



FIT therapy technology

COMPARATIVE STUDY

Clinical assessment of five different therapies against muscle-skeletal pain

Assessment of five types of patches in terms of pain reduction (VAS) and average cost for a therapy of 5 days.

Materials and methods used

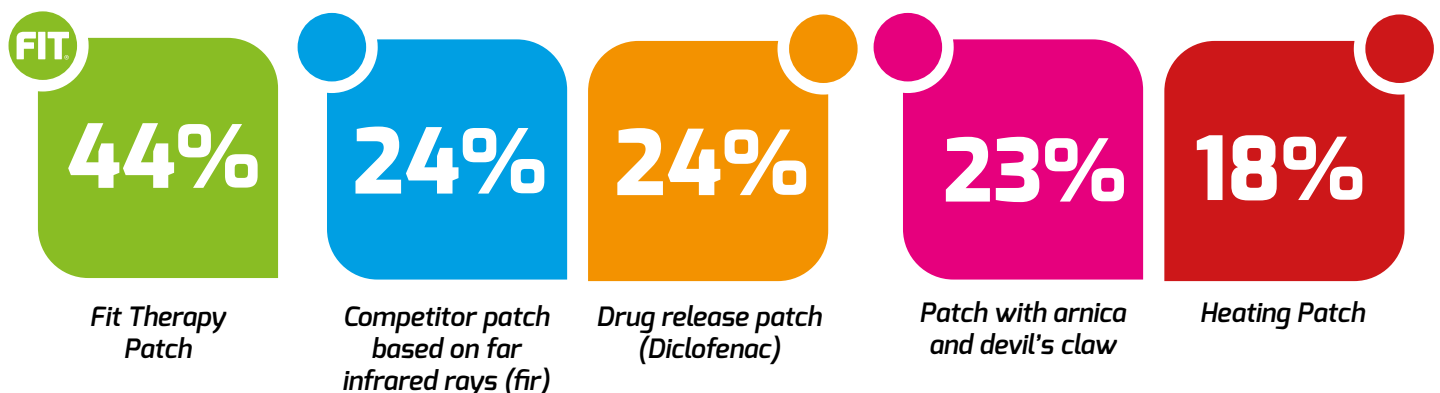
The study is divided into two stages: a Clinical Assessment and a Commercial Analysis.

Clinical Assessment: the study examines 5 groups of patients - 20 patients per group - within a range of age between 18 and 60, suffering from chronicle low back pain. The level of pain perceived by the patients, at the beginning of the assessment, lied from level 6 of the Visual Analogue Scale (VAS).

The patients at stake have been treated for a period of 5 days (corresponding to a single application of a patch based on the FIT Therapy technology). With reference to the other therapies, two or more applications have been performed, until covering a period of 5 days. **Commercial Analysis:** we have also compared the average cost for the consumers of each therapy, always considering a period of 5 days of treatment.

Many factors have been taken into consideration, such as the average price of a single pack; the duration of a single application and the number of applications required for a therapy of 5 days. The outcome below is the result of the combination of all these factors.

PAIN REDUCTION AFTER A THERAPY OF 5 DAYS



AVERAGE COST FOR A THERAPY OF 5 DAYS IN ITALY



Table 1
FIT Therapy Technology patch therapy

PATIENT	INITIAL VAS	FINAL VAS	Difference	% Reduction
AA-01	8	4	4	50,00
AA-02	7	4	3	42,86
AA-03	6	3	3	50,00
AA-04	7	6	1	14,29
AA-05	8	5	3	37,50
AA-06	7	3	4	57,14
AA-07	6	4	2	33,33
AA-08	7	2	5	71,43
AA-09	8	5	3	37,50
AA-10	9	4	5	55,56
AA-11	6	4	2	33,33
AA-12	7	3	4	57,14
AA-13	8	5	3	37,50
AA-14	7	7	0	0,00
AA-15	9	5	4	44,44
AA-16	6	2	4	66,67
AA-17	8	4	4	50,00
AA-18	7	3	4	57,14
AA-19	6	3	3	50,00
AA-20	7	4	3	42,86
% AVERAGE REDUCTION				44,43

Table 2
Therapy performed with a competitor patch based on far infrared rays (FIR)

