Appendix J: Methods for Estimating costs

J

This appendix describes the methods and sources used in estimating cost parameters for the OTA model. The components of cost required for the model include those of bone mineral density (BMD) measurement, hormone replacement therapy (HRT), heart disease, hip fractures, gall bladder disease, endometrial cancer, and breast cancer.

The OTA model considers only those health care costs that are directly attributable to the specific conditions whose incidence or severity are affected by osteoporosis prevention strategies. They do not include any health care costs unrelated to these conditions. When an osteoporosis prevention strategy increases life spans, people are likely to use more health care simply because they are living longer. These increases in "unrelated costs" are not included in OTA's analysis, because they are assumed to be part of the portfolio of both costs and benefits embodied in the effectiveness measure (years of life gained). The basis for OTA's assumptions concerning each component is described below.

BMD SCREENING COST

The cost of screening for BMD was based on the cost of single photon absorptiometry (SPA). This is the only method of bone densitometry currently covered by Medicare (18). It is also the method used in OTA's model to estimate the distribution of BMD levels at various ages. Other BMD measurement technologies are available, generally at higher cost than SPA. The estimate of $100 used for this analysis is consistent with estimates from a variety of sources. Table J- 1 summarizes the cost estimates used in various studies of BMD screening.

HRT COST

The components of the treatment costs are summarized in table J-2. HRT regimens vary, sometimes including estrogen (ERT) alone and sometimes estrogen in combination with (or followed by) progestin (PERT).

Estrogen-Only Therapy

The annual cost of ERT, $75, was based on the retail price of Premarin™ (0.625 mg daily for 273 days per year). To arrive at this estimate OTA surveyed retail pharmacy costs in the Washington, DC area in 1991.

The American College of Obstetricians and Gynecologists recommends annual mammograms and endometrial biopsies for all women on ERT (1). However, annual mammograms are gen-

TABLE J-1: Summary of Selected Estimates of Bone Density Screening

Author/article	Data year	Cost of screening SPA	DPA	QCT	Other	Constant dollar year	Source	Comments
Health Care Financing Administration, 1993	**1990**	$1 18[a] 7 1[b]	$97[a] 6 9[b]			1990	Medicare	a Average submitted charges *b Average* allowed charges
National Osteoporosis Foundation, 1990	1990	75.50[c]	75.50[c]			1990	Estimate based on Medicare fee screens	C Average Medicare reimbursement for SPA and DPA
Vogel et al., 1991	**1990**	50-150	150-300	150-400	$ 50-$150[d] 150-300[e] 75-00[f] 50-1509	1990	Based on information obtained from hospital, clinic, and private settings	d SXA (single photon x-ray absorptiometry) e DXA (dual energy x-ray absorptiometry f Lumbar spine series g Radiogrammetry
Cummings and Black, 1986	**1984**	40-120	150-300	100-300	—	**NG**	American College of Physicians	
American Osteoporosis Alliance, 1990	1987	75	78	86	—	1987-1988	HCFA	Medicare average allowable amounts.
	1988	75	68	81	—			
Health Insurance Association of America, 1991	Claim dates: 11/1/89 to 1 0/31/90	.51[h] 116[i]	54[h] **159**	— [i] —	— —	1989-1990	Health Insurance Association of America's Medical Prevailing Healthcare Charges System	'Professional Component 'Total Component

ABBREVIATIONS: DPA = dual photon absorptiometry, NG = not given, QCT = quantitative computed tomography, SPA = single photon absorptiometry

