

# Quality of life and work productivity analysis of patients with mild to moderate chronic hand dermatitis

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## INTRODUCTION

- Skin diseases, particularly of the hands, have been reported to have a negative impact on patient quality of life (QoL) and account for a large percentage of occupational illness and loss of productivity
- This analysis describes self-reported QoL and work productivity of patients with mild to moderate chronic hand dermatitis (ChHD)

## METHODS

- All patients taking part in a clinical trial of a novel agent, pimecrolimus cream 1%, for the treatment of ChHD and who completed the Dermatology Life Quality Index (DLQI)<sup>1</sup> and the Work Productivity and Activity Impairment questionnaire-Chronic Hand Dermatitis (WPAI-ChHD)<sup>2</sup> at baseline were included in this analysis
- A total of 257 of the 294 patients in the intent-to-treat population (87.4%) completed baseline questionnaires and were included in the analysis
- Study subjects were over 18 years of age, of either sex, with mild to moderate ChHD
- Results are reported for the total group and for subgroups defined by suspected etiology (irritant contact dermatitis (ICD) vs non-ICD) and palmar surface involvement (PSI vs non-PSI)

### QoL and work productivity measures

#### DLQI

- Measures six disease-specific domains, i.e., symptoms and feelings, leisure activities, daily activities, work and school, personal relationships, and treatment
- Items are rated on a 4-point scale (0 = not at all, to 3 = very much)

- Individual items are summed to generate an overall QoL score. Scores are expressed as percentages, with higher scores indicating greater impairment

- Recall period is the last 7 days

#### WPAI-ChHD

- Measures work and classroom absenteeism and productivity
- Scores are expressed as percentages, with higher scores indicating greater impairment
- Recall period is the last 7 days

## RESULTS

- The demographic characteristics of the total analysis group and the subgroups are described in Table 1; baseline WPAI-ChHD and DLQI scores are displayed in Table 2

Table 1. Baseline demographics

	Analysis group				
	Suspected etiology			Palmar surface involvement	
	All patients (n=257)	ICD (n=150)	non-ICD (n=107)	PSI (n=180)	non-PSI (n=77)
<b>Age</b>					
Mean ± SD	44 ± 13.3	44 ± 13.1	46 ± 13.5	45 ± 12.7	44 ± 14.6
Range	18–86	20–77	18–86	21–77	18–86
<b>Sex</b>					
Female %	57	63	48	57	57
<b>Race</b>					
Caucasian %	85	85	85	86	82
Other %	15	15	15	14	18
<b>Employed %</b>	78	79	78	78	78
<b>Occupation</b>					
Office/ clerical %	23	21	26	23	23
Homemaker %	14	17	9	13	16
Healthcare %	9	12	6	11	6
<b>Student %</b>	11	9	12	11	9

### Total Group Analysis

- Patients with ChHD averaged 25.1% of maximum disability as measured by the DLQI summary score, which is comparable to scores of outpatients with psoriasis (29.7%), higher than in patients with vitiligo (16.1%), but lower than in patients with concurrent delayed pressure urticaria (43%)<sup>3</sup>

- Disability for ChHD patients was greatest in the symptoms and feelings component score of the DLQI, which measures the pain and embarrassment associated with ChHD, with 54.6% of impairment reported
- Impairment in work and school, daily activities and leisure activities ranged from 18% to 27%
- Work and school time missed due to disease-specific symptoms is low for ChHD (0.3%), which is in line with other chronic conditions such as arthritis (0.6%) and allergic rhinitis (1.7%)
- Employed patients reported an average of 17.7% impairment at work due to ChHD
- For students, impairment in the classroom due to ChHD was 14.4%
- For all patients, impairment in daily activities due to ChHD was 24.6%

Table 2. Quality of life and work productivity measures at baseline

	Analysis group				
	Suspected etiology			Palmar surface involvement	
	All patients (n=257)	ICD (n=150)	non-ICD (n=107)	PSI (n=180)	non-PSI (n=77)
<b>DLQI (%)</b>					
Total	25.1	26.5	23.2	26.5	22.0
Symptoms and feelings	54.6	56.8	51.6	54.6	54.5
Work and school	26.5	28.4	23.7	27.0	25.1
Daily activities	19.6	21.0	17.8	21.2	16.0
Treatment	18.8	19.3	18.1	20.9	13.9
Leisure activities	18.2	19.7	16.2	20.2	13.6
Personal relationships	10.6	11.2	9.8	12.4	6.5
<b>WPAI-ChHD (%)</b>					
Work absenteeism	0.3	0	0.8	0.5	0
Impairment at work	17.7	20.3	13.9	17	17
School absenteeism	0	NR*	NR*	NR*	NR*
Impairment at school	14.4	NR*	NR*	NR*	NR*
Impairment in daily activities	24.6	27.0	21.1	25.8	21.6

