Medicare Advisers Examine Pay for Performance

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WASHINGTON — The Medicare Payment Advisory Commission is considering redistributing 1%-2% of Medicare physician payments to physicians who demonstrate quality based on certain performance measures.

But what measures to use, how to obtain the quality information, and whether to base payments on performance by indi-

vidual physicians or group practices are still up in the air. Linking an even greater portion of physician pay to quality might be necessary to make the plan viable, commission member Arnold Milstein, M.D., said at a recent commission meeting.

Private-sector experiences indicate that in order for physicians to put a high priority on quality measures, payments need to be more than 10%, Dr. Milstein said, compared with the current 5%-10% on the table from insurers.

"I also agree that we should put more and more of the payment at risk," said Ralph W. Muller, a MedPAC member and CEO of the University of Pennsylvania Health System.

Over 3-5 years, Medicare should increase the amount of the payment that is at risk, he said.

"We've now seen 30 years of evidence that the payment system drives behavior more powerfully than almost everything else. So if you want quality to be a bigger

part of the agenda, as we are suggesting it should be, then more and more of the payment system in fact has to be tied to quality," Mr. Muller said.

But taking 1%-2% of Medicare physician payment and redistributing it based on quality may have a much bigger impact than larger payments from private insurers because of the larger average share of Medicare patients in many physician practices, said Glenn Hackbarth, MedPAC chairman and an independent consultant from Bend, Ore. "The 1%-2% is a starting point," Mr. Hackbarth said, "not necessary an end point."

It would be better to start out at a lower level of payments as Medicare officials figure out the best measures to use, but keep the door open to increasing the amount of payments linked to quality over time, he said.

But Mary Frank, M.D., president of the American Academy of Family Physicians, cautioned that to make pay for performance work, Medicare officials can't just redistribute the payments. Additional funding will be needed to provide real financial



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DR. MILSTEIN

incentives, but over time, the system will gain because improvements in quality and efficiency will decrease costs, she said in an interview with this newspaper.

Alan R. Nelson, M.D., a MedPAC member and an internist, cautioned that the commission members should be careful about pay for performance.

"We have to be aware as we proceed with this of unintended consequences that could end up in worse patient care, rather than better patient care," Dr. Nelson said.

Although that's not a factor in the majority of situations, unintended consequences could occur, he said. For example, linking quality payments in the area of avoidable hospitalizations could create a disincentive. It can be difficult for physicians to decide how far to go in managing a patient's care successfully at home or if the patient needs to go into the hospital, Dr. Nelson said, but if there is a financial incentive to keep patients at home, it could create a greater risk for patients.

Pay for performance also leaves the door open to "cherry picking" of patients, Dr. Nelson said. For example, a physician may choose not to provide care to a patient who smokes, because that patient would hurt the physician's quality numbers.

The commission should also exercise caution in how it chooses to collect data, Dr. Nelson said. If Medicare is going to collect quality data using methods that impose an additional administrative burden on physicians, that time should be reimbursed. Physicians want to do a good job, he said, but they won't embrace unfund-

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BRIEF SUMMARY

INDICATIONS AND USAGE

Ambien (zolpidem tartrate) is indicated for the short-term treatment of insomnia,
Ambien has been shown to decrease sleep latency and increase the duration of
sleep for up to 35 days in controlled dinical studies.
Hypnotics should generally be limited to 7 to 10 days of use, and reevaluation
of the patient is recommended if they are to be taken for more than 2 to 3 weeks.
Ambien should not be prescribed in quantities exceeding a 1-month supply (see
Warnings).

CONTRAINDICATIONS

None known.

WARNINGS

Since sleep disturbances may be the presenting manifestation of a physical and/or psychiatric disorder, symptomatic treatment of insomnia should be initiated only after a careful evaluation of the patient. The failure of insomnia to remit after 7 to 10 days of treatment may indicate the presence of a primary psychiatric and/or medical illness which should be evaluated. Worsening of insomnia or the emergence of new thinking or behavior abnormalities may be the consequence of an unrecognized psychiatric or physical disorder. Such findings have emerged during the course of treatment with sedative/hypnotic drugs, including Ambien. Because some of the important adverse effects of Ambien appear to be dose related (see *Precautions* and *Dosage and Administration*), it is important to use the smallest possible effective dose, especially in the elderly.

