

COMMON ALLERGIC ATTENDANT'S SITUATIONS TO SPECIALIZED ALLERGY CENTER / KIRKUK

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Abstract

Rising participation rates in epidemiologic studies using postal questionnaires pose a threat to the validity of these research's basic data collection efforts. This study surveyed 1021 patients who visited the Allergy Center in Kirkuk between September 2017 and March 2018 as part of a larger cross. Sectional evaluation of respiratory health in order to determine whether there was an association between disease and either sex or age. Patients with pharyngitis, acute tonsillitis, throat pain, influenza, pneumonia, sinusitis, tonsillar abscess, respiratory diseases, bronchitis, pulmonary emphysema, asthma, bronchitis, and other acute infections were found to have significantly different odds of contracting these diseases based on their gender ($P < 0.05$). The statistical analysis revealed that there were significant variations in the likelihood of infection between the sexes, with a p-value of less than 0.05, indicating that females were more likely to experience allergies. Additionally, when looking at the correlation between illness and age across all age groups, statistical analysis revealed that the 45–64 year old bracket had the greatest impact, followed by the 1–14 age bracket. Out of all the disorders examined, sinusitis and asthma were the most common across all five age groups.

Keywords: Asthma, Non-response, Epidemiology, Allergy .

Introduction

For many years, clinicians worldwide have been surprised by the apparent higher occurrence of various respiratory disorders in all allergy treatment clinics (1). Both the elderly and young have formed this impression.

Many lung diseases are more likely in people with allergies, including emphysema, chronic bronchitis, pulmonary fibrosis, pulmonary eosinophilia, and lobar pneumonia (2).





Allergies, a chronic immune-mediated condition that affects around 12% of the European population, are well-suited for a population survey in north Iraq due to the region's demographics (5). Epidemiological research indicates that 10-30% of individuals with allergies suffer from pulmonary conditions such as emphysema or asthma (1). Joint inflammation occurs after the onset of illness in about 60% of these cases.

Infections of the respiratory tract affect more than half of all asthma patients at some point (6).

Because of the devastating effects of the condition, early diagnosis of allergies is crucial.

Approximately half of all allergy sufferers experience damage to their respiratory systems within the first two years of symptoms

(7). Hence, it is crucial to screen patients at the allergy center in Kirkuk for common infections such as pharyngitis, acute tonsillitis, thrush, sinusitis, tonsillitis, tonsillar abscess, flu, pneumonia, bronchitis, pulmonary emphysema, asthma, bronchiectasis, and other respiratory diseases so that treatment can begin at the earliest possible stage (8).

On the other hand, the diagnostic tools and settings available in a doctor's office may be more realistic than those in a hospital, which may have been the case in the 2010 study (9). Comparing the academic context from the 2010 study to a real-world practice setting significantly reduces the individual visit time and restricts diagnostic resources (8). This research aimed to compare the ages and sexes of patients hospitalized at an allergy clinic in Kirkuk with the various diseases they received diagnoses for.

(1) going to Subjects and Procedures .

Materials & Methods

The study group conducted case studies and sampling. The Ministry of Health in Kirkuk Governorate ran a specialized allergy center from September 2017 to March 2018, seeing a total of 1021 patients (ranging in age from 1 to 77 years old, with 497 males and 542 females). Clinical suspicion pointed to an allergy infection in these patients. The center typically accepted patients from all over Kirkuk Governorate. The study also included a comparison of 25 healthy individuals. The Iraqi Ministry of Health has listed the following ailments: pharyngitis, acute tonsillitis, throat pain, influenza, pneumonia, sinusitis, tonsillitis, pulmonary emphysema, asthma, bronchiectasis, and other rare infections. Researchers looked at the case in detail, analyzing the correlation between patient age, sex, and the case type. The researchers quantitatively evaluated the results using statistics. The statistical analysis incorporates one-