NR\* – Not reported due to small sample sizes

### Subgroup analysis: suspected etiology

- Compared to non-ICD patients, ICD patients were younger (average age of 44.0 years vs 46.1 years), more likely to be female (63% vs 48%), and more likely to report their primary occupation as homemaker (17% vs 9%), healthcare professional (12% vs 6%) or barber/beautician/hairstylist (3% vs 0%)

- ICD patients averaged greater disability, as measured by the DLQI total score, than non-ICD patients (26.5% vs 23.2%)
- Patients with ICD consistently scored higher (worse) on all six components of the DLQI compared to non-ICD patients
- Compared to non-ICD patients, ICD patients experienced greater impairment at work (20.3% vs 13.9%) and daily activities (27.0% vs 21.1%) due to ChHD, as assessed by the WPAI-ChHD

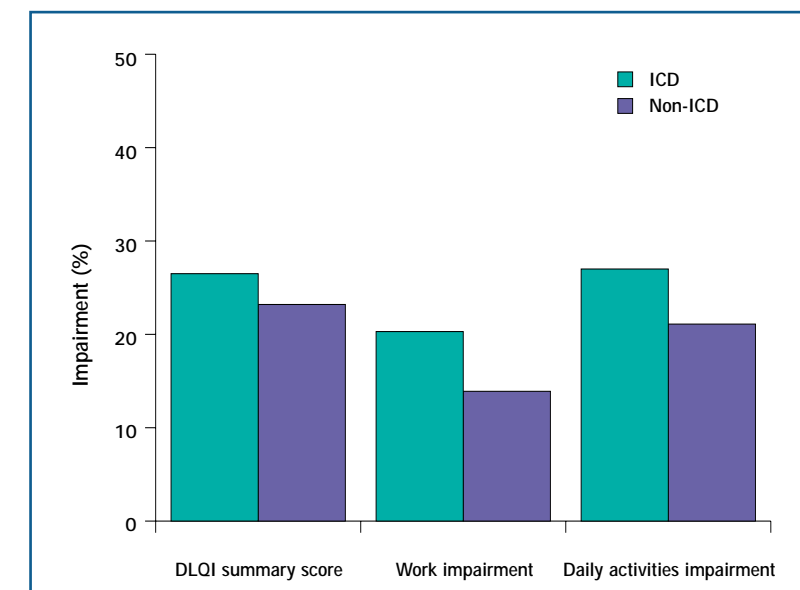


Figure 1. Suspected etiology subgroup analysis

### Subgroup analysis: palmar surface involvement

- Compared to non-PSI patients, PSI patients were more likely to be Caucasian (86% vs 82%), were slightly older (average age of 45.4 years vs. 43.8 years), less likely to report their primary occupation as homemaker (13% vs 16%) and more likely to report being healthcare professionals (11% vs 6%)
- PSI patients averaged 26.5% of maximum disability as measured by the DLQI summary score, which is higher (worse) than non-PSI patients (22.0%)
- PSI patients scored higher (worse) in all DLQI components than non-PSI patients with the exception of the symptoms and feelings score
- There were no differences between the PSI and non-PSI patients in impairment at work; however, the PSI patients had greater impairment in daily activities than non-PSI patients (25.8% vs 21.6%)

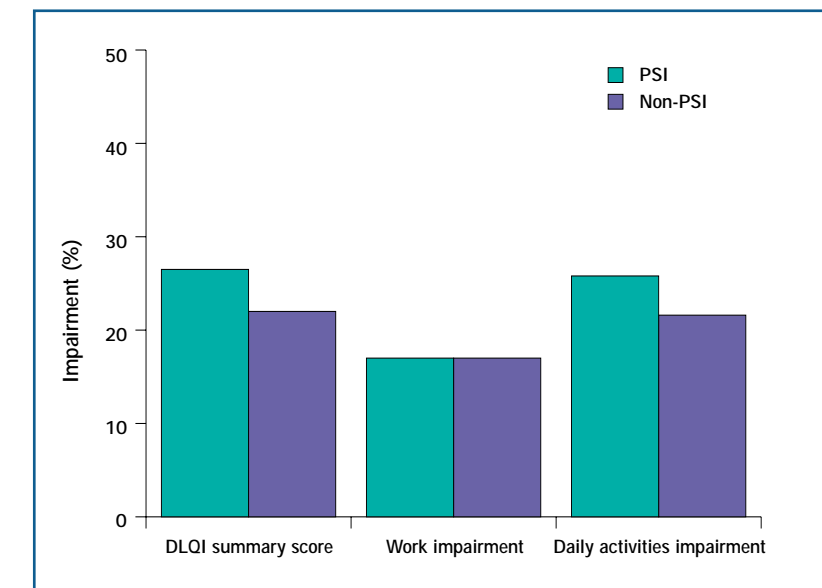


Figure 2. Palmar surface involvement subgroup analysis

## CONCLUSIONS

- This analysis has confirmed that mild to moderate ChHD is associated with impairment at work, in the classroom, and during other daily activities and that the symptoms of ChHD can be painful and embarrassing to those who suffer from it
- Patients with ICD and palmar surface involvement tend to report more impairment than corresponding subgroups with ChHD

## REFERENCES

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