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The burden of Chronic Urticaria in Europe: a systematic literature review

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Introduction

Chronic Urticaria (CU) is defined as case of transient wheals and/or angioedema persisting for a period of at least six weeks¹. Evidence of an autoimmune etiology in approximately 45% of patients has been presented. In the remaining 55%, the etiology is unknown, being classified as having Chronic Spontaneous Urticaria (CSU)². Patients with CU have a poor health related quality of life (HRQoL). Chronic pruritus with variable appearance of urticaria and/or angioedema is typical of the uncertainty that compromise their HRQoL. Other issues as psychiatric symptoms (anxiety and depression)³, fatigue, costs of therapy and social isolation further contribute to the frustration that patients' experience⁴.

Objective

To synthesize and analyze the available information on the burden of chronic urticaria (CU) [Patients' Reported Outcomes (PROs): Health related quality of life (HRQoL), adherence, satisfaction, preferences, use of medical resources and costs] in Europe.

Methods

A systematic review on PROs and costs of CU was performed (Figure 1 and Figure 2). International (Pub Med, WOK, Scopus, Cochrane Library) and national (CSIC-IME, IBECS, MEDES) databases were consulted. Original articles, narrative/systematic reviews of studies developed in Europe, until December 2013 were retrieved. Editorials, letters/commentaries, and efficacy or economic evaluations of specific drugs were excluded. Costs were updated to €, 2013.

Figure 1: Systematic review on PROs strategy

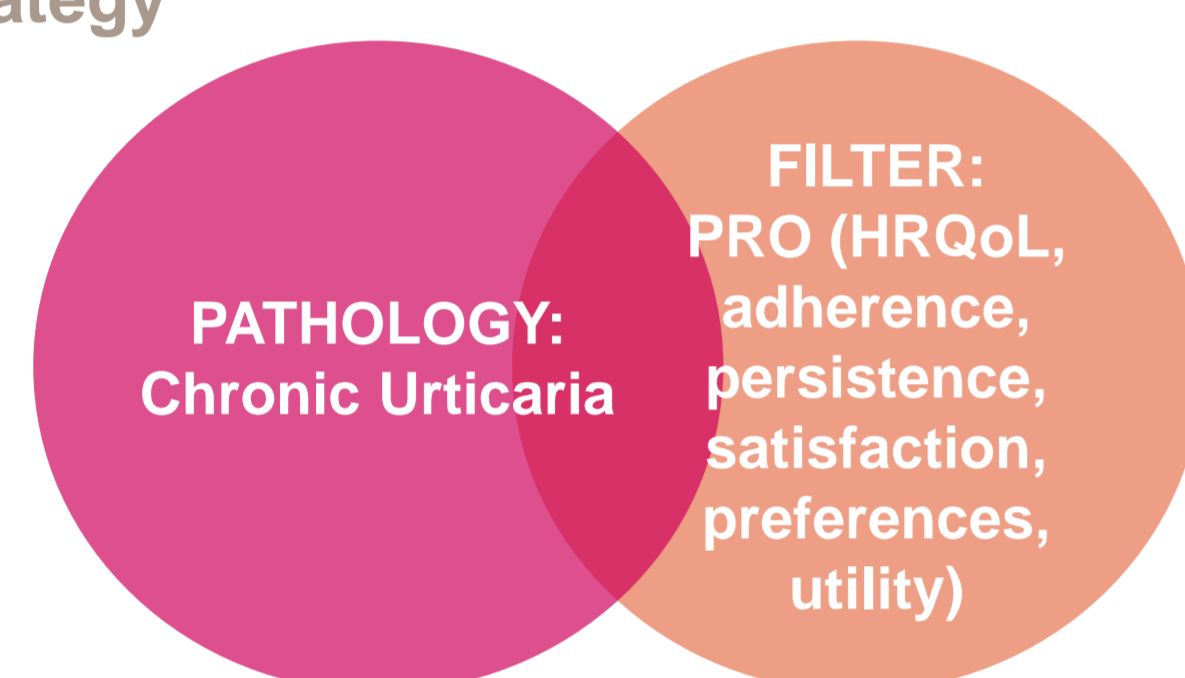
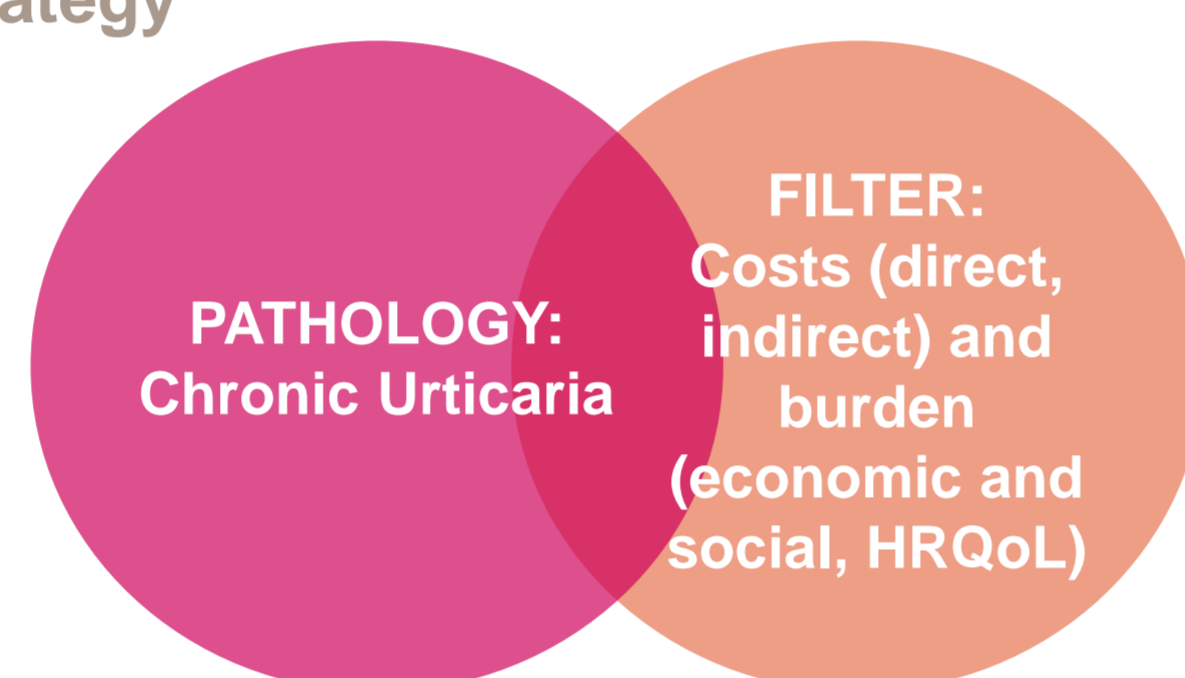


