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Prescribing Estrogen During Menopause: Physician Survey of Practices in 1974 and 1981

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Synopsis

A physician survey was conducted in 13 counties surrounding Albany and Syracuse, N. Y., to determine estrogen prescribing patterns for treatment of problems associated with menopause. A case history of a 51-year-old woman was included in questionnaires sent to the physicians, who were asked how they would treat her in 1981 and how they would have treated her in 1974. Of the 717 questionnaires mailed to gynecologists, internists, and family practitioners, 584 were returned, a response rate of 81 percent.

When asked how they would treat the woman, who was described as having frequent, severe hot flashes and other menopausal symptoms, 65 percent of the physicians practicing in both 1974 and 1981 would prescribe estrogen for the patient in 1981; 82 percent would have done so in 1974. Although 87 percent of the gynecologists would have prescribed estrogen both years, the gynecologists surveyed would have decreased daily estrogen doses of 1.25 mg by 72 percent and increased daily doses of .625 mg and .3 mg by 68 percent. Overall, 19 percent of the physicians surveyed would prescribe a daily estrogen dose of 1.25 mg or more for more than 6 months or .625 mg daily for 3 or more years in 1981, compared with 48 percent in 1974.

These results suggest that many physicians have responded to the increasing evidence in the literature of a link between using estrogen to treat menopausal symptoms and endometrial cancer by switching from high doses of estrogen for long durations to smaller doses for shorter durations. Many physicians are also simply prescribing estrogens for fewer patients.

ARTICLES IN THE PROFESSIONAL literature and popular press have recently raised many questions about treatment of menopausal symptoms. Since commercial introduction of estrogens in the early 1940s, they have been widely prescribed and promoted for treatment of problems associated with menopause. Only in the last decade has estrogen use at menopause been clearly associated with an increased risk of endometrial cancer (*1–7*). The possible causal nature of this association, observed in epidemiologic case-control studies, has led to controversy among clinicians about the appropriate care of menopausal patients. The staff of the Cancer Control Program in the New York State Department of Health, Bureau of Chronic Disease Prevention, conducted a survey of physicians to learn how they resolved the controversial problems.

As part of a study of educational approaches to endometrial cancer control, the project staff developed a written questionnaire entitled "Critical Issues in the Management of the Menopause: A Physician Survey." The survey was designed to determine current patterns of estrogen use and patterns of screening for early cancer detection. The main focus of this paper is to describe estrogen prescribing patterns for 1981 and contrast them with those recalled by the same physicians for 1974.

Methods

Physicians in seven upstate New York counties surrounding the city of Albany and in six counties surrounding Syracuse were studied. Lists of physicians licensed to practice in New York State and approved for Medicaid reimbursement were provided by the New York State Department of Health's Office of Health Manpower. The Medical Directory of New York State and area telephone books were also used to obtain names. The first mailing was sent to obstetrician-gynecologists, internists, and family and general practitioners (hereafter referred to as family practitioners). The responses and further research to identify specialists indicated that 543 physicians were deceased, retired, or practicing a specialty unrelated to menopausal problems.

The final survey population consisted of 717 physicians. A total of 584 returns were received, for an overall response rate of 81 percent. Table 1 breaks down the response rate by physician specialty.

Information was available for 76 of the 133 nonrespondents. It indicated the same sex distribution for nonrespondents and respondents (92 percent male), but, in terms of age, response was better for physicians who had been graduated from medical school recently. Twenty-six percent of those 76 nonrespondents had been graduated from a medical school before 1940 and 13 percent after 1969. The remaining 61 percent were graduated between 1940 and 1969. About 15 percent of the responding physicians had been graduated from medical school before 1940 and 19 percent after 1969. The remaining 66 percent were graduated between 1940 and 1969.

A case history approach was used to elicit 1981 estrogen prescribing patterns and a retrospective comparison with 1974 patterns. The case history approach—putting the questions in a clinical frame of reference—was used to maximize response and minimize recall bias. Case history I—1981 presented the physicians with a 51-year-old woman experiencing frequent and severe hot flashes, who had not had menstrual periods in 12 months, and who was not sleeping well. She was further described as weighing 125 pounds, being 5 feet, 5 inches tall with a blood pressure of 120/70, and having an intact uterus. Her family had no history of diabetes or hypertension. Case history II—1974 presented the same patient, but physicians were instructed to respond as they would have treated her in 1974, before the first epidemiologic study linked the use of menopausal estrogens to the development of endometrial cancer.