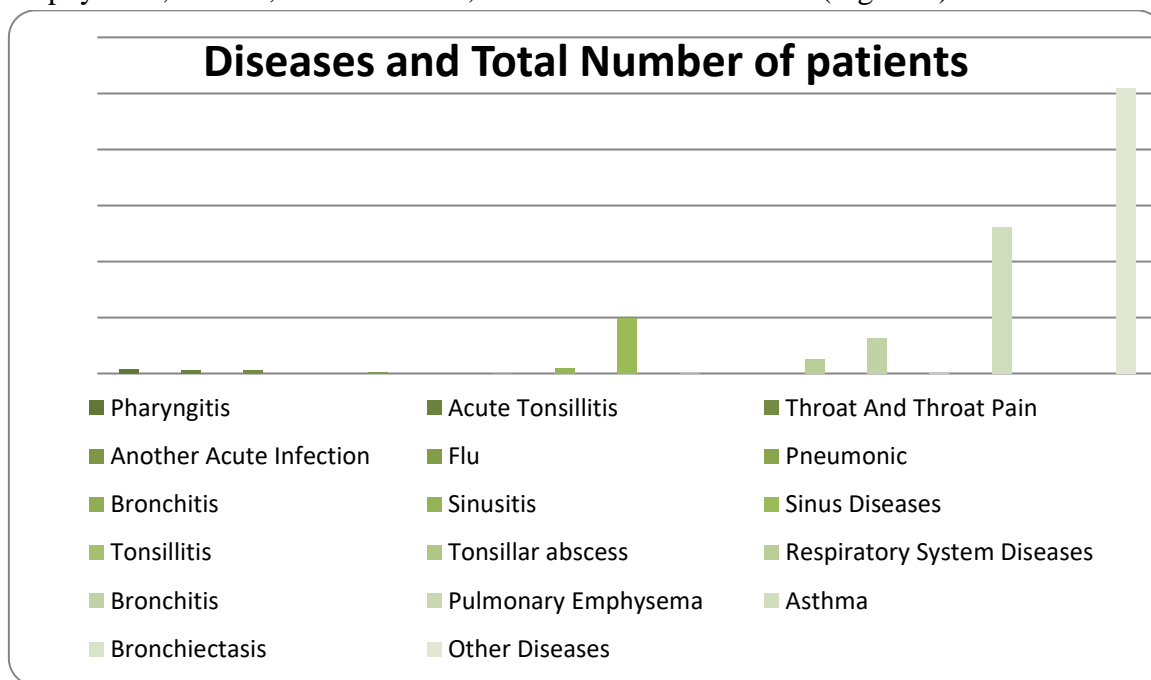
Statistical Analysis:

way analysis of variance (ANOVA), which allows for the determination of significant differences at a rate of probability of 5%. We also use the test of less significant difference (LSD) to identify significant variations between the means (11).





Results and Discussion: The current study looked at the allergic condition in 1021 people with a mean age of 47.40 ± 22.14 years and a range of medical conditions, such as pharyngitis, acute tonsillitis, throat pain, pneumonic infections, sinusitis, tonsillitis, tonsillar abscess, pulmonary emphysema, asthma, bronchiectasis, and other acute infections (Figure 1).



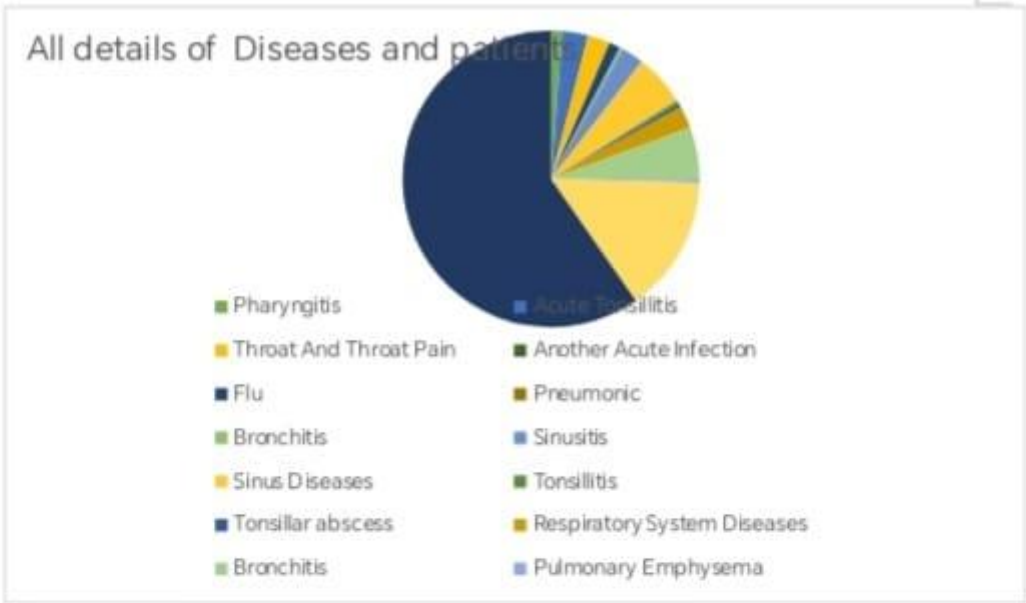
See Figure 1 for a breakdown of all illnesses and patients.

