mutualia

PATTERNS OF LUMBAR PAIN: A COST ANALYSIS APPROACH TO LUMBAR PAIN IN PRIMARY CARE IN OCCUPATIONAL MEDICINE. A COMPARATIVE STUDY OF TWO RETROSPECTIVE COHORTS OF 2375 PATIENTS DURING 2014 (I).

Díaz de Atauri Bosch, J.[1]
Zabalza Mantilla, O.[2]
Ayala García, M.[2]

NASS2015
CHICAGO | OCTOBER 14 - 17
McCormick Place West

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DISCLOSURE

•J. Diaz de Atauri MD[1]; O. Zabalza Mantilla MD[2]; M. Ayala García MD[2]
[1]Spine Unit, Orthopaedic Surgeon, Clínica Ercilla, Mutualia Vizcaya,
[2]Occupational Health Specialist, Hospital San José, Mutualia Álava.
Basque Country, Spain.

•The authors declare that they do not have any kind of relationship with any medical company or related institution. None of the authors has any potential conflict of interest.

•The authors have not received any kind of external funding (institutional, government or private institution) for research on which this lecture is based.

•This research does not contain explicit information about medical device(s)/drug(s).

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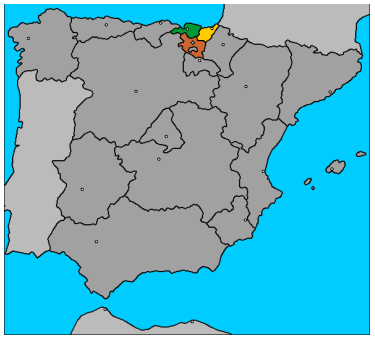
WHO ARE WE?



Mutualia is a Spanish Workers' Compensation Insurance Company

BASQUE COUNTRY'S MARKET SHARE 42%

SPAIN`S MARKET SHARE 5%

INSURED WORKERS 323.215

EMPLOYEES 580

EFQM Excellence award Finalist - 2012

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WHO ARE WE?

Some medical facts during 2013 about Mutualia…

Workers` Compensation Consultations	141.557/yr
Other medical Consultations	32.680/yr
Physical Therapy Consultations	20.727/yr
Surgeries (2014)	1.929/yr

WHO ARE WE?

Type & Number of total disabilities during 2013 in Mutualia (Workers' Compensation Disabilities)…

No disabling injuries (minor injuiries)	1.103
Disability (mild)	35
Disability (moderate)	107
Disability (severe)	19
Disability (Absolute)	4
Deaths	47

WHO ARE WE?

Some economical facts about Mutualia;
A Spanish Workers' Compensation Insurance Company…

Annual Profitability (2013)	16% / yr
Annual Income (2014)	$ 29.540.106,00
Annual Budget (2014)	$ 328.223.400,00