In a telephone survey, a subsample of 112 physicians was selected to be asked additional questions. A physi-

Table 1. Physicians in 13 upstate New York counties surveyed about the use of estrogens in managing menopausal patients, by specialty

Specialty	Number of physicians surveyed	Number responding	Percent
Obstetrics-gynecology	185	159	86
Internal medicine	227	175	77
Family practice	275	216	79
Other	30	30	100
Total	717	[1]580	81

[1] Excludes four respondents who did not state their specialty.

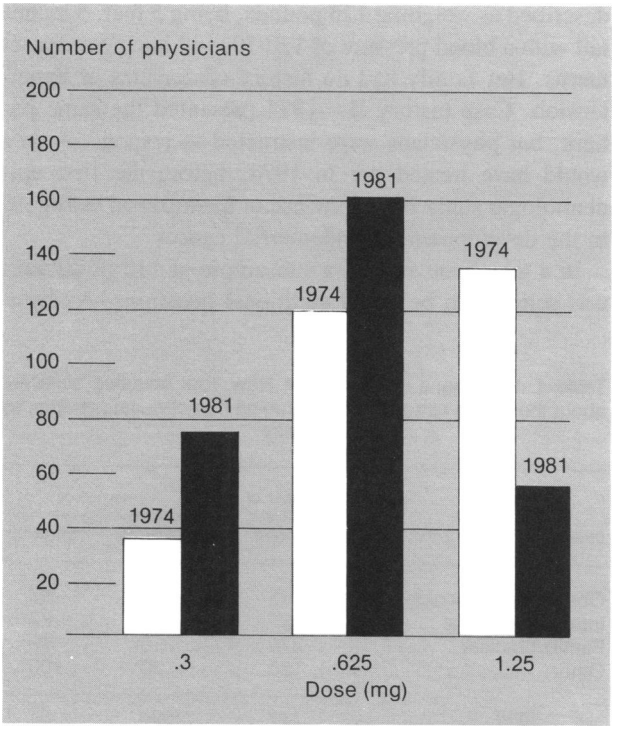
'The case history approach—putting the questions in a clinical frame of reference—was used to maximize response and minimize recall bias.'

cian completed structured telephone interviews with 45 of the 56 respondents who would have prescribed a high dose-long duration estrogen regimen for the patient in 1981 (.625 mg daily for 3 years or more or 1.25 mg daily for more than 6 months). The physician also interviewed 38 of 56 physicians randomly selected from the 528 who would have prescribed lower doses in 1981 or for shorter durations, or both, or who would not have prescribed estrogen at all.

Results

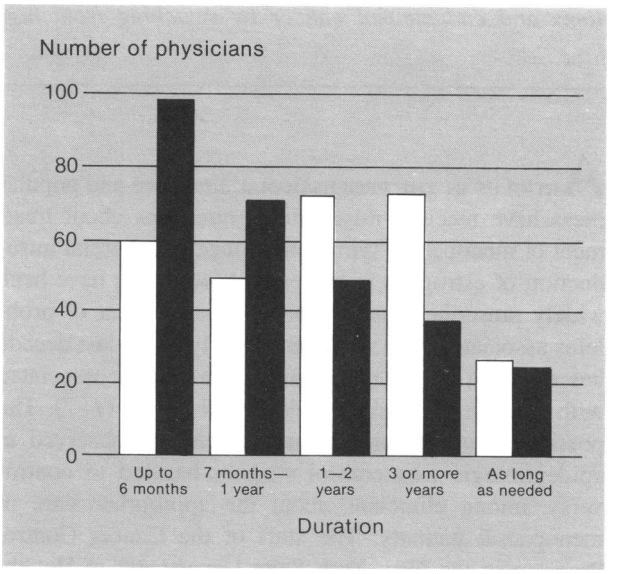
Sixty-five percent of the physicians surveyed who were in practice in both 1974 and 1981 said they would treat the patient with estrogen in 1981, compared with 82 percent in 1974. In addition to this 21 percent decline in the prescribing of estrogen between 1974 and 1981, there were also changes in daily doses and duration of therapy.

Figure 1. Distribution of 290 physicians in 13 New York Counties who would prescribe estrogen for sample patient in 1974 and 1981, by dose[1]



[1]Physicians who would prescribe estrogen for sample patient in both years, excluding 115 not in practice in 1974, 12 who did not answer questions, and 1 prescriber of 2.5 mg in 1981.

