BioElectronics

Changing the Way People Heal & Stop Pain

MARKET ANALYSIS of ActiPatch® Therapy *Try & Tell Surveys*

Consumers Report Pain Relief, Product Satisfaction and Intent to Buy

New Behavior in Pain Management is Developing

MEDICAL INNOVATION AWARDS WINNER THE WALL STREET JOURNAL.

MOST INNOVATIVE NEW PRODUCT NOMINATION OTC bulletin

Best New OTC Packaging Design NOMINATION OTC bulletin

Wounds UK *Pain & Trauma Category Award Winner*

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INTRODUCTION

This is a report to BioElectronics investment community of the market implications of long-term surveys BioElectronics Corporation has been conducting under the research leadership of BioElectronics Director of Clinical Research, Ian M. Rawe, PhD, and Executive Vice President, Deepak C Kotak[1] MA, MBBS, FRCA, MRCP, LLM

In April 2014 BioElectronics Corporation launched a sampling and survey program, **"Try and Tell,"** using television and social media to offer chronic pain sufferers in the UK and Ireland a trial ActiPatch device for just £2.95 with free shipping and handling. The trial unit was a continuous use 7-Day ActiPatch device. The commercial ActiPatch® Therapy device lasts for 30-Days with on/off functionality. More than 44,000 trial units were sold and surveyed. More than 5,000 patients responded to the surveys.

After receiving and using the 7-Day trial device, follow up assessments, via email marketing software, were sent to the consumers after 30, 90 and 360 days to evaluate their baseline pain, current use of pain modalities, and the effectiveness of ActiPatch® in reducing pain from different causes, and locations of pain. We collected data on the intent to purchase and recommendations to friends and family.

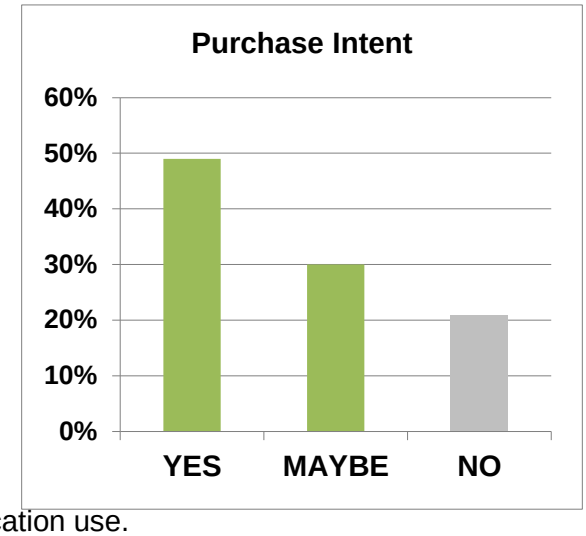
Seventy percent of those using the trial device reported noticeable decreases in pain and because of this indicated they would likely purchase the commercially available device for future use. In a three month follow-up 80% of those who indicated this willingness actually did purchase the 720-hour device. In fact they reported that they had already bought an average of 1.7 devices. Just as importantly, 93% reported a sustained pain relief and a marked decrease in systemic analgesic pain medication use, including reductions in opioid-based analgesics.

All this points to not only a paradigm shift in pain management behavior, but also a strong and loyal customer base that will continue to grow over time. We see this approach of getting trial and then preference as the backbone of being able to successfully launch our product not only in the UK, but also in numerous other countries"

We are gratified that our products have provided relief to so many pain sufferers and are grateful to the consumers who took the time to report their experiences. We are expanding the program and will continue to monitor consumer response.

Richard Staelin,
Chairman of the Board of BioElectronics Corporation
Edward and Rose Donnell Professor of Business Administration,
Fuqua School of Business, Duke University

Summary of Surveys:



- The 7-Day single use trial device was sold for £2.95
- 8.02 was the average baseline VAS (Visual Analogue Score) score on the 0-10 scale in the survey respondents indicating severe pain
- 71% of the consumers had an average of 54% reduction in musculoskeletal, arthritic, post-surgery, fibromyalgia and neuropathy pain.
- **80%** of the consumers said they "intended" to or would "maybe" purchase an ActiPatch after using the 7-day trial device
- **80%** who intended to purchase an ActiPatch® device did purchase
- Pain relief was maintained in 93% of long term users and
- 67% of pain medication users, including opioid users, reported a moderate to complete elimination of pain medication use.
- After one year, 86% of the 71% users continue to use ActiPatch® and have purchased an average of 2.7 devices.
- 70% reported better sleep
- 74% reported they are more physically active
- 84% reported a moderate to a great deal better quality of life.
- There have been no adverse effects

The medical journal Pain Management published this month*, A United Kingdom Registry Study of the Effectiveness of a New OTC Chronic Pain Therapy,* our 5,000+-consumer survey.