A variety of abnormal thinking and behavior changes have been reported to cocur in association with the use of sedative/hypnotics. Some of these changes may be characterized by decreased inhibition (eg. aggressiveness and extroversion that seemed out of characteri, similar to effects produced by achold and other CNS depressants. Other reported behavioral changes have included bizarre behavior, agitation, hallucinations, and depersonalization, Ammesia and other neuropsychiatric symptoms may occur unpredictably. In primarily depressed patients, worsening of depression, including suicidal thinking, has been reported in association with the use of sedative/hypnotics. It can rarely be determined with certainty whether a particular instance of the abnormal behaviors listed above is drug induced, spontaneous in origin, or a result of an underlying psychiatric or physical disorder, Nonetheless, the emergence of any new behavioral sign or symptom of concern requires careful and immediate evaluation.

Inflictionate evaluation. Following the rapid dose decrease or abrupt discontinuation of sedative/hypotics, there have been reports of signs and symptoms similar to those associated with withdrawal from other CNS-depressant drugs (see *Drug Abuse and*

Ambien, like other sedative/hypnotic drugs, has CNS-depressant effects. Due Ambien, like other sedative/hypnotic drugs, has CNS-depressant effects. Due to the rapid onset of action, Ambien should only be ingested immediately prior to going to bed, Patients should be cautioned against engaging in hazardous occupations requiring complete mental alertness or motor coordination such as operating machinery or driving a motor vehicle after ingesting the drug, including potential impairment of the performance of such activities that may occur the day following ingestion of Ambien. Ambien showed additive effects when combined with action I architects should also be cautioned about possible combined effects with other CNS-depressant drugs. Dosage adjustments may be necessary when Ambien is administered with such agents because of the potentially additive effects.

General Use in the elderly and/or debilitated patients: Impaired motor and/or cognitive performance after repeated exposure or unusual sensitivity to sedative/hypnotic drugs is a concern in the treatment of elderly and/or debilitated patients. Therefore, the recommended Ambien dosage is 5 mg in such patients (see Dosage and Administration) to decrease the possibility of side effects. These patients should be closely monitored.

patients should be closely monitored.

Use in patients with concomitant illness: Clinical experience with Ambien in patients with concomitant systemic illness is limited. Caution is advisable in using Ambien in patients with cliseases or conditions that could affect metabolism or hemodynamic responses. Although studies did not reveal respiratory depressant effects at hypnotic doses of Ambien in normals or in patients with mild to moderate chonic obstructive pulmonary disease (COPD), a reduction in the Total Arousal Index together with a reduction in lowest oxygen saturation and increase in the times of oxygen desaturation below 80% and 90% was observed in patients with mild-to-moderate sleep apnea when treated with Ambien (10 mg) when compared to placebo. However, precautions should be observed if Ambien is prescribed to patients with compromised respiratory function, since sedative/hypnotics have the capacity to depress respiratory drive. observed if Ambien is prescribed to patients with compromised respiratory func-tion, since sedative/hyponics have the capacity to depress respiratory drive Post-marketing reports of respiratory insufficiency, most of which involved patients with pre-existing respiratory impairment, have been received. Data in end-stage renal failure patients repeatedly treated with Ambien did not demon strate drug accumulation or alterations in pharmacokinetic parameters. No dosage adjustment in renally impaired patients is required; however, these patients should be closely monitored (see *Pharmacokinetics*). A study in subjects with hepatic impairment did reveal prolonged elimination in this group; therepatients should be closely monitored (see *Pharmacokinetics*). A study in suspects with hepatic impairment did reveal prolonged elimination in this group; therefore, treatment should be initiated with 5 mg in patients with hepatic compromise, and they should be closely monitored.

