

# Auricular Acupuncture for the Treatment of Cancer-Related Pain

Cancer-related pain is often challenging to manage when trying to ensure patients are comfortable as they experience treatment-related side effects. To improve patients' pain and psychological distress, auricular acupuncture—a treatment that stimulates points on the ear—may serve as a safe and effective complementary therapy. Therefore, in 2020, Vanderbilt-Ingram Cancer Center implemented Battlefield Acupuncture—an auricular acupuncture protocol developed by the U.S. military—in its pain and symptom management cancer care clinic.<sup>1</sup> Patients reported high satisfaction with the acupuncture treatment, in addition to their standard care treatments. Furthermore, positive impacts include cases of significant opioid reductions and improved patient quality of life. In line with current evidence, auricular acupuncture should be considered as an adjunct treatment for cancer-related pain.

Cancer impacts millions of people across the globe daily as incidences grow. More than 17 million cancer cases were reported worldwide in 2016, resulting in more than 8 million deaths.<sup>2</sup> In a 10-year duration between 2006 and 2016, there was a 28 percent increase in cancer diagnoses.<sup>2</sup> Cancer-related pain and psychological distress are unfortunate comorbidities that often remain undertreated during patients' care.<sup>3-5</sup> The sequelae of uncontrolled cancer-related pain further impacts a person's quality of life and ability to cope with effective psychosocial interventions.<sup>6</sup> Often, the use of pain-relieving medications, such as opioids, has undesired side effects that could further impact patients' function and quality of life. Commonly reported adverse effects of opioids include constipation, nausea and vomiting, sedation, pruritis (itchy skin), respiratory depression, and hypogonadism (a failure of the gonads, testes in men and ovaries in women, to function properly), which often lead patients

to discontinue use of these medications, resulting in uncontrolled pain.<sup>7-9</sup>

Given the prevalence and impact of cancer-related pain, optimal treatments must be pursued. A promising adjunctive intervention for pain management is auricular acupuncture, a type of acupuncture that uses thin needles inserted at specific locations on the outer ear,<sup>10</sup> following the Battlefield Acupuncture protocol.<sup>11</sup> Many studies have demonstrated auricular acupuncture to be safe and beneficial in reducing pain intensity when combined with the standard of care.<sup>12,13</sup> Additionally, auricular acupuncture may improve psychological distress in patients experiencing pain.<sup>14</sup>

## Implementing Auricular Acupuncture at Vanderbilt-Ingram Cancer Center

Auricular acupuncture is less expensive for patients (\$31 per treatment) compared to full-body acupuncture, and it can be

easily implemented within the standard of oncology care. The pain and symptom management team at Vanderbilt-Ingram Cancer Center gathered current evidence for integrating auricular acupuncture and presented it to the cancer program leadership. Support from key stakeholders was secured and included executive physician, nursing, and business leaders. Once buy-in was secured, collaboration among scheduling specialists; nursing, advanced practice, physician, and administrative leadership; and billing consultants was key to ensuring successful implementation and operation of the program.

The acupuncturist was a specialty trained nurse practitioner currently practicing within the institution. Additional training, certification, and credentialing is required for this practice and was extended to this and other team members.

In collaboration with our coding teams, we developed a note template to collect documentation and bill for the service.

To ensure all providers and staff were made aware of the new auricular acupuncture service, we shared information at monthly operational and departmental meetings, as well as at town halls. Informational meetings with leaders from Vanderbilt’s access centers were conducted, and decision trees were updated to alert specialists of this new service.

Finally, we updated our patient brochures, allowing for self-scheduling by patients online, and we placed advertisement banners in the cancer center’s waiting room. Advertising materials included patient out-of-pocket fees and images of the nurse practitioners providing this treatment.

Vanderbilt-Ingram Cancer Center began offering auricular acupuncture for the treatment of cancer-related pain in 2020.

### Results from Program Implementation

Overall, acceptance and use of auricular acupuncture by patients within our cancer center has been positive. Providers now refer to this service as a complementary therapy. Patients appreciate the additional treatment option without risk of side effects, and many have reported an improvement in their pain and comfort. Patients have also reported a reduced need for medication(s) prescribed for pain (e.g., muscle relaxers, benzodiazepines, anti-inflammatories, and neuropathic regimens in addition to opioids). The benefits of auricular acupuncture are highlighted in the case study below.


### Patient Case Study

A 49-year-old male with a history of thyroid cancer and chronic cancer-related pain in his bilateral cheeks and the left side of the neck was referred to the clinic. Quality of life for this patient was significantly disrupted, as the pain was so severe when chewing, it prevented him from eating at times. He further reported multiple side effects from a prescribed opioid, impacting his quality of life and his ability to parent his young children. At the time of consultation, the patient was taking oxycodone (immediate release, 15 mg, four times per day [60mg/day]).

Our team administered Battlefield Acupuncture to the patient once a month for two months (a total of two sessions). Following the second auricular acupuncture treatment, the patient reported 100 percent relief from the pain on the right side of his face, 50 percent relief from the pain on the left side of his face, and significant improvement in comfort while eating. He was tearful when discussing his considerably increased ability to enjoy meals socially. Furthermore, the patient was also able to reduce his oxycodone intake to 5 mg for no more than three times a day (15 mg/day)—a 75 percent reduction—and had plans to continue weaning off the opioid completely.

Our institution evaluates patient satisfaction with validated surveys.<sup>15</sup> This patient reported 100 percent satisfaction with the overall auricular acupuncture care provided, including time spent with the provider and explanation of the procedure and medical condition. He said he was likely to recommend this service to others (Table 1, below).

### Final Thoughts

Integration of auricular acupuncture is safe, feasible, and cost effective, and provides patients suffering from cancer-related pain an additional complementary treatment option. Use of auricular acupuncture as an adjunct to standard anti-cancer therapies may help mitigate adverse reactions associated with cancer treatments and pain medications. In the literature, patients have reported positive outcomes and, in some cases, significantly improved quality of life after auricular acupuncture. Our findings support existing studies and provide evidence to include auricular acupuncture as a treatment consideration for patients experiencing cancer-related pain and/or side effects from medications. 

**Table 1. Patient Satisfaction with Auricular Acupuncture Treatments**

Survey Question	Satisfaction (%)	N
Care overall	100%	1
Explanation of condition	100%	1
Provider concern for questions/worries	100%	1
Provider’s efforts to include patient in decision making	100%	1
Time spent with patient	100%	1
Likelihood of recommending the therapy	100%	1
Auricular acupuncture provider	100%	1
Discussion of treatment	100%	1

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