SOURCES National Osteoporosis Foundation, *Medicare Reimbursement for Bone Mass Measurement: Costs* and savings executive summary (Washington, DC August 1990); J Petrie, U S Department of Health and Human Services, Health Care Financing Administration, personal communication, July 1993, J M Vogel, P D Ross, J W Davis, et al , Hawaii Osteoporosis Center, Honolulu, HI, "Technologies to Detect Osteoporosis" Final Report, unpublished contractor report prepared for the Office of Technology Assessment, U S Congress, Washington, DC, Mar 25, 1991 S Cummings and D Black, "Should Perimenopausal Women Be Screened for Osteoporosis?" *Annals of Internal Medicine* 104(6) 817-823, 1986, American Osteoporosis Alliance memorandum to U S House Select Committee on Aging, Subcommittee on Human Services, Washington, DC, 1990, Health Insurance Association of America, B L Harris, Associate Director, Washington, DC, letter to R C Herdman, Office of Technology Assessment, U S Congress, Washington, DC, Aug 30, 1991

erally recommended for all women over 50, so endometrial biopsy is the only cost recognized in the model. The cost of this procedure was estimated from average submitted physician charges in 40 Blue Cross/Blue Shield plans (10).

In a certain percentage of women on ERT, adenomatous or atypical endometrial hyperplasia would be detected, requiring dilatation and curettage (D&C) of the uterus. Weinstein and Schiff estimated that 7.5 percent of estrogen users would be diagnosed with endometrial hyperplasia (19). The average submitted physician charge for D&C in 40 Blue Cross/Blue Shield plans was $526 (10); therefore, the expected additional annual cost associated with this procedure for estrogen therapy users would be $39.

Most women who experience unscheduled bleeding while on estrogen replacement therapy would be given an additional endometrial biopsy. Weinstein and Schiff have estimated the incidence of bleeding in estrogen users at 2.5 percent (19). Therefore, $3 per year is added to the yearly treatment cost to account for this procedure.

On the basis of all of these estimated components of HRT cost, the total annual cost of ERT in the OTA model is $269.

TABLE J–2: Annual HRT Cost

ERT	
Prescription drug	**$ 98**[a,b]
Endometrial biopsy	129[d]
Dilation and curettage	39[e]
Additional endometrial biopsy	3[f]
Total	$269
PERT	
Estrogen	$ 98 [a,b]
Progestin	1 19[b,c]
Doctor visit	38[g]
Endometrial biopsy	3 [d, h]
Total	$258

KEY: ERT = estrogen replacement therapy; HRT = hormone replacement therapy; PERT = progestin/estrogen replacement therapy

[a]Drug cost IS from a survey conducted in 1993 by OTA of retail pharmacies in the Washington, DC area

bBased on Premarin™ (0.625 mg daily) for 273 days/year.

[c]Based on Provera™ (1 O mg daily) for 156 days/year.

dAverage submitted physician charges from 40 Blue Cross & Blue Shield plans.

e Weinstein and Schiff estimated that 7.5 percent of patients on estrogen alone would need a dilation and curettage The cost of $526 for this procedure was obtained from Blue Cross & Blue Shield average submitted physician charges.

f 2.5 percent of Patients on estrogen alone are assumed to need an additional endometrial biopsy due to increased risk of unscheduled bleeding.

g Charge is based on the 1993 Medicare average submitted charge for an established patient requiring limited service (CPT code 90050 in *Physicians' Current Procedural Terminology).*

h Unscheduled bleeding in estrogen-progestin therapy Patients would require an endometrial biopsy. The incidence of bleeding in this group is assumed to be 2,5 percent.

SOURCES: Office of Technology Assessment, 1995. R. Lapp, Manager for Provider Strategy, Blue Cross&Blue Shield Association, Chicago, IL, personal communications, July 18, 1993, and July 23, 1993. M.C, Weinstein and I. Schiff, "Cost-Effectiveness of Hormone Replacement Therapy in the Menopause," *Obstetrical and Gynecological Survey 38(8):445-455,* 1983.

Estrogen-Progestin Therapy

In PERT, a progestin is added to the estrogen regimen. The price of the progestin used in our analysis was based on Provera (10 mg daily dosage) for 12 days per four-week cycle. From a survey of retail pharmacy costs in the Washington, DC area, we estimated the annual prescription drug cost of PERT at $119.

An annual endometrial biopsy is not usually required for women on PERT, but they would have a yearly physician visit. The cost of the doctor visit, $38, was based on the Medicare charge for an established patient who receives limited service.