Use in depression: As with other sedative/hypnotic drugs, Ambien should be administered with autition to patients exhibiting signs or symptoms of depression. Suicidal tendencies may be present in such patients and protective measures may be required. Intentional overdosage is more common in this group of patients; therefore, the least amount of drug that is feasible should be prescribed

ation for patients: Patient information is printed in the complete prescrib-

Drug interactions
CNS-active drugs: Ambien was evaluated in healthy volunteers in single-dose interaction studies for several CNS drugs. A study involving haloperidol and zolpidem revealed no effect of haloperidol on the pharmacokinetics or pharmacokynamics of zolpidem. Impramine in combination with zolpidem produced no pharmacokinetic interaction other than a 20% decrease in peak levels of impramine, but there was an additive effect of decreased alertness. Similarly, chlorpromazine in combination with zolpidem produced no pharmacokinetic interaction, but there was an additive effect of decreased alertness and psychomotor performance. The lack of a drug interaction following single-dose administration does not predict a lack following chronic administration. An additive effect on psychomotor performance between alcohol and zolpidem was demonstrated.

dem was demonstrated.

A single-dose interaction study with zolpidem 10 mg and fluoxetine 20 mg at steady-state levels in male volunteers did not demonstrate any clinically significant pharmacokinetic or pharmacodynamic interactions. When multiple doses of zolpidem and fluoxetine at steady-state concentrations were evaluated in healthy females, the only significant change was a 17% increase in the zolpidem half-life. There was no evidence of an additive effect in psychomotor performance. Following five consecutive nightly doses of zolpidem 10 mg in the presence of sertraline 50 mg (17 consecutive dairly doses, at 7:00 am, in healthy female volunteers), zolpidem C_{mis} was significantly higher (43%) and T_{mis} was significantly decreased (53%). Pharmacokinetics of sertraline and N-desmethylsertraline were unaffected by zolpidem.

cited by zolpidem.

ce the systematic evaluations of Ambien in combination with other CNSdrugs have been limited, careful consideration should be given to the
nacology of any CNS-active drug to be used with zolpidem. Any drug with
lepressant effects could potentially enhance the CNS-depressant effects of

Drugs that affect drug metabolism via cytochrome P450: A randomized, double-blind, crossover interaction study in ten healthy volunteers between itraconazole (200 mg once daily for 4 days) and a single dose of zolpidem (10 mg) given 5 hours after the last dose of itraconazole resulted in a 34% increase in AUC_{b-m2} of zolpidem. There were no significant pharmacodynamic effects of zolpidem on subjective drowsiness, postural sway, or psychomotor performance. A randomized, placebo-controlled, crossover interaction study in eight healthy female volunteers between 5 consecutive daily doses of rifampin (600 mg) and a single dose of zolpidem (20 mg) given 17 hours after the last dose of rifampin showed significant reductions of the AUC (-73%), C_{max} (-55%), and T₁₂ (-36%) of zolpidem together with significant reductions in the pharmacodynamic effects of zolpidem.

Other drugs: A study involving cimetidine/zolpidem and ranitidine/zolpidem combinations revealed no effect of either drug on the pharmacokinetics or pharmacodynamics of zolpidem. Zolpidem had no effect on digoxin kinetics and did not affect prothrombin time when given with warfarin in normal subjects. Zolpidem's seadtive/hypnotic effect was reversed by flumacenil; however, no significant alterations in zolpidem pharmacokinetics were found.

Drug/Laboratory test interactions: Zolpidem is not known to interfere with commonly employed clinical laboratory tests. In addition, clinical data indicate that toplidem does not cross-react with benodiazepines, opiates, barbiturates, cocaine, cannabinoids, or amphetamines in two standard urine drug screens.

cocaine, cannabinoids, or amphetamines in two standard urine drug screens.