Figure 2. Distribution of 279 physicians who would prescribe estrogen for sample patient in 1974 and 1981, by duration[1]



[1]Physicians who would prescribe estrogen for sample patient in both time periods, excluding 115 not in practice in 1974, and 23 who did not answer questions.

The daily doses of estrogen prescribed changed considerably (fig.1). In 1981, the predominant daily dose that would have been prescribed was .625 mg; in 1974, it would have been 1.25 mg. Thirty-seven percent of the physicians prescribing estrogens for the patient in both 1974 and 1981 would have decreased the dose between 1974 and 1981, 2 percent would have increased the dose, and 62 percent would have prescribed the same dose both years. In 1974, only 12 percent of the respondents would have prescribed a daily dose of .3 mg of estrogen for the patient; in 1981, 26 percent of the physicians would have prescribed .3 mg, an increase of 117 percent. The percentage of physicians who would prescribe 1.25 mg or more of estrogen dropped from 47 percent in 1974 to only 19 percent in 1981, a decrease of 60 percent.

Shifts were also made toward shorter durations of therapy (fig. 2). Between 1974 and 1981, exclusive of physicians who responded that they would prescribe estrogen as long as needed, 38 percent of the prescribing physicians decreased the duration, and 4 percent increased it. The proportion of physicians who would prescribe estrogen for the sample patient for 3 or more years decreased 50 percent between 1974 and 1981, while the percentage who would prescribe estrogen for up to 6 months increased 67 percent. Looking at both dose and duration for 1981 (table 2), only 46 of the 240 physicians (19 percent) would prescribe what could be considered a high-risk daily estrogen dose (*1–7*) of 1.25 mg or more

for more than 6 months or .625 mg for 3 years or longer, compared with 114 (48 percent) who would have done so in 1974—a 60 percent decrease.

Reported changes in the mode of estrogen administration were also apparent between 1974 and 1981. The predominant mode of treatment in both periods was cyclic estrogen alone, although an increased use of progesterone with cyclic estrogen during this time is evident. In 1974, 11 percent of the prescribing physicians would have prescribed progesterone for the sample patient; in 1981, this percentage increased almost threefold, to 31 percent.

According to specialty, 52 percent of the internists, 57 percent of the family practitioners, and 87 percent of the gynecologists would have prescribed estrogen for the patient in both 1974 and 1981. Although it would appear that the gynecologists were still as likely to prescribe estrogen for menopausal symptoms, there were dramatic changes in dose, duration of therapy, and mode of administration. Between 1974 and 1981, the gynecologists indicated they would have decreased daily estrogen prescriptions of 1.25 mg by 72 percent and increased daily doses of .625 mg and .3 mg by 68 percent. In 1974, 15 percent of the prescribing gynecologists would have used progesterone with estrogen, compared with 46 percent in 1981.

When choices were ranked based on total responses to each source of information, the source physicians gave as being most important to changing their clinical practices about estrogen use was the information from reports in the literature associating endometrial cancer with estrogen use. The FDA Drug Bulletin for physicians, which summarized such reports from scientific journals (*8*), was ranked as the second most important source, and concerns expressed by patients was third. The statement by the American College of Obstetricians and Gynecologists (*9*) regarding judicious use of estrogen was ranked fourth overall but first by gynecologists.

Screening patients for endometrial cancer and followup care for patients on estrogen have also become critical issues, because physicians must decide what is appropriate patient management. Twenty-nine percent of the responding physicians stated that they test or screen all asymptomatic women for endometrial cancer, and another 26 percent routinely screen some asymptomatic women. The following groups were identified as most likely to be screened (in descending order based on percentage of total positive responses): women with a family history of endometrial cancer (18 percent); women with a history of breast, ovarian, or colon cancer (14 percent); women starting estrogen therapy (14 percent); past users of estrogen (12 percent); diabetic women (10 percent); women whose menopause occurred late (9 percent); obese women (8 percent); infertile women (8 percent); and hypertensive women (7 percent).

Table 3 indicates by physician specialty the particular screening procedures that would be performed at the followup visit of the sample patient on estrogen therapy. Six percent of the total physicians who would prescribe estrogen for the patient in 1981 would take an endometrial sample with office curettage or hospital dilation and curettage (D & C); another 28 percent would perform an endocervical aspiration with pipet or take an

Table 2. Paired analysis of numbers of physicians[1] in 13 upstate New York counties who would have prescribed high and low cumulative dosages of estrogen[2] in 1974 and 1981

1981 dosage	1974 dosage		Total
	Low	High	
Low	119	75	194
High	7	39	46
Total	126	114	240

[1] Does not include 115 physicians not in practice in both 1974 and 1981 or 62 who did not answer questions.

