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13 **Healthcare utilization in Danish children with atopic dermatitis and parental topical**  
14 **corticosteroid phobia**

15

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44 TG reports grants from Kgl Hofbundtmager Aage Bang Foundation.

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#### 71 **Author contributions**

72 TG, LS and JPT designed the study, created the study protocol, and obtained approval of the study  
73 design. JHH, CV, MD, GBJ, CGM and TA contributed to revision and refinement of the study.  
74 TG was responsible for data collection. Data analysis was performed by TG, JHH and JT. TG and  
75 JPT drafted the manuscript. All authors critically revised the manuscript. All authors supervised  
76 the study.

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## 83 Abstract

84 Background: Atopic dermatitis (AD) is a prevalent relapsing inflammatory skin disease. There is  
85 currently little knowledge about healthcare utilization, medication use along with parental  
86 corticosteroid phobia in relation to severity of pediatric AD

87 Objectives: To study the association between parental reported healthcare utilization, medication  
88 use, and topical corticosteroid phobia and pediatric AD severity.

89 Methods: The study population included all children in Denmark with a diagnostic code of AD  
90 (ICD-10 code, group L20) given at a hospital department of dermatology between 2014 and 2018.  
91 A questionnaire containing 158 response items was sent to the legal parents. We surveyed disease  
92 severity, AD treatment, corticosteroid phobia and healthcare use along with other variables.  
93 Disease severity was assessed using the Patient-Oriented Eczema Measure tool and corticosteroid  
94 phobia assessed using the Topical Corticosteroid Phobia (TOPICOP) score.

95 Results: In total, 1,343 (39%) parents completed the questionnaire and 95.3% were completed by  
96 the biological mother. Children's mean age was  $8.9 \pm 4.5$  years and 52.8% were boys. Severe AD  
97 was associated with a higher number of healthcare visits to GPs, private dermatologists and  
98 hospital departments. Mean global TOPICOP score was  $38.27 \pm 19.9\%$ . There was a significant  
99 inverse linear trend between global TOPICOP score and parental educational level ( $p_{trend} < 0.0005$ ).

100 Conclusions: The significant association between high global TOPICOP score and low parental  
101 educational level, resulting in delayed treatment of AD flares, indicate that improved family  
102 education ultimately may reduce healthcare expenses and burden of disease.

103

## 104 Key message:

105 In this nationwide study of children with atopic dermatitis, healthcare utilization at onset of  
106 disease was not associated with AD severity later in childhood. Low parental educational level  
107 was associated with increased corticosteroid phobia and led to delay of treatment initiation during  
108 AD flares.

## 109 Introduction

110 Atopic dermatitis (AD) is a common chronically relapsing inflammatory skin disease.<sup>1</sup> Most cases  
111 are mild and managed in primary care by general practitioners (GP),<sup>2</sup> whereas moderate-to-severe

112 or treatment-resistant cases are referred to office-based dermatologists, pediatricians and allergists,  
113 and/or to dermatology, allergology or pediatric hospital departments for further work-up and  
114 treatment.<sup>3</sup> We recently showed that medication use could predict AD persistence in children.<sup>4</sup> It  
115 may therefore be speculated, that early identification of children with increased risk of severe and  
116 persistent disease course could improve disease management and reduce the burden of AD.  
117 Topical corticosteroid (TCS) phobia is a common challenge in both pediatric and adult patients  
118 with AD,<sup>5</sup> and contributes not only to low treatment adherence and poor disease control, but  
119 ultimately increases the need for health care utilization.<sup>6-9</sup> Misinformation from public media,  
120 family, friends, and healthcare professionals may further aggravate TCS phobia.<sup>6</sup>  
121 In this cross-sectional study, we asked parents of children with AD seen in a hospital setting about  
122 healthcare utilization, medication use and possible TCS phobia in relation to current AD severity.

123

## 124 **Methods**

### 125 *Ethics*

126 The study was a nationwide web-based questionnaire study approved by the Danish Data  
127 protection Agency (P-2019-17) and the Danish Patient Safety Authority (3-3013-2859/1). In  
128 Denmark, approval from the Medical Ethics Committee is not required for questionnaire studies.

129

### 130 *Study population*

131 All residents in Denmark have universal, equal and free access to the public healthcare system,  
132 covering healthcare by GPs, specialists (including private dermatologists, pediatricians and  
133 allergists) and public hospital-physicians. Individual healthcare data is systematically collected  
134 and registered in national patient-based registries and databases, accessible for research.<sup>10</sup>

135 Children were identified through the Danish National Patient Registry (DNPR),<sup>11</sup> containing  
136 information on all patient contacts at hospital departments. Legal parents were identified in the  
137 Danish Civil Registration System,<sup>12</sup> containing the parental link between the child and legal  
138 parents.

139 The study population consisted of all living children (<18 years) in Denmark, diagnosed with AD  
140 (registered at least once with the ICD-10 code, group L20 in the DNPR) in a dermatology

141 department at a Danish hospital (in- or outpatient) between January 1, 2014 and December 31,  
142 2018. In order to be included in the study population the AD diagnosis had to be registered as the  
143 main reason for the hospital contact and has previously been validated, with a positive predictive  
144 value of 98%.<sup>3</sup>

145

#### 146 *The questionnaire*

147 In Denmark, citizens above the age of 15 years receive all communication from public authorities  
148 through a personal, secure digital mailbox. A questionnaire was developed and sent to one of the  
149 legal parents of all eligible children in October 2019. Most were sent to the biological mother,  
150 which is the default recipient selected when sending communication from the Danish public  
151 authorities. Non-responders received two reminders with 3 weeks interval. The questionnaire was  
152 managed in the online REDCap (Research Electronic Data Capture) database hosted at the Capital  
153 Region of Denmark,<sup>13</sup> and contained 158 response items about family structure, residential  
154 situation, parental educational level, current and previous skin diseases, predispositions, AD  
155 treatment, TCS phobia and AD severity.

156

#### 157 *Patient-Oriented Eczema Measure*

158 AD severity at the time of the survey was assessed using the Patient-Oriented Eczema Measure  
159 (POEM),<sup>14</sup> a seven-item, validated, self-reported outcome tool about the frequency of signs and  
160 symptoms (itch, sleep disturbance, dryness, flaking, weeping or oozing, bleeding and cracking) in  
161 the past 7 days. The final score ranges from 0 to 28 and was divided into five rank-order  
162 categories: clear or almost clear (0-2), mild (3-7), moderate (8-16), severe (17-24) and very severe  
163 eczema (25-28).<sup>15</sup>

164

#### 165 *Topical Corticosteroid Phobia Score*

166 TCS phobia at the time of the survey was assessed using the Topical Corticosteroid Phobia  
167 (TOPICOP) score, a 12-item, validated tool assessing three dimensions of TCS phobia (fears,  
168 beliefs and reluctance to use TCS). Each item was scored on a 4-point Likert scale, and the final

score ranged from 0 to 36, expressed as percentage, with higher values indicating more severe TCS phobia.<sup>7,8</sup>

171

## 172 *Statistical analyses*

173 Characteristics were presented with means and standard deviations for continuous variables and  
174 with frequencies and percentages for categorical variables. Chi-square test, t-test, one-way  
175 ANOVA and ANCOVA were performed to compare differences between variables. Trend tests  
176 were used to compare ordered categorical variables. P-values <0.05 were considered statistically  
177 significant. Missing data were left out in the analyses. IBM SPSS Statistics for Windows, Version  
178 25.0 (Armonk, NY: IBM Corp.) was used for data management and statistical analyses.

