during voluntary detrusor contraction. We also use the term "pseudodyssynergia," which is inappropriate contraction of muscle if you have sensation.

**Dr. Malone-Lee:** Our motive for the revised definition and reclassification is to allow for more uniformity in epidemiologic studies and to clarify the disease process for primary care clinicians. One of the problems we must contend with involves a clash of 2 cultures: the clinical culture, in which plausible explanations are derived for a phenomenon in order to provide a description in a patient-friendly manner, and the scientific culture, in which there is no explanation for a phenomenon until it has been scientifically proved. A lot of the bladder terminology, such as detrusor instability, is based on the clinical discipline using plausible explanations for phenomena. At present, the relevance of these terms and their contribution to the associated pathologies are in question.

**Dr. Brown:** We are talking about 2 scientific disciplines: clinical research and basic science research. Several clinical outcomes exist, but the results of urodynamic studies are not clinical outcomes; instead, they are intermediary outcomes. It is important to have good definitions to measure outcomes in epidemiologic studies and clinical research, so that 1 definition does not exclude the other. It is of greater interest to both scientists and clinicians to learn whether the patient's symptoms improve rather than whether the urodynamic results change.

**Ms. Saltmarche:** Dr. Wein, you mention stress, urge and mixed inconti-

nence, urgency, and frequency. When assessing outcomes in the geriatric population, should consideration be given to functional components that are affecting continence (ie, lack of mobility), because the functional component is often a very important part of geriatric incontinence?

**Dr. Abrams:** We need to develop a concept of functional incontinence separate from the urodynamic concepts of stress and urge incontinence.

**Dr. Ouslander:** In our studies of frail, elderly people, most have mobility or cognitive problems. Eighty percent have urodynamically defined detrusor instability. A simple toileting program can cure approximately one third of these patients. In my opinion, they have functional incontinence. If you compensate for their functional deficits, irrespective of their urodynamic detrusor instability, they can become continent. In a long-term care facility, toileting assistance, either with or without combined pharmacotherapy, is the best means of maintaining continence in individuals with functional incontinence.

**Dr. Malone-Lee:** In our practice, we found no relationship between urodynamics and patient symptoms. Urodynamics are completely irrelevant to the discussion of OAB. In our experience, elderly patients who have symptoms of frequency, urgency, or urge incontinence, with or without a coexisting functional component, have a good response to pharmacotherapy. In fact, response to pharmacotherapy in elderly patients is greater than in younger patients.

### Prevalence of OAB

**Dr. Abrams:** I would like to highlight our findings regarding the prevalence of OAB in elderly men. We conducted a long-term follow-up study of elderly

men who underwent prostate surgery. Before surgery, the prevalence of overactive detrusor in these men was 40%. We would expect two thirds of them to lose their detrusor overactivity after surgery, assuming their condition was related to an outlet obstruction. As a result, the prevalence of detrusor activity would be expected to decline from 40% to 15%; however, when the patients were reevaluated after a mean of 13 years postsurgery, the prevalence of overactive detrusor had increased to 60%. The prevalence rate was equal to that of similarly aged men who never underwent prostate surgery. These results suggest that detrusor activity is probably related to the process of aging and not to outlet obstruction.

**Dr. Brown:** I would like to discuss the modifiable risk factors associated with OAB, because it is an area in which we have an opportunity to either prevent or decrease the occurrence of urge incontinence or OAB. We are beginning to focus our research on modifiable risk factors, and I would like to know the opinion of the participants on the relationship between diabetes, UTIs [urinary tract infections], and OAB. In multivariate models, we have found both diabetes and UTIs are independent risk factors associated with OAB. We hypothesize that the etiology of OAB in patients with type 1 or type 2 diabetes stems from an end-organ dysfunction, either neurologic or vascular in nature.

**Dr. Thüroff:** The problem with published reports that associate diabetes with OAB is that detrusor acontractility may be a direct result of diabetic neuropathy. Patients with uncontrolled diabetes also are prone to UTIs. These mechanisms go against each other, and the net result can differ from study to study. Unfortunately, most epidemiologic studies do not differentiate between urge and stress incontinence.

Nonincontinent patients with symptoms of frequency and urgency also are not included in prevalence studies, so we don't have a clear picture of the epidemiology of the disease. Aging is a major factor, probably because of local myogenic pathology and the loss of cerebral control mechanisms associated with the aging process. With diabetes and UTIs, we just don't know.

