

The ChinaSTAD Chinese Registry in Patients with Moderate-To-Severe Atopic Dermatitis Not Controlled by Topical Therapy: Baseline Characteristics, Disease Burden and Treatment

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SUPPLEMENTARY MATERIAL

SUPPLEMENTARY METHODS

Effectiveness assessment tools

SCORing Atopic Dermatitis (SCORAD) Index

The SCORAD Index combines objective and subjective measures to assess the severity of atopic dermatitis (AD), and ranges from 0 to 103, where a higher score indicates more severe AD [1, 2]. In the ChinaSTAD registry, moderate AD was defined as a score of 25–50 points and severe AD as a score of >50 points, per the European Task Force on Atopic Dermatitis and European Academy of Dermatology & Venereology Eczema Task Force position paper [3].

Patient Oriented Eczema Measure (POEM)

The POEM tool is a patient-administered tool for assessing disease activity, where the frequency of occurrence of each of seven symptoms during the previous week is rated on a 5-point scale (maximum total score of 28) [4]. POEM total scores can be categorised as follows: 0–2 = clear; 3–7 = mild; 8–16 = moderate; 17–24 = severe; and 25–28 = very severe, per Charman and colleagues [5].

Peak Pruritus-Numerical Rating Scale (PP-NRS)

The PP-NRS is a single-item patient-administered tool to measure peak pruritus ('worst' itch). Patients rate the severity of pruritus over the previous 24 hours on a 10-point numerical scale (0 = 'no itch' to 10 = 'worst itch imaginable'). [6] Total PP-NRS scores can be categorised as follows: 0–3 = mild; 4–6 = moderate; and 7–10 = severe [7].

Atopic Dermatitis Control Tool (ADCT)

The ADCT is a patient-administered tool to assess control of AD. Patients rate each of six items on a range from 0 (no problem) to 4 (worst) [8]. Total score ranges from 0–24 (being a sum of 6

items scored for severity from 0 [no problem] to 4 [worst]) [8]; and a score ≥ 7 represents AD that is ‘not in control’ [9].

Dermatology Life Quality Index (DLQI)

The DLQI questionnaire measures disability caused by skin disease, and is composed of 10 questions, with four possible responses per question (0 = ‘not at all’; 1 = ‘a little’; 2 = ‘a lot’; and 3 = ‘very much’), and with a maximum total score of 30.[10] This questionnaire was developed in a group of dermatology outpatients aged 15–75 years. A subsequent study (in dermatology outpatients aged ≥ 16 years) applied banding to scores to assist in the clinical interpretation of DLQI scores, as follows: 0–1 = no effect on patient’s life; 2–5 = small effect; 6–10 = moderate effect; 11–20 very large effect; and 21–30 extremely large effect [11]. In ChinaSTAD, the DLQI was used for patients aged >16 years.

Children’s DLQI (CDLQI)

The CDLQI measures quality of life in children aged 3–16 years with skin disease, based on the DLQI developed for use in adults, using 10 questions rated in the same manner as the DLQI [12]. The CDLQI has been validated for use in children aged 4–16 years, and uses the following score categorisation: 0–1 = no effect on patient’s life; 2–6 = small effect; 7–12 = moderate effect; 13–18 very large effect; and 19–30 extremely large effect [13]. In ChinaSTAD, the CDLQI was used in patients aged 12–16 years.

SUPPLEMENTARY TABLES

Table S1. Study sites and investigators of the ChinaSTAD study

	Study site	Ethics board approval number	Principal investigator
1	Peking University People's Hospital, Beijing	2021PHB076-001	Zhang Jianzhong
2	Ningbo NO.6 Hospital, Ningbo	2021 年 6 月 25 日伦理备案确认函, 无编号	Yanna Shen
3	Guangdong Provincial Dermatology Hospital (The Dermatology Hospital of Southern Medical University), Guangzhou	2021045	Liang Yunsheng
4	Zhongshan City People's Hospital, Zhongshan	K2021-072	Li Chen
5	Sir Run Shaw Hospital, Zhejiang University School of Medicine, Hangzhou	科研 20210727-34	Cheng Hao
6	Ningbo First Hospital, Ningbo	2021-R083	Lin Bingjiang
7	Yancheng NO.1 People's Hospital, Yancheng	(2021)-(K-86)	Lv Dong
8	The First People's Hospital of Lianyungang, Lianyungang	KY-20210808002-01	Ren Hong
9	The First Affiliated Hospital of Soochow University, Suzhou	(2021)伦审批第 197 号	Zhou Naihui
10	The First People's Hospital of Xuzhou, Xuzhou	xyyl(2021)063 号	Zhao Jianbin
11	Huzhou Central Hospital, Huzhou	202110002-01	Wu Yuan
12	Hangzhou First People's Hospital, Hangzhou	2021-P2-206-01	Wu Liming
13	The Affiliated Hospital of Xuzhou Medical University, Xuzhou	IRB#2021070601-01	Jiang Guan
14	The Second Affiliated Hospital of Zhejiang University School of Medicine, Hangzhou	XYFY2021-KL247-01	Man Xiaoyong
15	The First Affiliated Hospital of Zhejiang University School of	(2021)伦审研第(0809)号	Fang Hong