30-Day Pain Management Assessment

Sample users reported a very high rate of benefit from many of the major causes of chronic pain such as arthritis, fibromyalgia, neuropathy and post-surgical chronic pain. The primary areas of pain reported were the back, knee, shoulder and hip. Overall 71% indicated a pain reduction with ActiPatch® Therapy and of these; the average pain reduction was 54% or a 4.44 VAS reduction. This level of pain reduction is clinically significant.

The high rate of clinical benefit shows a close relationship with the actual purchase of the ActiPatch® device.

Chronic Pain Causes in 5,000 Consumers Surveyed

Indication	Effective	VAS Score/% Reduction
Musculoskeletal Pain		
Back	70%	4.30 VAS (53%)
Knee	74%	4.52 VAS (55%)
Hip	73%	4.48 VAS (55%)
Shoulder	72%	4.37 VAS (54%)
Arthritis		
Osteoarthritis	72%	4.37 VAS (53%)
Rheumatoid arthritis	75%	4.69 VAS (55%)
Post-surgery pain	71%	4.25 VAS (52%)
Fibromyalgia	75%	4.12 VAS (48%)
Neuropathy	64%	4.28 VAS (51%)

90-Day Pain Management Assessment

This survey consists of chronic pain sufferers who used a 7-day sample device and stated in a previous assessment that they "intended to" or "maybe" would purchase the commercially available 720-hour ActiPatch® device. This follow-up assessment was sent out to 3,500 of which 1,027 responded, a 29% response rate, approximately 3-5 months after the initial survey to measure:

1. Actual purchases;
2. Determination of the long-term benefits by assessing:
   - Impact on their pain, quality of life, and medication use.

Actual Purchases

The 822 individuals (80% of the 1,027 respondents) actual purchase of the 30-day commercial ActiPatch® device was calculated as 1,443. Therefore, an average of 1.8 devices had been purchased per individual (approximately 0.60 devices per month) over a 3-month period.

Number Devices Purchased

	% reporting	Number reporting	Total Number Devices Purchased
One	45%	369	369
Two	36%	300	600
Three or four	17%	143	429
Five or more	5%	9	45
Total			**1,443**

Causes & Location of Pain

Arthritis (51%) was the major cause of pain with 35% reporting osteoarthritis and 16% reporting rheumatoid arthritis.

Consumers often reported more than one cause of pain.

Causes of Pain

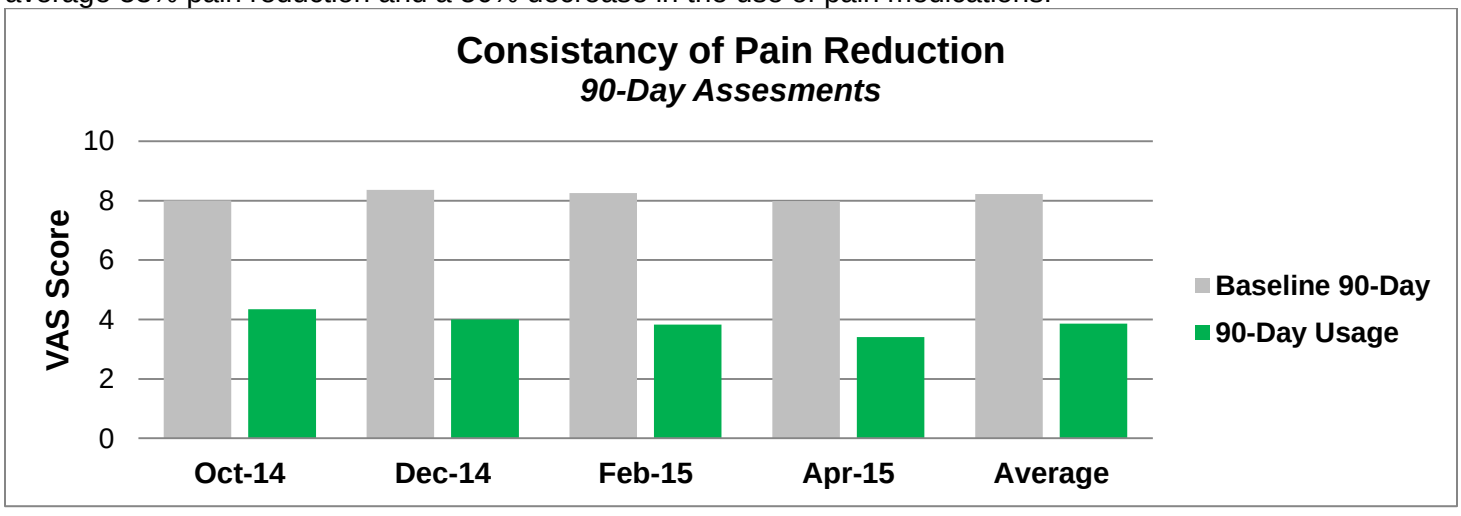
	% reporting
Osteoarthritis	35%
Rheumatoid Arthritis	16%
Fibromyalgia	15%
Sports Injury	8%
Post-Surgery pain	6%
Tendonitis	3%
Neuropathy	5%
Other	29%