**Dr. Chokroverty:** A confounding factor in evaluating an association of OAB with diabetes is that many patients with peripheral neuropathy also have autonomic neuropathy.

**Dr. Malone-Lee:** OAB symptoms also occur in syndrome X, a subject of research in my unit. The features of syndrome X, or metabolic syndrome, include obesity, hypertension, dyslipidemia (high triglyceride and low high-density lipoprotein cholesterol levels), impaired glucose tolerance, and insulin resistance. Profound metabolic disruptions can develop in syndrome X. One of these manifestations involves hypertrophy of vascular smooth muscle, which appears to be caused by the release of certain cytokines from adipose tissue. Based on our research, interleukin-6 is probably the major target, because it definitely is associated with smooth muscle reactivity. In addition, the glycosylation of proteins throughout the body causes abnormalities of smooth muscle activity. Although this occurs in vascular smooth muscle, it can easily occur in bladder smooth muscle. This provides a basis for understanding why diabetes might be responsible for OAB symptoms as the result of an effect not related to neuropathy.

Regarding the association of UTIs and OAB, standard laboratory analysis will only detect an infection in 50% of midstream urine samples. The best way to detect an infection is by identifying 8 leukocytes per cubic millimeter using a hemocytometer. Although it is less sensitive than a

hemocytometer, the most practical test we have to detect UTIs is the leukocyte esterase test. At its lowest threshold, this test can detect 15 leukocytes per cubic millimeter.

We have found that in elderly patients a concurrent UTI can affect the response to pharmacotherapy for OAB. With antibiotic treatment, leukocytes clear in the urine and

*“We have found that in elderly patients a concurrent UTI can affect the response to pharmacotherapy for OAB.”*

—James Malone-Lee, MD

OAB symptoms regress, so we believe that subclinical UTIs can be an etiology of OAB

**Ms. Maloney:** My colleagues and I recently completed a retrospective study of 258 postmenopausal women with symptoms of urgency or urge incontinence. We found a mean vaginal pH of 8 in these women, which correlated with atrophic vaginitis, a recognized transient cause of urinary incontinence. In all cases, treatment with local estrogen rather than the antibiotic significantly decreased vaginal pH and improved or cured symptoms of urgency and/or nocturia in the majority of these women. Many studies have also shown the relationship between UTIs and alkaline vaginal pH in postmenopausal women.

I agree with Dr. Malone-Lee that UTIs can be an etiology of OAB, particularly among postmenopausal women.

**Dr. Norton:** Can OAB be inherited? So many diseases that don't have a known etiology are being evaluated from a genetic perspective.

**Dr. Brown:** Researchers are beginning to address this topic with twin cohort studies.

**Dr. Malone-Lee:** We have collected data on families in whom we could explore a genetic phenotype. We have found a clear heritable pattern in nocturnal enuresis, but not anything that would lead us to any linkage studies.

**Dr. Stewart:** Dr. Milsom, if you could begin the survey [conducted by SIFO Research and Consulting AB] again, would you still use patients 40 years of age and older?

**Dr. Milsom:** The ultimate epidemiologic study would be one in which a large number of people are followed throughout their lives. However, a more practical age at which to enroll patients would be 18, because of possible problems in dealing with children who are enrolled with their parents' consent and withdraw when they become adults.

**Dr. Kelleher:** To what extent do you think the symptoms of urgency, frequency, and urge incontinence interact? In our studies, we have found that people make adaptive changes in voiding habits, making it difficult to identify worsening frequency and urgency.

**Dr. Milsom:** One of the major reasons we need to do longitudinal studies is because of this adaptive change. Patients with problems in bladder function adapt by going to the toilet more often. If the National Institutes of Health here in the United States provides support for longitudinal studies, then we may be able to follow suit in Europe.

**Dr. Brown:** Your study was excellent. In Europe, you have the advantage of a population-tracking system. How do you determine clinically significant differences in frequency of incontinence? In our studies, we ask patients

if they have incontinence daily or weekly because we feel they can be accurate in their estimation of these frequencies. A person does not forget whether he or she has incontinence every day.