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INTRODUCTION

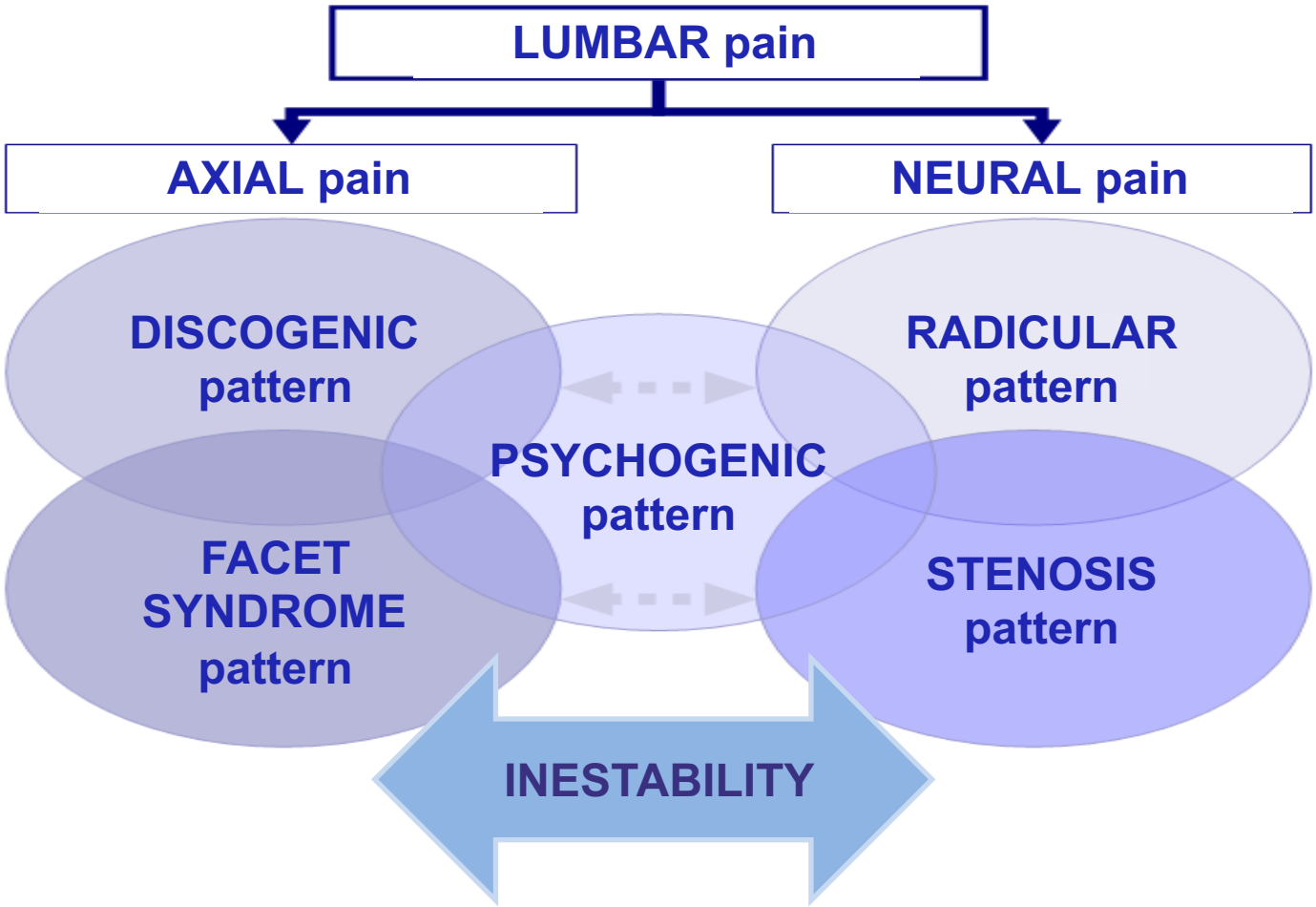
•Low back pain is one of the most prevalent medical diagnoses as well as as one of the most onerous in terms of health care and its socio-economic impact.

•We present a cost analysis study of two different groups of lumbar pain in primary care by grouping patients.

•Patients can be grouped according to the different pain patterns identified during the medical interview and physical examination.

•The variability in its definition, intensity, assessment, treatment and recovery and lack of studies in comparable groups, makes difficult to establish a consensus and other clinical or public health policies.

LOW BACK PAIN PATTERNS



LOW BACK PAIN PATTERNS

	AREA OF PAIN	RADIATION	TYPE OF PAIN	EXAMINATION
1 DISCOGENIC	Central low back and/or buttocks	No	Constant or intermittent	Worsens with bending
2 FACET SYNDROME	Localised central low back and/or buttocks	Non-segmental radiation	Recurrent	Worsens with stretching and increases with repetition
3 RADICULAR	Below the buttocks	Radicular signs below the knee	Constant	Influenced by movements and position of the spinal column
4 CANAL STENOSIS	Below the buttocks	Non-segmental radiation	Intermittent	Triggered by neurogenic claudication
5 PSYCHOGENIC	Moves around, non-localised	No	Constant excessive with added symtoms (sleep disorders, mood swings, etc.)	Variable
6 MUSCULAR	Sudden onset (overexertion) on both or one side of low back	No	Constant and/or localised dysaethesia	In movements involving the affected muscle
7 DEGENERATIVE	Low back	Variable	Insidious evolution over years	Worsens with repeated movements, no functional blocks
8 MIXED				

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METHODS

- We performed a retrospective study of two cohorts of patients treated for lumbar pain at our Worker's compensation insurance company, in the Basque country (Spain) in 2014.