Most observers believe that women on PERT are not at increased risk of endometrial hyperplasia. Therefore, extra D&C procedures would not occur. PERT does result in increased frequency of abnormal vaginal bleeding, however. Ettinger and colleagues recently compared the frequency of abnormal vaginal bleeding in post-menopausal women taking cyclic PERT with a cohort of women not on HRT of any kind (8). They found a relative risk of abnormal bleeding of approximately 3.1 in women on therapy. The frequency of abnormal bleeding declined with age, however. About 60 extra events per 1,000 patient-years

TABLE J-3: Acute Myocardial Infarction Costs (1993 dollars)

Fatal acute myocardial infarction	$14,470-31 ,397a
Nonfatal acute myocardial infarction	74,217[a,b]
Ratio of nonfatal to fatal acute myocardial infarction	2.6/1 [c]
Total heart attack costs per fatal heart attack	$ 2 0[7],[4]3 [4] $[224], 3 6[1]

a E. Wittels, J Hay, and A. Gotto, "Medical Costs of Coronary Artery Disease in the United States, " *American Journal of Cardiology 65 "432-440,* 1990,

b Five_year costs discounted to their net present value at the time of the heart attack at an annual rate Of 5 perCent.

C M Stampfer, G. Colditz, W. Willett, et al , "Postmenopausal Estrogen Therapy and Cardiovascular Disease Ten-Year Follow-Up from the Nurses' Health Study, " New *England Journal of Medicine 325(11):756-762, 1991*

SOURCES" Based on data from sources cited in the footnotes

(6%) occurred in women, aged 50-54; 40 extra events per 1,000 patient-years *(470)* occurred in women aged 55-59; and about 5 extra events per 1,000 patient-years (0.5%) occurred in women aged 60-67. In an early cost-effectiveness study, Weinstein and Schiff estimated that PERT would induce abnormal bleeding in approximately 2.5 percent of patients (19). This estimate is similar to the data from the Ettinger study, if a single estimate of relative risk is used for all ages.[5] We therefore adopted 2.5 percent as an estimate of the number of cases of abnormal bleeding that would require an endometrial biopsy. Thus, $3 is added to the annual cost of HRT with progestin therapy. The total cost of estrogen/progestin treatment is therefore $258.

The components of HRT (i.e., drugs, doctor visits, tests) used in this model are similar to those used in other analyses of HRT and osteoporosis (5,15,16,19). Some analyses included only drug costs (5,15) or used drug costs plus the costs of physician visits to monitor treatment without itemizing the costs of specific diagnostic procedures included in the treatment (16). Our cost components and total cost estimates for HRT—$269 per year for ERT and $258 for PERT—are consistent with these cost estimates.

COST OF HEART DISEASE

The major cardiovascular impact of HRT is a potential reduction in the number of acute myocardial infarctions (AMIs) (i.e., heart attacks). The cost of AMI used in our analysis, shown in table J-3, reflects that of both fatal and nonfatal heart attacks.

The model assumes that there is a fixed ratio of fatal to nonfatal heart attacks. Thus, for every heart attack death assigned by the model, costs would accrue both for that woman and for a given number of additional women who would have nonfatal heart attacks.

OTA used data from the Nurses' Health Study to estimate the ratio of fatal to nonfatal heart attacks (13). That study reported the incidence of both fatal and nonfatal (confirmed and probable) AMIs in 48,470 postmenopausal nurses followed for 10 years. The observed ratio of nonfatal to fatal AMIs in that sample was 2.6.

Data from the Framingham Heart Study, a large ongoing study of heart disease incidence and outcome, gave cost estimates for fatal and nonfatal heart attacks. The study categorizes coronary artery disease into five events: acute myocardial infarction, angina pectoris, unstable angina pectoris, sudden death, and nonsudden death. Using these outcomes, Wittels and colleagues analyzed

[1] If Ettinger's estimates for the 60-67 year-old population is assumed to hold for older women as well, the average frequency across all ages would be approximately 16 per 1000 patient-years (1.6%). But as the population ages, fewer women in the cohort are alive, so this simple average underestimates the true average.

