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BUREAU OF
LONG TERM CARE SERVICES

Ms. Barbara Dombrowski
AHCA
2727 Mahan Drive, MS #51
Tallahassee, Florida 32308

Dear Ms. Dombrowski,

The purpose of this letter is to furnish a final report of the Anodyne experience over the past year at The Springs at Boca Ciega Bay, in St. Petersburg, Florida. Thank you Ms. Dombrowski for your support and guidance throughout this process and thanks to AHCA for this grant program as the results speak for themselves. The Anodyne near infrared machine has proved to be a valuable treatment tool to reduce pain, reduce swelling, increase sensation and improve function for a variety of patients.

The format for this report reviews the operational overview, clinical outcomes in terms of qualitative and quantitative datum, alternative treatment options and some general observations. The attached Table 1 describes individual patient treatment outcomes and patient comments.

Operational Overview

Orientation to the machine involved an initial three hour training conducted by a variety of highly skilled Anodyne representatives. Use of the machine proved relatively simple. (A) Apply a protective barrier (saran wrap) on the skin over the chosen sight, (B) place the pads that emit light on the chosen sight over the barrier, (C) turn the machine on and adjust the intensity according to desired use, and (D) leave on for 20-30 minutes each treatment. The training suggested that measurable results would take a minimum of 12 treatments.

The mechanism at work is basically twofold. The light emitted acts to dilate blood vessels and provide gentle warmth. These two features result in increased circulation, decreased pain, and increased sensation which in turn, produce better functional capabilities.

Patients were seen either three times per week or five times per week depending on the individual plan of care. There are only two conditions for which the Anodyne may not be used, pregnancy and active cancer.

Clinical Outcomes

The attached Table 1 describes the relevant outcomes and patient comments. The key defines the column headings, however a review is appropriate. **Patients:** are numbered to maintain confidentiality. **Diagnosis:** reflects the reason why therapy was involved. **Treatment dates:** reflect the weekly documentation required for those being treated by Anodyne. Candidates were

treated either three or five times per week. **Pain Scale:** defines pain on a scale of one to 10. One is very minor pain, 10 is the worst pain imaginable. Naturally, the lower the pain, the better. **Flexibility** measures how much a joint can move, measured in degrees. 90 degrees is a right angle. For example, to put on a shirt a person needs about 130 degrees of shoulder movement. **Sensation:** again the more, the better. **Function:** therapy intervenes based on the inability of a patient to perform some kind of functional activity. Whether it be walking to the bathroom or getting dressed, the goal of therapy is to help people do as well as possible in daily life. **Patient Comments:** are the quotes supplied to the therapist throughout each treatment week.

One feature of the Anodyne treatments that is not reported is the reduction in pain medications required for comfort. While Table 1 describes pain level reported by the patients, reporting the reduced need of pain medications was an oversight that is not included. Patient interviews performed intermittently reflected a highly significant decrease in pain medication use. Common was a person that "had to have" 3 or 4 percocets per day to manage pain. Following a week or two of Anodyne, this would drop to 1 or 2 per day and in most cases, down to zero need for percocet following a month long regimen of Anodyne.

24 patients were treated with the Anodyne over the past year. 19 of the 24 patients reported significant or highly significant improvement in function that was attributable to the Anodyne application. Three of the 24 experienced some improvement; however, treatments were discontinued prematurely due to re-admittance to hospital due to unrelated medical complications. The remaining two candidates discontinued use for lack of perceived benefit.

The Anodyne proved most effective with individuals with peripheral neuropathy and orthopedic conditions such as knee, hip and shoulder fractures. Anodyne also helped to reduce pain with those with arthritis and fibromyalgia. Some success was noted in the treatment of those with joint contractures.

Rather than requiring 12 treatments to elicit measurable progress as the training indicated, many candidates experienced positive side effects after only a week or two worth of treatment. Other indications were that it felt soothing and warm.

With respect to other treatment interventions attempted, in the case of the two premature discharges, massage and gentle range of motion was attempted with equally fair results. The Anodyne machine represents a different approach to treatment. Modalities such as electrical stimulation and ultrasound have different applications and as such, were not appropriate in these situations. Other modalities such as diathermy were not available for comparison. Typical plan of cares for these candidates included gait training, activities of daily living, therapeutic exercises, therapeutic activities and neuromuscular re-education.

The apparent ability of the Anodyne to help restore circulation and sensation sets it apart from other applications.

The overwhelming sentiment of patient feedback was positive and in most cases, came as a surprise to the patient that anything could help reduce their pain or improve sensation, as many had just learned to live with the pain or numbness.