PATIENT	INITIAL VAS	FINAL VAS	Difference	% Reduction
AB-01	6	5	1	16,67
AB-02	7	4	3	42,86
AB-03	7	7	0	0,00
AB-04	6	5	1	16,67
AB-05	8	6	2	25,00
AB-06	6	6	0	0,00
AB-07	7	5	2	28,57
AB-08	9	9	0	0,00
AB-09	7	4	3	42,86
AB-10	7	5	2	28,57
AB-11	6	6	0	0,00
AB-12	8	6	2	25,00
AB-13	7	6	1	14,29
AB-14	7	5	2	28,57
AB-15	8	5	3	37,50
AB-16	6	5	1	16,67
AB-17	7	2	5	71,43
AB-18	8	6	2	25,00
AB-19	6	5	1	16,67
AB-20	6	3	3	50,00
% AVERAGE REDUCTION				24,32

Table 3
Therapy performed with a
drug release patch (Diclofenac)

PATIENT	INITIAL VAS	FINAL VAS	Difference	% Reduction
AC-01	7	6	1	14,29
AC-02	6	4	2	33,33
AC-03	7	5	2	28,57
AC-04	8	5	3	37,50
AC-05	7	5	2	28,57
AC-06	6	3	3	50,00
AC-07	7	5	2	28,57
AC-08	7	4	3	42,86
AC-09	7	5	2	28,57
AC-10	7	7	0	0,00
AC-11	8	8	0	0,00
AC-12	7	6	1	14,29
AC-13	6	5	1	16,67
AC-14	7	6	1	14,29
AC-15	6	4	2	33,33
AC-16	7	6	1	14,29
AC-17	7	5	2	28,57
AC-18	7	5	2	28,57
AC-19	7	6	1	14,29
AC-20	6	5	1	16,67
% AVERAGE REDUCTION				23,66

Table 4
Therapy performed with
an arnica and devil's claw patch

PATIENT	INITIAL VAS	FINAL VAS	Difference	% Reduction
AD-01	6	4	2	33,33
AD-02	8	6	2	25,00
AD-03	7	6	1	14,29
AD-04	7	5	2	28,57
AD-05	6	5	1	16,67
AD-06	7	5	2	28,57
AD-07	8	7	1	12,50
AD-08	7	6	1	14,29
AD-09	7	6	1	14,29
AD-10	6	4	2	33,33
AD-11	7	5	2	28,57
AD-12	8	5	3	37,50
AD-13	7	6	1	14,29
AD-14	6	4	2	33,33
AD-15	9	7	2	22,22
AD-16	8	6	2	25,00
AD-17	6	5	1	16,67
AD-18	7	7	0	0,00
AD-19	8	6	2	25,00
AD-20	6	4	2	33,33
% AVERAGE REDUCTION				22,84

Table 5
Therapy performed with a heating patch

PATIENT	INITIAL VAS	FINAL VAS	Difference	% Reduction
AE-01	6	4	2	33,33
AE-02	6	5	1	16,67
AE-03	7	4	3	42,86
AE-04	6	5	1	16,67
AE-05	6	5	1	16,67
AE-06	7	6	1	14,29
AE-07	6	6	0	0,00
AE-08	7	5	2	28,57
AE-09	8	6	2	25,00
AE-10	6	4	2	33,33
AE-11	6	5	1	16,67
AE-12	6	5	1	16,67
AE-13	6	5	1	16,67
AE-14	6	6	0	0,00
AE-15	6	5	1	16,67
AE-16	6	6	0	0,00
AE-17	7	7	0	0,00
AE-18	7	5	2	28,57
AE-19	7	6	1	14,29
AE-20	7	5	2	28,57
% AVERAGE REDUCTION				18,27

Result:

From the above analysis it transpires that all the patches used within the different therapies lead to a reduction of the VAS values from the beginning to the end of the therapy, specifically:

- **FIT THERAPY TECHNOLOGY PATCH: 44.43% ***
- **COMPETITOR PATCH BASED ON FAR INFRARED RAYS (FIR): 24.32% ***
- **DRUG RELEASE PATCH (Diclofenac): 23.66% ***
- **PATCH WITH ARNICA AND DEVIL'S CLAW: 22.84% ***
- **HEATING PATCH: 18.72% ***

*Wilcoxon's ranks test: $p < 0.001$

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	FIT Therapy	Competitor FIR	Diclofenac	Arnica and Devil's Claw	Heating
Average cost of a pack :	19,40 €	24,63 €	21,10 €	14,06 €	21,90 €
Average duration of a single application:	5 days	5 days	12h	1 day	14h
Nr of applications for a therapy of 5 days:	1	1	10	5	5
Average cost for a therapy of 5 days:	3,90 €	5,75 €	23,25 €	8,59 €	20,89 €

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