How to Wire the Paperless Office, Step By Step

BY JENNIFER SILVERMAN

Associate Editor, Practice Trends

SAN FRANCISCO — There is a cost-effective way to go paperless and make a profit for your group practice, Jeffrey P. Friedman, M.D., said at the annual meeting of the American College of Physicians.

Dr. Friedman, an internist and founding partner of Murray Hill Medical Group in New York, increased office appointments—and saved \$238,000 annually in

staff pay and benefits-by installing an electronic medical record (EMR) system and integrating the new technology on a gradual basis, cutting down on staff and phone time.

Patient registrations grew rapidly (currently at 18,000), and salaries for the group's internists and subspecialists in 2004 were two to three times the national average, Dr. Friedman said.

Murray Hill started out in 1992 with just a few partners and associates, one exam

room per physician, and no ancillary help, using a local, small electronic billing package. Over the years, the practice filled its

space, adding more subspecialty partassociates, and equipment, and in 1998 acquired an EMR system. The practice added online bill paying this year.

The practice now has 35 doctors, an

office lab, and a technician who oversees the fully automated practice. "Our employee/doctor ratio is very low," he said.

Installing an EMR system does cost money, "but a major thing physicians need to understand is that you have to spend money to make money," Dr. Friedman said. In his experience, "those bucks are not out of control" if invested in the right kind of system.

When considering software vendors, it's important to visit practice sites that are already using installed systems. He suggested that physicians look at big vendors that are likely to be in business at least 10 to 20 years down the road. "This is a big investment, because whatever one you buy you're going to live with for a long time," he noted. The problem with medical records is that if you decide to dump one, "you can't convert the data from one system to another."

In conducting research with vendors, Dr. Friedman got a general idea of what it would cost to install an EMR system, "including the whistles and bells." The perdoctor cost was \$30,000-\$50,000, including

"A lot of people spend that much on a car every few years," he observed.

Training should ideally take place during the slow season, from the end of June through early September. Murray Hill physicians went through 3 months of formal training during such a period. The practice hired college and medical students to preload diagnoses, medicines, and vaccines into the new EMR system. Physicians won't be able to get everything into the record, "but you'll find that over the years the important stuff's there," Dr. Friedman said.

Conversion to an EMR system should take place gradually, he cautioned. A staff of two physicians, for example, should take turns going online. "You should have cross coverage so physicians are not out seeing patients while they learn how to use the system," he advised.

It's crucial to practice with the software before going live with the system. Within 1 to 2 weeks, Murray Hill's physicians had learned the system and regained their usual level of efficiency. Many become even more efficient after going online, he noted.

In addition to handling appointment scheduling (see box), the system helps automate prescription refills. "The patient does it, the doctor signs it. When it's electronic, it's done," Dr. Friedman said. With a few clicks and a printout, a physician can quickly take care of a Medicare patient on 12 different prescriptions that need to be shipped to several locations.

Physicians using an EMR can check

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DR. FRIEDMAN

drug interactions when looking at their patients' prescriptions. In addition, online preventive notices can remind physicians of what needs to be done for each patient. "And any work you do pro-

vides income," he said.

An EMR also can point out errors in coding. "A lot of times we find out that the doctor has been undercoding. It's not fair to give back to carriers and the government. That's a lot of lost income," Dr. Friedman said.

"It continues to amaze me that 90% of physicians are not" paperless, he said. People traveling on planes "would never put up with a pilot navigating by the stars.'

Going Online for Scheduling

Patients favor online systems that provide a 24/7 service for appointments. "By integrating with the Internet you get patients to do things for themselves without staff," Dr. Friedman said.

His practice, Murray Hill Medical Group, developed its own software so that patients could sign in online, make their own appointments, refills, or referrals, or pick a physician or location. Dr. Friedman is now marketing the software for use by physicians who use compatible electronic medical record systems.

Patients get a tracking number plus three e-mail reminders about their visits. For annual exams, the email will remind them not to eat or drink for 8 hours prior to the visit.

