PCR229

Patients' Journey and Burden of Disease among Axial Spondyloarthritis Patients in Greece: A Cross-Sectional Online Survey

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Objectives

To explore the patients' journey from symptom onset to diagnosis and treatment and to evaluate the humanistic burden, work impairment and the out-of-pocket expenses of axSpA patients in Greece.

Background

- Axial spondyloarthritis (axSpA) is a chronic inflammatory disease, primarily affecting the spine, with global prevalence between 0.3%-1.4%.[1-4]
- Delayed diagnosis worsens function, increases costs, and reduces quality of life (QoL).[5-7]

Methods

Study Design

Cross-sectional online survey, (Sept-Dec 2023).

Patients

150 axSpA patients from the Greek association "Reumazin." All were adults who provided consent.

Study Assessment and Statistical Analyses

Data collection : Data was collected on patients' socio-demographic characteristics, medical history quality of life, work productivity and health-care utilization.

Cost estimation: All costs (€) reflected the year 2023.

- **Out-of-pocket expenses:** Summed outpatient visits, hospitalizations, and treatments.
- **Indirect costs:** Calculated for absenteeism and presenteeism based on average wages.

Statistical analysis: Costs presented as means with 95% CI. Predictors for delayed treatment initiation were assessed using Cox models (STATA 17.0).

Results

Patient characteristics

- 150 (of 164 reached) patients with axSpA participated in this survey.
- 47% were female, with a median age of 57 years (Q1: 45, Q3: 65),
- 78% of the participants reported having ≥1 comorbidity,
- 97% of participants were receiving treatment for axSpA. (Table 1)

Diagnosis and patients' journey

- 146 reported experiencing ≥1 symptom that prompted them to seek medical care. The most common symptom was back pain (77%), followed by stiffness (51%).
- The median age at axSpA diagnosis was 44 years.
- Initially, the most frequently consulted specialists were orthopedics (53%) and pathologists/general practitioners (30%).
- More than half had been initially misdiagnosed (63%).
- The most common misdiagnoses were sciatica (40%), and psychosomatics (21%).
- The median time from symptom onset to treatment initiation was 19 months. (Figure 1)
- Residing in suburban or rural areas instead of urban areas, having arterial hypertension, and experiencing joint pain as an initial symptom were associated to a longer time from symptom onset to treatment, while older age was associated with a shorter time to treatment. (Figure 2)

QoL and work productivity

- The median ASQoL score was 8 (Q1: 5, Q3: 12). Patients' responses are presented in Figure 3.
- Of the participants, 40% were employed at the time of the survey. Work productivity impairments are presented in Figure 4.

Resource use and healthcare cost

- In the past 12 months, 61% of participants visited a private doctor and 57% had at least one hospital appointment.
- Hospitalization occurred in 6% of patients, with a median (Q1 – Q3) duration 5 (4 – 10) days.
- The mean annual out-of-pocket expenses per patient was estimated at €400. Indirect cost was estimated at € 3,321. (Table 2)

Conclusions

- This is the first comprehensive analysis of the patient journey, quality of life, work impairment, and out-of-pocket expenses for axSpA patients in Greece.
- Diagnostic delay in this cohort was significantly shorter (19 months) compared to other European studies, which report delays of up to 6 years[8-9]
- High rates of misdiagnosis (63%) indicate a critical need for better diagnostic pathways.
- The substantial indirect costs (€3,321 annually) highlight the economic burden of axSpA on patients and society.

Table 1 Clinical profile, and Treatment of Study Participants (N=150)

N (%)	Clinical profile and treatment (N=150)
Comorbidities	**N=143**
Arterial hypertension	52 (36.4%)
Hypercholesterolemia	43 (30.1%)
Fibromyalgia	42 (29.4%)
Osteoporosis	39 (27.3%)
Depression or anxiety disorder	26 (18.2%)
Asthma	20 (14.0%)
Coronary heart disease	16 (11.2%)
Ocular disease of autoimmune etiology	13 (9.1%)
Diabetes Mellitus	11 (7.7%)
Non-alcoholic fatty liver	6 (4.2%)
Crohn's disease or ulcerative colitis	5 (3.5%)
Cerebrovascular diseases	3 (2.1%)
Family history of AxSpA	**N=110**
Yes	74 (67.3%)
No	36 (32.7%)
Treatment combinations	**N=149**
Only biologics	54 (36.2%)
Biologics combinations[1]	63 (42.3%)
Only DMARDs	9 (6.0%)
DMARDs combinations (excluding biologics)[2]	14 (9.4%)
Other[3]	4 (2.7%)
No treatment	5 (3.4%)