The research also comprised 25 seemingly healthy individuals hailing from various parts of Kirk uk city, with an average age of 40.64 ± 11.47 . Table 1 displays the mean age difference between the patients and controls, and statistical analysis reveals a statistically significant difference at the probability ($P < 0.005$)

	Study group	No;	Mean±Std. D	t-test	p-value
Age	patients	1021	47.40±22.14	2.89	<0.001
	control	25	40.64±11.47		

P .value significant< 0.005

Researchers looked for patterns in the links between the allergy center's admissions and a number of variables. According to these parameters, Table 2 summarizes the subject distributions. A total of 497 (46%) men and 542 (54%) females participated in the study; in contrast, 14 (56%) men and 11 (44% females) made up the control group. There is a statistically significant difference between the sexes in terms of the likelihood of contracting this disease ($P < 0.05$), as indicated in Table 2, which varies according to gender. You can see a summary of the patient-disease correlation in Fig.



Sex	Patients	Control	Total	X ²	p-value
	Number Percent %	Number Percent %			
Male	497(46%)	14(56%)	511(47%)	3.804	<0.001
Female	542 (54%)	11(44%)	533(53%)		
Total	25(100%)	25(100%)	1021(100%)		

Figure 2: All details of disease and patients.

Table (2) association between gender and study groups:

The results of this study supported the findings of previous studies (12, 13), indicating a higher likelihood of allergies in females. Statistical analysis confirmed the existence of significant variations in the risk of infection between the sexes (p 0.05).

This study categorized the participants into five age groups. In contrast, statistical analysis revealed that there were significant differences ($p < 0.05$) in the correlation between infection and age across all age groups. Among these groups, those between the ages of 45 and 64 had the greatest impact, followed by those between the ages of 1 and 14, when contrasted with lower age groups.

See Table 3 for details. As shown in Figure 3, the current study found that among the five age groups, sinusitis and asthma were more common than the other disorders. Table 3 displays the distribution of each illness category by age group.

Table (3): Age group distribution of patients with the type of disease.

Diseases	1 - 14	15 - 19	20 - 44	45 - 64	more than 65
Pharyngitis	3	1	6	5	1
Acute Tonsillitis	7	1	3	1	0
Throat And Throat Pain	6	1	4	1	0
Another Acute Infection	0	0	0	0	0

VIII

Flu	3	0	1	3	0
Pneumonia	0	0	0	0	0
Bronchitis	1	0	1	1	0
Sinusitis	6	1	10	4	1
Sinus Diseases	14	4	107	50	16
Tonsillitis	1	0	0	7	0
Tonsillar abscess	1	0	0	0	0
Respiratory System Diseases	6	3	25	8	3
Bronchitis	14	10	65	29	5
Pulmonary Emphysema	1	0	0	3	0
Asthma	37	31	214	193	33
Bronchiectasis	0	0	0	0	0
Other Diseases	148	66	416	253	48

$\chi^2 = 10.182$, indexed = 7.815 and a significant difference between age group ($p < 0.05$).

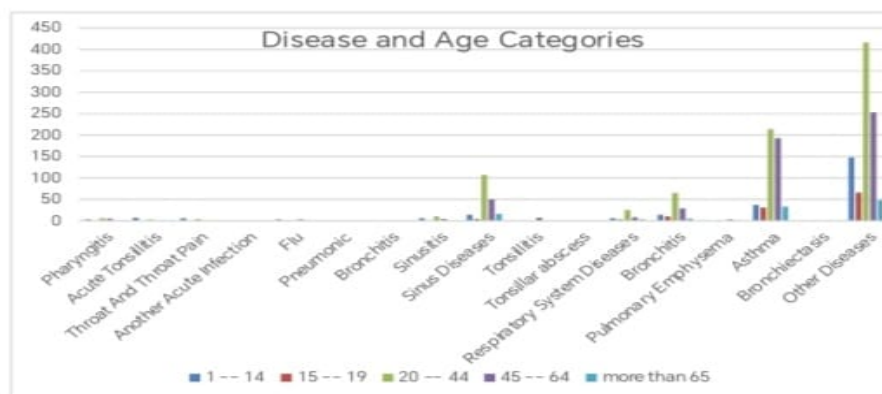


Figure (3): Age group of patient's distribution according to the type of disease.