**Dr. Milsom:** I agree. In another study, conducted among more than 7500 women, we evaluated a subset of patients to determine the frequency of incontinence. We found very little difference in what was reported in the questionnaire compared with the evaluations at our clinic. Patients don't lie or make mistakes about being incontinent. We also use daily rather than weekly incontinence as the dividing line.

#### **Comorbidities Associated with OAB: Increasing Falls and Fractures in Patients with OAB**

**Dr. Wein:** Dr. Brown, in your study, how many of the patients had no evidence of neurologic disease? When you postulate that falls and fractures are related to OAB, it must be based on some common mechanism.

**Dr. Brown:** In general, less than 5% of all patients with OAB or urge incontinence have concurrent neurologic disease. In our population, 7% had a previous stroke and about 1% had Parkinson's disease. In our multivariate model, neither was an independent risk factor for an increased risk of falls and/or fractures.

**Dr. Norton:** What was the relative risk of fracture in people with nocturia? We can all imagine the common scenario of an elderly person falling and sustaining a fracture after getting up to go to the bathroom in the middle of the night.

**Dr. Brown:** There are statistical limitations to the number of confounding

variables you can evaluate in a large cohort study. We focused on incontinence questions simply because we could not add nocturia questions. Information pertaining to the specific circumstances surrounding the fall (ie, day or night) was not collected in our study. Learning more about nocturia and OAB is another area where additional research is needed.

When we looked for a possible etiology of falls and fractures in these women with OAB, we speculated that thyroid disease or low bone mineral density may be suspect; however, we did not find any association. It may be that rushing to the bathroom because of nocturia or frequency is why these women sustain falls.

**Dr. Norton:** Dr. Brown, were you able to determine what percentage of the fractures and falls in your study were directly attributable to urinary incontinence?

**Dr. Brown:** We did not do an attributable risk proportion in this study, but it would be fairly easy to perform such an analysis. If you look at the odds ratio as relative hazards for the main predictors and independent predictors of falls and fractures in this multivariate model, OAB had the third highest risk of all factors. The osteoporosis researchers were very impressed by these OAB findings. A history of a previous fall or fracture was associated with the highest risk.

**Dr. Chokroverty:** I do not believe that adequate studies have been conducted to evaluate falls and fractures in elderly people with neurologic dysfunction. Although falls are very common in people with gait disorders, studies have not addressed the risk of falls in patients with abnormal cognitive function or those with abnormal pathology of the brain. For example, MRI [magnetic resonance imaging]

readings of many elderly patients will show T2 periventricular white matter hyperintensity. Many patients also have a strange gait, but we do not know the significance of this. A strange gait may still be a cause of falls and fractures.

**Dr. Brown:** I agree. After all the risk factors are defined, we need to conduct intervention trials to see whether we can reduce falls and fractures. Because if we intervene and the incidence of falls and fractures decreases, then we have accomplished what we set out to do.

**Dr. Luber:** There is a scenario that possibly may explain the reductions in UTIs once OAB is diagnosed and treated. Perhaps patients were reporting symptoms of frequency, urgency, and/or urge incontinence that were attributed to frequent UTI and for which they received frequent antibiotic therapy. Once OAB was correctly identified, they stopped receiving antibiotics because they never had UTIs in the first place. These types of scenarios could have occurred, but based on the evaluation of the database it looks like something else.

### OAB Significantly Affects Quality of Life

**Dr. Norton:** I am a bit frustrated by all the quality-of-life instruments available to assess OAB. I personally prefer the King's Health Questionnaire (KHQ). At the last ICS meeting, a large panel of experts from around the world concluded that everybody should use their own questionnaire. It would be nice to have 1 validated questionnaire that everyone used so that it would be easier to compare studies.

**Dr. Stewart:** We just finished some focus interviews in individuals with

OAB. Among other things, we solicited their opinions on a number of existing quality-of-life questionnaires. Many people believed that the questions did not capture the essence of their own experience of how OAB affected their life. These findings cause me to question the relevance of the existing quality-of-life instruments for OAB. I think that many of them originally were designed for urge incontinence rather than for frequency or urgency or combined symptoms.

**Dr. Corey:** One of the biggest problems in the development of quality-of-life instruments is getting a consensus on which questionnaire to use. It takes a tremendous amount of resources and many studies before researchers can agree. For example, numerous validation studies have been conducted with the SF-36 [short form-36] by the time it was considered to be a standard instrument. Unfortunately, no group has been able to invest the time to develop multiple validation studies, multiple population studies, and multiple cuts of those data among populations with OAB. There are many researchers who still do not like the SF-36 and don't use it; thus, even though you have a standard instrument, not every researcher is willing to use it.