Carcinogenesis, mutagenesis, impairment of fertility
Carcinogenesis: Zolpidem was administered to rats and mice for 2 years at
dietary dosages of 4, 18, and 80 mg/kg/day, In mice, these doses are 26 to 520
times or 2 to 35 times the maximum 10-mg human dose on a mg/kg or mg/m
basis, respectively. In rats these doses are 43 to 876 times or 6 to 115 times the
maximum 10-mg human dose on a mg/kg or mg/m
basis, respectively. No evidence of carcinogenic potential was observed in mice. Renal liposarcomas were
seen in 4/100 rats (3 males, 1 female) receiving 80 mg/kg/day and a renal lipoma
was observed in one male rat at the 18 mg/kg/day dose. Incidence rates of lipoma and liposarcoma for zolpidem were comparable to those seen in historical
controls and the tumor findings are thought to be a spontaneous occurrence.

Mutagenesis: Zolpidem did not have mutagenic activity in several tests including the Ames test, genotoxicity in mouse lymphoma cells in vitro, chromosomal
aberrations in cultured human in mynphocytes, unscheduled DNA synthesis in rat
hepatocytes in vitro, and the micronucleus test in mice.

Impairment of fertility: In a rat reproduction study, the high dose (100 mg base/kg) of zolpidem resulted in irregular estrus cycles and prolonged precoital intervals, but there was no effect on male or female fertility after daily oral doses of 4 to 100 mg base/kg or 5 to 130 times the recommended human dose in mg/m*. No effects on any other fertility parameters were noted.

Pregnancy

Frestancy

Nonteratogenic effects: Studies to assess the effects on children whose mothers took zolpidem during pregnancy have not been conducted. However, children born of mothers taking sedative/hypnotic drugs may be at some risk for withdrawal symptoms from the drug during the postnatal period. In addition, neonatal flaccidity has been reported in infants born of mothers who received sedative/hypnotic drugs during pregnancy.

Nursing mothers: Studies in lactating mothers indicate that between 0.004 and 0.019% of the total administered dose is excreted into milk, but the effect of zolpidem on the inflant is unknown.

The use of Ambien in nursing mothers is not recommended.

Pediatric use: Safety and effectiveness in pediatric patients below the age of 18 have not been established.

nave not been established.

Geriatrie use: A total of 154 patients in U.S. controlled clinical trials and 897 patients in non-U.S. clinical trials who received zolpidem were ≥60 years of age. For a pool of U.S. patients receiving zolpidem at doses of ≤10 mg or placeb, there were three adverse events occurring at an incidence of at least 3% for zolpidem and for which the zolpidem incidence was at least twice the placebo incidence (ie, they could be considered drug related).

| Adverse Event | Zolpidem | Placebo |
|---------------|----------|---------|
| Dizziness | 3% | 0% |
| Drowsiness | 5% | 2% |
| Diarrhea | 3% | 1% |
| | | |

A total of 30/1,959 (1.5%) non-U.S. patients receiving zolpidem reported falls, including 28/30 (93%) who were ≥70 years of age, Of these 28 patients, 23 (82%) were receiving zolpidem doses >10 mg. A total of 24/1,959 (1.2%) northus, patients receiving zolpidem reported confusion, including 18/24 (75%) who were ≥70 years of age, Of these 18 patients, 14 (78%) were receiving zolpidem doses >10 mg.

ADVERSE REACTIONS

Associated with discontinuation of treatment: Approximately 4% of 1,701 patients who received zolpidern at all doses (1.25 to 90 mg) in U.S. premarketing clinical trials discontinued treatment because of an adverse clinical event. Events most commonly associated with discontinuation from U.S. trials were daytime drowsiness (0.6%), dizziness (0.4%), headache (0.5%), nausea (0.6%), and vomiting (0.5%).

Approximately 40° of 2000 circles (0.4%) and continuation from U.S. trials were daytime drowsiness (0.6%), and vomiting (0.5%).