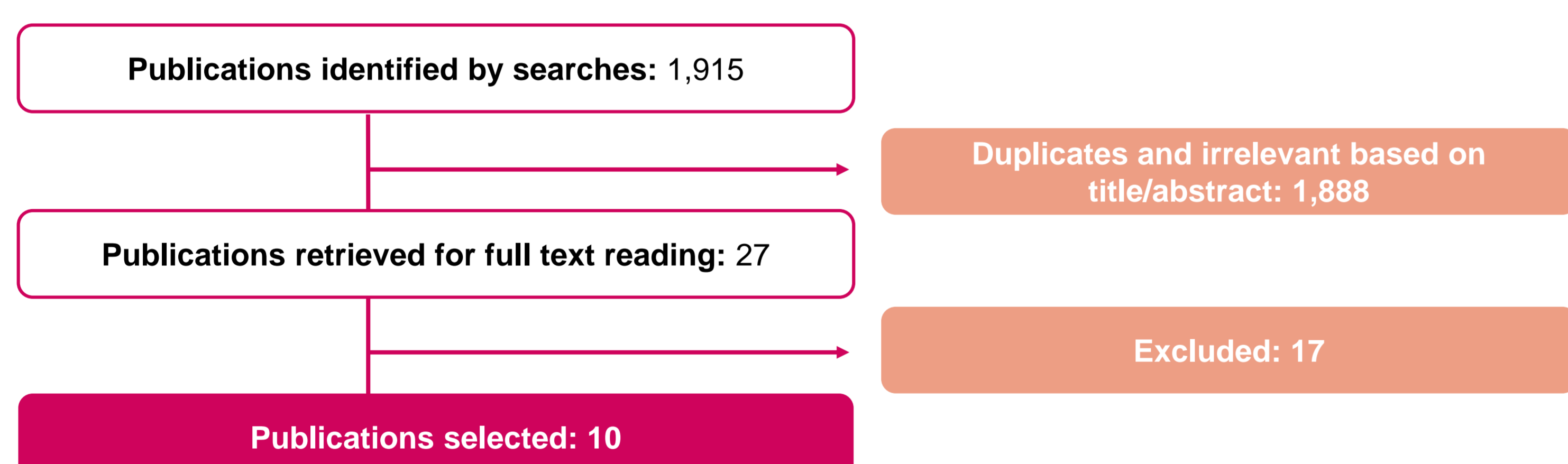
Figure 2: Systematic review on costs strategy