- The first group patients were managed according to patterns of lumbar pain (G1; 1252 patients), while the second group patients were not managed according to this patterns (G2; 1123) and they received conventional treatment.

- The aim is to assess the cost and effectiveness of the two groups and whether differences exist between managing lumbar pain in the working population when grouping patients according to pain patterns and the possible health repercussions of not doing so.

METHODS II

The following parameters were studied:

- Number of sick days and mean duration
- Sick leave duration
- Number of complementary tests
- Pharmacy treatments
- Hospital admissions
- Surgical interventions (facet and epidural blocks, radiofrequency ablation and discectomy)
- Referrals to physical therapy (duration and type of therapy)

Also the economic cost of each of the variables was collected.

METHODS III

A statistical analysis was performed using SPSS® software:

- A Kolmogorov-Smirnov test (for samples with a not normal distribution) was performed and subsequently:

  1. A Chi-squared test (Fisher's exact test) for the qualitative measurements.

  2. A Mann-Whitney test for the quantitative measurements.

- Sensitivity of 95% ($p<0.05$).

RESULTS

Concept	G1	G2
Inpatient bed/day cost (P<0,01)	9.863,84€ 0,0112 (n=14 pt)	26.068,72 € 0,0285 (n=32 pt)
Surgical procedures (P<0,01)	(n=13) 15.480,38 €	(n=44) 46.828,21 €
Complementary tests mean (P<0,01)	1,2875 69.322,24€	1,1505 63.442,42€
Patients that not received any test (P<0,01)	17,01% 527.807,24€	26,27% 491.794,13€
Physical therapy referral and treatment (mean days of treatment and mean therapy sessions) P>0,01)	20,33 days 47,88 Phys Tx	21,97 days 55,02 Phys Tx
Physical therapy referral and treatment (cost) (P>0,01)	62.945,01€	62.887,86€
Pharmacy cost (P>0,01)	34.705,2€	37.304,24€