179

## 180 **Results**

181 Legal parents of 3,437 eligible children were invited and parents of 1,343 (39%) accepted and  
182 replied to the questionnaire. There was no difference in age and gender between responding and  
183 non-responding children. (Table S1). The mean age of the child and responding parent was  
184 8.9±4.5 years and 40.4±6.6 years. Slightly more parents of boys (52.8%) participated. 95.3% of  
185 the survey were completed by the biological mother and 18 had two participating children in the  
186 study and three had twins.

187 Mean POEM score for the entire cohort was 7.9±6.3. Mean POEM scores for boys and girls were  
188 7.3±6.2 and 8.2±6.3, respectively ( $p=0.009$ ). Overall, based on POEM 304 (23.4%) patients were  
189 categorized as currently having clear or almost clear AD, 384 (29.5%) as having mild AD, 483  
190 (37.1%) as having moderate AD, and 130 (10.0%) as having severe or very severe AD ('severe  
191 AD').

192

## 193 *Healthcare use*

194 Children with more severe AD reported a higher number of healthcare visits to GPs, office-based  
195 dermatologists and hospital departments than children with milder disease (Table 1). This  
196 association remained significant when adjusting for parental educational level, total household  
197 income and parental global TOPICOP score.

198 While a high proportion of patients had been seen at a young age by GPs and office-based  
199 dermatologists, children were in general older when first seen by a hospital-based dermatologist  
200 (Figure 1).

201

## 202 *Treatment*

203 Current daily use of emollients was significantly associated with increasing AD severity  
204 ( $p<0.0005$ ). TCS was the most commonly used medical treatment, whereas treatment with TCI  
205 predominantly had been used by children with current moderate-to-severe AD (Table 2).

206 Overall, 55.1% started treatment on the same day as onset of flare/worsening, whereas 13.1%  
207 delayed treatment for 7 days or more (Figure 2a). The main reported reasons for initiating TCS or  
208 topical calcineurin inhibitors (TCI) treatment were itch (72.9%), skin redness (57.7%), dry skin  
209 (47.7%), oozing skin lesions (20.5%) and impaired sleep (20.0%) (Figure 2b). The main reasons  
210 for stopping were absence of skin redness (42.3%), adherence to doctor provided treatment  
211 regimen (39.9%), absence of itch (32.8%), and one-week duration of treatment (13.3%) (Figure  
212 2c).

213 Systemic immunosuppressive treatment was uncommon and had mostly been used by children  
214 with currently severe AD. The most frequently used immunosuppressants besides systemic  
215 corticosteroids were methotrexate and azathioprine. Cyclosporine was only used in a few patients  
216 (Table 2).

217

## 218 *Topical corticosteroid fear and treatment behavior*

219 The global TOPICOP score was  $38.27\pm19.9\%$  with the following sub-scores; knowledge and  
220 beliefs  $31.22\pm19.5\%$ , fears  $45.70\pm28.4\%$  and behavior  $43.68\pm27.9\%$  (Table S2). There was no  
221 difference in global TOPICOP score between current AD severity groups ( $p=0.086$ ). There was no  
222 difference in global TOPICOP score between parents to girls or boys ( $p=0.374$ ) or when  
223 categorizing children in age-groups  $<5$  years vs.  $>5$  years ( $p=0.725$ ) or  $<10$  years vs.  $>10$  years  
224 ( $p=0.993$ ).

225 There was a significant linear trend between increasing global TOPICOP score and low parental  
226 educational level (Table 3) ( $p_{trend}<0.0005$ ), which remained significant when adjusting for AD  
227 severity and parental comorbidities ( $p<0.0005$ ).

228 Current total household income showed a significant inverse linear trend with global TOPICOP  
229 score ( $p_{trend}<0.0005$ ), which remained significant when adjusting for currently AD severity  
230 ( $p=0.003$ ) (Table 3). However, the association disappeared when adjusting for parental  
231 comorbidities and parental educational level.

232 Mothers with AD, asthma, or hay fever and fathers with AD or hay fever had lower global  
233 TOPICOP scores compared with parents without atopic comorbidities (Table 3). This remained  
234 significant when adjusting for current AD severity and parental educational level.

235 There was a significant linear trend between increased global TOPICOP score and increased  
236 number of GP-visits before referral to a dermatologist ( $p_{trend}=0.001$ ) (Table S3), however this  
237 association disappeared when adjusting for AD severity, parental educational level, and parental  
238 atopic comorbidities.

239 There was a significant linear trend between increased global TOPICOP score and increasing time  
240 period from onset of AD flare until initiation of TCS application ( $p_{trend}<0.0005$ ), which remained  
241 significant when adjusting for current AD severity, parental educational level, and parental atopic  
242 comorbidities ( $p<0.0005$ ) (table 4).

243 Overall, most parents reported feeling confident and comfortable in managing their child's AD  
244 and using TCS (Table 4). A significant linear trend was found between increased global TOPICOP  
245 score and low comfort level when using TCS treatment ( $p_{trend}<0.0005$ ) and low overall feel of AD  
246 management ( $p_{trend}<0.0005$ ). This association remained significant when adjusting for POEM  
247 score, parental educational level and parental atopic comorbidities ( $p<0.0005$ ). There was a  
248 significant linear trend between increasing AD severity and increasing fear of TCS side-effects  
249 ( $p_{trend}<0.0005$ ).

250

## 251 **Discussion**

### 252 *Main findings*

253 In this nationwide survey of children with AD seen in a hospital setting, neither the number of  
254 previous healthcare visits, nor the age of the child at first GP-visit or dermatologist-visit, were  
255 associated with AD severity later in childhood. Parental corticosteroid phobia led to delayed TCS  
256 application during AD flares. Low parental educational level was associated with corticosteroid  
257 phobia.

258

#### 259 *Interpretation*

260 In recent studies, early onset AD, increased AD severity at disease onset, female sex, filaggrin  
261 gene mutations, atopic comorbidities and use of potent TCS/TCI before first AD hospital contact  
262 have been identified as predictors for persistence of AD into adolescence and adulthood.<sup>4,16-18</sup> In  
263 our study, we determined AD severity later in childhood (at mean age 9 years) by using POEM  
264 score, likely covering both severity and persistence. However, we acknowledge that some children  
265 may have had inactive disease at the time of the survey, or less activity than normal, and hence  
266 were misclassified as being in resolution or having milder disease.

267

268 Overall, children with AD had their first GP contact due to AD in infancy and had less than five  
269 visits to their GP before referral to a dermatologist. While we found significant differences in age  
270 at first visit to GPs and office-based dermatologists across current POEM severity groups, the  
271 differences were so small that age at first visit cannot be used in a clinical setting to predict which  
272 children that will develop severe AD later in childhood. The same was observed for number of GP  
273 visits before referral to a dermatologist and the child's age at first visit to an office-based  
274 dermatologist.