Results

• 9 studies assessed HRQoL (3, Germany⁵⁻⁷; 1, France⁸, Greece⁹, Italy¹⁰, Spain¹¹, UK¹², Germany/France¹³, respectively) and 1 satisfaction with treatments (Germany/France¹⁴). No studies on adherence for treatments were identified (Figure 3).

Figure 3: Systematic review on PROs results



• The CU-Q2oL instrument, (0-100, higher value, worse HRQoL), was the most frequently used (n=4) Table 1.

Table 1: Questionnaires used for HRQoL measurement on selected publications

Type of instruments	Questionnaires
Generics	SF-36 ¹⁵ , NHP ¹⁶ , SAT-P ¹⁷
Specific for dermatologic condition	VQ Dermatol ¹⁸ , DLQI ¹⁹ , Skindex-29 ²⁰
Specific for CU	CU-Q2oL ²¹

• CU-Q2oL scores ranged from 18.4 (Greece) to 42.8 (Germany) revealing an **acceptable perception of HRQoL** (Figure 4). Scores variations were mainly due to differences in the type and severity of CU, co-morbid conditions and treatments used among the included subjects.

• **Sleep, itching/embarrassment and mental health** were the HRQoL dimensions most impaired (Figure 5).

Figure 4. CU-Q₂oL instrument scores as reported on selected publications

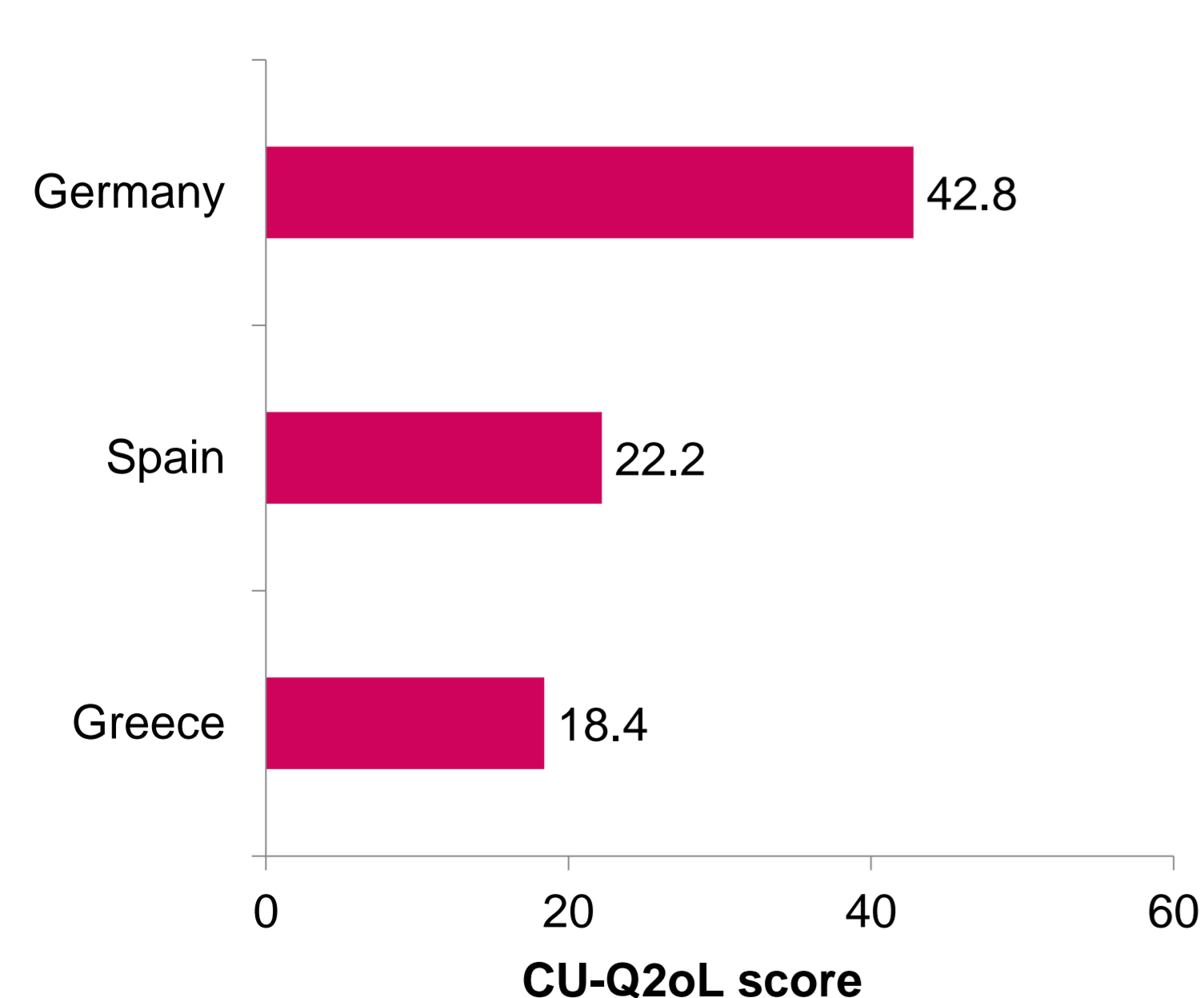
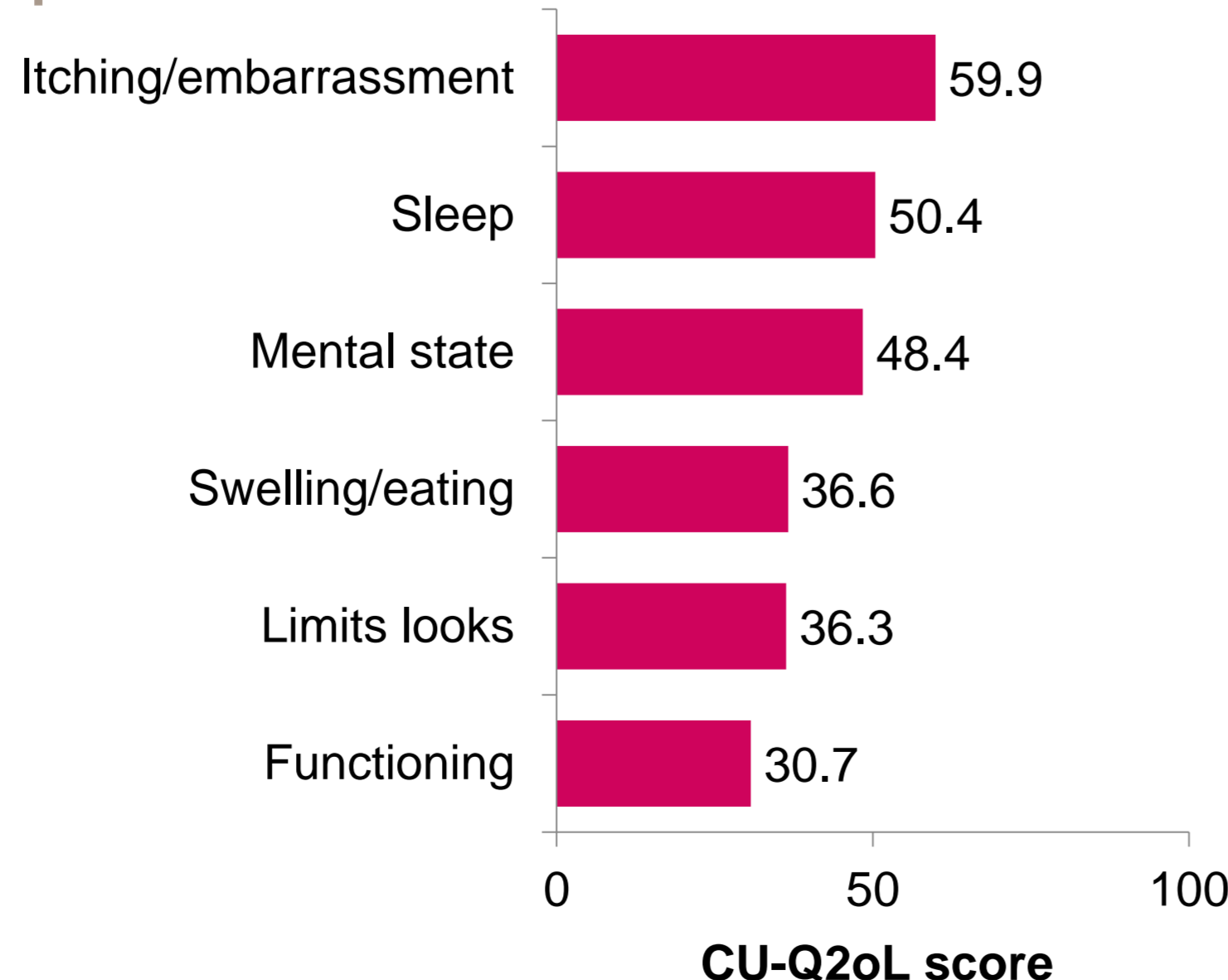


