# PRINCETON PAIN MANAGEMENT CENTER AA NORTHVALE MEDICAL ASSOCIATES, INC. CLINIC

A REPORT ON THE USE OF SONOTRON IN PAIN MANAGEMENT

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by

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#### INTRODUCTION

This center believes in a coordinated multidisciplinary approach to treating chronic pain, offering the best of traditional and holistic medicine in a caring, supportive atmosphere. The center believes the patient should participate in designing a treatment regimen that addresses their problem in the best way possible.

Some of the types of pain treated at this center are: fibromyalgia, reflex sympathetic dystrophy, arthritis, diabetic neuropathy, headaches, cancer pain, chronic abdominal or plevic pain, post amputation pain, failed back surgery syndrome, low back pain, neck pain, facial pain, post herpetic neuralgia and TMJ pain.

The specialties that are covered by the staff are anesthesiology, neurology, psychiatry, psychology, dentistry, hypnotherapy, biofeedback, acupuncture, massage therapy, shiatso, jin shin dyutsu, Feldenkreis method, nutrition and stress management. This center also has its own operating room with C-arm digital fluoroscopy making it possible for placement of implantable epidural and spinal narcotic pumps and spinal cord stimulators without hospital stay.

Because of its central location in the state, the patients come from northern and southern New Jersey along with eastern Pennsylvania.

The Center opened its doors in April of '95 under the direction of Leslie M. Greenberg, MD, founder and director. Dr. Greenberg is board certified in otolaryngology, and anesthesia. Having been trained at Harvard Medical School and Brigham Women's Hospital in Boston, he is also an attending anesthesiologist at the Medical Center at Princeton.

The Sonotron is operated by the medical staff under AA Northvale Medical Associates and

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is supervised by Herb Etzold, a representative of Sonotron Medical Systems, Inc.

All patients who expressed localized joint pain were treated with the Sonotron. This was done with the belief that if there was no relief at their first treatment, another modality was selected.

No x-rays are taken on the premises.

This initial period use of the Sonotron was experimental to see how patients reacted to this type of therapy - and also what types of problems can best be treated with the Sonotron.

Before the use of the Sonotron all patients were evaluated by an attending physician using the center's pain scale form. They each were required to read and sign a patient consent form and the physician signed and filled out the attending physician statement.

The evaluation form was completed on all patients whether they had one treatment or multiple treatments.

All patients understood that they were part of a United States Food and Drug Administration study. In addition, confidentiality of patient information and medical history was assured.

All 24 patients are listed with their results from the initial trial period of six months.

#### CHARTS

The patients' range in age was 18 to 99 years with a median age of 72. The mean was 6 years younger and the mode was 3 years older than the median (Chart 1). In the population there were 7 males and 17 females (Chart 2).

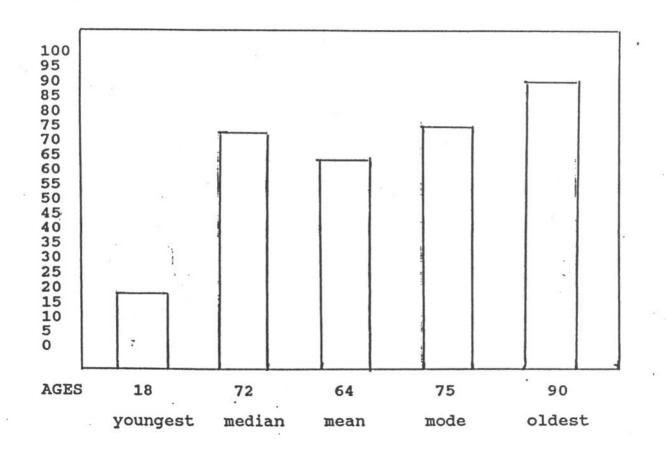
Nine areas of the body were treated (Chart 3). The lower back (lumbar area) had the highest number of patients. Seven shoulders were treated for pain, six knees, four hips, four ankles and one each for hand, upper back, wrist and TMJ. Out of 24 patients nine had more than one joint treated.

Even though all the patients never completed 3 or 4 treatments, only 4 had no reduction in pain. Chart 4 illustrates the difference in patients' pain as recorded in the patient record.

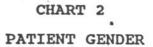
### CHART 1

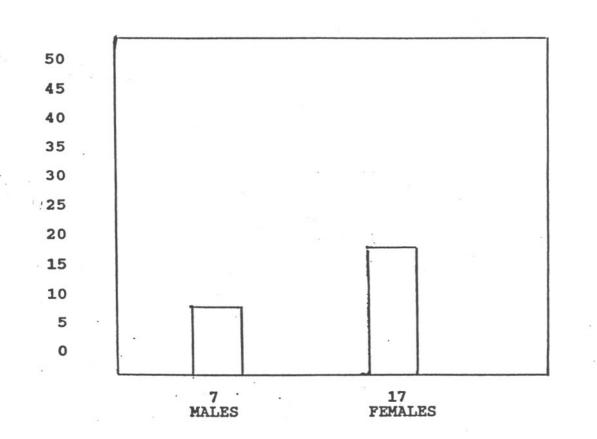
AGES OF THE SAMPLE POPULATION

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### CHART 3

## FREQUENCY OF AREA TREATED

Areas Treated	Total Number of Joints Treated*	Right Side	Left Side	Lower Back	Upper Back	
Ankles	4	1	3			
Back	10			9	1	
TMJ	1	1				
Hand	1		1			,
Hips	4	3	1			
Knees	6.	4	2			
Shoulders	7	4	3			
Wrists	- <sup>1</sup>		1			

\* 9 Patients received treatment in 2 areas.

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### CHART 4

### PAIN BEFORE AND AFTER TREATMENT 0 Being no pain, 10 being the most severe pain

PATIENT NUMBER	PAIN BEFORE	PAIN AFTER	DIFFERENCE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	9 5 10 8 4 9 7 5 9 6 10 10 6 8 10 7 10 6 5 8 8 5 5 6	8 1 5 6 3 6 2 2 7 4 9 10 5 7 8 4 10 5 7 8 4 10 5 4 7 8 4 5 4	1 4 5 2 1 3 5 3 2 2 1 0 1 1 2 3 0 1 1 1 0 1 0 2

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