[2] High dosage = 1.25 mg of estrogen or more prescribed daily for more than 6 months or .625 mg prescribed daily for 3 or more years; low dosage = lower doses and/or shorter durations or no estrogen prescribed for a sample patient with menopausal symptoms.

Table 3. Specialists in 13 upstate New York counties who would have performed procedures in 1981 on followup visit of menopausal patient taking estrogen

Procedure	Gynecologists	Internists	Family practitioners	Other	Total	
					Number	Percent
Endometrial sample (office curettage or hospital dilation and curettage)	24	0	0	1	25	6.4
Endocervical[1] but no endometrial	48	20	35	5	108	27.8
Neither of above	66	73	87	15	241	62.1
No procedure	0	6	7	1	14	3.7
Total	138	99	129	22	388	100.0

[1] Endocervical aspiration with pipet or endocervical sample with swab.

endocervical sample with swab. Seventeen percent of gynecologists would take an endometrial sample, but no internists or family practitioners surveyed would perform office curettage or hospital D & C.

The telephone interviews of the subsample of respondents showed similarities and differences between profiles of the 45 physicians who would have prescribed a high dose-long duration estrogen regimen and the 38 who would have prescribed a low dose-short duration regimen or would not have prescribed estrogen at all (table 4). Profiles of both groups were similar in year of graduation from medical school, sex, type of practice, and location of practice. Analysis by specialty showed a larger proportion of gynecologists in the group that would prescribe high dosages than in the low dosage group; internists were more heavily represented in the low dosage group. Family practitioners made up the largest percentage of both groups. In the telephone interviews, the high dosage prescribers reported a smaller proportion of their total patients were menopausal compared with the low dosage prescribers. However, the high dosage prescribers were more likely to treat their symptomatic menopausal patients. High dosage prescribers were also more likely to prescribe progesterone with estrogen and to use office curettage or endometrial biopsy to screen asymptomatic women at high risk for endometrial cancer. Both of these last-mentioned differences reflect the higher proportion of gynecologists in the high dosage prescriber group. About 25 percent of internists and family practitioners in both high and low dosage groups add progesterone, and 10 percent use office curettage. When asked to summarize their philosophy on the use of menopausal estrogens, the majority indicated it should be used cautiously or only for women with severe symptoms. More than 30 percent of the high-dosage prescribers referred to it as "good medicine" or said that it should be used by "everyone," compared with 8 percent of low-dosage prescribers.

Table 4. Telephone subsample profiles: characteristics of high and low cumulative dosage prescribers of estrogen

Characteristics	High dosage[1]		Low dosage[1]	
	Number	Percent	Number	Percent
Specialty	45	100.0	38	100.0
Gynecology	17	37.8	3	7.9
Internal medicine	7	15.6	14	36.8
Family practice	20	44.4	20	52.6
Other	1	2.2	1	2.7
Patients who are menopausal	45	100.0	37	100.0
Up to 10 percent	10	22.2	8	21.6
11–25 percent	11	24.4	7	18.9
26–50 percent	17	37.8	7	18.9
51–75 percent	4	8.9	10	27.0
76–100 percent	3	6.7	5	13.6
Menopausal patients treated for menopausal symptoms	45	100.0	36	100.0
Up to 10 percent	23	51.1	30	83.3
11–25 percent	6	13.3	2	5.6
26–50 percent	11	24.4	4	11.1
51–75 percent	0	0	0	0
76–100 percent	5	11.2	0	0
Prescribe progesterone also	44	100.0	23	100.0
Yes, always	7	15.9	0	0
Yes, sometimes	14	31.8	6	26.1
Never	22	50.0	17	73.9
Other	1	2.3	0	0
Prescribe estrogen after hysterectomy	45	100.0	38	100.0
Yes	40	88.9	23	60.5
No	5	11.1	15	39.5
Use of office curettage	45	100.0	38	100.0
Yes	15	33.3	6	15.8
No	30	66.7	32	84.2
General philosophy on use of menopausal estrogen	45	100.0	38	100.0
Do not use it	2	4.4	14	36.8
Cautious use only	29	64.4	21	55.3
Estrogen is "good medicine"	7	15.6	3	7.9
"Everyone should be on it"	7	15.6	0	0

[1] High dosage = .625 mg daily for 3 or more years or 1.25 mg or more daily for more than 6 months; low dosage = lower doses and/or shorter durations or no estrogen prescription at all for a sample patient with menopausal symptoms.