Medicare cost data, a pharmaceutical price survey, and Houston area surveys to estimate five-year costs including those for hospitalization, emergency room care, monitoring and testing, heart catheterization, and thrombolytic therapy resulting from acute myocardial infarction (20). The final cost estimates were based on these charges, weighted by their frequency of occurrence.

In the Framingham study, sudden death was defined as a change within a l-hour period from a stable clinical status to death. Nonsudden death occurs when a patient admitted with a diagnosis of AMI dies in the hospital. We used the costs of sudden and nonsudden death as the endpoints of the range of estimates for the cost of a fatal AMI. In 1993 dollars, the costs of sudden and nonsudden death from AMI were $14,470 and $31,397, respectively.

AMI patients in the Framingham Heart Study who survived hospitalization had a five-year cost (in 1993 dollars) of $81,630. This estimate was not discounted over the five-year period, and it also did not include costs incurred in years beyond the five-year period of study. To better estimate costs spread out over five years, the total was divided into five equal amounts, which were then discounted to their present value at the time of the heart attack at an annual discount rate of 5 percent. We used this discounted cost—$74,217—as the estimate of the cost of a nonfatal AMI.

Together, these estimates imply that for every heart attack death, a cost of between $207,434 and $224,361 is incurred in treating heart attacks, both fatal and nonfatal. These estimates are consistent with the few analyses that identify costs of AMI by fatal and nonfatal outcomes (9).

The costs calculated for the Framingham study included those for both men and women. If the cost of treating a female AMI patient is different from the cost of treating a male AMI patient, then the estimates used in our model may be inaccurate. Also, the expected frequencies of events or resource used in the Framingham study (based on a cohort of Massachusetts residents) may not represent the national population of coronary artery disease patients.

COST OF HIP FRACTURE

An analysis of the health care costs attributed to hip fractures is provided in a separate OTA background paper (18). The total cost includes in-hospital and post-hospital expenses as shown in table J-4. OTA used the inpatient hospital costs for patients between 50 and 64 years of age as the basis for our estimate, because it is higher than the cost for older women and therefore gives an optimistic estimate of the cost savings associated with reductions in hip fractures. The total estimated cost (including long-term care costs) is $21,189 in 1990 dollars, or $22,914 in 1993 dollars (after adjusting for inflation using the CPI-U for all items).

COST OF CHOLECYSTECTOMY

The cost of a cholecystectomy was obtained from the rates (physician and hospital costs) allowed by Blue Cross and Blue Shield of the Washington, DC region (1 1). Open cholecystectomy, which costs $11,160, was used as the basis for procedure cost estimation. Laparoscopic cholecystectomy is an increasingly frequent procedure costing approximately $9,000. This estimate is consistent with a previous analysis of gallstone treatments, which calculated the costs for a cholecystectomy - based on a 45-year-old female patient at between $6,024 and $18,072 in 1993 dollars (3).

BREAST CANCER COSTS

There are no accurate data on the lifetime cost of treating breast cancer. The existing literature provides estimates of some parts of cancer treatment, but for this analysis we constructed age- and stage-specific lifetime breast cancer cost estimates.

TABLE J-4: Average Expenditures for In-Hospital and Post-Hospital Care of Hip Fracture Patients, 1990

In-hospital care for persons age 50 to 64	
Hospital services	$ 7,732
In-hospital physician services	1,946
Anesthesia services	576
Radiologic services	298
Physical therapy	785
Total	$11,337
In-hospital for persons age 65 and over	
Hospital services	7,623
In-hospital physician services	1,236
Anesthesia services	319
Radiologic services	116
Physical therapy	28
Total	$9,322
Post-hospital for persons of all ages	
Nursing home care	7,054
Care in a rehabilitation facility or other short-stay hospital	742
Readmission to a short-stay hospital	440
Home health care	453
Nonmedical home care	329
Outpatient physician services	550
Emergency room and ambulance services	284
Total	$ 9,852
Total cost of hip fracture for patients 50 to 64	$21,189
Total cost of hip fracture for patients 65 and over	$19,174

SOURCE U.S. Congress, Office of Technology Assessment, *Hip Fracture Outcomes in People Age Fifty and Over-Background Paper,* OTA-BP-H-120 (Washington, DC U S. Government Printing Off Ice, July 1994).

