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Khalid Mahmud

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HOME CHEMOTHERAPY TODAY AND IN THE FUTURE

Khalid Mahmud, M.D., FACP

Khalid Mahmud, M.D., is Medical Director, Oncology, North Memorial Medical Center, Minneapolis, MN.

In the new field of high-technology home care, chemotherapy is one of the most recent entries. Its current scope is small. In 1988, only four percent of the 250,000 Americans who received chemotherapy received any of that therapy in the home setting. Nonetheless, home care industry experts believe that this segment of care will grow at a rate of 30 percent per year.[1] There are seven reasons why such growth in home chemotherapy will occur:

1. Patient Preference. Given the choice, most patients prefer to receive chemotherapy in the familiar surroundings and comfort of their own home. Numerous surveys of home care patients attest to this reality.

2. Time Savings. The time gained through home administration vs. the time lost when a patient is hospitalized is a major and direct benefit of home chemotherapy. It is not just survival, but the quality of survival that matters.

3. Reduced Suffering. Pain and suffering can be reduced if the patient does not have to be moved to the physician's office or to the hospital for chemotherapy administration.

4. Hospital-Acquired Complications. Infections, injuries, and medication errors can be significantly reduced or eliminated by delivering chemotherapy in the home.

5. Safe Delivery Systems. New portable, effective intravenous delivery systems are now available, making home administration of chemotherapy easier and safer.

6. Reduced Toxicity. Continuous infusional chemotherapy, which is often less toxic and more effective than bolus chemotherapy, is being used with increasing frequency in the home setting, because of its safety and cost-effectiveness.

Home care industry experts believe that high-technology home care chemotherapy will grow at a rate of 30 percent per year

7. Trained Oncology Nurses. The growing number of certified oncology nurses, because of their familiarity with the effects and side effects of chemotherapy, and the numerous details involved in its administration, can supervise the home administration of chemotherapy without the presence of an oncologist.

The CareVan Experience

Until recently, very little has been published about home chemotherapy.[2,3] My personal experience relates to CareVan Medical Systems, Inc.—a high-technology home care company that was started in 1984 as a "Home Cancer Clinic."[4] The company purchased a van and equipped it with a microscope, a centrifuge, I.V. pumps, a refrigerator, a telephone, and a chemo hood with an exhaust fan. During the first six months of the program, an oncologist and a nurse clinician made a total of 149 visits to the homes of 41 patients who would have had difficulty traveling to an oncologist's office for treatment.

Patient management consisted of chemotherapy, nutritional therapy, supportive therapy, and various combinations of the three. Twenty patients received chemotherapy—16 received bolus chemotherapy injections and four received continuous chemotherapy infusions. There were no complications with the exception of temporary fluid overload in two of the 20 patients. All of the patients preferred home treatment to treatment in an oncologist's office and/or hospitalization. The total start-up cost for the CareVan program was $33,000, compared with the projected cost of $57,000 if the 20 patients had been treated in traditional settings—a 44 percent cost savings.

Since 1984, the CareVan program has grown and evolved. Today, most of the patient care is provided by primary care nurse clinicians who maintain constant telephone contact with the managing oncologist. Physicians are available to make a visit whenever it is deemed necessary, either by the physician, nurse, patient, or family. However, few physician visits to patients' homes have been necessary.

The program is also providing an increasing amount of infusional chemotherapy administration in the home setting. Examples of agents being used include Adriamycin, Vincristine (breast cancer, myeloma), 5FU (colon cancer, head and neck cancer), Cisplatinum and VP16 (small cell lung cancer). The table on page 17 presents the results of Cisplatinum plus VP16 infusional chemotherapy for 10 patients managed in their homes through the CareVan program during the past three years. (Cisplatinum was administered as a continuous infusion for four days every month.) Only one patient developed significant nausea and vomiting, three patients

had a minimal rise in serum creatinine levels, and four patients developed extremity paresthesia. All 10 patients, however, experienced significant tumor shrinkage.

What Lies Ahead

Despite the safety, efficacy, and cost-effectiveness of home chemotherapy, there are two payment hurdles that need to be overcome.

First, the lack of Medicare reimbursement for chemotherapeutic agents. Recent developments suggest that the Health Care Financing Administration (HCFA) does not intend to pay for chemotherapy drugs administered in the home. The decision is based largely on outdated information and on the manufacturer's label of caution (i.e., these agents should be administered under the supervision of a physician familiar with the use of chemotherapy drugs). There is no question that oncologists direct the administration of chemotherapy without being physically present at the patient's bedside. This is a routine practice of oncology that has worked well for years.

The second hurdle is the lack of Medicare payment to physicians for the home management of chemotherapy. Administration of home chemotherapy can be a complex matter requiring significant time and effort in management planning, review of charts and orders, and daily telephone calls from nurse clinicians, patients, and families. To date, unfortunately, Medicare has refused to pay oncologists for the home management of chemotherapy.

However, the third-party payers in the Minneapolis area have responded well to the idea of home chemotherapy. All private insurers, and all but one of the local HMOs, are reimbursing for treatment through the CareVan program. And many payers, recognizing the value of participating oncologists' time and effort, are reimbursing the company for its realistic, but relatively modest, physician management fees.

There is no question that home chemotherapy makes sense from every angle that one may want to examine: patient comfort, quality of life, safety, and cost effectiveness. Home chemotherapy will continue to grow, as more private payers recognize its value and benefits. However, the fact that Medicare currently does not pay for this service is unfortunate and unfair. HCFA's policymakers need to be informed that the current payment stance not only hurts patients, but Medicare's own pocketbook. ■

References

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HOME TREATMENT OF SMALL CELL LUNG CANCER
FOUR-DAY INFUSION OF PLATINUM AND VP-16
(TWO OR MORE MONTHLY CYCLES)

Patient	Date of Diagnosis	Nausea/ Vomiting	Renal Impairment	Parasthesias	Tumor Shrinkage	Current Status
57-y.o. male	6/86	—	—	—	Yes	Alive
53-y.o. male	6/87	—	—	—	Yes	Died 4/88*
69-y.o. male	10/87	—	Creat. 2.5	—	Yes	Alive
57-y.o. female	11/87	Yes	Creat. 2.2	Yes	Yes	Died 5/89 With Brain Metastasis
56-y.o. male	1/88	—	—	Yes	Yes	Alive
46-y.o. female	2/88	—	—	Yes	Yes	Alive With Brain Metastasis
53-y.o. male	8/88	—	—	Yes	Yes	Died 9/89
63-y.o. female	8/88	—	—	—	Yes	Alive
44-y.o. male	2/89	—	Creat. 2.1	—	Yes	Alive
70-y.o. female	2/89	—	—	—	Yes	Alive

* Patient was transferred to a Veteran's hospital after three courses of home chemotherapy.