275 TCS was the most commonly used medical treatment followed by TCI. Compared to a recent  
276 registry-based study using the same diagnostic code for AD, we found more frequent use of potent  
277 and very potent TCS.<sup>3</sup> A likely explanation could be the difference in age between cohorts (mean  
278 age 2.1 years vs. 8.9 years, respectively), where increasing age and longer disease course, will  
279 result in a larger total-amount of TCS and presumably with higher potency. Moreover, we found  
280 that almost one third of children with currently severe AD reported having used very potent TCS,  
281 despite this being advised against in children.<sup>19</sup>

282 Corticosteroid phobia is prevalent in dermatology patients and may result in delayed treatment  
283 initiation and poor disease control.<sup>7,8,20-25</sup> Corticosteroid phobia even exists among healthcare  
284 providers, where the highest scores have been found in health care nurses, GPs and pharmacists  
285 and the lowest in dermatologists.<sup>20,21</sup> TCS phobia is even higher in GPs and pharmacists compared  
286 to patients.<sup>21</sup> This is of great importance, since GPs and pharmacists are the first healthcare  
287 professionals advising and treating patients when they develop AD. Their attitude towards TCS is  
288 therefore crucial when informing patients and parents. In our study we found that children who  
289 had been seen many times by their GP before referral to a dermatologist had a higher global  
290 TOPICOP score; however, this association disappeared when adjusting for AD severity, parental  
291 educational level, and parental atopic comorbidities. Moreover, we found a significant inverse  
292 association between parental educational level and global TOPICOP score. Since a recent Danish  
293 register-based study showed that children with a hospital diagnosis of AD more often came from  
294 less resourceful families,<sup>3</sup> the imbalance in social demographic structure is likely to give rise to  
295 increased health expenses. To our knowledge, the direct costs of AD have not been estimated in  
296 Danish children and due to structural differences in healthcare systems across the world, the  
297 estimation of the direct costs of AD ranges from 71\$ to 3288\$ per patient per year.<sup>26-28</sup> Knowledge  
298 on increased health expenses is valuable in clinical practice, where focus on improvement of  
299 treatment and adherence in children from low-income families will result in increased treatment  
300 adherence and possibly result in earlier discharge, thereby decreasing the health expenses in  
301 society.

302 While most parents reported being confident and comfortable in treating their child's AD with  
303 TCS, we found an association between fear of TCS side effects and increasing current AD severity.  
304 Our findings confirm that increasing fear of TCS results in reduced treatment adherence and delay  
305 of initiation of treatment.<sup>23,25,29</sup>

306 We found that a parental history of atopic comorbidities was associated with a lower TOPICOP  
307 score. This is most likely because atopic parents previously have been introduced to TCS and  
308 therefore have experienced how effective and well-tolerated it is, thereby being less susceptible to  
309 external opinions and beliefs.

310 Overall, our observations on TOPICOP are in line with previous assessments in AD patients.<sup>8</sup> In  
311 the big international feasibility study, including both children (80.1%) and adults (19.9%), the  
312 highest TOPICOP value were reported in Poland (58.4%), Ukraine (55.1%) and Taiwan (52.9%),

313 and the lowest in Germany (38.5%), Denmark (35.4%) and Brazil (33.5%).<sup>8</sup> Studies only  
314 assessing parental TOPICOP scores found the highest scores in Holland (44%) and Belgium  
315 (41.9%) and the lowest in Japan (32.9%) and France (18.8%).<sup>20-22,24</sup>

316

### 317 *Strengths and limitations*

318 To our knowledge, this is the largest study so far examining self-reported medication use and  
319 corticosteroid phobia in parents of children with AD and related this to current disease severity.  
320 AD severity assessment was based on POEM score, a validated score reflecting objective  
321 measurements during the last seven days.<sup>14,30</sup> However, we have no knowledge about the child's  
322 previous AD severity. Recall and selection bias is a concern in questionnaire studies, but the  
323 response rate of 39% is acceptable. Our response rate to the questionnaire distributed by digital,  
324 secure mail, correspond to a recent Danish questionnaire study.<sup>31</sup>

325 The comparison of mean age and sex between responding and non-responding children indicated  
326 no difference. It is possible that only parents to children with more severe disease responded to the  
327 questionnaire, in turn introducing bias. Similar, those families with language or reading problems,  
328 or other reductions of resources may have chosen not to participate. Since the population was a  
329 selected group of patients with a hospital diagnosis of AD, our results are probably not applicable  
330 to children with milder disease who are managed by their GP.

331

### 332 **Conclusions**

333 The significant association between high global TOPICOP score and low parental educational  
334 level, resulting in delayed treatment of AD flares, indicate that improved family education  
335 ultimately may reduce healthcare expenses and burden of disease.

336

337

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Table 1 - Retrospective healthcare utilization of atopic dermatitis children stratified by current disease severity

|                                                                                   | All children<br>with AD<br>(N=1,343)* | Current POEM                         |                     |                            |                       |
|-----------------------------------------------------------------------------------|---------------------------------------|--------------------------------------|---------------------|----------------------------|-----------------------|
|                                                                                   |                                       | Clear/almost<br>clear AD<br>(N=304)* | Mild AD<br>(N=384)* | Moderate<br>AD<br>(N=483)* | Severe AD<br>(N=130)* |
|                                                                                   |                                       |                                      |                     |                            |                       |
| General practitioner                                                              |                                       |                                      |                     |                            |                       |
| Number of visits at the GP before referral to a dermatologist,<br>% (n) (N=1,218) |                                       |                                      |                     |                            |                       |
| 1 visit                                                                           | 28.1 (342)                            | 30.9 (87)                            | 30.8 (108)          | 24.9 (111)                 | 25.4 (30)             |
| 2-5 visits                                                                        | 56.7 (691)                            | 58.9 (166)                           | 57.3 (201)          | 56.3 (251)                 | 52.5 (62)             |
| 5-10 visits                                                                       | 10.5 (128)                            | 7.1 (21)                             | 8.5 (30)            | 12.8 (57)                  | 15.3 (18)             |
| 10-15 visits                                                                      | 2.7 (33)                              | 1.8 (5)                              | 1.7 (6)             | 3.8 (17)                   | 4.2 (5)               |
| More than 15 visits                                                               | 2.0 (24)                              | 1.1 (3)                              | 1.7 (6)             | 2.2 (10)                   | 2.5 (3)               |
| Private dermatologist                                                             |                                       |                                      |                     |                            |                       |
| Visits at a private dermatologist due to AD, % (n) (N=1,321)                      | 74.5 (984)                            | 63.3 (192)                           | 74.2 (285)          | 79.7 (384)                 | 82.2 (106)            |
| Number of visits at a private dermatologist, % (n) (N=948)                        |                                       |                                      |                     |                            |                       |
| 1 visit                                                                           | 13.3 (126)                            | 20.5 (38)                            | 14.0 (39)           | 11.4 (42)                  | 6.8 (7)               |
| 2-5 visits                                                                        | 49.5 (469)                            | 51.4 (95)                            | 54.7 (152)          | 47.0 (174)                 | 39.8 (41)             |
| 5-10 visits                                                                       | 16.8 (159)                            | 14.1 (26)                            | 12.9 (36)           | 20.8 (77)                  | 19.4 (20)             |
| 10-15 visits                                                                      | 7.3 (69)                              | 7.0 (13)                             | 6.8 (19)            | 7.3 (27)                   | 9.7 (10)              |
| More than 15 visits                                                               | 13.2 (125)                            | 7.0 (13)                             | 11.5 (32)           | 13.5 (50)                  | 24.3 (25)             |
| Hospitals                                                                         |                                       |                                      |                     |                            |                       |
| Number of visits at a hospital department of dermatology, %<br>(n) (N=1,245)      |                                       |                                      |                     |                            |                       |
| 1 visit                                                                           | 14.1 (175)                            | 22.8 (64)                            | 16.9 (61)           | 8.8 (40)                   | 4.8 (6)               |
| 2-5 visits                                                                        | 43.0 (535)                            | 47.3 (133)                           | 49.0 (177)          | 38.2 (174)                 | 33.1 (41)             |
| 5-10 visits                                                                       | 20.5 (255)                            | 18.5 (52)                            | 17.5 (63)           | 23.2 (106)                 | 25.8 (32)             |
| 10-15 visits                                                                      | 9.6 (119)                             | 6.0 (17)                             | 7.8 (28)            | 12.1 (55)                  | 14.5 (18)             |
| More than 15 visits                                                               | 12.9 (161)                            | 5.3 (15)                             | 8.9 (32)            | 17.8 (81)                  | 21.8 (27)             |
| Current management at a hospital department of<br>dermatology, % (n) (N=1,316)    | 27.5 (362)                            | 9.7 (29)                             | 23.2 (88)           | 34.1 (164)                 | 55.8 (72)             |
| Other hospital contacts, % (n) (N=1,192)                                          |                                       |                                      |                     |                            |                       |
| Medical emergency helpline                                                        | 43.6 (519)                            | 40.6 (104)                           | 42.9 (141)          | 47.9 (197)                 | 64.8 (68)             |
| Emergency room                                                                    | 26.2 (262)                            | 21.6 (51)                            | 26.6 (78)           | 27.7 (100)                 | 30.0 (27)             |
| Pediatric department                                                              | 61.8 (722)                            | 54.8 (148)                           | 59.2 (200)          | 64.3 (274)                 | 76.5 (88)             |
| Allergy department                                                                | 68.9 (834)                            | 63.4 (173)                           | 65.1 (224)          | 73.0 (332)                 | 79.2 (95)             |