The expected lifetime cost of treating breast cancer varies with the number of years of survival after detection, which is itself a function of both age and stage at detection. Age-and stage-specific l-year, 5-year, 10-year, and 15-year all-cause survival rates were provided to OTA by the National Cancer Institute from its Surveillance, Epidemiol-ogy, and End Results (SEER) tumor registry data[6] (12). These data were used to estimate the proportion of women who would live for 1 year, 3 years, 8 years, and 13 years (the midpoints of the surviv-al intervals available in the SEER data). Women who survive for at least 15 years were assumed to live 15 years plus the average life expectancy of U.S. women who reach an age equal to their age of detection plus 15 years. For example, a 65-year-old who survives 15 years to age 80 is assumed to live the average life expectancy of other 80-year-olds.

2 The SEER data on cancer incidence, stage, and survival is based on tumor registries maintained in 10 cities.

TABLE J-5: Cost of Treating Breast Cancer by Type of Care (1993 Dollars)

Treatment	Unadjusted cost	Comorbidity cost[a]	Net attributable cost
Initial care			
local	**13,500**	**1,369**	12,131
regional	14,470	1,369	13,101
distant	14,470	1,369	13,101
Continuing care	10,620/yr.	5,477/yr.	5,143/yr.
Terminal care	27,744	2,739	25,005

[a]Comorbidity cost refers to the cost of treating patients for diseases unrelated to breast cancer.

SOURCES: M. Baker, L. Kessler, N. Urban, et al., "Estimating the Treatment Costs of Breast and Lung Cancer, " *Medical Care 29(1) 40-49, 1991* U.S. Congress, Office of Technology Assessment, *Breast Cancer Screening for Medicare Beneficiaries: Effectiveness, Costs to Medicare and Medical Resources Required* (Washington, DC U.S. Government Printing Off Ice, November 1987)

For each combination of age and stage of cancer at detection, we assumed that a patient would incur an initial cost in the year of cancer onset, continuing care costs in each remaining year of life, and terminal care costs in the final year of life. Initial costs were assumed to vary with the stage of cancer at detection, whereas continuing and terminal care costs were assumed constant across allages and stages. The age- and stage-specific schedule of costs was constructed by combining these cost parameters with the age- and stage-specific survival times and discounting the costs incurred over time to their present value in the year of cancer detection at an annual rate of 5 percent.

Estimates of the cost of initial, continuing, and terminal breast cancer care are available from a study conducted by researchers at the National Cancer Institute (2). That study used data on a sample of Medicare patients to estimate the net health care costs of each kind (initial, continuing, and terminal) attributable to breast cancer.

The costs of initial care were not estimated by stage in that study, however, so OTA broke down the initial care cost into stage-specific costs using information on initial care costs by stage provided in another study (7,17). The resulting estimates of initial, continuing, and terminal care costs used in the construction of the age- and stage-specific breast cancer costs are shown in table J-5.

The resulting age- and stage-specific lifetime discounted costs are shown in table J-6.

ENDOMETRIAL CANCER COSTS

The osteoporosis prevention strategies tested in this analysis are relevant to women with intact uteri who are therefore at risk of endometrial cancer. The risk, prognosis, and treatments vary, depending on whether the woman is currently on ERT or PERT at the time of diagnosis.

OTA assumed that endometrial cancer found during HRT would have no excess associated mortality. The woman would undergo a hysterectomy and face no permanent loss of vitality. The procedure would affect costs only, not the length of life. (See appendix G for the rationale underlying this assumption.)

The cost of a hysterectomy was estimated from several published articles shown in table J-7. We used a mid-range estimate (updated to 1993 dollars) of $6,000 to include all costs (physician fees and hospitalization) associated with a hysterectomy.

If a woman is not on HRT at the time of diagnosis, the mortality risk depends on age and stage at diagnosis. The costs for this scenario were estimated in a manner similar to that used for breast cancer.