Location of Pain

	Percentage
Back	55%
Knee	30%
Neck	7%
Shoulder	15%
Hip	14%
Other	7%

Pain Scores

The average VAS pain score during the initial 7-day trial was 8.16 and the 3-month follow up assessment was 8.22. The baseline pain scores are present with two pain therapies being taken prior to ActiPatch® therapy. On this follow up survey, the pain relief experienced by ActiPatch® users over three months is sustained, with an average 53% pain reduction and a 50% decrease in the use of pain medications.



Pain Medications

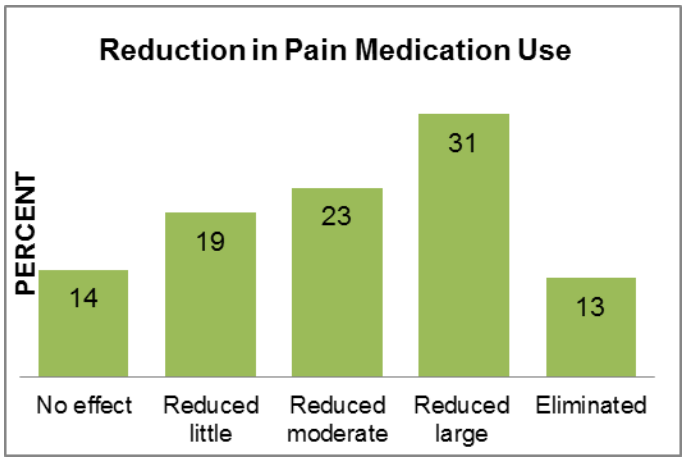
Respondents (95%) reported taking pain medications before using ActiPatch®. The medications consisted of NSAID's, paracetamol, Cox-2 inhibitors, weak opioids, strong opioids and others, with an average of 1.7 pain medications being used per individual.

Analgesic medications used by the subjects

Analgesic	Percent Using
Paracetamol (acetaminophen)	52%
NSAID's	49%
Cox-2 inhibitors	5%
Weak Opioids	33%
Strong Opioids	30%

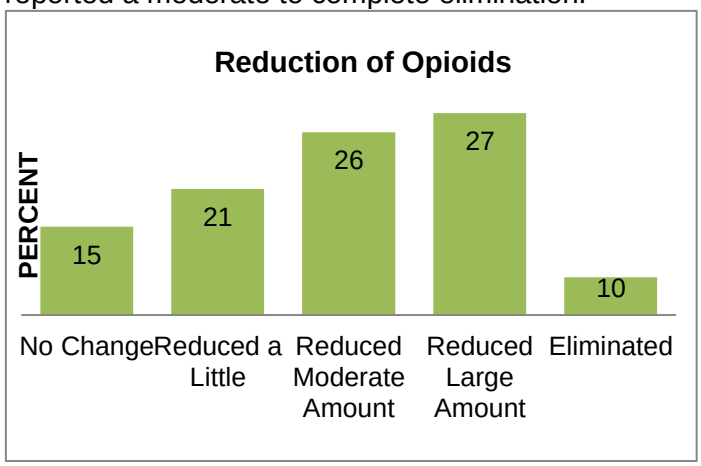
ActiPatch's Effect on Pain Medication Use

The overall effect on pain medication use was an average of 50% decrease. 67% reported a moderate to complete elimination of pain medication use.