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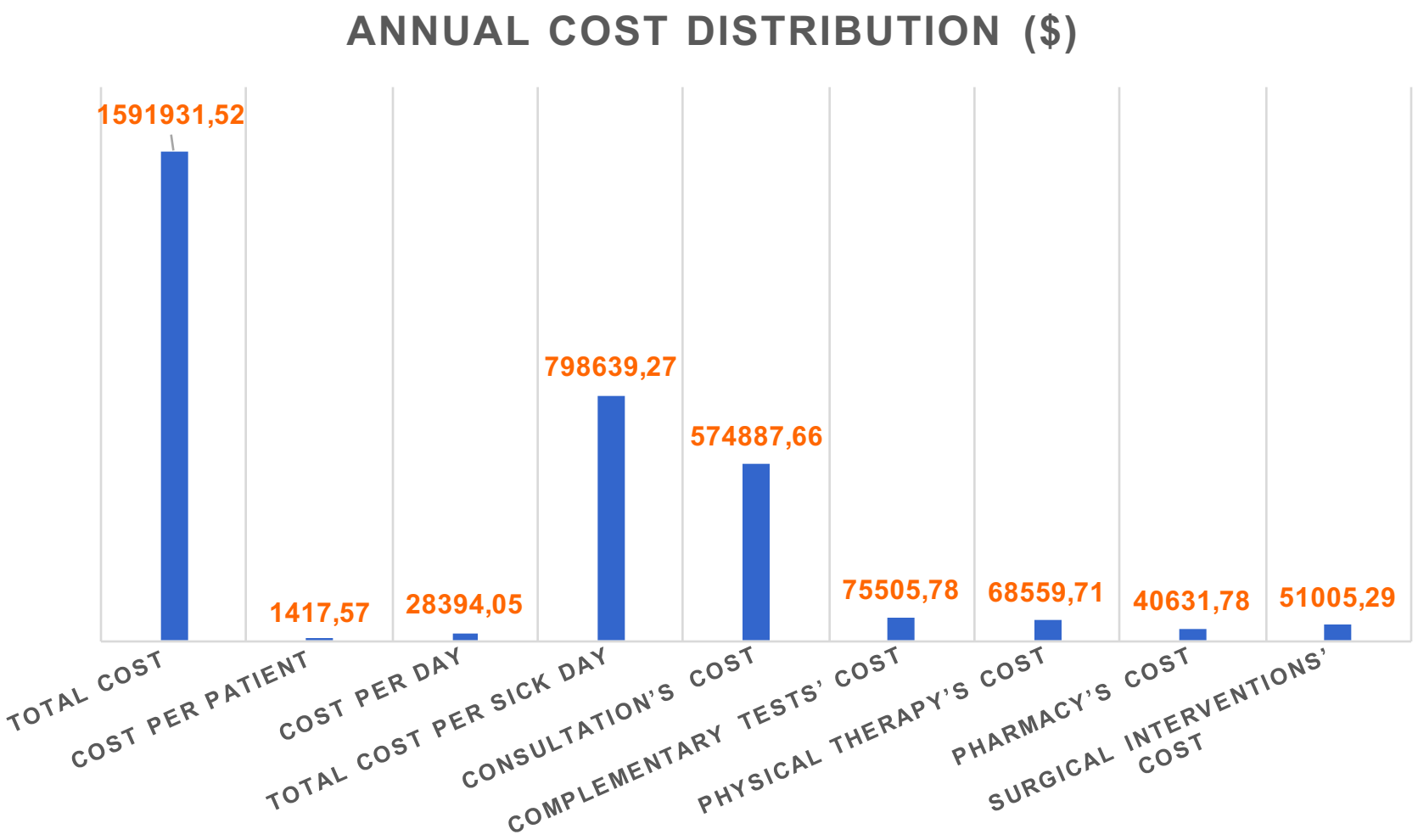
1. ANNUAL COST DISTRIBUTIONS

Total Cost	$ 1.591.931,52
Cost per patient	$ 1.417,57
Cost per day	$ 28.394,05
Total Cost per sick day	$ 798.639,27
Consultation's Cost	$ 574.887,66
Complementary tests' Cost	$ 75.505,78
Physical Theraphy's Cost	$ 68.559,71
Pharmacy's Cost	$ 40.631,78
Surgical Interventions' Cost	$ 51.005,29

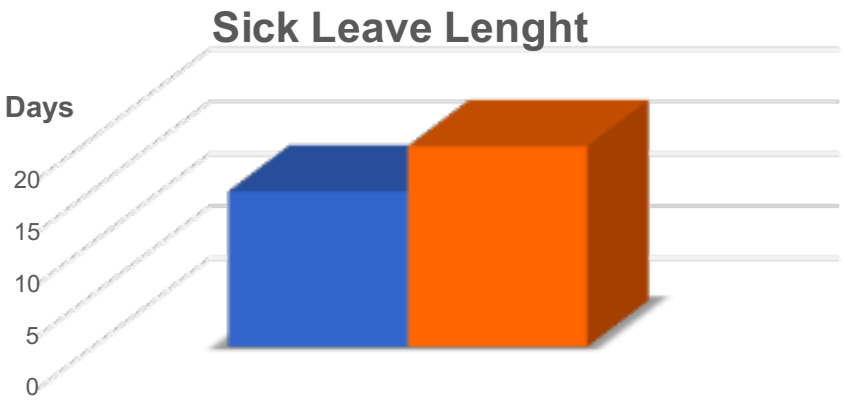
1. ANNUAL COST DISTRIBUTIONS I



2. NUMBER OF SICK LEAVES

The total sick leave/day cost was $ 69.455,32 (G1) and $ 79.865,27 (G2) with a significant statistical difference (P<0.01).