TABLE J-6: Lifetime Cost of Treating Breast Cancer,[a] by Age and Stage, in OTA's Model

Age	Stage A	Stage B	Stage C	Age	Stage A	Stage B	Stage C
50	$78,153	$67,274	$45,043	71	$50,849	$48,598	$41,285
51	76,671	66,228	44,855	72	49,250	47,527	41,173
52	75,385	65,237	44,823	73	47,340	46,161	40,893
53	73,861	63,966	44,490	74	45,605	44,911	40,679
54	73,181	63,338	44,357	75	43,951	43,818	40,619
55	71,727	62,183	44,176	76	42,293	42,685	40,375
56	70,049	61,107	43,985	77	40,825	41,824	40,352
57	69,310	60,503	43,996	78	39,127	40,514	39,778
58	67,765	59,525	43,720	79	37,542	38,638	39,071
59	66,299	58,668	43,545	80	35,414	37,169	38,497
60	65,717	58,209	43,394	81	33,403	35,869	37,960
61	64,300	57,394	43,220	82	31,637	34,781	37,433
62	63,810	57,135	43,163	83	29,572	33,515	36,655
63	62,019	56,132	42,814	84	27,703	30,667	35,044
64	60,296	55,256	42,653	85	24,941	28,835	34,364
65	59,417	54,851	42,516	86	22,334	27,156	33,643
66	57,742	53,863	42,336	87	20,056	25,791	33,089
67	57,028	53,356	42,268	88	18,209	24,528	32,533
68	54,947	52,001	41,951	89	16,673	19,099	27,503
69	53,831	51,277	41,856	**90**	12,616	15,837	26,230
70	51,885	50,091	41,601				

[a]Costs recurred in years after detection are discounted to their present value at the age of detection at a rate of 5 percent per annum

SOURCE: Office of Technology Assessment, 1995

The initial, continuing, and terminal care costs used in the estimation procedure are summarized in table J-8. We used the endometrial cancer treatment guidelines described in a cancer textbook(6) to determine the components of the cost model. The initial cost was the cost of a hysterectomy if the cancer was detected at stage I or stage 11. We used $6,000 for the cost of a hysterectomy as described above. Endometrial cancers found at more advanced stages (III or IV) are usually treated initially with intense radiation therapy. This cost was obtained from Blue Cross & Blue Shield average submitted charges for several clinical brachytherapy treatments (CPT codes 77750,77761,77762, 77776, 77777) (10). The average cost of these procedures was about $600, and assuming that the cost of radiation therapy increases with increasing dosage, we estimated that the initial treatment cost would be $1,200. The continuing cost was the annual cost of radiation therapy, $600, for no more than eight years of treatment, and the cost of annual doctor visits, $200. After consulting with an analyst at the National Cancer Institute (4), we assumed that the terminal care cost for endometrial cancer is the same as the terminal care cost of breast cancer, or $25,005.

These endometrial cancer costs were used in estimating discounted lifetime cancer costs by age and stage of onset in a cost model similar to the

TABLE J-7: Estimates of the Cost of Hysterectomy

Source	Treatment costs	Data
Summitt et al., 1992	Average hospital charge for a laparoscopy-assisted vaginal hysterectomy: $7,905 Average hospital vaginal hysterectomy charge: $2,831.05	Cost data collected from women undergoing vaginal hysterectomies at the University of Tennessee, Memphis Gynecological Clinic.
Kovac et al., 1991	Average hospital abdominal hysterectomy charge: $3,584.82 Average hospital vaginal hysterectomy charge: $2,831.05	Based on data collected from all patients undergoing hysterectomies in a St. Louis Missouri hospital between January 1, 1986 and December 31, 1986.
Health Care Financing Administration, 1991	Average physician charge for an abdominal hysterectomy: $2,020 (submitted) $890 (allowed)	Medicare Part B data, Office of Research and Demonstrations
Blue Cross & Blue Shield, 1990 (Lapp, 1 993)	Average submitted charges for physician services for a total abdominal hysterectomy: $1,906	Based on data gathered from 40 Blue Cross plans (New York and California not included.)
Tosteson et al., 1990	Abdominal hysterectomy: $4,900 (based on stage 1, charge includes hospital care and professional fees)	Physician fees based on Medicare prevailing charges or charges at selected Boston-area teaching hospitals