Approximately 4% of 1,959 patients who received zolpidem at all doses (1 to 50 mg) in similar foreign trials discontinued treatment because of an adverse

event. Events most commonly associated with discontinuation from these trials were daytime drowsiness (1.1%), dizziness/vertigo (0.8%), amnesia (0.5%), nausea (0.5%), and falls (0.4%).

Data from a clinical study in which selective serotonin reuptake inhibitoric (SSRI) treated patients were given zolpidem revealed that four of the seven discontinuations during double-blind treatment with zolpidem (n=95) were associated with impaired concentration, continuing or aggravated depression, and manic reaction; one patient treated with placebo (n=97) was discontinued after an attempted suicide.

Incidence in controlled clinical trials

only observed adverse events in controlled trials: During short-term atment (up to 10 nights) with Ambien at doses up to 10 mg, the most com-only observed adverse events associated with the use of zolpidem and seen a tistically significant differences from placebo-treated patients were drowsi statistically significant underlicible month pacebo-treated patients were daren strength by 2% of zolgden patients, dizziness (1%), and diarrhea (1%). During longer-term treatment (28 to 35 nights) with zolgden at doses up to 10 mg, the most commonly observed adverse events associated with the use zolgden and seen at statistically significant differences from placebo-treated patients were dizziness (8%) and drugged feelings (3%).

patients were dizziness (1%) and drugged teelings (3%).

Treatment-emergent adverse experiences in placebo-controlled clinical trials:
The following are treatment-emergent adverse events from U.S. placebo-controlled clinical trials. Data are limited to data from doses up to and including ting. In short-term trials, events seen in zolpidem patients (n=685) at an incidence equal to 1% or greater compared to placebo (n=473) were: headacte (7% vs 6% or placebo), forwsiness (2% vs 0%), dizirness (1% vs 0%), anusea (2% vs 3%), diarhea (1% vs 0%), and myalgia (1% vs 2%). In long-term clinical trials, events seen in zolpidem patients (n=152) at an incidence of 1% or greater compared to placebo (n=161) were: dry mouth (3% vs 1% for placebo), allergy (4% vs 1%),

back pain (3% vs 2%), influenza-like symptoms (2% vs 0%), chest pain (1% vs 0%), fatigue (1% vs 2%), palpitation (2% vs 0%), headache (19% vs 22%), drowsiness (8% vs 5%), dizziness (6% vs 1%), lethargy (3% vs 1%), drugged feeling (3% vs 0%), lightheadedness (2% vs 1%), depression (2% vs 1%), abnormal dreams (1% vs 0%), amnesia (1% vs 0%), anxiety (1% vs 1%), nervousness (1% vs 3%), desped isorder (1% vs 0%), anusea (6% vs 6%), dyspepsia (6% vs 6%), diarrhea (3% vs 2%), abdominal pain (2% vs 2%), constipation (2% vs 1%), anorexia (1% vs 1%), vomiting (1% vs 1%), infection (1% vs 1%, vomiting (1% vs 1%), afthralgia (4% vs 4%), upper respiratory infection (5% vs 6%), sinusitis (4% vs 2%), pharyngitis (3% vs 1%), rhinitis (1% vs 3%), rash (2% vs 1%), and urinary tracting (1% vs 2%).

Dose relationship for adverse events: There is evidence from dose comparison trials suggesting a dose relationship for many of the adverse events associated with zolpidem use, particularly for certain CNS and gastrointestinal adverse events.

Adverse events are further classified and enumerated in order of decreasing frequency using the following definitions: frequent adverse events are defined as those occurring in greater than 1/100 subjects; infrequent adverse events are those occurring in 1/100 to 1/1,000 patients; rare events are those occurring in less than 1/1,000 patients.

paipitation, sleep disorder, vertigo, vision abnormal, vomiting.