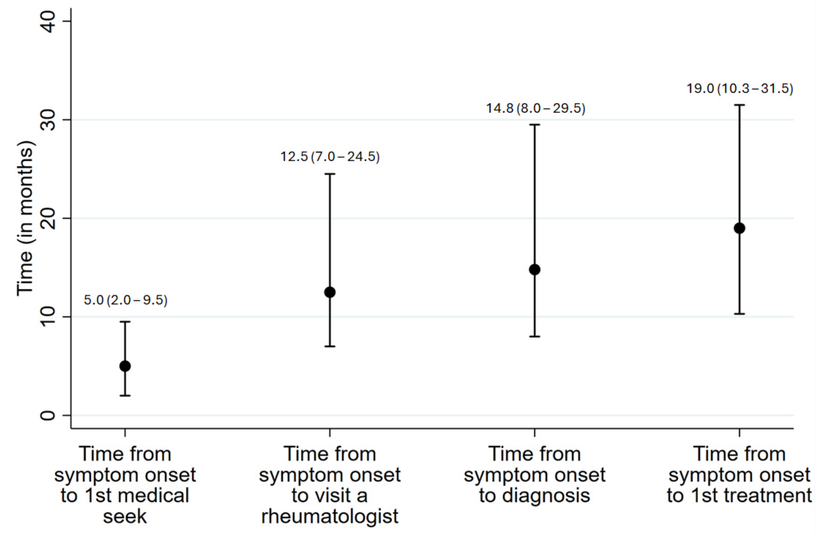
[1]DMARDs, NSAIDs, cortisone, and/or topical treatments; [2]with NSAIDs, cortisone, and/or topical treatments; [3] NSAIDs, cortisone, topical treatments and/or painkillers.

Table 2 Annual out-of-pocket expenses and indirect cost per patient of axSpA.

Mean (95% CI)	Annual cost (N=141)
Total out-of-pocket expenses/patient, €	**400 (354 – 453)**
Cost of outpatient visits/patient, €	125 (103 – 152)
Private doctor	87 (71 – 107)
Private doctor (EOPYY)	8 (3 – 18)
Hospital appointment (morning)	0 (0 – 0)
Hospital appointment (evening)	30 (20 – 43)
Cost of hospitalizations/patient, €	0 (0 – 0)
Cost of any treatment/patient, €	275 (239 – 323)
Indirect cost/patient, €	**3,322 (2,552 – 4,447)**
Absenteeism cost, €	544 (298 – 1,133)
Presenteeism cost, €	2,778 (2,163 – 3,551)

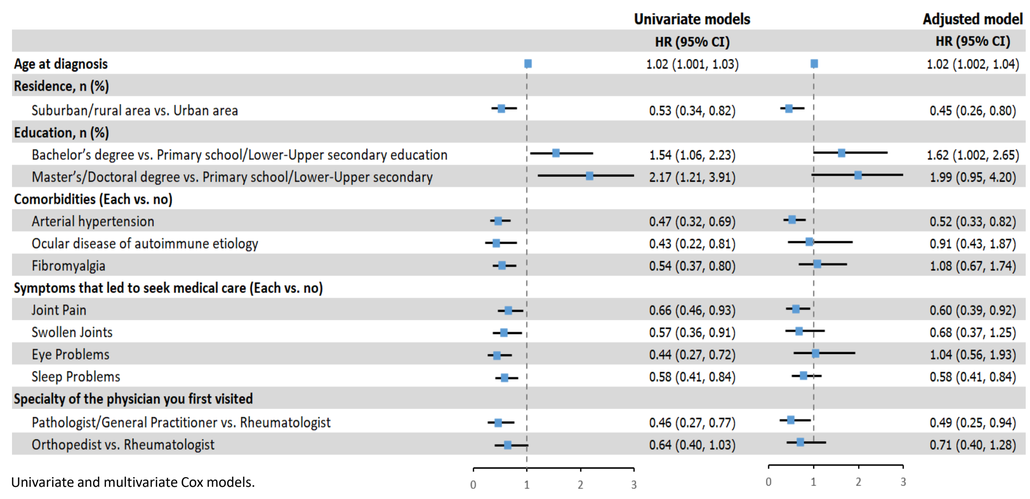
Absenteeism cost was calculated by multiplying hours lost from work with mean hourly earnings (€21,297 GDP per capita / 245 working days / 8 hours). Weekly presenteeism cost was estimated by multiplying affected hours with reduced productivity percentage and mean hourly earnings. Annual absenteeism and presenteeism costs were weekly costs multiplied by 49 working weeks

Figure 1 Patients' journey from symptoms to treatment



Time is summarized with median (Q1 – Q3).

Figure 2 Factors associated with time from symptom to treatment



Univariate and multivariate Cox models.