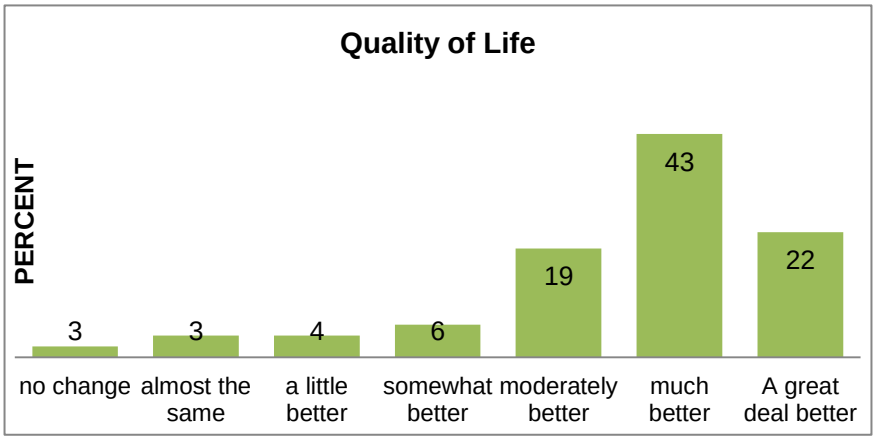
Reduction of Opioids

Users of opioids or in combination with other analgesics were analyzed separately and 63% reported a moderate to complete elimination. Those who reported only using opioid medications, 66% reported a moderate to complete elimination.



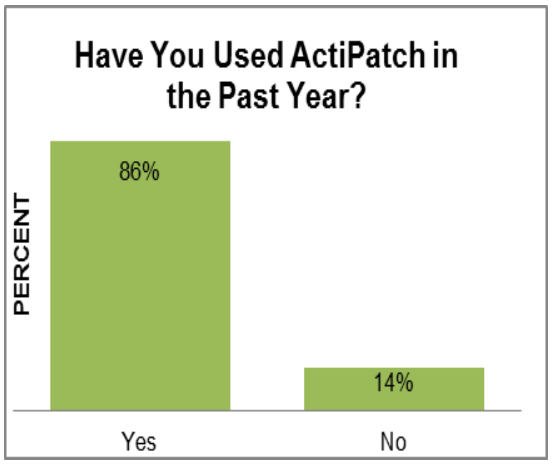
Quality of Life (QOL)

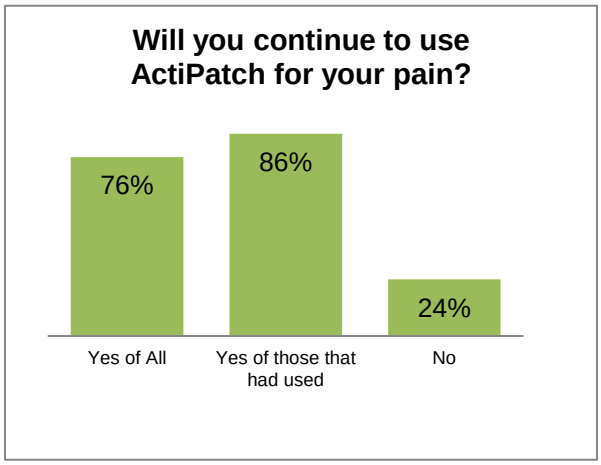
A total of 84% of the respondents marked a moderately better to great improvement in QOL. 64% indicated that using the device made their life much better or a great deal better. This data, demonstrates that ActiPatch improves quality of life for the majority of long-term users.