Figure 3 displays the age group of patients, distributed by disease kind. Among the age groups we examined, the prevalence of asthma was highest among those between the ages of 20 and 44 (35.8%), followed by those between the ages of 45 and 64 (18.6%).

Among those aged 15–19, it occurred 8.8 percent of the time, and among those aged 1–41, it occurred 5.2 percent of the time.

In a study by [14], the most common age group was 21 to 40 years old, and the mean age for asthma was 29 years old. In contrast, a study by [15] indicated that the maximum incidence occurred in the age group of 30 to 50 years old, and the mean age for this study was 33 years old.

According to previous research, there is no significant correlation between age and the prevalence of asthma in individuals with allergies (17). Researchers noted a significant difference in the prevalence of asthma and sinus diseases among nonagenarians and centenarians (28% vs. 19%) compared to younger participants (19%), but the distribution of Ureteric Stones remained unchanged between the two groups.

Researchers in northern Iran found that the incidence of sinus diseases tended to decrease with age, with the 80–

100 age group having a much lower frequency of cases compared to younger groups (19, 20).

Possible explanations for the discrepancy between studies include variations in the age range used for inclusion, different sampling methods, different populations studied, and different lifestyles (12).

Our research on the sex-

disease link found that, as shown in table 4, males had an almost 16:11 disease prevalence rate compared to females. One study discovered a male-to-female ratio of 4:1, while another found an estimated ratio of 3.8:1.14/15. Figure 4 summarizes the findings of two studies published in Saudi Arabia: One by (19) found a male-to-female ratio of 5:6, while the other by (18) reported a ratio of 2.5:6.1 (6, 17). Table 4 displays the breakdown of patient illnesses. In sum We found that the response rate of 1021 patients, compared to the control group, skewed our estimate of the incidence of disease and symptoms in this link with allergies. The age, though, was grossly underrealized. We cannot extrapolate the results to non-responders from our study, as there was no overall trend for late-responders. Notes of Thanks The authors

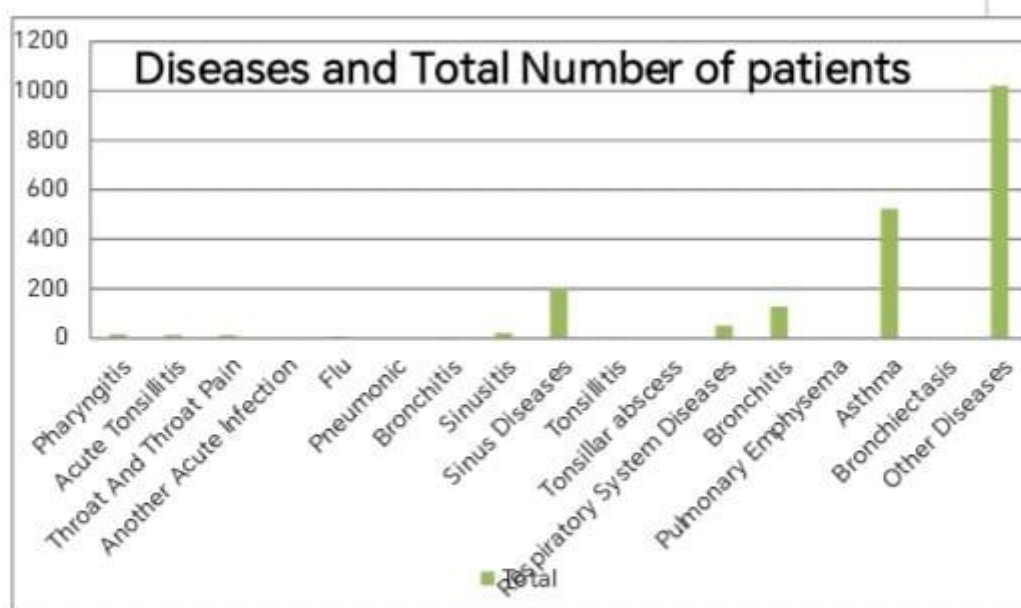
would like to express their gratitude to the Allergy Disease Centre of Kirkuk Governorate, who generously supported this research. Wow, that's an impressive display of technical proficiency! Attendants at the specialized allergy center in Kirkuk often experience the following allergic reactions:



Table 4: distribution of diseases according to sex in the patients.