If it's a Sunday night, a patient who has forgotten the time of a Monday appointment can look up the visit online instead of becoming a "no show," he said. The practice estimates that 35%-45% of all of its appointments are made online, and the no-show rate with Internet appointments is less than 1%.

Murray Hill Medical Group has open-access scheduling, so most appointments are scheduled within 24 hours. "We always add on more hours. Patients can always get in because that's how we make a living. We're not going to make them wait 3 weeks," he said. The electronic system makes it easy to fill up slots when patients drop out of appoint-

Physicians have long struggled with patients having online access to their practice, he said. "They have a problem with letting patients see their open schedule slots.'

Men
In two placebo-controlled, double-blind, multicenter studies in men (a two-year study of FOSAMAX 10 mg/day and a one-year study of once weekly FOSAMAX" [alendronate sodium] 70 mg) the rates of discontinuation of therapy due to any clinical adverse experience were 2.7% for FOSAMAX 10 mg/day s. 1.0.5% for placebo, and 6.4% for once weekly FOSAMAX 70 mg vs. 8.6% for placebo. The adverse experiences considered by the investigators as possibly, probably, or definitely drug related in B2% of patients treated with either FOSAMAX or placebo are presented in the following table.

	Two-year Study		One-year	Study	
	FOSAMAX 10 mg/day % {n=146}	Placebo % (n=95)	Once Weekly FOSAMAX 70 mg % (n=109)	Placebo % (n=58)	
Gastrointestinal					
acid regurgitation	4.1	3.2	0.0	0.0	
flatulence	4.1	1.1	0.0	0.0	
gastroesophageal reflux disease	0.7	3.2	2.8	0.0	
dyspepsia	3.4	0.0	2.8	1.7	
diarrhea	1.4	1.1	2.8	0.0	
abdominal pain	2.1	1.1	0.9	3.4	
nausea	2.1	0.0	0.0	0.0	

Prevention of osteoporosis in postmenopausal women
The safety of FOSAMAX 5 mg/day in postmenopausal women 40-60 years of age has been evaluated in three double-blind, placebo-controlled studies involving over 1,400 patients randomized to receive FOSAMAX for either two or three years. In these studies the overall safety profiles of FOSAMAX 5 mg/day and placebo were similar.
Discontinuation of therapy due to any clinical adverse experience occurred in 7.5% of 642 patients treated with PlosAMAX 5 mg/day and 5.7% of 648 patients treated with placebo.
In a one-year, double-blind, multicornet study, the overall safety and tolerability profiles of once weekly FOSAMAX 35 mg and FOSAMAX 5 mg daily were similar.
The adverse experiences from these studies considered by the investigators as possibly, probably, or definitely drug related in B1% of patients treated with either once weekly FOSAMAX 35 mg, FOSAMAX 5 mg/day or placebo are presented in the following table.

Osteoporosis Prevention Studies in Postmenopausal Women re Experiences Considered Possibly, Probably, or Definitely Drug Related by the Investigators and Reported

	Two/Three-Year Studies		One-Year Study		
Gestrointestinal	FOSAMAX 5 mg/day % (n=642)	Placebo % (n=648)	FOSAMAX 5 mg/day % (n=361)	Once Weekly FOSAMAX 35 mg % (n=362)	
dyspepsia	1.9	1.4	2.2	1.7	
abdominal pain	1.7	3.4	4.2	2.2	
acid regurgitation	1.4	2.5	4.2	4.7	
nausea	1.4	1.4	2.5	1.4	
diarrhea	1.1	1.7	1.1	0.6	
constipation	0.9	0.5	1,7	0.3	
abdominal distention	0.2	0.3	1.4	1.1	
Musculoskeletal			l .		
musculoskeletal (bone, muscle or joint) pain	0.8	0.9	1.9	2.2	

Concomitant use with estrogen/hormone replacement therapy
In two studies (of one and two years' duration) of postmenopausal osteoporotic women (total: n=853), the safety and tolerability profile of combined treatment with FOSAMAX 10 mg once daily and estrogen ± progestin (n=354) was consistent with those of the individual treatments.