Figure 5. CU-Q₂oL dimensions most impaired as reported by selected publications



• The German study demonstrated an **association between CU severity, sex and age and the impairment of CU-2oL dimensions**, whilst the Greek study only associated disease severity with **worse HRQoL** (Table 2).

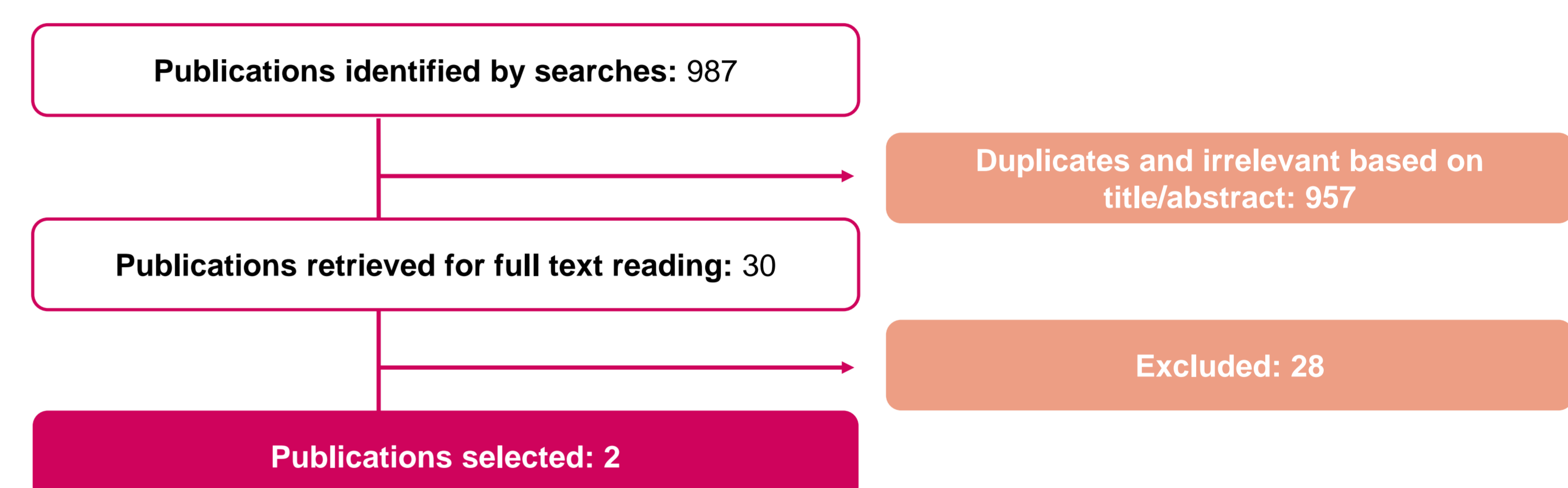
Table 2: HRQoL conditioning factors as reported by selected publications

Conditioning factors	CU-2oL Dimension	p-value	Country
CU severity (UAS)	HRQoL	p<0.001	Greece Germany
Age (young)	Functioning Itch/embarrassment	p=0.004 p=0.003	Germany
Age (elders)	Sleep Swelling/eating	p=0.009 p=0.009	Germany
Sex (woman)	Looks	p=0.048	Germany

• Patients taking prescription drugs were more satisfied than those taking over the counter were (p<0.01). Severely ill patients were willing to change therapies if new, more effective alternatives became available (p<0.05).

• Only one study assessed the costs of CU in Europe while another one described the use of medical resources (Figure 6).