General Observations

Initially, therapist acceptance of the Anodyne was fair. Much skepticism accompanied questions during the training sessions. The tide turned, however, after therapist started using the Anodyne and patients began reporting good results. Therapist began trying it on themselves and found positive results.

Following the success at The Springs, the parent company purchased an Anodyne unit for each of the remaining buildings. The Anodyne have proven to be a valuable treatment tool to help people heal and feel better. While it is not a panacea, the Anodyne does have a very positive impact on most people and is a worthwhile addition to any therapy program.

Again we thank AHCA and yourself for the opportunity to participate in this grant process and we look forward to future collaborations in an effort to improve the lives of the people we serve.

Best Regards,



Ken Leeman

On behalf of Joey Mingione, Administrator
The Springs at Boca Ciega Bay
1255 Pasadena Avenue South
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Patient	Diagnosis	Treatment Dates	Pain	Flexibility	Sensation	Function	Patient Comments
5	Neuropathy in both Legs and bottoms of both feet	12/7/2005 12/14/2005 12/21/2005 12/28/2005	5 out of 10 2 out of 10 2 out of 10 0 out of 10	NA NA NA NA	Total numbness 3/4 of feet sensation returned 3/4 of feet sensation returned Sensation returned 100%	walked 100' w/25% help walked 200' w/25% help walked 250' w/little help walked 300' Independent.	"I doubt this will work." "My pain is better and I can feel my feet." "Not much difference this past week." "My legs feel so much better, I am sleeping through the night."
6	Right shoulder fracture	1/22/2006 1/29/2006 2/4/2006 2/13/2006 2/20/2006	6 out of 10 4 out of 10 2 out of 10 2 out of 10 1 out of 10	Unable to assess 0-39 degrees 0-47 degrees 0-61 degrees 0-87 degrees	NA NA NA NA NA	needs 100% help to dress needs 100% help to dress needs 75% help to dress able to put shirt on	"I've got to get this back." "This thing makes my arm feel warm." "I feel a little better." "My pain is less and I can move more." "My arm hurts, but at least I can get this shirt on."
7	Pelvic fracture	8/18/2005 8/25/2005	10 out of 10 6 out of 10	NA NA	NA NA	needed 100% help needed 25% help	"I can barely walk, my left leg hurts so bad." "I'm taking less pain medication and I don't hurt as much as I did last week."
8	Neuropathy on bottom of both feet	8/2/2005 8/8/2005 8/15/2005 8/22/2005 8/29/2005	10 out of 10 5 out of 10 3 out of 10 0 out of 10 0 out of 10	NA NA NA NA NA	No sensation both feet No sensation both feet Outside of feet sensation return Outside of feet sensation return 3/4 of both feet return sensation	walk indoors 15' walk indoors 150' inside /outside 200' inside /outside 300' inside/outside 400'	"My feet are very painful and wake me at night." "I am sleeping better and noticed my pain is less." "I can feel something on the bottom of my feet." "I have no pain!" "I am sleeping through the night."
9	Contractures of both knees	1/2/2006 1/9/2006 1/13/2006	8 out of 10 6 out of 10 2 out of 10	both knees bent 70 deg both knees bent 60 deg both knees bent 45 deg	NA NA NA	NA NA NA	"My legs hurt to straighten out." "Leave my legs alone." "My legs don't hurt as much."
10	peripheral neuropathy	3/10/2006 3/17/2006 3/24/2006 3/31/2006 4/7/2006 4/14/2006 4/21/2006	8 out of 10 7 out of 10 6 out of 10 5/6 out of 10 4/5 out of 10 4 out of 10 0 out of 10	NA NA NA NA NA NA NA	no sensation both feet still no sensation both feet Circulation noticed in heel area Feels warmth in both feet Sensation noted on half of foot sensation noted except by toes sensation returns to entire rt foot	walks indoors 50' walks indoors 50-75' walks indoors 75-100' balance improving walks outdoors some walks 300' in/outside walks over 1,000 feet	"I hope this works I have had this for years" "This is not helping" "I am starting to feel something on my feet!" "I feel my balance is better now that I can feel!" "I am walking outdoors and I am not afraid of falling" "I don't have any pain and I feel so much better" "I would've thought this would have done so much for me" "Thank you so much for showing me this machine!"

Patient seen for 7 weeks, 21 treatments. Pt made such good progress w/ ss with Anodyne therapy that she was able to regain all sensation in her right foot and reported no more pain in either foot.

She is now able to go back out into the community for outings and fun with family and friends.

Pt seen for 5 weeks, 15 treatments. Pt made remarkable progress in this short time period and was able to return home from ALF to family up north where she didn't need as much help.

