

The skilled cancer specialists at SoutheastHEALTH provide high quality, compassionate care for cancer patients. In light of medical advancements in the battle against cancer, we highlight several cancer topics that showcase trends or new treatments available at SoutheastHEALTH.

managing the pain

Pain resulting from the progressive disease process of metastatic cancer or advanced-stage cancer is a critical focus for healthcare providers who seek to optimize the quality of life for patients. At SoutheastHEALTH, pain specialists are available to any cancer patient who has been experiencing unrelenting pain.

“There is a general lack of awareness about the role a pain-management specialist can have in assisting cancer patients with advanced stage or metastatic disease,” says **Terry Cleaver, MD**, who directs the Pain Management Center of the Brain and NeuroSpine Clinic of Missouri. “There are many options, ranging from medications and nerve blocks to implantable drug delivery systems that can help enhance a patient’s quality of life.”



In a literature review published in the *Annals of Oncology*, researchers found that 64 percent of metastatic or advanced-stage cancer patients acknowledged experiencing pain, yet half — nearly one out of every two patients — were undertreated for that pain.

“The good news is that often 85 percent of patients who have pain related to a malignancy can have that pain controlled with conservative measures,” says Dr. Cleaver, who serves on the

Programmable Drug Delivery System Eases the Pain of Cancer

Southeast Hospital Medical Staff. “However, for those who fail to respond, there is no need to suffer.”

Both cancer and the treatments for cancer can produce pain. Management of that pain depends upon the source of the problem. Initial consultations include obtaining a full medical history and performing a comprehensive physical exam.

Non-narcotic, low-dose oral medications or anti-inflammatory steroids may be the first step. Narcotic analgesics may be used as well, but patients sometimes experience side effects, such as feeling groggy or “washed out,” or experiencing nausea or vomiting. These treatments are not localized to the site of the pain and impact the entire body.

Nerve blocks that actually block a pain signal in the nervous system are another option. “We can interrupt a nerve’s function temporarily or permanently,” Dr. Cleaver says. “If we can pinpoint the source of the pain, we can destroy the nerve in that area with chemicals or with radiofrequency rhizotomy (RF), which uses heat energy to block the nerve’s function.”

RF stops the transmission of pain signals and relief can be as long as one to three years. The nerve may regenerate, however, so ongoing follow-up with a pain-management specialist to monitor overall pain control is recommended.

IMPLANTABLE PAIN PUMP

When other treatments are not effective and patients need more aggressive pain management or long-term relief, a programmable, implantable, intrathecal narcotic delivery system can help.

The system, which is about the size of a hockey puck, comes in two sizes and includes a pump that holds the prescribed medication and an intrathecal catheter that moves the medication from the pump to a precise area in the fluid around the spinal cord. Because the medication is delivered directly to a pain source, there are normally fewer side effects and better pain control.

“The system is fully programmable in that it contains a computer-driven infusion device that we implant just below the skin in the abdomen,” explains Dr. Cleaver. “We can refill the

Terry Cleaver, MD, speaks to a patient in the Pain Management Center of the Brain and NeuroSpine Clinic of Missouri.



With the intrathecal narcotic delivery system, “we have fewer side effects, better pain relief and fewer complications.” – TERRY CLEAVER, MD

BENEFITS OF PAIN PUMP

- **Medication is delivered directly to pain source**
- **Fewer side effects and complications**
- **Better pain control**
- **Fully programmable**
- **Medication can last up to six months between refills**
- **Cannot be over-ridden by patient**
- **Tested prior to implantation to gauge effectiveness**
- **Almost immediate pain relief**

pump directly through the skin like a traditional port. Depending upon the capacity of the pump we implant, the medication can last as long as six months between refills.”

The device is FDA-approved, covered by most insurance plans and cannot be over-ridden by patients, which negates an overdose risk. Another plus is that the system is tested prior to implantation to gauge the effectiveness

of the prescribed pain-relief medication. During the trial period, patients are normally hospitalized overnight. Dr. Cleaver then inserts a temporary catheter, calculates a medication dose and evaluates the patient’s response after an injection. If the initial trial is not effective, the dose is increased or a different medication tried. Currently there are half a dozen medications that can be prescribed for the pump, separately or in combination, many of which can only be given via the intrathecal system. The goal is to have the patient experience a 50 percent or more reduction in pain before the actual pump is implanted.

“When you use oral medications, patients wait for the medication to be circulated through the body to the pain source,” says Dr. Cleaver. “The intrathecal drug delivery system enables us to target our medications to the point of pain. By doing that, pain relief can be almost immediate. Even more significant, we use only about one percent of the oral dose level. It’s more potent, because it’s isolated to where it’s needed most. In that way, we have fewer side effects, better pain relief and fewer complications.”

It may take several weeks to titrate the dosage to optimize pain relief but patients often have an immediate sense of pain reduction once the pump is in place. Although rare, complications related to the use of the pump include bleeding, infection, nerve or spinal-cord damage, spinal headache, tears or kinks in the catheter, tissue growth around the catheter tip and device malfunction. Follow-up visits as needed minimize the risks.

“I had a patient with metastatic thyroid cancer who was basically non-functional because of his pain,” recalls Dr. Cleaver. “With the intrathecal drug delivery system, he was able to eat better, exercise better and was sawing wood up until the week before he died. The pump minimized his pain and gave him back his quality of life.

“For patients with malignancies, there are effective treatments available that can minimize or eliminate pain and enhance the overall quality of life,” he adds. “I want to see patients earlier in their disease process, because help is available. The sooner we can become involved, the more effective we can be in controlling the patient’s pain.”