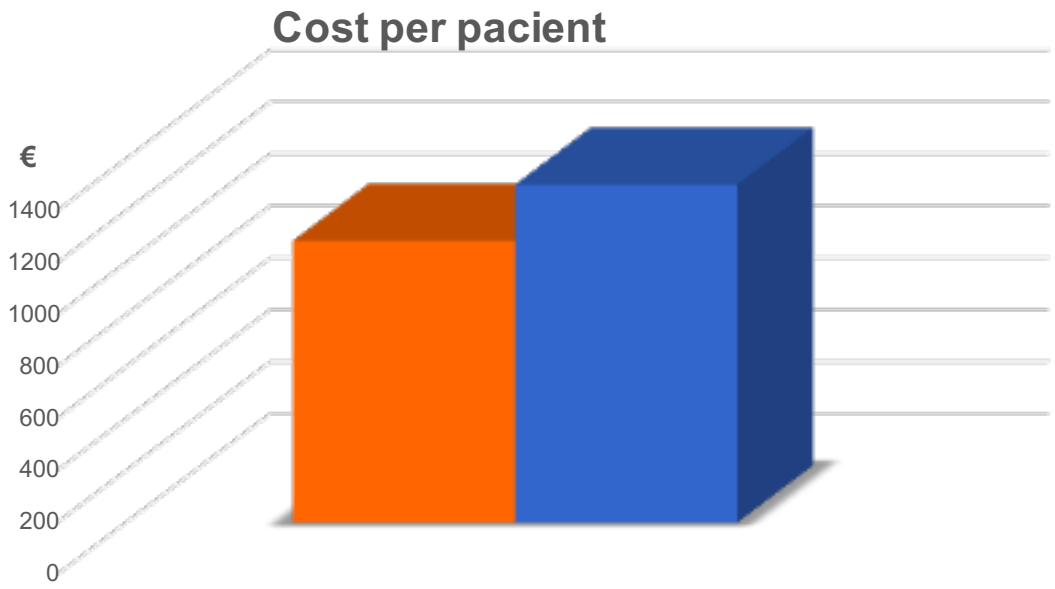
Average sick leave was 14.84 days (G1) and 19.16 (G2) days (P<0.01)



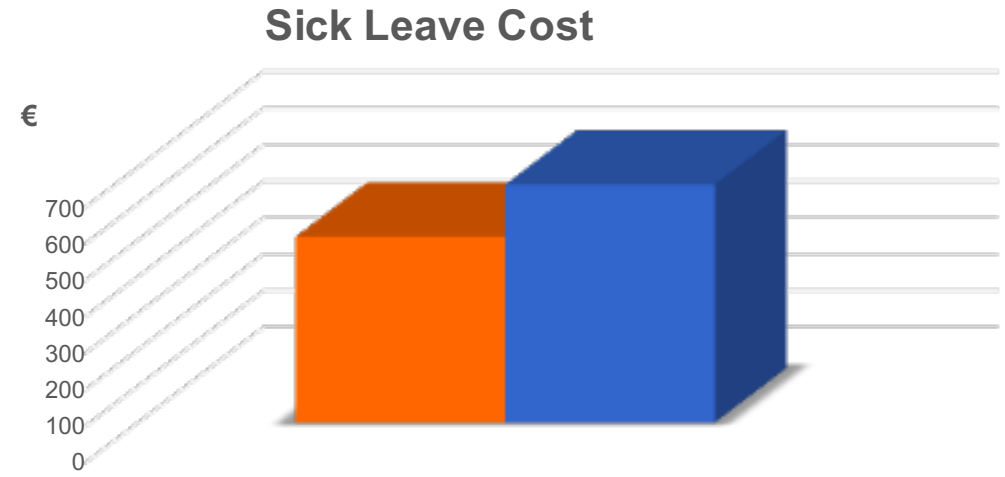
Days	Sick Leave Lenght
Protocol G1	14,8420
No Protocol G2	19,1687