**Dr. Malone-Lee:** We used the KHQ in a study evaluating the effects of tolterodine in patients with OAB. This study could be criticized because we did not have a placebo group. In July, we are going to start a placebo-controlled trial of tolterodine in the United Kingdom using the KHQ.

**Dr. Abrams:** The ideal quality-of-life questionnaire for OAB will be one that appeals to clinical groups in urology, gynecology, urogynecology, gerontology, and epidemiology and is available in many cultural adaptations and languages.

### Compliance With Drugs Used to Treat OAB

**Ms. Saltmarche:** Patient compliance is a difficult issue. Whereas health-care professionals may believe they know the most appropriate protocol from previous experience, it is only through discussion with the patient that the most efficacious treatment can emerge. Without this shared process, success can be limited. By viewing as problematic the patient who chooses not to follow a prescribed regimen, we avoid looking at the many factors that influence his or her nonadherence. Rather, this is an opportunity to explore the reasons for noncompliance, thereby enhancing the experience of the patient and perhaps that of the health professional as well.

**Dr. Corey:** Patients' perceptions of their illness and its relevance to how they feel correlate directly with how they take their medication or approach their illness. When I counseled patients in pharmacy practice, my colleagues and I would try to get them to understand that they were sick, even if they did not feel sick. This was particularly important in trying to educate patients regarding the importance of compliance for symptomless diseases like hypertension or hyperlipidemia.

**Dr. Stewart:** A similar but more elaborate model is used for addiction. The first stage in treating addiction is getting a person to recognize the problem. The same concept applies to these patients. If you can't convince the patient that his or her illness is a disease that requires treatment, then you are wasting your time in trying to get him or her to comply with drug therapy.

**Dr. Wein:** Dr. Kelleher, you mentioned that a future goal is to try to correlate quality-of-life impairment with com-

pliance. Would it make more sense to look at the quality-of-life improvement and compliance? If you evaluated quality-of-life improvement after 1, 2, and 3 months of pharmacotherapy, I think you would be able to predict which patients were compliant, based on the improvement in their quality of life.

**Dr. Kelleher:** You must begin by determining the impairment, then you can assess improvement and whether it affected compliance.

We previously found that patients with detrusor instability, those with the worst quality-of-life scores were least likely to respond to medication. With genuine stress incontinence, we found the opposite; patients with the most impaired quality of life were the most likely to respond to surgery. At the time, we reasoned that those patients with the worst quality of life had the most severe detrusor instability, which was less likely to respond to treatment. As a result, patients became disillusioned. However, we now believe that our tests weren't sensitive enough. This is an area of study that deserves more attention.

**Dr. Ouslander:** There are other disease states in which a similar relationship exists. By the time the disease becomes severe, patients have generally had numerous treatment failures, so they just give up and are less likely to seek treatment.

Many people put up with symptoms for a long time before something causes them to finally seek treatment; that something could be the degree of bother or some quality-of-life measure. Dr. Kelleher, do you think OAB is different from other diseases we treat in this regard? For example, there may be no symptoms associated with diabetes and hypertension, but if left untreated they are life threatening. In contrast, incontinence and OAB are more bothersome than diabetes and hypertension, but they are not life threatening.

**Dr. Kelleher:** I agree. There's a trade-off for treating the OAB, one symptom for another. One of the reasons we continue to use the KHQ is that symptoms and quality-of-life questions are very different. We found that the symptoms of OAB change over time.

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—Joseph G. Ouslander, MD

**Dr. Malone-Lee:** What are drug manufacturers doing to improve patient compliance with pharmacotherapy?

**Dr. Cetera:** We are collecting data not on patient compliance but on patient persistence, that is, how frequently the patient refills the prescription for OAB. Using these data, we found that patients remain on oxybutynin for a mean of 2.5 months and tolterodine for a mean of 4.5 months. We believe that improved tolerability with tolterodine compared with oxybutynin translates to improved compliance. The educational campaigns designed to increase awareness of OAB also have facilitated patients' understanding of the importance of compliance.