AD, atopic dermatitis; GP, general practitioner; POEM, Patient-Oriented Eczema Measure,

\* Due to missing data, the number of participants may be less than total the sample sizes or POEM groups (N).

**Table 2 - Current use of atopic dermatitis medication stratified by current disease severity**

|                                                            | All children<br>with AD<br>(N=1,343)* | Current POEM                         |                     |                            |                       |
|------------------------------------------------------------|---------------------------------------|--------------------------------------|---------------------|----------------------------|-----------------------|
|                                                            |                                       | Clear/almost<br>clear AD<br>(N=304)* | Mild AD<br>(N=384)* | Moderate<br>AD<br>(N=483)* | Severe AD<br>(N=130)* |
|                                                            |                                       |                                      |                     |                            |                       |
| Topical corticosteroids (TCS), % (n) (N=1,299)             |                                       |                                      |                     |                            |                       |
| Ever received TCS                                          | 95.2 (1237)                           | 92.5 (273)                           | 96.3 (361)          | 96.2 (461)                 | 96.1 (124)            |
| Mild                                                       | 60.6 (814)                            | 52.0 (158)                           | 63.0 (242)          | 66.5 (321)                 | 63.8 (83)             |
| Moderate                                                   | 77.5 (1041)                           | 70.7 (215)                           | 80.5 (309)          | 82.4 (398)                 | 82.3 (107)            |
| Potent                                                     | 62.7 (842)                            | 43.4 (132)                           | 59.6 (229)          | 75.8 (366)                 | 80.8 (105)            |
| Very potent                                                | 14.1 (190)                            | 8.6 (26)                             | 11.7 (45)           | 16.6 (80)                  | 28.5 (37)             |
| Topical calcineurin inhibitors (TCI), % (n) (N=1,301)      |                                       |                                      |                     |                            |                       |
| Ever Received TCI                                          | 49.9 (649)                            | 29.2 (86)                            | 47.1 (177)          | 60.8 (291)                 | 69.0 (89)             |
| Other AD treatment, % (n) (N=1,300)                        |                                       |                                      |                     |                            |                       |
| UVB                                                        | 5.5 (72)                              | 3.1 (9)                              | 4.5 (17)            | 6.3 (30)                   | 11.6 (15)             |
| Antibiotics                                                |                                       |                                      |                     |                            |                       |
| Topical                                                    | 50.0 (650)                            | 38.8 (112)                           | 49.2 (185)          | 55.2 (264)                 | 60.5 (78)             |
| Systemic                                                   | 11.5 (150)                            | 10.5 (31)                            | 9.3 (35)            | 12.1 (58)                  | 20.1 (26)             |
| Immunosuppressants                                         | 10.4 (135)                            | 5.8 (17)                             | 6.6 (25)            | 10.6 (51)                  | 19.4 (25)             |
| Corticosteroids                                            | 1.7 (23)                              | 0.0 (0)                              | 1.3 (5)             | 2.5 (12)                   | 5.4 (7)               |
| Methotrexate                                               | 3.6 (49)                              | 1.0 (3)                              | 3.1 (12)            | 5.0 (24)                   | 7.7 (10)              |
| Azathioprine                                               | 1.0 (14)                              | 1.0 (3)                              | 0.5 (2)             | 1.0 (5)                    | 2.3 (3)               |
| Mycophenolate mofetil                                      | 0.1 (1)                               | 0.0 (0)                              | 0.0 (0)             | 0.0 (0)                    | 0.8 (1)               |
| Ciclosporin                                                | 0.5 (7)                               | 0.0 (0)                              | 0.6 (2)             | 0.6 (3)                    | 2.3 (3)               |
| Use of moisturizer, % (n) (N=1,269)                        |                                       |                                      |                     |                            |                       |
| Only during flares                                         | 10.4 (132)                            | 14.1 (40)                            | 12.1 (45)           | 7.9 (37)                   | 4.0 (5)               |
| Daily                                                      | 52.1 (661)                            | 23.9 (68)                            | 50.7 (188)          | 63.6 (299)                 | 78.6 (99)             |
| Several times a week                                       | 19.5 (247)                            | 20.4 (58)                            | 19.9 (74)           | 19.8 (93)                  | 15.1 (19)             |
| Once a week                                                | 4.3 (55)                              | 7.4 (21)                             | 4.0 (15)            | 3.6 (17)                   | 0.8 (1)               |
| A few times a month                                        | 4.7 (60)                              | 12.0 (34)                            | 1.3 (16)            | 1.9 (9)                    | 0.8 (1)               |
| Rarely                                                     | 7.8 (99)                              | 20.1 (57)                            | 7.3 (27)            | 2.6 (12)                   | 0.8 (1)               |
| Never                                                      | 1.2 (15)                              | 2.1 (6)                              | 1.6 (6)             | 0.6 (3)                    | 0.0 (0)               |
| Current and past TCS or TCI treatment, % (n) (N=1,200)     |                                       |                                      |                     |                            |                       |
| Currently                                                  | 32.3 (403)                            | 8.0 (21)                             | 22.8 (79)           | 46.9 (212)                 | 69.4 (86)             |
| Within the last week                                       | 14.2 (177)                            | 3.8 (10)                             | 19.7 (68)           | 19.5 (88)                  | 7.3 (9)               |
| Within the last month                                      | 11.4 (142)                            | 8.5 (22)                             | 14.2 (49)           | 12.8 (58)                  | 8.9 (11)              |
| 1-6 months ago                                             | 12.4 (155)                            | 17.6 (46)                            | 16.8 (58)           | 9.1 (41)                   | 4.0 (5)               |
| 6-12 months ago                                            | 7.4 (92)                              | 14.9 (39)                            | 8.7 (30)            | 3.8 (17)                   | 3.2 (4)               |
| 1-5 years ago                                              | 15.8 (197)                            | 39.8 (104)                           | 15.6 (54)           | 6.6 (30)                   | 6.5 (8)               |
| More than 5 years ago                                      | 2.7 (34)                              | 7.3 (19)                             | 2.3 (8)             | 1.3 (6)                    | 0.8 (1)               |
| Use of TCS or TCI during the last two weeks, % (n) (N=722) |                                       |                                      |                     |                            |                       |
| Twice daily                                                | 13.0 (94)                             | 3.8 (2)                              | 9.2 (18)            | 14.2 (51)                  | 21.7 (23)             |
| Once daily                                                 | 38.5 (278)                            | 26.4 (14)                            | 32.1 (63)           | 39.7 (142)                 | 51.9 (55)             |
| Every second day                                           | 13.7 (99)                             | 20.8 (11)                            | 14.3 (28)           | 14.8 (53)                  | 4.7 (5)               |

