

Pilot Program Promotes At-Home STD Testing

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MIAMI — At-home tests that involve self-collected vaginal samples that are sent to a lab for analysis are effective at identifying women with sexually transmitted diseases, suggest findings from a pilot study presented at the annual meeting of the American College of Preventive Medicine.

“We thought maybe we could reach out and get out of the clinic and encour-

age asymptomatic women to collect samples at home,” said Charlotte A. Gaydos, Dr.P.H., a microbiologist in the division of infectious diseases at Johns Hopkins University, Baltimore.

Surmising that the Internet might be an effective way to promote such at-home tests, the researchers established a Web site (www.iwantthekit.org) and promoted it via the radio, posters, and print ads in local publications in the Baltimore-Washington region. In response, a total of 2,418

at-home test kits for women were mailed between June 2004 and January 2007, and the program is ongoing.

Data from 778 samples that had been analyzed as of Jan. 31 show 71 samples (9%) were positive for *Chlamydia trachomatis* and 12 (1%) were positive for *Neisseria gonorrhoeae*. Four samples showed coinfection with chlamydia and gonorrhea. Samples collected since September 2006 were tested for *Trichomonas vaginalis*, and 13 of 115 samples (11%) tested positive.

The test kit includes sterile swabs for collecting vaginal samples and a questionnaire seeking demographics, sexual history, and the participants' opinions about at-home testing and their preferences for methods to receive test results.

“We require two positive assays for a positive diagnosis,” Dr. Gaydos said. Samples are analyzed using nucleic acid amplification tests (NAATs), which are more than 90% sensitive, compared with the 85% sensitivity associated with cultures. “The NAATs are the best tests there are today; they are very powerful,” Dr. Gaydos said.

Participants received their test results via a toll-free number. A study coordinator arranged treatment appointments at a free local clinic for those women with positive test results.

So far, most of the women who tested positive have been treated, Dr. Gaydos noted. All 11 patients with gonorrhea were treated, as were 66 of 69 (96%) chlamydia cases.

Of the 760 participants who identified their race, 70% were black, 22% were white, and the remainder were another race or mixed race. Chlamydia rates were significantly higher among black women, compared with white women (12% vs. 2%).

The participants ranged from 14 to 63 years of age, with an average age of 23 years, but those who tested positive tended to be younger, and the average age at first sex was 15 years, Dr. Gaydos noted.

Positive tests were most common in the 15- to 19-year-olds (16%), followed by 20- to 24-year-olds (8.5%) and 25- to 29-year-olds (8%).

After the researchers controlled for multiple factors including age and race, the strongest risk factors for positive test results were use of birth control, nonconsensual sex, and multiple partners.

In addition, more than 50% of the participants reported a history of STDs; 40% reported a history of chlamydia, and 15% reported a history of gonorrhea.

Results of the questionnaires that accompanied the kits suggest participants were receptive to the idea of at-home STD testing. On a Likert scale of 1 to 5, 96% said that the sampling process was “easy” or “very easy” and 93% said that they would use it again.

Nearly 25% said they preferred to receive results by e-mail, but a secure Web site to provide results is too expensive at this time, Dr. Gaydos said. Under the current protocol, participants calling the toll-free number give the kit number and a secret password that they chose to ensure confidentiality.

Even with the current phone-in method of requesting results, the success of the Web site in recruiting patients for home sampling and in treating those who test positive is encouraging, he added.

A test kit for men was recently developed, and it is promoted on www.iwantthekit.org along with the women's kit. Men are asked to submit a urine sample and an optional penile swab. Complete analyses are pending on the 40 samples that have been collected to date; about one-third have tested positive for chlamydia, Dr. Gaydos said. ■

Sanctura® (trospium chloride) 20 mg Tablets

Brief Summary: please see package insert for full prescribing information.

INDICATIONS AND USAGE

Sanctura is indicated for the treatment of overactive bladder with symptoms of urge urinary incontinence, urgency, and urinary frequency.

CONTRAINDICATIONS

Sanctura is contraindicated in patients with urinary retention, gastric retention, or uncontrolled narrow-angle glaucoma and in patients who are at risk for these conditions. Sanctura is also contraindicated in patients who have demonstrated hypersensitivity to the drug or its ingredients.

PRECAUTIONS

General

Risk of Urinary Retention: Sanctura should be administered with caution to patients with clinically significant bladder outflow obstruction because of the risk of urinary retention.

Decreased Gastrointestinal Motility: Sanctura should be administered with caution to patients with gastrointestinal obstructive disorders because of the risk of gastric retention (See CONTRAINDICATIONS). Sanctura, like other anticholinergic drugs, may decrease gastrointestinal motility and should be used with caution in patients with conditions such as ulcerative colitis, intestinal atony and myasthenia gravis.

Controlled Narrow-angle Glaucoma: In patients being treated for narrow-angle glaucoma, Sanctura should only be used if the potential benefits outweigh the risks and in that circumstance only with careful monitoring.

