

## **Frequently Asked Questions (for Health Care Professionals)**

### **What data supports the NCI Clinical Announcement on Intraperitoneal (IP) Therapy?**

Three large phase III trials that compared intravenous chemotherapy to the same chemotherapy delivered via a combined IV/ IP or an IP approach. All three trials demonstrated an improvement in survival associated with the IP administration of chemotherapy.

### **How big was the improvement in survival associated with IP chemotherapy?**

Overall, the median improvement in overall survival was 13 months. In the most recent trial, GOG 172, which included both IP cisplatin and IP paclitaxel, the median improvement in overall survival was 16 months.

### **How does this improvement compare with the improvements in median survival associated with the introductions of platinums and taxanes?**

The improvement in survival due to IP administration of chemotherapy is as large as the improvement in survival observed with the introductions of platinums and taxanes in the treatment of women with ovarian cancer.

### **Which patients should be considered for IP therapy?**

The strongest evidence supports IP administration of chemotherapy for women with stage III ovarian cancer, who have no or minimal residual disease after primary surgical staging and debulking. In addition, one phase III trial showed a non-significant improvement in survival associated with IP consolidation therapy in women rendered without evidence of disease after primary surgical staging/ debulking followed by intravenous platinum/ taxane based chemotherapy.

### **Which patients should be considered as ineligible for IP therapy?**

Women with stage IV ovarian cancer, women with suboptimally debulked ovarian cancer (disease greater than 1 cm in diameter), women with extensive intra-abdominal adhesions, or patients who are not expected to be able to tolerate cisplatin or paclitaxel. In addition, patients who had removal of a portion of the left side of the colon during surgery may have more difficulty with IP therapy. Patients with significant surgical complications or post-operative infectious complications may also have more problems with catheter placement and IP therapy. There is no information to indicate that patients with early stage (stage I or II) ovarian cancer or patients with recurrent ovarian cancer have an improved survival with the use of IP therapy.

### **When should the IP port be placed?**

The IP port can be placed at the time of primary surgery or later.

### **Where should the IP port be placed?**

The port should be sutured to the fascia overlying lower aspect of the anterior rib cage. The port catheter should then be tunneled subcutaneously to the midline and then placed into the peritoneal catheter.

### **What type of port seems to work best?**

A number of investigators with many years of experience in delivering IP chemotherapy recommend the Bard intravenous Mediport. According to them, the intravenous Mediport appears to have a lower complication rate than intraperitoneal ports or Tenckhoff catheters. Other investigators have used the intraperitoneal ports without difficulty (Fujiwara).

### **Should all the chemotherapy be given via an IP approach?**

Most reported studies used a combined IV/ IP approach, with cisplatin being given by an IP route. The most recent trial, GOG 172, administered IV paclitaxel on day 1, IP cisplatin on day 2, and IP paclitaxel on day 8.

### **Should the IP catheter be replaced if it malfunctions?**

No. When a catheter malfunctions, then the rest of the chemotherapy should be given via an IV route.

### **How many course of IP therapy should patients receive?**

Most trials have prescribed 4-6 courses of IP therapy, although less than half of all patients were able to receive all prescribed courses. Based on an intention-to-treat analysis, the group of patients assigned to the IP therapy arm had better survival than those who only received IV chemotherapy, even though less than half of them could get all 6 cycles of IP therapy.

### **What explains the improved survival associated with IP chemotherapy?**

Pharmacokinetic studies have shown that IP administration of chemotherapy results in a 10-20-fold higher drug exposure in the peritoneum than achieved with IV administration of chemotherapy. In addition, drugs administered to the peritoneal cavity have a significantly longer half-life than drugs given IV. Patients who get IP therapy, therefore, are exposed to lower systemic levels of drug but for a significantly longer period of time than with IV chemotherapy. In addition, it is possible that IP administration of chemotherapy may alter the immunologic milieu of the peritoneal cavity.

### **What are the short-term toxicities most commonly seen with IP chemotherapy?**

The intraperitoneal catheter is a foreign body which increases the risk of infection and fever. Administration of IP chemotherapy also puts a woman at increased risk for abdominal pain or discomfort, nausea, and vomiting. In the most recent study, GOG 172, women who received the combined IP/IV chemotherapy had more hematologic, metabolic, and neurologic toxicity than those who received only IV chemotherapy. Based on a review of the toxicities reported in GOG 172, we recommend that women receiving IP cisplatin have aggressive intravenous hydration before and after their cisplatin chemotherapy. We also recommend the use of aprepitant, a 5-HT<sub>3</sub> receptor antagonist and corticosteroid for prevention and treatment of cisplatin-associated nausea and vomiting. In addition, should a woman experience any neurologic toxicity, her next dose of cisplatin should be reduced.

### **What are the long-term toxicities most commonly seen with IP chemotherapy?**

Compared to women who only received IV chemotherapy, women who received both IP and IV chemotherapy had a greater incidence of persistent paresthesias at one year. Overall HRQOL, however, was similar between the two arms at one year.

### **What is the best technique to access the IP port?**

Emla 2.5% cream should be applied to the IP port site and covered with occlusive dressing one hour before accessing the port. After one hour, the occlusive dressing should be removed. The port should then be accessed with a 19-20 gauge right-angled (Huber) needle and flushed.

After removing the Huber needle from the IP port, a pressure dressing should be placed over the port site to prevent reflux of the infusate from the port. Patients should be instructed to remove the pressure dressing 12-24 hours after IP infusion.

### **How should patients be positioned to receive IP therapy?**

Women should be placed supine in semi-Fowler's position on a stretcher, Gurney, or bed. The head of the bed should be no higher than 30 degrees to prevent dislocation of the right-angled needle during infusion. A flat position during infusion may cause increased pressure on the diaphragm causing respiratory compromise/ GI discomfort in patients receiving IP infusions. After use of a bedpan, the nurse must assure that proper needle position is maintained. After the infusion is complete and the right-angled needle has been removed, the patient should be repositioned every 15 minutes from side to side for a total of one hour. This repositioning may help dispersal of the intraperitoneal infusate throughout the peritoneal cavity.