Figure 6: Systematic review on costs results



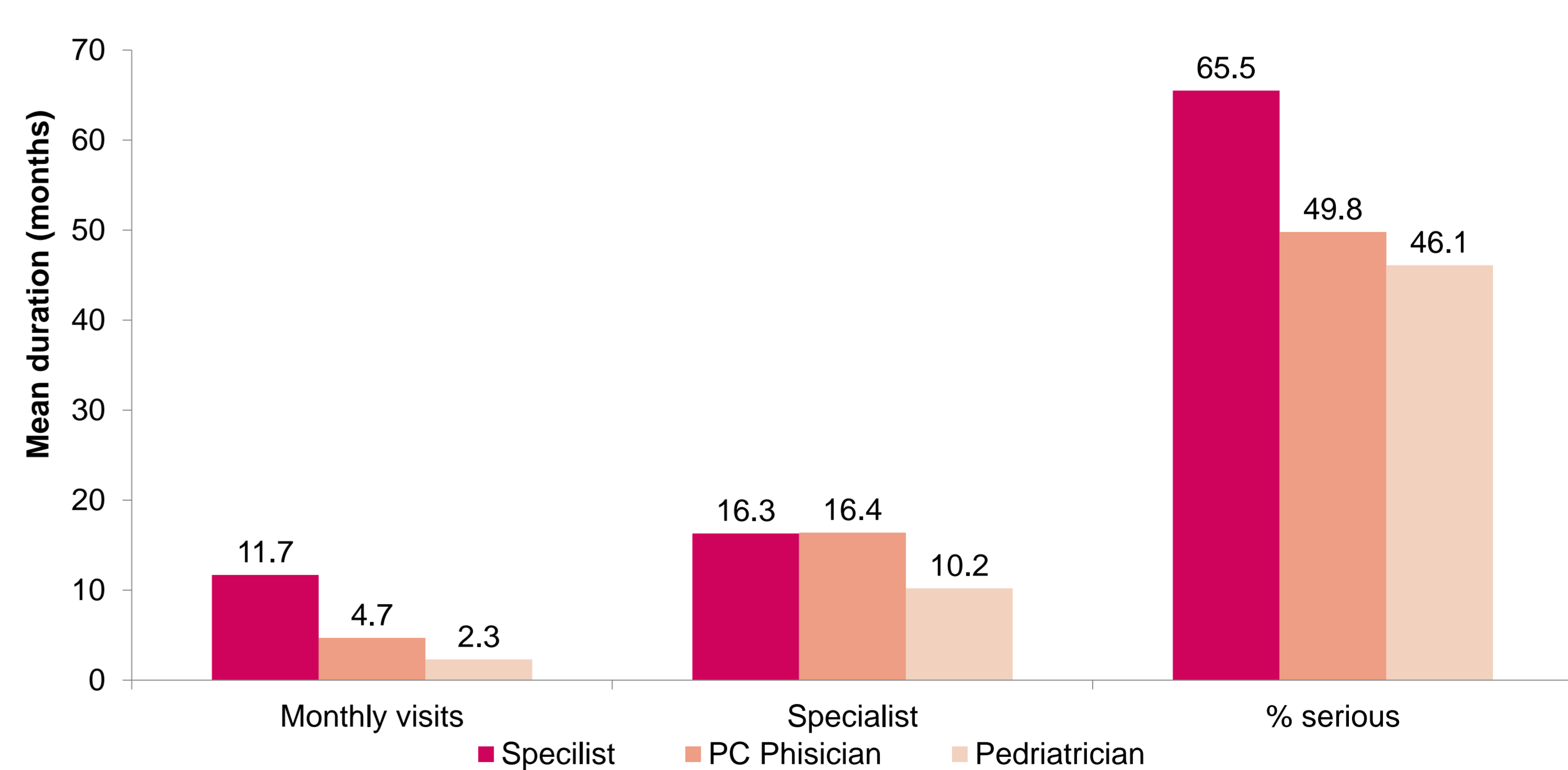
• CU total cost in France was €2,139.48 per patient/year. Patients lost 2.2 working days/month, being **productivity losses 92% of total costs** (Table 3)²².

Table 3: CU cost in France

Ambulatory visits	
Hospital visits	140.64*
Laboratory	
Pharmacologic cost	26.04*
Total direct cost	166,68*
Absenteeism	1,162.80 *
Presenteeism	810.00 *
Sick leaves	----
Total indirect cost	1,972.80*

• CU patients were mostly cared for a dermatologist according to findings in Germany²³. A mean of 11.7 (SD: 11.5) visits/month to the dermatology clinic were reported (Figure 7).

Figure 7: Physicians consultations as reported in selected publications



Conclusions

PROs and costs in CU are infrequently addressed in the literature. Findings show patients reduced HRQoL and their willingness for more effective therapies. Frequent medical visits and loss of productivity make CU a burdensome disease in European countries.

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