Patients with Renal Insufficiency: Dose modification is recommended in patients with severe renal insufficiency (CLcr < 30 mL/min). In such patients, Sanctura should be administered as 20 mg once a day at bedtime (See DOSAGE AND ADMINISTRATION).

Patients with Hepatic Impairment: Caution should be used when administering Sanctura in patients with moderate or severe hepatic dysfunction (See CLINICAL PHARMACOLOGY: Pharmacokinetics in Special Populations).

Information for Patients

Patients should be informed that anticholinergic agents, such as Sanctura, may produce clinically significant adverse effects related to anticholinergic pharmacological activity. For example, heat prostration (fever and heat stroke due to decreased sweating) can occur when anticholinergics such as Sanctura are used in a hot environment. Because anticholinergics such as Sanctura may also produce dizziness or blurred vision, patients should be advised to exercise caution. Patients should be informed that alcohol may enhance the drowsiness caused by anticholinergic agents.

Sanctura should be taken 1 hour prior to meals or on an empty stomach. If a dose is skipped, patients are advised to take their next dose 1 hour prior to their next meal.

Drug Interactions

The concomitant use of Sanctura with other anticholinergic agents that produce dry mouth, constipation, and other anticholinergic pharmacological effects may increase the frequency and/or severity of such effects. Anticholinergic agents may potentially alter the absorption of some concomitantly administered drugs due to anticholinergic effects on gastrointestinal motility.

Drugs Eliminated by Active Tubular Secretion: Although demonstrated in a drug-drug interaction study not to affect the pharmacokinetics of digoxin, Sanctura has the potential for pharmacokinetic interactions with other drugs that are eliminated by active tubular secretion (e.g. procainamide, pancuronium, morphine, vancomycin, metformin and tenofovir). Coadministration of Sanctura with these drugs may increase the serum concentration of Sanctura and/or the coadministered drug due to competition for this elimination pathway. Careful patient monitoring is recommended in patients receiving such drugs (See CLINICAL PHARMACOLOGY: Excretion, and CLINICAL PHARMACOLOGY: Drug-Drug Interactions).

Drug-Laboratory-Test Interactions

Interactions between Sanctura and laboratory tests have not been studied.

Carcinogenesis, Mutagenesis, Impairment of Fertility

Carcinogenicity studies with trospium chloride were conducted in mice and rats. A 78-week carcinogenicity study in mice and a 104-week carcinogenicity study in rats were conducted at doses of 2, 20, and 200 mg/kg/day. No evidence of a carcinogenic effect was found in either mice or rats. The 200 mg/kg/day dose in the mouse and rat represents approximately 25 and 60 times, respectively, the human dose based on body surface area. At 200 mg/kg/day in the mouse and rat after 4 weeks the AUC was 34 and 753 ng•h/mL, respectively. The exposure in the rat is 8.6-fold higher than the AUC following 40 mg daily exposure in healthy young or elderly subjects (88 ng•h/mL).

Trospium chloride was not mutagenic in tests for detection of gene mutations in bacteria (Ames test) and mammalian cells (L5178Y mouse lymphoma and CHO cells) or in vivo in the rat micronucleus test.

No evidence of impaired fertility was observed in rats administered doses up to 200 mg/kg/day (about 10 multiples of the expected clinical exposure via AUC).

Pregnancy: Teratogenic Effects

Pregnancy Category C: Trospium chloride has been shown to cause maternal toxicity in rats and a decrease in fetal survival in rats administered approximately 10 times the expected clinical exposure (AUC). The no-effect levels for maternal and fetal toxicity were approximately equivalent to the expected clinical exposure in rats, and about 5-6 times the expected clinical exposure in rabbits. No malformations or developmental delays were observed. There are no adequate and well controlled studies in pregnant women. Sanctura should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

Nursing Mothers

Trospium chloride (2 mg/kg PO and 50 µg/kg IV) was excreted, to a limited extent (<1%), into the milk of lactating rats. The activity observed in the milk was primarily from the parent compound. It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Sanctura is administered to a nursing woman. Sanctura should be used during lactation only if the potential benefit justifies the potential risk to the newborn.

Pediatric Use

The safety and effectiveness of Sanctura in pediatric patients have not been established.

Geriatric Use

Of the 591 patients with overactive bladder who received treatment with Sanctura in the two U.S., placebo-controlled, efficacy and safety studies, 249 patients (42%) were 65 years of age and older. Eighty-eight Sanctura-treated patients (15%) were ≥75 years of age.

In these 2 studies, the incidence of commonly reported anticholinergic adverse events in patients treated with Sanctura (including dry mouth, constipation, dyspepsia, UTI, and urinary retention) was higher in patients 75 years of age and older as compared to younger patients. This effect may be related to an enhanced sensitivity to anticholinergic agents in this patient population (See CLINICAL PHARMACOLOGY: Pharmacokinetics in Special Populations and DOSAGE AND ADMINISTRATION). Therefore, based upon tolerability, the dose frequency of Sanctura may be reduced to 20 mg once daily in patients 75 years of age and older.