SOURCES: R.L. Summitt, Jr., T.G. Stovell, G.H. Lipscomb, et al., "Randomized Comparison of Laparoscopy-Assisted Vaginal Hysterectomy with Standard Vaginal Hysterectomy in an Outpatient Setting," Obstetrics and Gynecology 80(6):895-901, 1992, S R Kovac, S.J. Christie and G.A. Bindbeutel, "Abdominal Versus Vaginal Hysterectomy' A Statistical Model for Determining Physician Decision Making and Patient Outcome, " *Medical Decision Making* 11(1):19-28, *1991,* J. Petrie, U S Department of Health and Human Services, Health Care Financing Administration, personal communication, July 1993; R. Lapp, Manager for Provider Strategy, Blue Cross&Blue Shield Association, Center for Health Economics and Policy Research, Chicago, IL, personal communications, July 18, 1993, and July 23, 1993; A.N.A. Tosteson, D.I. Rosenthal, J Melton, Ill, et al., "Cost Effectiveness of Screening Perimenopausal White Women for Osteoporosis: Bone Densitometry and Hormone Replacement Therapy, " *Anna/s of Internal Medicine* 113(8):594-603, 1990.

TABLE J-8: Endometrial Cancer Costs (1993 Dollars)

Initial care:	
All stages (hysterectomy)	$6,000
Stages Ill and IV (radiation treatment)	1,200
Continuing care:	
Annual doctor visits	**200**
Annual radiation therapy	**600**
Terminal care	**25,005**

SOURCE: Office of Technology Assessment, 1995

one for breast cancer. The lifetime costs due to endometrial cancer were discounted by 5 percent per year to the age of onset and weighted by the probability of surviving for different lengths of time, based on age- and stage-specific all-cause survival rates provided to OTA by the National Cancer Institute (12). These costs are shown in table J-9 (see page 210).

TABLE J-9: Lifetime Cost of Treating Endometrial Cancer,[a] by Age and Stage, in OTA's Model

Age	Stage A	Stage B	Stage C	Age	Stage A	Stage B	Stage C
50	$15,702	$20,203	$21,552	71	$15,178	$21,482	$22,964
51	15,796	20,467	21,679	72	15,297	21,677	23,064
52	15,925	20,635	21,804	73	15,418	21,891	23,166
53	16,018	20,888	21,964	74	15,599	21,993	23,220
54	16,053	20,985	22,027	75	15,780	21,177	23,322
55	16,207	21,241	22,227	76	15,837	22,119	23,151
56	16,286	21,370	22,317	77	15,941	22,136	23,005
57	16,317	21,509	22,376	78	16,048	22,167	22,863
58	16,394	21,681	22,521	79	14,949	21,015	21,970
59	16,491	21,862	22,623	80	15,114	21,178	21,927
60	16,519	21,932	22,713	81	15,254	21,291	21,882
61	16,581	22,138	22,810	82	15,401	21,474	21,848
62	16,610	22,154	22,860	83	15,742	21,588	21,806
63	16,670	22,351	22,988	84	13,643	19,375	21,028
64	16,733	22,473	23,055	85	13,605	19,438	20,993
65	16,781	22,549	23,165	86	13,525	19,443	20,935
66	16,807	22,660	23,158	87	13,505	19,509	20,892
67	16,831	22,726	23,177	88	13,517	19,648	20,880
68	16,898	22,851	23,224	89	8,990	13,546	15,996
69	16,920	22,907	23,238	90	8,635	13,418	15,890
70	17,014	23,021	23,292				

[a]Costs incurred in years after detection are discounted to their present value at the age of detection at a rate of 5 percent per annum

SOURCE: Office of Technology Assessment, 1995

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