|              |            |           |           |           |           |
|--------------|------------|-----------|-----------|-----------|-----------|
| Twice a week | 15.4 (111) | 9.4 (5)   | 20.9 (41) | 14.8 (53) | 11.3 (12) |
| Once a week  | 6.2 (45)   | 9.4 (5)   | 9.2 (18)  | 5.9 (21)  | 0.0 (0)   |
| Not at all   | 13.2 (95)  | 30.2 (16) | 14.3 (28) | 10.6 (38) | 10.4 (11) |

AD, atopic dermatitis; POEM, Patient-Oriented Eczema Measure; TCI, Topical calcineurin inhibitor; TCS, topical corticosteroid

\* Due to missing data, the number of participants may be less than total the sample sizes or POEM groups (N).

Table 3 – TOPICOP scores ranging from 0% (no fear) to 100% (maximum fear) stratified by parental characteristics

|                                                       | TOPICOP, mother |          |                       |              |        |                                 | TOPICOP, father |          |                       |              |        |                                 |
|-------------------------------------------------------|-----------------|----------|-----------------------|--------------|--------|---------------------------------|-----------------|----------|-----------------------|--------------|--------|---------------------------------|
|                                                       | Sub scores      |          |                       |              |        | P-value for global linear trend | Sub scores      |          |                       |              |        | P-value for global linear trend |
|                                                       | Fears           | Behavior | Knowledge and beliefs | Global score | SD     |                                 | Fears           | Behavior | Knowledge and beliefs | Global score | SD     |                                 |
| Education, (N=1,221)                                  |                 |          |                       |              |        |                                 |                 |          |                       |              |        |                                 |
| Primary and secondary school                          | 50.5            | 46.7     | 46.3                  | 49.0         | (22.6) | <0.0005                         | 44.9            | 45.3     | 38.7                  | 43.3         | (23.6) | 0.001                           |
| General upper secondary education or business college | 48.8            | 48.5     | 35.4                  | 42.5         | (20.4) |                                 | 48.8            | 45.5     | 33.5                  | 38.3         | (19.5) |                                 |
| Skilled worker                                        | 46.9            | 44.2     | 34.3                  | 40.5         | (20.8) |                                 | 45.3            | 44.2     | 31.2                  | 40.9         | (21.9) |                                 |
| Short-cycle higher education                          | 49.1            | 46.2     | 32.8                  | 40.7         | (19.9) |                                 | 47.1            | 46.3     | 32.3                  | 39.7         | (18.2) |                                 |
| Medium-cycle higher education                         | 43.4            | 42.1     | 28.9                  | 35.9         | (19.3) |                                 | 43.9            | 41.9     | 29.0                  | 36.2         | (19.8) |                                 |
| Long cycle higher education                           | 44.3            | 42.1     | 28.5                  | 35.8         | (18.3) |                                 | 46.5            | 41.4     | 29.3                  | 36.5         | (18.0) |                                 |
| Parental comorbidities                                |                 |          |                       |              |        |                                 |                 |          |                       |              |        |                                 |
| AD, (N=1,134)                                         |                 |          |                       |              |        |                                 |                 |          |                       |              |        |                                 |
| Yes                                                   | 43.3            | 41.3     | 28.9                  | 35.5         | (18.6) | 0.003                           | 43.0            | 41.7     | 29.4                  | 35.9         | (17.5) | 0.029                           |
| No                                                    | 46.8            | 44.6     | 31.8                  | 39.2         | (20.0) |                                 | 46.8            | 44.4     | 31.3                  | 38.8         | (20.0) |                                 |
| Asthma, (N=1,160)                                     |                 |          |                       |              |        |                                 |                 |          |                       |              |        |                                 |
| Yes                                                   | 42.0            | 38.8     | 29.5                  | 35.1         | (20.1) | 0.003                           | 43.5            | 43.0     | 29.6                  | 36.5         | (18.9) | NS                              |
| No                                                    | 47.0            | 45.2     | 31.6                  | 39.3         | (19.7) |                                 | 46.5            | 44.1     | 31.1                  | 38.6         | (19.9) |                                 |
| Hay fever, (N=1,169)                                  |                 |          |                       |              |        |                                 |                 |          |                       |              |        |                                 |
| Yes                                                   | 42.9            | 41.6     | 31.1                  | 36.1         | (19.2) | 0.009                           | 43.6            | 42.5     | 29.1                  | 36.1         | (20.0) | 0.016                           |
| No                                                    | 47.3            | 44.7     | 29.3                  | 39.2         | (19.7) |                                 | 47.0            | 44.5     | 31.7                  | 39.1         | (19.5) |                                 |
| Food allergy, (N=1,123)                               |                 |          |                       |              |        |                                 |                 |          |                       |              |        |                                 |

|                                                                   |      |      |      |             |        |           |      |      |      |             |        |           |
|-------------------------------------------------------------------|------|------|------|-------------|--------|-----------|------|------|------|-------------|--------|-----------|
| Yes                                                               | 43.0 | 41.2 | 31.1 | <b>36.7</b> | (19.0) | <i>NS</i> | 42.6 | 42.0 | 29.6 | <b>36.0</b> | (18.2) | <i>NS</i> |
| No                                                                | 45.8 | 43.9 | 30.8 | <b>28.1</b> | (19.6) |           | 46.4 | 43.9 | 30.8 | <b>38.3</b> | (19.8) |           |
| <b>Total household income</b> (annually) <sup>a</sup> , (N=1,063) |      |      |      |             |        |           |      |      |      |             |        |           |
| <26,500 Euro                                                      | 48.8 | 40.8 | 35.8 | <b>41.7</b> | (21.6) | <0.0005   |      |      |      |             |        |           |
| 26,500-52,999 Euro                                                | 43.1 | 43.7 | 32.4 | <b>38.5</b> | (21.3) |           |      |      |      |             |        |           |
| 53,000-79,999 Euro                                                | 46.5 | 46.5 | 32.0 | <b>39.3</b> | (19.6) |           |      |      |      |             |        |           |
| 80,000-106,499 Euro                                               | 46.3 | 44.0 | 30.1 | <b>37.8</b> | (18.8) |           |      |      |      |             |        |           |
| 106,500-133,000 Euro                                              | 44.4 | 43.3 | 29.3 | <b>36.6</b> | (17.6) |           |      |      |      |             |        |           |
| >133,000 Euro                                                     | 40.6 | 36.8 | 27.4 | <b>32.9</b> | (17.8) |           |      |      |      |             |        |           |

<sup>a</sup> Household income is defined as the combined income from all adult family members in the household. Converted to Euros from Danish Crones.