	Medicine, Hangzhou		
16	Lianyungang Second People's Hospital, Lianyungang	(2021)IIT 快审第(575)号	Liu Ying
17	The Third Affiliated Hospital, Sun Yat-sen University, Guangzhou	2021K00201	Lai Wei
18	West China Hospital, Sichuan University, Chengdu	中大附三医伦[2021]02-251-01	Li Jingyi
19	Lishui People's Hospital, Lishui	2021 年审 (1122) 号	Lu Shujiao
20	The Fifth Hospital of Jinhua, Jinhua	2021 临审第 (010-01) 号	Liu Dongmei
21	Guangzhou First People's Hospital, Guangzhou	伦研批 2021-08)	Fang Ruihua
22	Zhejiang Tongde Hospital, Hangzhou	K-2021-135-01	Wang Yifeng
23	Nanfang Hospital of Southern Medical University, Guangzhou	浙同德快审字第[2021]078 号	Li Changxing
24	The Second Xiangya Hospital of Central South University, Changsha	NFEC2021-340	Xiao Rong
25	Taizhou Central Hospital, Taizhou	(2021)伦审【临研】第 (163) 号	Chen Jinguang
26	Wenling First People's Hospital, Wenling	YX-2021-092-01	Lin Shizhuang
27	Huai'an No.1 People's Hospital, Huai'an	LS2021-KY-318	Sun Weiguo
28	The First Hospital of Jiaxing, Jiaxing	KY2021-254	Yin Wenhao
29	The Second Affiliated Hospital of Harbin Medical University, Harbin	IIT(2021)临伦审第 096 号	Li Yuzhen
30	The First Affiliated Hospital of Nanchang University, Nanchang	武卫一院伦审[2022]5 号	Cao Xianwei
31	Wuhan First Hospital, Wuhan	2021KY052	Chen Liuqing
32	Zhejiang Provincial People's Hospital, Hangzhou	(2021)伦审第 (161) 号	Tao Xiaohua
33	Henan Provincial People's Hospital, Zhengzhou	KYLL-2021B-036	Zhang Shoumin
34	Qilu Hospital of Shandong	SYSEC-KY-KS-2021-285	Sun Qing

	University, Ji'nan		
35	The Second Affiliated Hospital of Sun Yat-sen University (Sun Yat-sen Memorial Hospital), Guangzhou	伦审科第 (202110183) 号	Wang Liangchun
36	Xiangya Hospital of Central South University, Changsha	快 I 21166	Su Juan
37	The Third Xiangya Hospital of Central South University, Changsha	(医伦)快审 2021 第 (110) 号	Lu Jianyun
38	The First Affiliated Hospital of Guangxi Medical University, Nanning	2021HS015	Cao Cunwei
39	Liaoning Provincial People's Hospital, Shenyang	(2021) 2021-12-03	Zhu Lili
40	Nanyang No.1 People's Hospital, Nanyang	(2021) 临审第 (022) 号	Bi Xiaodong
41	Dermatology Hospital, Chinese Academy of Medical Sciences (Institute of Dermatology, Chinese Academy of Medical Sciences), Nanjing	(2021)伦审字 (1004) 号	Yao Xu
42	Union Hospital, Tongji Medical College, Huazhong University of Science and Technology, Wuhan	2021-152-K110	Tao Juan
43	China-Japan Friendship Hospital, Beijing	20211299	Cui Yong
44	Chengdu Second People's Hospital, Chengdu	KYLL-2021-1075	Lu Yonghong
45	General Hospital of Ningxia Medical University, Yinchuan	NO.KY(2021038)	Yu Nan
46	The Affiliated Hospital of Inner Mongolia Medical University, Hohhot	2022 年伦审 (2) 号	Lu Xinxiang
47	The Second Affiliated Hospital of Chongqing Medical University, Chongqing	LL--KY-2021687-01 号	Deng ya
48	Shenzhen People's Hospital, Shenzhen	YQYY202200035	Yang Fang
49	Yueqing People's Hospital, Yueqing	GRYY-LL-2022-02	Chen Dan