**Ms. Newman:** I think educational programs have been successful, particularly the television advertisement that explains the symptoms of OAB. I now hear many patients say: “I have an overactive bladder,” and they are specific in describing the symptoms. The term *overactive bladder* is much more patient-friendly than “incontinence.”

**Dr. Luber:** In our practice, we use a great deal of postprescription education, because we know patients may

forget everything you tell them, regardless of how thoroughly you explain things. We give the patient a written document for each anticholinergic medication we prescribe. It lists dosing instructions, potential side effects, and instructions for handling side effects if they occur. We also have nurses call patients 2 weeks after they begin therapy to see how they are tolerating their medication. Currently, we are in the process of accumulating these data to determine how they affect patient compliance. I believe that compliance with anticholinergic agents improves when patients know what to expect and have some written information they can refer to if they encounter side effects.

#### **Economic Considerations in OAB**

**Dr. Wein:** Dr. Hu, your analyses have focused on urinary incontinence. How would one go about calculating the economic cost of OAB, exclusive of incontinence? In other words, are there economic costs associated with frequency and urgency?

**Dr. Hu:** This has never been done. However, first it is necessary to have access to a claims database that includes ICD-9 [*International Classification of Diseases, Ninth Edition*] and CPT-4 [*International Classification of Diseases, Fourth Revision*] codes to estimate the costs associated with any condition. Then, it is important to keep track of service utilization based on the CPT4 codes, or service procedures. I like to perform a multivariate analysis to determine covariates associated with the condition. It is possible to subtract costs associated with the covariate diseases, leaving the net cost associated with the disease under investigation.

**Ms. Newman:** Although urinary frequency and nocturia have ICD-9 codes (788.41 and 788.43, respectively), urgency does not. Without the abil-

ity to trace the problem by diagnostic group, how is it possible to determine costs associated with urgency? Similarly, your methods only apply if reimbursement has occurred for the diagnosis. In my experience, payment for certain urinary incontinence codes may be denied by the insurer. Dealing with Medicare database claims presents additional problems in estimating costs, because parts A and B of Medicare are not interrelated. Costs related to many outpatient services, typically handled under Medicare Part B, have been missed in current cost analyses that have primarily looked at Medicare Part A-related costs, so the exact costs under Medicare parts A and B cannot be ascertained.

**Dr. Hu:** It is possible to obtain more accurate data by looking at medical records and corroborating them with claim files. This method is very labor intensive and time consuming, but it could be achieved if we had more resources (ie, research assistants to review medical records and claim files).

**Dr. Ouslander:** I always worry about us quoting these enormous costs of incontinence because many of them are actually associated with skin infections and nursing home admissions, which may or may not be related to incontinence. Whenever I quote these costs, I include a disclaimer specifying that some of these costs of complications may or may not be related to incontinence or OAB.

**Dr. Hu:** Also I am less comfortable with the published costs related to skin conditions, which are derived from older data. Today, I have heard new information that identifies comorbidities associated with OAB. This information will be useful in estimating consequence costs, which is more difficult than estimating routine and treatment costs. It would require an individual survey to more accurately estimate consequence costs pertaining



to UTIs and skin-related problems in patients with OAB.

**Dr. Norton:** Dr. Hu, have you ever estimated the direct costs of urinary incontinence across all age groups, not just for people 65 years of age or older?

**Dr. Hu:** That would be very difficult to estimate with any level of confidence; however, we could assume a prevalence of 8% to 9% in a population younger than 65 years of age. Direct treatment costs would probably be higher in this age group, but I would expect consequence costs to be lower.

**Dr. Versi:** I think many clinicians in the United States are frustrated because they cannot assign a reimbursable diagnosis for urgency. I would guess that many clinicians actually check “frequency” as the ICD-9 code in filling out diagnoses when the patient actually has urgency. Having an ICD-10 code for OAB would make things a lot simpler.

**Ms. Newman:** It may still be an issue, because Medicare and Medicaid do not automatically reimburse for services simply because there is an ICD-9 code. Although reimbursement is not a problem with private third-party insurers and health maintenance organizations, it is difficult within the Medicare and Medicaid system. Reimbursement is more complex than just having an ICD-9 code.

### Special Considerations in the Geriatric Population

**Dr. Norton:** Dr. Malone-Lee, when my colleagues and I were involved in the tolterodine studies in the early 1990s, we noted that women younger than 65 years of age, who had the highest degree of incontinence, increased their number of micturitions per day. At the time, we thought it was because they were more continent

and were able to make it to the toilet without leaking urine. After listening to your presentation, I wonder if you had ever thought about this as an explanation for those earlier results.