AD, atopic dermatitis;

**Table 4 – TOPICOP score stratified by fears and behavior regarding topical corticosteroids (TCS) and topical calcineurin inhibitors (TCI)**

|                                                                     | TOPICOP    |          |                          |                 |        | P-value for<br>global<br>linear<br>trend |
|---------------------------------------------------------------------|------------|----------|--------------------------|-----------------|--------|------------------------------------------|
|                                                                     | Sub scores |          |                          |                 |        |                                          |
|                                                                     | Fears      | Behavior | Knowledge<br>and beliefs | Global<br>score | SD     |                                          |
| Do you feel comfortable using TCS treatment, (N=1,297)              |            |          |                          |                 |        |                                          |
| Very much                                                           | 24.6       | 28.8     | 20.1                     | 23.5            | (15.4) | <0.0005                                  |
| Much                                                                | 44.6       | 41.3     | 30.9                     | 37.3            | (16.4) |                                          |
| A little                                                            | 61.6       | 57.1     | 40.3                     | 49.8            | (16.6) |                                          |
| Not at all                                                          | 74.7       | 67.1     | 45.1                     | 58.4            | (18.0) |                                          |
| Are you afraid of side-effects from TCS, (N=1,191)                  |            |          |                          |                 |        |                                          |
| Yes                                                                 | 56.9       | 51.3     | 37.7                     | 46.2            | (17.8) | <0.0005                                  |
| No                                                                  | 25.6       | 30.3     | 19.8                     | 24.2            | (15.3) |                                          |
| Time from flare until start of treatment with TSC or TCI, (N=1,247) |            |          |                          |                 |        |                                          |
| Same day                                                            | 43.0       | 37.6     | 30.6                     | 35.8            | (19.4) | <0.0005                                  |
| 1-2 days                                                            | 46.1       | 44.9     | 30.6                     | 38.2            | (18.4) |                                          |
| 2-3 days                                                            | 47.7       | 49.6     | 30.8                     | 39.9            | (18.5) |                                          |
| One week                                                            | 52.3       | 58.0     | 33.8                     | 44.8            | (19.9) |                                          |
| 1-2 weeks                                                           | 58.5       | 62.3     | 29.6                     | 45.0            | (18.6) |                                          |
| More than two weeks                                                 | 53.8       | 62.1     | 36.5                     | 48.0            | (20.7) |                                          |
| Do you feel confident in managing your child's treatment, (N=1,300) |            |          |                          |                 |        |                                          |
| Very much                                                           | 40.5       | 40.6     | 27.9                     | 34.4            | (19.2) | <0.0005                                  |
| Much                                                                | 47.1       | 44.5     | 32.1                     | 39.1            | (18.9) |                                          |
| A little                                                            | 56.6       | 47.2     | 37.4                     | 46.3            | (20.7) |                                          |
| Not at all                                                          | 57.9       | 56.1     | 41.3                     | 50.1            | (23.7) |                                          |
| Alternative treatment, (N=1,264)                                    |            |          |                          |                 |        |                                          |
| Yes                                                                 | 50.0       | 45.8     | 35.9                     | 42.0            | (19.3) | 0.001                                    |
| No                                                                  | 44.6       | 43.1     | 29.8                     | 37.2            | (19.8) |                                          |
| Dietary exclusions, (N=1,264)                                       |            |          |                          |                 |        |                                          |
| Yes                                                                 | 47.7       | 45.2     | 33.8                     | 40.3            | (20.0) | <0.0005                                  |
| No                                                                  | 43.5       | 42.0     | 28.3                     | 36.0            | (19.8) |                                          |
| POEM severity score, (N=1,253)                                      |            |          |                          |                 |        |                                          |
| Clear or almost clear                                               | 44.9       | 45.7     | 29.9                     | 38.0            | (19.4) | NS                                       |
| Mild                                                                | 45.4       | 44.1     | 28.8                     | 36.8            | (19.0) |                                          |
| Moderate                                                            | 45.3       | 42.9     | 32.1                     | 38.4            | (20.3) |                                          |
| Severe or very severe                                               | 48.8       | 41.1     | 37.8                     | 42.0            | (21.9) |                                          |

POEM, Patient-Oriented Eczema Measure; TCI; topical calcineurin inhibitors; TCS, topical corticosteroid

Figure legend 1:

Number of participants seen by different healthcare providers, stratified by age at first visit

Figure legend 2 a-c:

- A) Time from flare until start of treatment with topical corticosteroids or topical calcineurin inhibitors
- B) Skin signs and symptoms leading to treatment initiation
- C) Skin signs and symptoms leading to treatment discontinuation

Figure 1: Number of participants seen by different healthcare providers, stratified by age at first visit