Infrequent: abnormal hepatic function, apitation, arbritis, bronchitis, cerebrovascular disorder, coughing, cystitis, decreased cognition, detached, difficulty concentrating, dysathria, dysphagia, dyspnea, edema, emotion lability, eye
irritation, eye pain, falling, fever, flatulence, gastroenteritis, hallucination, hyper
glycemia, hypertension, hypoesthesia, illusion, increased SGPT, increased
sweating, leg cramps, malaise, emenstrual disorder, ingraine, pallor, paresthesia,
postural hypotension, pruritus, scleritis, sleeping (after daytime dosing), speech
disorder, stupor, syncope, tachycardia, taste perversion, thirst, tinnitus, trauma,
tremor, urinary incontinence, vaginitis.

Rare: abdominal body sensation, abnormal accommodation, abnormal gain abnormal thinking, abscess, acne, acute renal failure, aggressive reaction, aller-gic reaction, allergy aggravated, altered saliva, anaphylactic shock, anemia, angi an pectoris, apathy, appetite increased, arrhythmia, ar na pectoris, apathy, appetite increased, arrhythmia, arteritis, arthrosis, billroinemia, breast fibroadenosis, breast neoplasm, breast pain, bronchospasm, bullous eruption, circulatory failure, conjunctivitis, corneal ulceration, decreased bildio, delusion, dementia, depersonalization, dermatitis, dysphasia, dysuria, enteritis, epistaxis, eructation, esophagospasm, extrasystoles, face edema, feeling strange, flushing, furunculosis, gastritis, glaucoma, gout, hemorrhoids, herpes simplex, herpes zoster, hot flashes, hypercholesteremia, hyperhemoglo-inemia, hyperlipidemia, hypertension aggravated, hypokinesia, hypotension, hypotonia, hypotonia, hypotania, hypetension aggravated, hypokinesia, hypotension, hypotonia, hypo

Abuse and dependence: Studies of abuse potential in former drug abusers found that the effects of single doses of zolpidem tartrate 40 mg were similar, but not identical, to diazepam 20 mg, while zolpidem tartrate 10 mg was difficult to disruguish from placebo.

Sedative/hypnotics have produced withdrawal signs and synthms following abund disruptionation. These reported symptoms game from mild developed.

tinguish from placebo.
Sedativehypnotics have produced withdrawal signs and symptoms following abrupt discontinuation. These reported symptoms range from mild dysphoria and insomnia to a withdrawal syndrome that may include abdominal and muscle cramps, vomiting, sweating, tremors, and convulsions. The U.S. clinical trial experience from zolpidem does not reveal any claer evidence for withdrawal syndrome. Nevertheless, the following adverse events included in DSM-III-R crieria for uncomplicated sedative/hypnotic withdrawal were reported at an incidence of ≤1% during U.S. clinical trials following placebo substitution occurring within 48 hours following last zolpidem treatment: fatigue, nausea, flushing, lightheadedness, uncontrolled cryring, emesis, stomach cramps, panic attack, nervousness, and abdominal discomfort. Rare post-marketing reports of abuse, dependence and withdrawal have been received.

Individuals with a history of addiction to, or abuse of, drugs or alcohol are at increased risk of habituation and dependence; they should be under careful surveillance when receiving any hypnotic.

OVERDOSACE

Signs and symptoms: In European postmarketing reports of overdose with zolpidem alone, impairment of consciousness has ranged from somnolence to light coma, with one case each of cardiovascular and respiratory compromise. Individuals have fully recovered from zolpidem tartrate overdoses up to 400 mg (40 times the maximum recommended dose). Overdose cases involving multiple CNS-depressant agents, including zolpidem, have resulted in more severe symptomatology, including fatal outcomes.

Recommended treatment: General symptomatic and supportive measures

symptomatorby, including latar outcomes.

Recommended treatment. General symptomatic and supportive measures should be used along with immediate gastric lavage where appropriate. Intravenous fluids should be administered as needed. Flumazenal may be useful. Respiration, pulse, blood pressure, and other appropriate signs should be monitored and general supportive measures employed. Sedating drugs should be withheld following zolpidem overdosage. Zolpidem is not dialyzable.

The possibility of multiple drug ingestion should be considered.

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