**Dr. Malone-Lee:** We originally had similar reasoning. We thought that younger women could get to the toilet in time, so they could keep up their frequency. We reasoned that, in contrast, elderly women were less mobile and could not keep up their frequency, thereby becoming incontinent. Once we reviewed the results, it became clear that frequency was not related to a behavioral pattern. In fact, the elderly tend to have the same degree of frequency as younger people.

**Ms. Newman:** Dr. Ouslander, when you conducted your survey in which you asked nursing home residents their treatment preference for urinary incontinence, what did most residents prefer: diapers or drugs?

**Dr. Ouslander:** We examined 4 to 5 preference sets and are currently drafting the paper for publication. In the oldest respondents, similar proportions of patients cited preferences for diapers or drugs, but their family members tended to prefer diapers to medication.

I want to express a concern I have regarding the use of medication to treat urinary incontinence in the elderly. Many of the frail, elderly residents have poor cognitive functioning or Alzheimer’s disease and are receiving acetylcholinesterase inhibitor therapy. To prescribe 2 medications with opposing mechanisms of actions (ie, an anticholinergic for OAB and an acetylcholinesterase inhibitor) is polypharmacy. Additional studies are warranted to demonstrate that no clinically important interactions exist between anticholinergic agents and acetylcholinesterase inhibitors before treatment for OAB becomes a routine practice in patients with poor cognitive functioning.

**Dr. Brown:** That's an important consideration when designing intervention trials in the elderly. We need to know the effect any drug has on cognitive function in the elderly.

**Dr. Kelleher:** Dr. Ouslander, were there any particular variables that were associated with the patient's choice of treatment for urinary incontinence? For example, it would be interesting to know whether a patient's perceived lack of compliance played a role in his or her response. I cannot even complete a course of antibiotics; I would find it very difficult to take tablets on a routine basis.

**Dr. Ouslander:** This was our first survey on the subject, and we did not characterize the respondents very well, so we do not have this kind of detailed information. If we conduct subsequent surveys, we will do a better job of characterizing the respondents.

**Dr. Chokroverty:** Do you have any data about the relationship between wetness and sleep disturbances? At one time it was suggested that nocturnal enuresis in children is a partial arousal disorder, but most sleep specialists do not believe this is true. It occurs at all stages of sleep but is more common in slow-wave sleep.

**Dr. Ouslander:** We presented data at the ICS meeting in Denver in 1999. We used wetness sensors when conducting sleep studies in the long-term care facility. The wetness sensor sends the signal right into the polysomnogram, so we can identify the sleep state of the patient at the time of voiding. We found that most voiding events (approximately 80%) appear to occur shortly after a period of arousal. However, the significance of this is difficult to quantify because the elderly have so many arousals during sleep. We also found that void-

ing appears to be associated with sleep apnea and hypoxia. We hope to conduct further research in this area.

**Dr. Kelleher:** Dr. Ouslander, your survey indicated that about 50% of people prefer diapers over medication for urinary incontinence. You mentioned that prompted voiding is more costly, in terms of labor and time, than changing diapers. Don't these observations suggest that it is probably better not to treat people but, rather, to have them wear diapers?

**Dr. Ouslander:** You have just identified what actually happens in most nursing homes. When asked, nurses overwhelmingly cite a preference for prompted voiding over changing diapers. We have a lot of evidence from surreptitious studies showing that although nurses say they assist with prompted voiding, they actually do not. When my colleagues and I walk through the halls of the nursing homes, we hear nurses tell the residents to urinate in their diapers. Imagine what it must be like: feeling an urge to go to the toilet, asking to go, and being told to just wet yourself. It is inappropriate to treat our mothers and grandmothers in this manner. We just have to do better than that.

Any interventions made to reduce urinary incontinence in nursing homes will increase direct costs, because right now nothing is being done to improve continence among residents. However, improving urinary continence can be an important quality-of-life issue for some people, so efforts such as assistance with prompted voiding must be available to accommodate those patients who need assistance.

#### Acknowledgment

The authors gratefully acknowledge the assistance of Jacqueline Connor-Bailey, PharmD, in the preparation of their manuscripts.