Comments

These results suggest that many physicians have responded to the publicity and warnings of a link between menopausal estrogen use and endometrial cancer by switching from high doses of estrogen for long durations to smaller doses for shorter durations. Many physicians are also simply prescribing estrogens for fewer patients and only for severe symptoms.

Because the prescribing patterns for 1974 were obtained retrospectively, bias in recall about what would have been done must be considered as a possible explanation for the results. However, evidence of the same trend was also shown by Austin and Roe (*10*) in California, McDonald and coauthors (*4*) in Minnesota, and Walker and Jick (*11*) with U.S. data.

The main sources of information stimulating change that our respondents gave were reports in the literature, the FDA Drug Bulletin update (*8*), the statement by the American College of Obstetricians and Gynecologists (*9*), and concerns expressed by patients. The risk of malpractice suits may have been an unexpressed part of the response to patient concerns.

In only one group—gynecologists—would more than half of the respondents have performed effective screening for endometrial cancer for a patient taking estrogen. This observation may reflect a need for further education on screening among nongynecologists or perhaps the need for a simple but effective screening procedure that could be used by all physicians who treat menopausal women.

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PROGRAMS, PRACTICES, PEOPLE

One-Third of Office Visits to General Practitioners

About 33 percent of all office visits to physicians are made to general and family practice physicians, equaling the proportion for the next three ranking specialities combined, according to a report, "Patterns of Ambulatory Care in General and Family Practice: The National Ambulatory Medical Care Survey, United States, January 1980—December 1981." The publication is based on data gathered annually through 1981 by the National Center for Health Statistics. The sample included 23,055 office visits to 779 general and family practice physicians, who listed all patients seen in the office during a 7-day period.

Visits to general and family practice physicians declined from 41 percent of total visits in 1975 to 33 percent in 1980, while the proportions of the next three ranking specialties—internal medicine, pediatrics, and obstetrics and gynecology—either remained constant or showed a slight increase. The data showed a clear relationship between the number of patient visits per week and the age or sex of the physician. The oldest and youngest physicians had the smallest number of visits per week, with physicians ages 45–54 years the largest. The physicians in the age groups with the highest number of visits spent shorter periods with their patients. Woman physicians saw, on the average, fewer patients per week than their male contemporaries but tended to spend more time with them.

The mean duration of all visits to general and family practice physicians was 13.5 minutes. In general, only 3 percent of the patients seen by family practice physicians were referred to another physician.

The publication also contains descriptions of patient demographic characteristics and information on previous visits and patients' conditions. Management of patients, medication and nonmedication therapy, and diagnostic services were also surveyed.

Patterns of Ambulatory Care in General and Family Practice: The National Ambulatory Medical Care Survey, United States, January 1980–December 1981. Vital and Health Statistics, Series 13, No. 73, Department of Health and Human Services Publication No. (PHS) 83–1734. National Center for Health Statistics, Hyattsville, Md. Available from U.S. Government Printing Office, Washington, D.C. 20402, GPO Stock No. 017–022–00825–4, price $3.75.

National Program Launched to Develop Services for the Chronically Ill Elderly

The Robert Wood Johnson Foundation, Princeton, N.J., has announced the first phase of grants under a $16.25 million national program to develop comprehensive institutional and home-based services for the elderly in communities across the nation.

More than 4 million Americans age 65 and over are severely limited in their daily activities by physical or mental problems, according to the foundation. Of these older Americans, one and a quarter million are in nursing homes, and another half million are completely homebound.

Under the foundation's Program for Hospital Initiatives in Long-Term Care, planning grants ranging from $85,000 to $150,000 have been awarded to 25 not-for-profit, voluntary or public hospitals, in 21 States, for the design of projects that will offer coordinated long-term-care services to elderly persons with chronic illnesses. On completion of planning activities, hospitals will receive second-phase grants ranging to $500,000 to help in implementation of the projects.

"Most hospitals have traditionally limited themselves to short-term acute care, but the increasing numbers of elderly with long-term chronic disorders are compelling hospitals to adapt their missions," says Dr. David E. Rogers, president of the foundation. "Taking care of the elderly's full range of needs through an array of services both in and out of the hospital has become an important goal."

Each of the 25 hospitals participating in the foundation program will enroll at least 250 elderly persons with chronic disorders. The hospitals will coordinate