ADVERSE REACTIONS

The safety of Sanctura was evaluated in Phase 2 and 3 controlled clinical trials in a total of 2975 patients, who were treated with Sanctura (N=1673), placebo (N=1056) or active control medications (N=246). Of this total, 1181 patients participated in two, 12-week, Phase 3, U.S., efficacy and safety studies and a 9-month open-label extension. Of this total, 591 patients received Sanctura 20 mg twice daily. In all controlled trials combined, 232 and 208 patients received treatment with Sanctura for at least 24 and 52 weeks, respectively.

In all placebo-controlled trials combined, the incidence of serious adverse events was 2.9% among patients receiving Sanctura 20 mg BID and 1.5% among patients receiving placebo. Of these, 0.2% and 0.3% were judged to be at least possibly related to treatment with Sanctura or placebo, respectively, by the investigator.

Table 1 lists treatment emergent adverse events from the combined 12-week U.S. safety and efficacy trials that were judged to be at least possibly related to treatment with Sanctura by the investigator, were reported by at least 1% of patients, and were reported more frequently in the Sanctura group than in the placebo group.

The two most common adverse events reported by patients receiving Sanctura 20 mg BID were dry mouth and constipation. The single most frequently reported adverse event for Sanctura, dry mouth, occurred in 20.1% of Sanctura treated patients and 5.8% of patients receiving placebo. In the two Phase 3 U.S. studies, dry mouth led to discontinuation in 1.9% of patients treated with Sanctura 20 mg BID. For the patients who reported dry mouth, most had their first occurrence of the event within the first month of treatment.

Table 1. Incidence (%) of adverse events judged at least possibly related to treatment with Sanctura, reported in ≥1% of all patients treated with Sanctura and more frequent with Sanctura (20 mg BID) than placebo in Studies 1 and 2 combined.

Adverse Event	Placebo (N=590)	Sanctura 20 mg BID (N=591)
Gastrointestinal disorders		
Dry mouth	34 (5.8)	119 (20.1)
Constipation	27 (4.6)	57 (9.6)
Abdominal pain upper	7 (1.2)	9 (1.5)
Constipation aggravated	5 (0.8)	8 (1.4)
Dyspepsia	2 (0.3)	7 (1.2)
Flatulence	5 (0.8)	7 (1.2)
Nervous system disorders		
Headache	12 (2.0)	25 (4.2)
General Disorders		
Fatigue	8 (1.4)	11 (1.9)
Renal and Urinary Disorders		
Urinary retention	2 (0.3)	7 (1.2)
Eye Disorders		
Dry eyes NOS	2 (0.3)	7 (1.2)

Abbreviations: BID=twice daily, NOS=not otherwise specified.

Other adverse events from the Phase 3, U.S., placebo-controlled trials judged possibly related to treatment with Sanctura by the investigator, occurring in ≥0.5% of Sanctura-treated patients, and more common with Sanctura than placebo are: tachycardia NOS, vision blurred, abdominal distension, vomiting NOS, dysgeusia, dry throat, and dry skin. During controlled clinical studies, one event of angioneurotic edema was reported.

Postmarketing Surveillance

Additional spontaneous adverse events, regardless of relationship to drug, reported from marketing experience with trospium chloride include: Gastrointestinal – gastritis; Cardiovascular – palpitations, supraventricular tachycardia, chest pain, syncope, “hypertensive crisis”; Immunological – Stevens-Johnson syndrome, anaphylactic reaction; Nervous System – vision abnormal, hallucinations and delirium; Musculoskeletal – rhabdomyolysis; General – rash.

OVERDOSAGE

Management of Overdosage

Overdosage with Sanctura may result in severe anticholinergic effects. Treatment should be provided according to symptoms and supportive. In the event of overdosage, ECG monitoring is recommended.

A 7-month-old baby experienced tachycardia and mydriasis after administration of a single dose of trospium 10 mg given by a sibling. The baby's weight was reported as 5 kg. Following admission into the hospital and about 1 hour after ingestion of the trospium, medicinal charcoal was administered for detoxification. While hospitalized, the baby experienced mydriasis and tachycardia up to 230 bpm. Therapeutic intervention was not deemed necessary. The baby was discharged as completely recovered the following day.

DOSAGE AND ADMINISTRATION

The recommended dose is 20 mg twice daily. Sanctura should be dosed at least one hour before meals or given on an empty stomach.

Dose modification is recommended in the following patient populations:

- For patients with severe renal impairment (CLcr < 30 mL/min), the recommended dose is 20 mg once daily at bedtime (See PRECAUTIONS: General).
- In geriatric patients ≥75 years of age, dose may be titrated down to 20 mg once daily based upon tolerability (See PRECAUTIONS: Geriatric Use).

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