Patient	Diagnosis	Treatment Dates	Pain	Flexibility	Sensation	Function	Patient Comments
12	knee pain after surgery	7/4/2005 7/11/2005 7/18/2005 7/25/2006	8 out of 10 5 out of 10 3/4 out of 10 1 out of 10	bend knee 110 deg bend knee 111 deg bend knee 114 deg bend knee 120 deg	no sensation 4" around kneecap sensation returned around knee sensation 100% still remains 0% sensation	NA NA NA NA	"My knee hurts more than I thought it would" "I didn't need pain pills this morning!" "The pain is almost gone- this is great!" "I don't need my pain pills anymore!"
13	shoulder arthritis	7/18/2005 7/25/2005 8/1/2005 8/8/2005	6 out of 10 4 out of 10 2/3 out of 10 (at most) 2/10	NA NA NA NA	NA NA NA Independent in dressing	needing help to dress still needing help to dress able to button's shirt Independent in dressing	I have hired someone to help me get dressed" "When is this supposed to help?" "I don't need the help and I can do other things" " I don't have any pain and I can open my door"
14	compression fractures	3/2/2006 3/9/2006 3/16/2006 3/23/2006	10 out of 10 8 out of 10 6 out of 10 4 out of 10	NA NA NA NA	unable to walk 15' able to walk 30' gets out of bed herself able to walk 75+ indep	walks with assistance walks slow about 15' tolerating more activity	"I am in so much pain, I can't do anything" "My back does not hurt like it used to." "I can't believe I can do some things again" "I am able to walk and do the little things I used to"
15	pubic fracture	8/7/05 8/15/2005 8/22/2005	8 out of 10 6 out of 10 4 out of 10	NA NA NA	walks with assistance walks slow about 15' tolerating more activity	"I hurt so bad I don't want to move at all!" "I hope this helps me some more" "I still hurt but not as bad as I did a few weeks ago"	
16	frozen shoulder	7/1/2005 7/8/2005 7/15/2005 7/22/2005 7/28/2005	8 out of 10 8 out of 10 5 out of 10 1to 2 out of 10 0 to 2 out of 10	arm out to side 70 deg arm out to side 75 deg arm out to side 78 deg arm out to side 80 deg arm out to side 90deg	NA NA NA NA NA	unable to comb hair no change able to put shirt on gets ready be herself combs entire head of hair	"I am not able to get myself ready in the morning" "I am not feeling any different does this thing work?" "I am combing my hair and my pain is less!" "I can't believe this I feel so much better" " I don't remember the name of this thing but it is great!"
17	peripheral neuropathy	1/30/06 2/6/2006 2/13/2006 2/20/2006 2/27/2006	6 out of 10 4 out of 10 3 out of 10 2 out of 10 0 out of 10	NA NA NA NA NA	no sensation in forefoot/big toes no sensation in forefoot/big toes sensation noted in forefoot sensation noted in big toes too all sensation regained in bothfeet	walks 75' loss of balance walks 100' loss of balance walks 200' fair balance walks 300' good balance walks over 500'	"I don't feel anything on the bottom of my feet & the pain is so great I cannot sleep at night." "My pain feels less and I can walk more, but I still cannot sleep through the night." "I can feel my feet, but not my big toes and I am sleeping better through the night." "I am sleeping through the night and do not want to feel like that again." " I haven't felt like this in at least 10 years"

Pt seen for 4 weeks 12 treatments. Pt was having difficulty with her pain following knee surgery in which it was hindering her progress in therapy. Anodyne treatments allowed for her to be able to tolerate the much needed aggressive knee therapy to return to her hobbies of golf and dancing.

Pt seen for 4 weeks 12 treatments. Pt was receiving ultrasound and electrical stimulation for 5 weeks prior to using Anodyne treatment. Within 12 treatments pt's progress was significantly improved with minimal to no pain and no longer needed the assistance of a private duty aide to assist her in dressing and other daily activities pt was limited in doing.

Pt seen for 4 weeks 12 treatments. Pt is a nursing facility resident and was needing more assistance and was not able to walk to the dining room for all meals like she used to. Her pain really limited her quality of life. Pt seen for 4 weeks 12 treatments. Pt was making progress with decreased complaints of pain and was gaining more movement. Patient was sent to hospital for other unrelated diagnosis.

Pt seen for 3 weeks 9 treatments. Pt was making progress with decreased complaints of pain and was gaining more movement. Patient was sent to hospital for other unrelated diagnosis.

Pt seen for 5 weeks 15 treatments. Pt went from being unable to perform such tasks as combing her hair and getting dressed due to her pain and stiffness in her shoulder to being move her arm freely with minimal to no pain at all.

Pt seen for 5 weeks 15 treatments. Pt's return of sensation and decreased complaints of pain was significant. Pt was able to sleep through the night and improved his balance with walking with return of sensation."