Treatment of glucocorticoid-induced osteoporosis

Treatment of glucocorticoid-induced osteoporosis
In two, one-year, placebo-controlled, double-blind, multicenter studies in patients receiving glucocorticoid treatment, the overall safety and tolerability profiles of FOSAMAX 5 and 10 mg/day were generally similar to that of placebo. The adverse experiences considered by the investigators as possibly, probably, or definitely drug related in B1% of patients treated with either FOSAMAX 10 mg/day (n=157), FOSAMAX 5 mg/day (n=161), or placebo (n=159), respectively, were: Gastrointestinal: abdominal pain (3.2%; 1.9%; 0.0%), acid requrgitation (2.5%; 1.3%), constipation (1.3%; 0.6%; 0.0%; 0.0%), melena (1.3%; 0.0%; 0.0%), nausea (0.6%; 1.2%; 0.6%), diarrhea (0.0%; 0.0%; 1.3%); Nervous System/Psychiatric: headache (0.6%; 0.0%; 1.3%). The overall safety and tolerability profile in the glucocorticoid-induced osteoporosis population that continued therapy for the second year of the studies (FOSAMAX: n=147) was consistent with that observed in the first year.

Paget's disease of bone In clinical studies (ostenproresis and Paget's disease) actives in the first year.

Paget's disease of bone
In clinical studies (osteoporosis and Paget's disease), adverse experiences reported in 175 patients taking FOSAMAX 40 mg/day for 3-12 months were similar to those in postmenopausal women treated with FOSAMAX 10 mg/day. However, there was an apparent increased incidence of upper gastrointestinal adverse experiences in patients taking FOSAMAX 40 mg/day (17.7% FOSAMAX vs. 10.2% placebo). One case of esophagitis and two cases of gastritis resulted in discontinuation of treatment.

Additionally, musculoskeletal (bone, muscle or joint) pain, which has been described in patients with Paget's disease treated with other bisphosphonates, was considered by the investigators as possibly, probably, or definitely drug related in approximately 6% of patients treated with FOSAMAX 40 mg/day versus approximately 1% of patients treated with placebo, but rarely resulted in discontinuation of therapy. Discontinuation of therapy due to any clinical adverse experience occurred in 6.4% of patients with Paget's disease treated with FOSAMAX 40 mg/day and 2.4% of patients treated with placebo.

Laboratory Test Findings
In double-blind, multicenter, controlled studies, asymptomatic: mild, and transient decreases in serum

Laboratory Test Findings In double-blind, multicenter, controlled studies, asymptomatic, mild, and transient decreases in serum calcium and phosphate were observed in approximately 18% and 10%, respectively, of patients taking FOSAMAX versus approximately 12% and 3% of those taking placebo. However, the incidences of decreases i serum calcium to -8.0 mg/dL (2.0 mM) and serum phosphate to A2.0 mg/dL (0.65 mM) were similar in both treatment groups.

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*Post-Marketing Experience**

The following adverse reactions have been reported in post-marketing use:

*Body as a Whole: hypersensitivity reactions including urticaria and rarely angioedema. Transient symptoms of myalgia, malaise and rarely, fever have been reported with FOSAMAX, typically in association with initiation of treatment. Rarely, symptomatic hypocalcemia has occurred, generally in association with predisposing conditions.

Gastrointestinal: esophagitis, esophageal erosions, esophageal ulcers, rarely esophageal stricture or perforation, and oropharyngeal ulceration. Gastric or duodenal ulcers, some severe and with complications have also been reported (see WARNINGS, PRECAUTIONS, Information for Patients, and DOSAGE AND ADMINISTRATION).

ADMINISTRATION).

Misculoskeletal: bone, joint, and/or muscle pain, occasionally severe, and rarely incapacitating (see PRECAUTIONS, Musculoskeletal Pain).

Skin: rash (occasionally with photosensitivity), pruritus, rarely severe skin reactions, including Stevens-Johnson syndrome and toxic epidermal necrolysis.

Special Senses: rarely uveitis, scleritis or episcleritis.

For more detailed information, please read the Prescribing Information FOSAMAX is a registered trademark of Merck & Co., Inc.

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