One-Year Pain Management Assessment

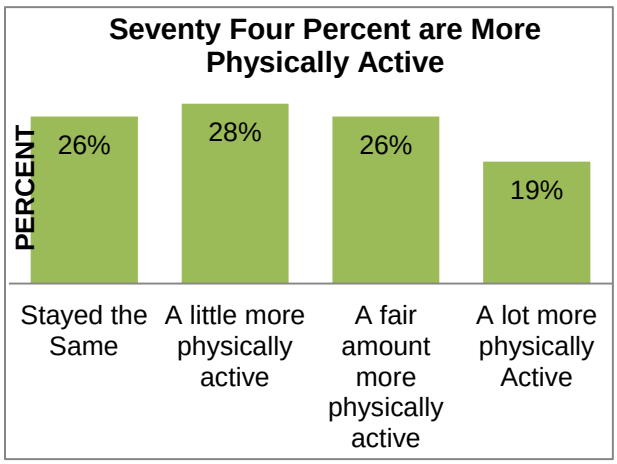
The following shows exceptional pain relief and customer satisfaction.

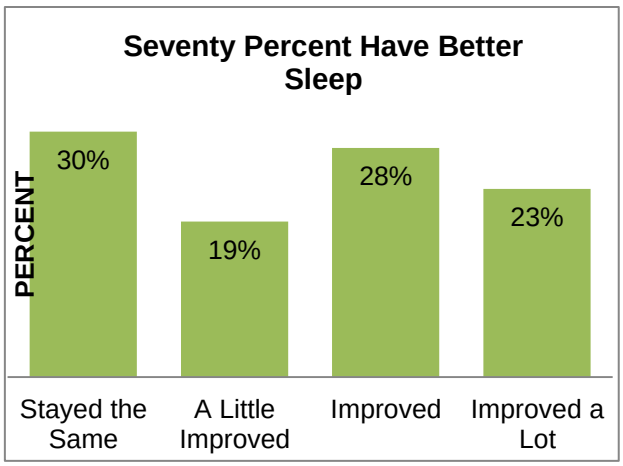




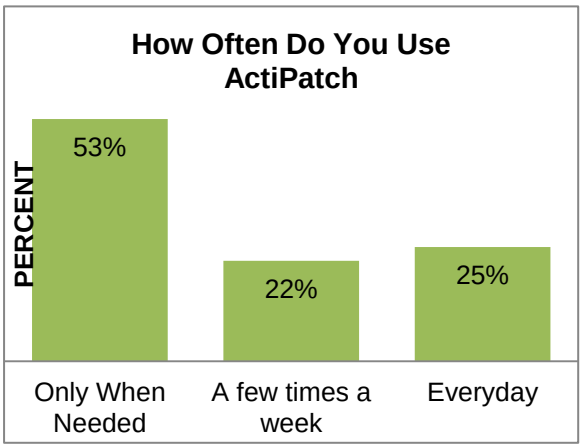
After one-year, 73 users of the 86 respondents, eighty-five percent (85%) have reported purchasing 198 devices, or an average of 2.7 each. 85% of the 71% equates to approximately 54% (85% of the 71%, less 10% additional loss) of the 7-day trial device users becoming long-term users purchasing 2.7 devices per year.

Number	Responses	Total
1	20	20
2	19	38
3or 4	20	70
5 plus	14	70
	Total	198





Conclusion



These surveys show excellent d*urability* of ActiPatch® Therapy without the loss of efficacy seen with NSAIDs, opioids, and other analgesic drugs. The majority of chronic pain sufferer experience:

- a clinically meaningful decrease in pain;
- a substantial improvement in the quality of life; and,
- a reduction in reliance on OTC and prescription medications, including opioids.

Taking these findings together, it can be concluded that ActiPatch® is an effective pain therapy for a variety of chronic musculoskeletal pain conditions. Moreover pain control was consistent with an average 51% reduction in pain. Pain control was matched by improvements in quality of life and reductions of systemic medication use again pointing to the efficacy of the product.

The durable clinical benefit and QOL improvement translates into strong consumer acceptance and use over the long term. In addition to the reported reduction in pain, the findings highlighted ActiPatch Therapy's long-term impact on the consumer's pain levels predicts strong, long-term sales of the product:

- More than 70% of those who used the trial device said that they were purchasing the commercially available device for future use.
- In three-month follow up 80% of those who indicated that they might buy the commercially available device actually did.
- More than 93% reported a sustained pain relief, as well as a decreased use of oral analgesic medication and a significant improvement in the consumer's quality of life.

The results were based on numerous waves of surveys and were consistent over time. The clear prediction is that the ActiPatch Therapy product is well positioned to take a sizable portion of the pain management market.