

## FEATURE ARTICLE

# Implementation of Intraperitoneal Chemotherapy for the Treatment of Ovarian Cancer

Catherine Hydzik, RN, MS, AOCN®

In January 2006, a clinical announcement made by the National Cancer Institute suggested that intraperitoneal chemotherapy become standard care for patients with newly diagnosed stage III, optimally debulked epithelial ovarian cancer. Intraperitoneal chemotherapy is new to many healthcare providers (i.e., physicians, nurses, and pharmacists). This article will discuss how to implement intraperitoneal chemotherapy in practice. Education and experience are the keys to successful implementation.

Intraperitoneal (IP) chemotherapy is emerging as the standard of care for patients with newly diagnosed stage III, optimally debulked epithelial ovarian cancer. IP chemotherapy first was introduced in 1955 by Weisberger, Levine, and Storaasli, who used nitrogen mustard intraperitoneally for malignant ascites. The rationale for IP chemotherapy was described in 1978 by Dedrick, Myers, Bungay, and DeVita using a mathematical model. The authors demonstrated that certain agents had a greater concentration and longer half-life in the peritoneal space when compared with IV administration. In search of new treatments for ovarian cancer, researchers conducted clinical trials with IP chemotherapy starting in the mid-1980s; the initial studies focused on safety and feasibility. IP chemotherapy was never accepted completely by the healthcare community because it required more resources, involvement, and expertise than IV chemotherapy. In addition, healthcare providers were concerned about outcomes, adverse effects, and toxicities for patients as well as the need to identify ideal candidates (i.e., patients with limited, small-volume residual disease without adhesions). In January 2006, the National Cancer Institute (NCI) reported that clinical trials showed IP to be safe and effective. As a result of the announcement, interest in IP chemotherapy was renewed. According to Armstrong et al. (2006), IP chemotherapy improves progression-free survival (PFS). The median PFS in a patient group that underwent IV therapy alone was 18.3 months compared to 23.8 months in a group that underwent combined IV and IP therapy. In addition, an improvement of 15.9 months was reported in median overall survival (49.7 and 65.6, respectively) of patients with ovarian cancer whose tumors were optimally debulked (Armstrong et al.).

IP chemotherapy is new to many healthcare providers; therefore, this article will discuss how to implement IP chemotherapy in practice. For implementation of any new procedure to be

### At a Glance

- ◆ A National Cancer Institute announcement supported the use of intraperitoneal (IP) chemotherapy for patients with newly diagnosed stage III, optimally debulked ovarian cancer.
- ◆ Resources and education can assist staff in caring for patients receiving IP chemotherapy.
- ◆ Healthcare professionals should educate patients and families regarding symptom management strategies.

successful, healthcare providers must be educated and develop expertise.

## An Institutional Approach

Memorial Sloan-Kettering Cancer Center (MSKCC) began using IP chemotherapy in 1984. A nursing task force was created to establish IP chemotherapy as a standard of care and ensure that staff members were knowledgeable about current IP practices. The task force is ongoing and consists of gynecologic nurses from surgery, medicine, and treatment units. The task force consults with the nursing education service, surgeons, medical oncologists, and pharmacists as needed. Other institutions frequently contact the task force for information regarding IP chemotherapy standards.

Catherine Hydzik, RN, MS, AOCN®, is a clinical nurse specialist in the Department of Nursing at Memorial Sloan-Kettering Cancer Center in New York, NY. No financial relationships to disclose. (Submitted April 2006. Accepted for publication June 4, 2006.)

Digital Object Identifier: 10.1188/07.CJON.221-225