Diseases	Males	Females	Total
Pharyngitis	9	7	16
Acute Tonsillitis	8	5	13
Throat And Throat Pain	5	7	12
Another Acute Infection	0	0	0
Flu	3	4	7
Pneumonic	0	0	0
Bronchitis	0	3	3
Sinusitis	10	11	21
Sinus Diseases	101	98	199
Tonsillitis	0	2	2
Tonsillar abscess	0	0	0
Respiratory System Diseases	27	24	51
Bronchitis	77	51	128
Pulmonary Emphysema	1	0	1
Asthma	248	275	523
Bronchiectasis	0	0	0
Other Diseases	497	524	1021

$X^2 = 10.182$, indexed = 4.365 and a significant difference between Male and Female ($p < 0.05$).



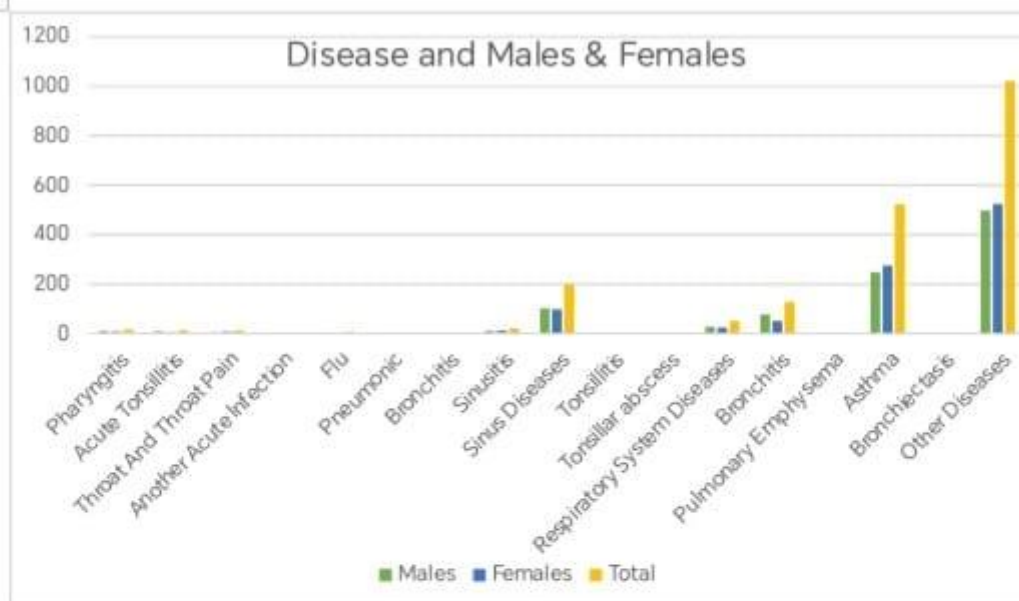


Figure (4): distribution of male and female according to the type of disease.

Conclusions

The findings of two studies published in Saudi Arabia: Oneby (19) found a male-to-female ratio of 5:6, while the other by (18) reported a ratio of 2.5:6.1 (6, 17). Table 4 displays the breakdown of patient illnesses. In sum We found that the response rate of 1021 patients, compared to the control group, skewed our estimate of the incidence of disease and symptoms in this link with allergies. The age, though, was grossly underrealized. We cannot extrapolate the results to non-responders from our study, as there was no overall trend for late-responders. Notes of Thanks The authors would like to express their gratitude to the Allergy Disease Centre of Kirkuk Govern orate, who generously supported this research.

References:

1. Nevitt GJ, Hutchinson PE: Sensitivity in the community: prevalence, severity and patients' beliefs and attitudes towards the disease. *Br J Dermatol* 1996;135:533-537.
2. Helliwell PS, Taylor WJ: Classification and diagnostic criteria for sensitivity arthritis. *Ann Rheum Dis* 2005;64(suppl 2):ii3-ii8.
3. Sadek HA, Abdel-Nasser AM, El-Amawy TA, Hassan SZ: Rheumatic manifestations of sensitivity. *ClinRheumatol* 2007;26:488-498.