Patient	Diagnosis	Treatment Dates	Pain	Flexibility	Sensation	Function	Patient Comments
18 both shoulders arthritic	7/15/2005	7 out of 10	raise arm 75 deg	NA	unable to dress self	" I hope this does something for my pain"	
	7/13/2005	5 out of 10	raise arm 80 deg	NA	assisting with dressing	" It is helping me already"	
	7/22/2005	2 out of 10	raise arm 130 deg	NA	dresses self	"My pain is just melting away"	
	7/29/2005	1to2 out of 10	raise arm 140 deg	NA	propels wheelchair	" I didn't think my pain could be helped like this"	
	8/5/2005	0 out of 10	raise arm 150 deg	NA	independent status	No more pain and doing things all by myself"	
Pt seen for 5 weeks	15 treatments.	Pt was suffering from pain which resulted in lack of movement in both shoulders. Pt made great progress and regained her independence.					
19 fractured humerus	2/20/2006	7to10 out of 10	arm in immobilizer	NA	Unable to move arm	" What will this do for me?"	
	2/28/2006	2to3 out of 10	arm movement started	NA	gentle movements	" I cannot believe the pain has gone way down so quick!"	
Pt seen for 2 weeks 6 treatments. Pt was making noticeable improvements with decreased complaints of pain in her shoulder. Pt moved up north with her family where she is contacting the nearest anodyne treatment facility.							
20 peripheral neuropathy	4/3/2006	NA	no sensation in heels and toes	walks 100' w/walker	" I use this walker because I tend to lose my balance because I can't feel my toes or heel."		
	4/10/2006	NA	heel sensation returns	walks 200' w/cane	" I would never think I could use a cane and feel something in my heels."		
Pt seen for 2 weeks 6 treatments. Pt was making accelerated progress, and was discharged to her home with a home health company who also uses anodyne therapy treatments to continue her remarkable progress. Pts. Goal to be able to walk without the use of a cane.							
21 fibromyalgia	6/27/2005	6 out of 10	NA	NA	walks 30' w/pain	"I have to have all my meals sent to my room"	
	7/1/2005	4 out of 10	NA	NA	walks 50' w/dec.pain	"I still can't go to the dining room for meals"	
	7/8/2005	2 out of 10	NA	NA	walks 100'w/lesspain	"I went to the dining room today!"	
	7/15/2005	1 out of 10	NA	NA	walks 100+ less pain	"I am doing better everyday"	
	7/20/2005	0 out of 10	NA	NA	walks w/no pain	"I have no pain anymore and I am sleeping better"	
Pt seen for 5 weeks 15 treatments. Pt made significant progress and pain no longer exists at all. Patient walks to the dining room and is sleeping better at night with anodyne treatments.							
22 neuropathy of both lower legs	8/1/2005	10 out of 10	NA	lack of sensation feet/calfs	walks 20' balance probs	"I don't have good feeling in my feet!"	
	8/8/2005	8 out of 10	NA	some sensation noted in calves	walks 50'less pain	"I seem to feel something in my calves now"	
	8/15/2005	6 out of 10	NA	some sensation noted in feet	walks 75' less pain	"I am starting to feel my feet"	
	8/22/2005	4out of 10	NA	more sensation noted	walks 200'less pain	"This is truly amazing"	
	8/29/2005	0 out of 10	NA	sensation restored feet/calfs	walks 400'+no pain	"I am able to feel my feet and calves and I am able to walk anywhere I want to without losing my balance and no pain!"	
Pt seen for 5 weeks 15 treatments. Pt fully regained all sensation in calves and both feet. Able to walk out in community again and is totally pain free.							
23 arthritic knee pain	1/30/2006	6 out of 10	NA	NA	10w/pain	"I hurt"	
	2/7/2006	3 out of 10	NA	NA	15w/ less pain	"It is better but I am still sore"	
Pt seen for 2 weeks 6 treatments. Pt was showing signs of decreased pain in the knee and was slowly able to walk further,then was discharged to the hospital for unrelated conditions.							
24 pain/stiffness both shoulders	2/6/2006	7 out of 10	NA	NA	pain limits abilities	"I have hurt for years"	
	2/13/2006	7 out of 10	NA	NA	pain limiting abilities still	" I don't feel any better!"	
	2/20/2006	5 out of 10	NA	NA	pain limits abilities	" I only feel some relief"	
	2/27/2006	5 out of 10	NA	NA	pain still limits abilities	" I don't feel much better and I don't want this anymore"	
Pt seen for 4 weeks 12 treatments. Pt was showing signs of decrease of pain his shoulders, but opted not to continue coming to therapy for further anodyne treatments.							