%	Sick Leave Incidence
Protocol G1	0,6014377
No Protocol G2	0,596616207

3. COST OF SICK LEAVE



€	Cost per pacient
Protocol G1	1084,26
No Protocol G2	1300,74



€	Sick Leave Cost
Protocol G1	509,0792971
No Protocol G2	652,2139715

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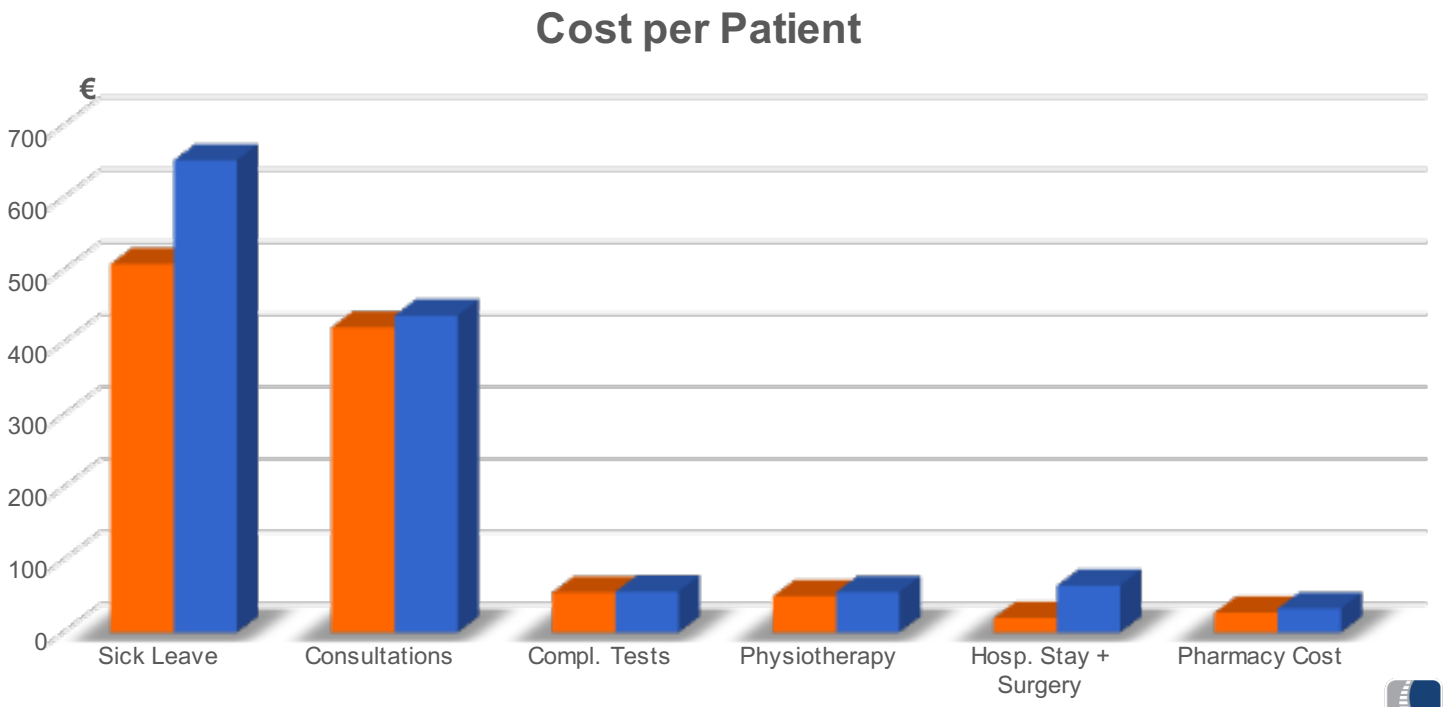
4. COST DISTRIBUTION

€	Sick Leave	Consultations	Compl. Tests	Physiotherapy	Hosp. Stay + Surgery	Pharmacy Cost
Protocol G1	509,0793	421,5713	55,3692	50,28	20,2430	27,72
No Protocol G2	652,2140	437,9289	56,4937	56,00	64,9127	33,19



CONCLUSIONS I

A marked difference was observed after patients were grouped according to pain patterns in:

1. Cost,
2. Sick leave duration,
3. Inpatient bed days,
4. Number of surgical procedures and
5. Complementary test.

CONCLUSIONS II

In primary care, this is an effective way to:

1) Indicate the duration of sick leave
2) The type of treatment

CONCLUSIONS III

These results have already modified treatment in G2, given the resulting financial and health care repercussions for our institution.

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