

## Health Care Industry

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# Financial facts about treating breast cancer - includes a listing of educational resources - Costing Out Care

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Breast-conserving therapy can yield better quality-adjusted survival years than a radical mastectomy, but a high percentage of patients with apparently localized disease harbor undetectable metastases. Chemotherapy and hormone therapy are used alone or in combination to kill any cancer cells that have spread throughout the body. Radiation therapy is sometimes used as well, either before or after mastectomy.

Chemotherapy combines an arsenal of drugs, most commonly cyclophosphamide (a DNA damaging agent), methotrexate and fluorouracil (both of which interfere in the metabolism of fast-growing cells) and adriamycin (an antibiotic).

Hormone therapy deprives cancer cells of the estrogen that some of them need to grow. Cells in the breast contain estrogen and progesterone receptors that allow tissue to grow or change in response to changing hormone levels. About two-thirds of all breast cancers contain high levels of estrogen receptors and are said to be estrogen-receptor positive (ER+). About two-thirds of ER+ tumors also test positive for receptors to progesterone (PR+). Such tumors tend to grow less aggressively and are more likely to respond to hormone therapy, resulting in better prognoses. Most hormone therapy uses the drug tamoxifen. Some premenopausal patients may have surgery to remove their ovaries, a woman's main source of estrogen.

Several cost studies indicate that chemotherapy is cost effective. In an early-stage breast cancer study, chemotherapy added benefit to all women at an acceptable cost of \$4,500 to \$9,000 per quality-adjusted life-year, which is about the cost effectiveness of treating hypertension. Tamoxifen, however, added meaningful benefit at reasonable cost only in ER+ women. In another study, chemotherapy added benefit of 11 months at a cost of \$17,700 to \$21,600 per quality-adjusted life-year.

A controversial treatment option is high-dose chemotherapy with stem cell transplant called autologous bone marrow transplant (ABMT). High-dose chemotherapy can severely damage or destroy bone marrow so that the patient is no longer able to produce blood cells, increasing susceptibility to infection and bleeding. The reinfusion (transplant) of one's own bone marrow and/or stem cells-- the immature cells from which all blood cells develop--replaces damaged marrow with healthy stem cells that can produce the blood cells the patient needs to survive.

The cost of high-dose chemotherapy with stem cell transplant often exceeds \$100,000 as

compared to conventional chemo-therapy at \$15,000 to \$40,000. One study calculated the cost-effectiveness ratio of ABMT at \$97,000 per quality-adjusted life-year, more than 10 times that of routine chemotherapy. ABMT reimbursement policies vary widely among insurance companies and were summarized by the U.S. General Accounting Office in its Health Insurance Coverage of Autologous Bone Marrow Transplantation for Breast Cancer Report.

#### RECOVERY IN THE LONG AND SHORT TERM

In response to consumer backlash and legislative proposals to stop health plans from requiring mastectomy patients to undergo same-day surgery, the American Association of Health Plans has declared that it backs 48-hour stays. Patients see a need to stay overnight in the hospital. And that's not an unreasonable stance, given the nature of the procedure.