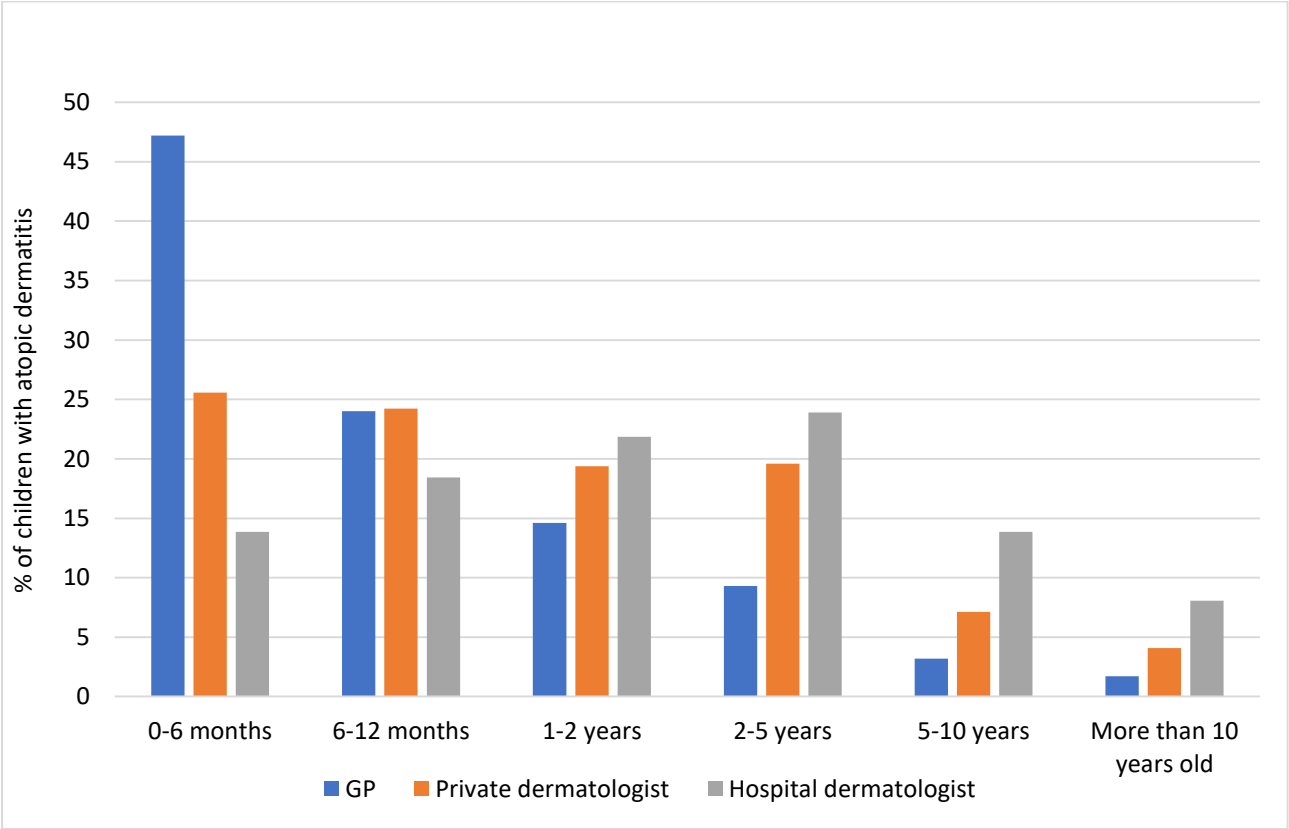
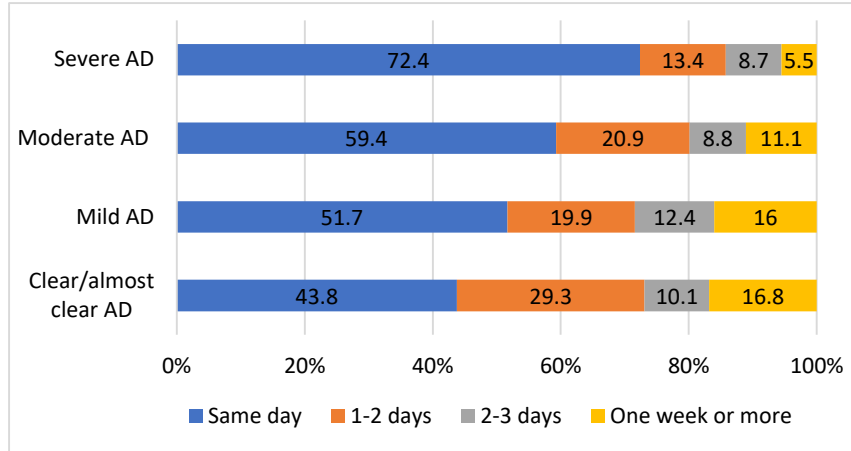
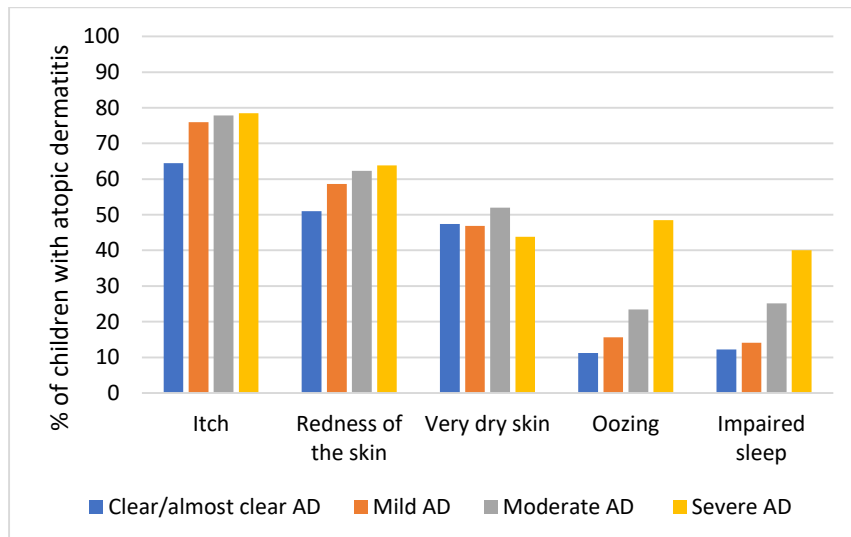


Figure 2, a-c.

A) Time from flare until start of treatment with topical corticosteroids or topical calcineurin inhibitors



B) Skin signs and symptoms leading to treatment initiation



C) Skin signs and symptoms leading to treatment discontinuation

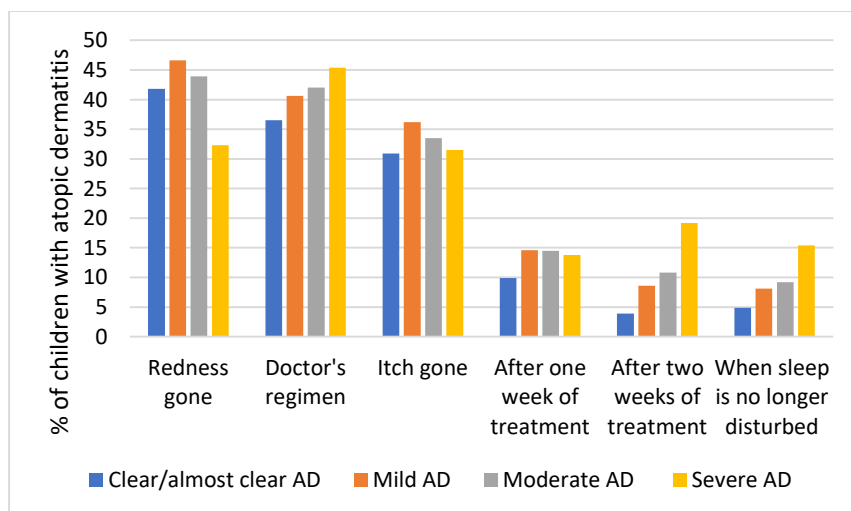


Table S1 - Main characteristics of respondents and non-responders

|                 | Responders<br>(n=1,343) | Non-responders<br>(n=2,094) | P-value  |
|-----------------|-------------------------|-----------------------------|----------|
| <b>Children</b> |                         |                             |          |
| Mean age (SD)   | 8.90 (4.53)             | 8.85 (4.46)                 | 0.75     |
| Females, %      | 47.2                    | 46.51                       | 0.69     |
| <b>Parents</b>  |                         |                             |          |
| Mean age (SD)   | 40.38 (6.61)            | 39.52 (6.96)                | < 0.0005 |
|                 |                         |                             |          |