4. Pedersen OB, Svendsen AJ, Ejstrup L, Skytthe A, Junker P: The occurrence of sensitivity arthritis in Denmark. *Ann Rheum Dis* 2008;67:1422-1426.
5. Haroon M, Kirby B, FitzGerald O: High prevalence of sensitivity arthritis in patients with severe sensitivity with suboptimal performance of screening questionnaires. *Ann Rheum Dis* 2013;72:736-740.
6. Zanolli MD, Wikle JS: Joint complaints in sensitivity patients. *Int J Dermatol* 1992;31:488-491.
7. Kane D, Pathare S: Early sensitivity arthritis. *Rheum Dis Clin North Am* 2005;31:641-657.
8. Reddy SM, Anandarajah AP, Fisher MC, Mease PJ, Greenberg JD, Kremer JM, Reed G, Chen R, Messing S, Kaukeinen K, Ritchlin CT: Comparative analysis of disease activity measures, use of biologic agents, body mass index, radiographic features, and bone density in sensitivity arthritis and rheumatoid arthritis patients followed in a large US disease registry. *J Rheumatol* 2010;37:2566-2572.
9. Härle P, Hartung W, Lehmann P, Ehrenstein B, Schneider N, Muller H, Muller-Ladner U, Tarner I, Vogt T, Fleck M, Bongartz T: Detection of sensitivity arthritis with the GEPARD patient questionnaire in a dermatologic outpatient setting (in German). *Z Rheumatol* 2010;69:157-160, 162-163.
10. Mrowietz U, Steinz K, Gerdes S: Sensitivity: to treat or to manage? *ExpDermatol* 2014;23:705-709.
11. Taylor W, Gladman D, Helliwell P, Marchesoni A, Mease P, Mielants H; CASPAR Study Group: Classification criteria for sensitivity arthritis: development of new criteria from a large international study. *Arthritis Rheum* 2006;54:2665-2673.
12. Henes JC, Ziupa E, Eisfelder M, Adamczyk A, Knaudt B, Jacobs F, Lux J, Schanz S, Fierlbeck G, Spira D, Horger M, Kanz L, Koetter I: High prevalence of sensitivity arthritis in dermatological patients with sensitivity: a cross-sectional study. *RheumatolInt* 2014;34:227-234.
13. Reich K, Kruger K, Mossner R, Augustin M: Epidemiology and clinical pattern of sensitivity arthritis in Germany: a prospective interdisciplinary epidemiological study of 1,511 patients with plaque-type sensitivity. *Br J Dermatol* 2009;160:1040-1047.
14. De Simone C, Caldarola G, D'Agostino M, Carbone A, Guerriero C, Bonomo L, Amerio P, Magarelli N: Usefulness of ultrasound imaging in detecting sensitivity arthritis of fingers and toes in patients with sensitivity. *ClinDevImmunol* 2011;2011:390726.
15. Wakefield RJ, D'Agostino MA, Naredo E, Buch MH, Iagnocco A, Terslev L, Ostergaard M, Backhaus M, Grassi W, Dougados M, Burmester GR, Saleem B, de Miguel E, Estrach C, Ikeda K, Gutierrez M, Thompson R, Balint P, Emery P: After treat-to-target: can a targeted ultrasound initiative improve RA outcomes? *Ann Rheum Dis* 2012;71:799-803.
16. Eder L, Barzilai M, Peled N, Gladman DD, Zisman D: The use of ultrasound for the assessment of enthesitis in patients with spondyloarthritis. *ClinRadiol* 2013;68:219-223.
17. Backhaus M, Ohrndorf S, Kellner H, Strunk J, Backhaus TM, Hartung W, Sattler H, Albrecht K, Kaufmann J, Becker K, Sorensen H, Meier L, Burmester GR, Schmidt WA: Evaluation of a novel 7-joint ultrasound score in daily rheumatologic practice: a pilot project. *Arthritis Rheum* 2009;61:1194-1201.





18. Coates LC, Aslam T, Al Balushi F, Burden AD, Burden-Teh E, Caperon AR, Cerio R, Chattopadhyay C, Chinoy H, Goodfield MJ, Kay L, Kelly S, Kirkham BW, Lovell CR, Marzo-Ortega H, McHugh N, Murphy R, Reynolds NJ, Smith CH, Stewart EJ, Warren RB, Waxman R, Wilson HE, Helliwell PS: Comparison of three screening tools to detect sensitivity arthritis in patients with sensitivity (CONTEST study). Br J Dermatol 2013;168:802-807.
19. Busquets-Perez N, Marzo-Ortega H, McGonagle D, Waxman R, Helliwell P, CONTEST collaboration: Screening sensitivity arthritis tools: analysis of the Early Arthritis for Sensitivity Patients questionnaire. Rheumatology (Oxford) 2015;54:200-202.
20. Husni ME, Meyer KH, Cohen DS, Mody E, Qureshi AA: The PASE questionnaire: pilot-testing a sensitivity arthritis screening and evaluation tool. J Am AcadDermatol 2007;57:581-587.