Figure 3 ASQoL responses

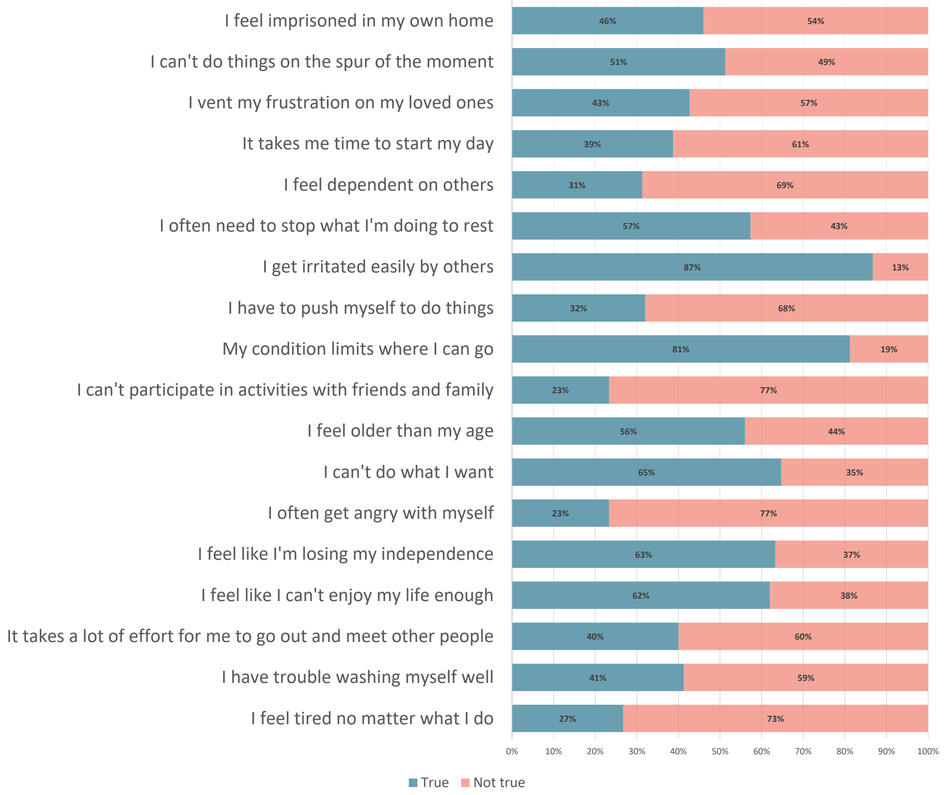
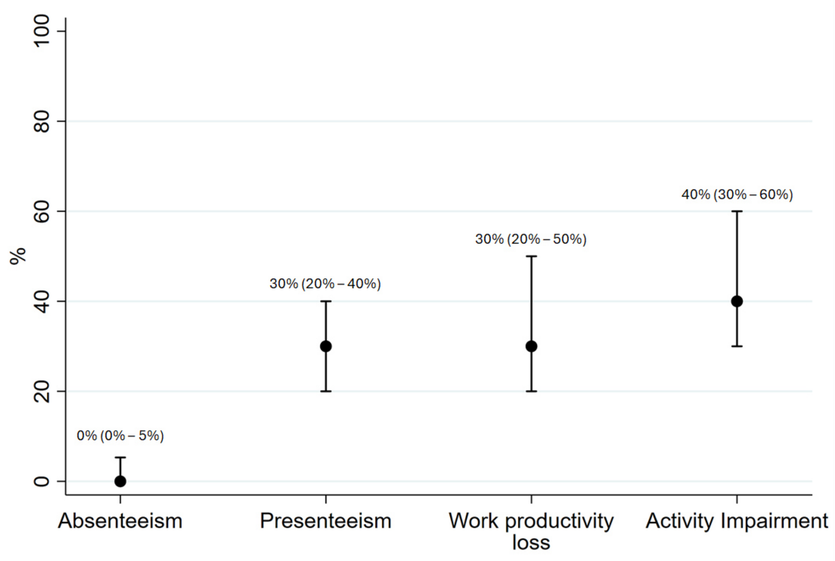


Figure 4 Work productivity impairment based on WPAI questionnaire.



Percents of impairments are summarized with median (Q1 – Q3).

AS: ankylosing spondylitis; axSpA: axial spondyloarthritis; CI: confidence interval; DMARDs: Disease-Modifying Anti-Rheumatic Drugs; HR: hazard ratio; NSAIDs: Non-Steroidal Anti-Inflammatory Drugs; Q1: upper quartile; Q3: lower quartile; QoL: quality of life; SpA: spondyloarthritis. WPAI: Work Productivity and Activity Impairment.

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Poster ID: PCR229

Link expiration: November 20, 2024