Table S2 – TOPICOP SCORE

| TOPICOP, % (n) (N=1,291) |                                                               | Totally agree | Almost agree | Not really agree | Totally disagree | Don't understand the question |
|--------------------------|---------------------------------------------------------------|---------------|--------------|------------------|------------------|-------------------------------|
| Knowledge and beliefs    | TCS pass into the bloodstream                                 | 13.8 (178)    | 29.0 (375)   | 19.9 (257)       | 27.3 (352)       | 10.0 (129)                    |
|                          | TCS lead to infections                                        | 1.9 (25)      | 5.9 (76)     | 15.1 (194)       | 68.1 (878)       | 9.0 (116)                     |
|                          | TCS make you fat                                              | 1.5 (20)      | 2.7 (35)     | 6.7 (87)         | 79.5 (1026)      | 9.5 (123)                     |
|                          | TCS damage your skin                                          | 24.2 (312)    | 40.1 (518)   | 17.6 (227)       | 13.2 (171)       | 4.9 (63)                      |
|                          | TCS will affect your future health negatively                 | 13.9 (179)    | 31.0 (400)   | 21.4 (276)       | 27.4 (354)       | 6.4 (82)                      |
|                          | Using TCS can lead to asthma                                  | 2.2 (29)      | 6.0 (77)     | 14.9 (193)       | 65.9 (851)       | 10.9 (141)                    |
|                          |                                                               | Never         | Sometimes    | Often            | Always           | Don't understand the question |
| Fears                    | I'm afraid of putting TCS cream on certain zones like eyelids | 15.8 (202)    | 21.3 (273)   | 14.1 (180)       | 44.3 (567)       | 4.5 (57)                      |
|                          | I don't know of any side-effects but I'm still afraid of TCS  | 42.1 (538)    | 30.6 (391)   | 13.1 (167)       | 8.6 (110)        | 5.7 (73)                      |
|                          | I'm afraid of applying too much TCS cream                     | 25.0 (320)    | 35.6 (455)   | 20.3 (260)       | 17.2 (220)       | 1.9 (24)                      |
| Behavior                 | I wait as long as I can before treating with TCS              | 52.0 (665)    | 23.8 (304)   | 11.8 (151)       | 9.6 (123)        | 2.8 (36)                      |
|                          | I stop the treatment as soon as I can                         | 25.1 (321)    | 24.2 (310)   | 18.3 (234)       | 29.0 (371)       | 3.4 (43)                      |
|                          | I need reassurance about TCS                                  | 24.1 (308)    | 21.0 (268)   | 15.7 (201)       | 33.7 (431)       | 5.6 (71)                      |
| TOPICOP SCORE 0-100 (SD) |                                                               | 38.27 (19.9)  |              |                  |                  |                               |

TCS, Topical corticosteroids; TOPICOP, Topical corticosteroid phobia

Supplementary Table 3 – TOPICOP score stratified by retrospective hospital utilization

|                                                                          | TOPICOP    |          |                       | Global score | SD     | P-value for global linear trend |
|--------------------------------------------------------------------------|------------|----------|-----------------------|--------------|--------|---------------------------------|
|                                                                          | Sub scores |          |                       |              |        |                                 |
|                                                                          | Fears      | Behavior | Knowledge and beliefs |              |        |                                 |
| General practitioner                                                     |            |          |                       |              |        |                                 |
| First visit at the GP due to AD, (N=1,221)                               |            |          |                       |              |        |                                 |
| 0-6 months                                                               | 31.0       | 42.5     | 45.7                  | 37.8         | (20.0) | NS                              |
| 6-12 months                                                              | 30.3       | 41.5     | 43.1                  | 36.5         | (19.9) |                                 |
| 1-2 years                                                                | 33.3       | 48.3     | 46.7                  | 40.8         | (19.6) |                                 |
| 2-5 years                                                                | 33.3       | 46.7     | 50.0                  | 42.0         | (22.1) |                                 |
| 5-10 years                                                               | 32.9       | 41.0     | 43.3                  | 37.1         | (15.5) |                                 |
| More than 10 years old                                                   | 25.6       | 45.6     | 43.9                  | 35.1         | (23.6) |                                 |
| Number of visits at the GP before referral to a dermatologist, (N=1,185) |            |          |                       |              |        |                                 |
| 1 visit                                                                  | 28.5       | 41.7     | 42.0                  | 35.2         | (19.4) | 0.001                           |
| 2-5 visits                                                               | 31.5       | 44.6     | 46.7                  | 38.8         | (19.6) |                                 |
| 5-10 visits                                                              | 33.8       | 45.5     | 48.1                  | 40.4         | (21.0) |                                 |
| 10-15 visits                                                             | 36.8       | 39.4     | 46.9                  | 39.9         | (17.1) |                                 |
| More than 15 visits                                                      | 39.8       | 45.2     | 47.7                  | 45.3         | (24.6) |                                 |
| Private dermatologist                                                    |            |          |                       |              |        |                                 |
| First visit at private dermatologist, (N=925)                            |            |          |                       |              |        |                                 |
| 0-6 months                                                               | 32.1       | 41.5     | 46.3                  | 38.1         | (19.8) | NS                              |
| 6-12 months                                                              | 30.2       | 44.2     | 45.9                  | 38.0         | (20.5) |                                 |
| 1-2 years                                                                | 34.1       | 46.1     | 47.6                  | 40.8         | (20.8) |                                 |
| 2-5 years                                                                | 33.9       | 46.0     | 50.2                  | 41.7         | (20.1) |                                 |
| 5-10 years                                                               | 31.3       | 42.0     | 43.3                  | 36.9         | (20.6) |                                 |
| More than 10 years old                                                   | 27.6       | 41.0     | 43.5                  | 34.7         | (21.6) |                                 |
| Number of visits at private dermatologist, (N=919)                       |            |          |                       |              |        |                                 |
| 1 visit                                                                  | 26.3       | 41.7     | 41.4                  | 34.3         | (18.1) | NS                              |
| 2-5 visits                                                               | 31.5       | 45.3     | 47.1                  | 39.1         | (20.5) |                                 |
| 5-10 visits                                                              | 34.1       | 45.7     | 50.4                  | 41.5         | (20.3) |                                 |
| 10-15 visits                                                             | 36.7       | 38.2     | 45.1                  | 38.7         | (19.8) |                                 |
| More than 15 visits                                                      | 35.2       | 40.9     | 47.2                  | 40.4         | (20.8) |                                 |
| Hospitals                                                                |            |          |                       |              |        |                                 |
| First visit at a hospital department of dermatology, (N=1,193)           |            |          |                       |              |        |                                 |
| 0-6 months                                                               | 31.8       | 47.7     | 46.8                  | 39.8         | (19.6) | NS                              |
| 6-12 months                                                              | 31.1       | 42.2     | 44.4                  | 37.5         | (21.6) |                                 |
| 1-2 years                                                                | 30.9       | 45.3     | 48.3                  | 39.3         | (19.9) |                                 |
| 2-5 years                                                                | 31.7       | 41.7     | 44.1                  | 37.6         | (19.8) |                                 |
| 5-10 years                                                               | 31.4       | 43.2     | 43.1                  | 37.4         | (20.0) |                                 |
| More than 10 years old                                                   | 28.8       | 41.6     | 44.8                  | 36.1         | (19.9) |                                 |
| Number of visits at a hospital department of dermatology, (N=1,210)      |            |          |                       |              |        |                                 |
| 1 visit                                                                  | 29.3       | 50.0     | 45.5                  | 38.5         | (19.6) | NS                              |
| 2-5 visits                                                               | 29.4       | 44.0     | 46.0                  | 37.7         | (19.9) |                                 |
| 5-10 visits                                                              | 32.9       | 44.1     | 47.3                  | 39.5         | (20.0) |                                 |
| 10-15 visits                                                             | 34.4       | 37.3     | 44.2                  | 37.6         | (20.4) |                                 |
| More than 15 visits                                                      | 32.7       | 37.7     | 40.6                  | 36.4         | (19.1) |                                 |

AD, atopic dermatitis; GP, general practitioner