50	Tangshan Gongren Hospital, Tangshan	科伦审[2021]532 号	Hao Guodong
51	The First Hospital of China Medical University, Shenyang	NYSZYEC20220013	Gao Xinghua
52	Shenzhen Hospital of Southern Medical University, Shenzhen	KYLL-2022006	Liang Yanhua
53	Qilu Hospital of Shandong University, Qingdao	闽医大附一伦理医研[2022]193 号	Tong Zhanli
54	The First Affiliated Hospital of Fujian Medical University, Fuzhou	B496	Ji Chao
55	Peking Union Medical College Hospital, Chinese Academy of Medical Sciences, Beijing	2022038K	Wen Liping
56	The Affiliated Hospital of Guizhou Medical University, Guiyang	临研伦[2022078]	Lu Hongguang
57	Zhongnan Hospital of Wuhan University, Wuhan	TJ-IRB20220426	Song Jiquan
58	Tongji Hospital, Tongji Medical College of Huazhong University of Science and Technology, Wuhan	(2022) 伦审-研第 (015) 号	Zhang Yong
59	The Second Affiliated Hospital of Xi'an Jiaotong University, Xi'an	2022-K056-01	Geng Songmei
60	Affiliated Hospital of Nantong University, Nantong	哈医一 科研/文章 伦审 202235	Cao Shuanglin
61	The First Affiliated Hospital of Harbin Medical University, Harbin	京怀伦科字 (2022) 第 (027) -01 号	Zheng Shuyun
62	Beijing Huairou Hospital, Beijing	IRB2022-YX-088-01	Zhang Haihong
63	Tianjin Medical University General Hospital, Tianjin	KYLL202242	Wang Huiping
64	The First Affiliated Hospital of Jinzhou Medical University, Jinzhou	汕大医附一伦审第 B-2022-159 号	Li Dongning
65	The First Affiliated Hospital of Shantou University, Shantou	2022 伦审科字第 (296) 号	Lu Tao
66	The First Affiliated Hospital of Xi'an Jiaotong University, Xi'an	伦审 (研) 2022 年第 444 号	Mou Kuanhou
67	The First Hospital of Shanxi Medical University, Taiyuan	2023-KY-K02	Guo Shuping

68	Dalian Dermatology Hospital, Dalian	大医二院伦审 2022 第 038 号	Lv Chengzhi
69	The Second Affiliated Hospital of Dalian Medical University, Dalian	KY-2021-1089-01	Wang Aoxue

Table S2. Patient atopic dermatitis (AD) diagnostic factors in the ChinaSTAD subgroup*(n* = 2,550)

AD diagnostic factors	<i>n</i> (%)
Patients with symmetrical eczema of >6 months' duration	1,790 (70.2)
Personal and/or family history of specific diseases (eczema, allergic rhinitis, asthma, allergic conjunctivitis)	1,557 (61.1)
Elevated serum total IgE and/or blood eosinophil levels and/or allergen positivity (positive allergen-specific IgE test grade 2)	926 (36.3)
History of pruritus	760 (29.8)
History of flexor skin involvement (antecubital fossa, knee fossa, anterior malleolus, or circumferential neck)	756 (29.6)
Personal history of asthma/allergic rhinitis/or history of AD in a first degree relative of a child aged <4 years	308 (12.1)
History of generalised dry skin	755 (29.6)
Eczema on the flexor side or on the cheeks, forehead, and distal extremities in children aged <4 years	670 (26.3)
Onset before 2 years of age	90 (3.5)

IgE immunoglobulin E

Table S3. Systemic atopic dermatitis (AD) treatment recorded at the baseline visit but not used continuously prior to enrolment in the ChinaSTAD study subgroup

Systemic AD treatment	Analysis population (<i>n</i> = 2,550) ^a
Dupilumab	580 (22.7)
Systemic corticosteroids	146 (5.7)
Janus kinase inhibitor	128 (5.0)
Cyclosporine	18 (0.7)
Methotrexate	10 (0.4)
Mycophenolate mofetil	1 (0.0)
Omalizumab	3 (0.1)
Azathioprine	0

^aData missing for 55 patients

Table S4. Healthcare resource use at baseline^a in the ChinaSTAD subgroup

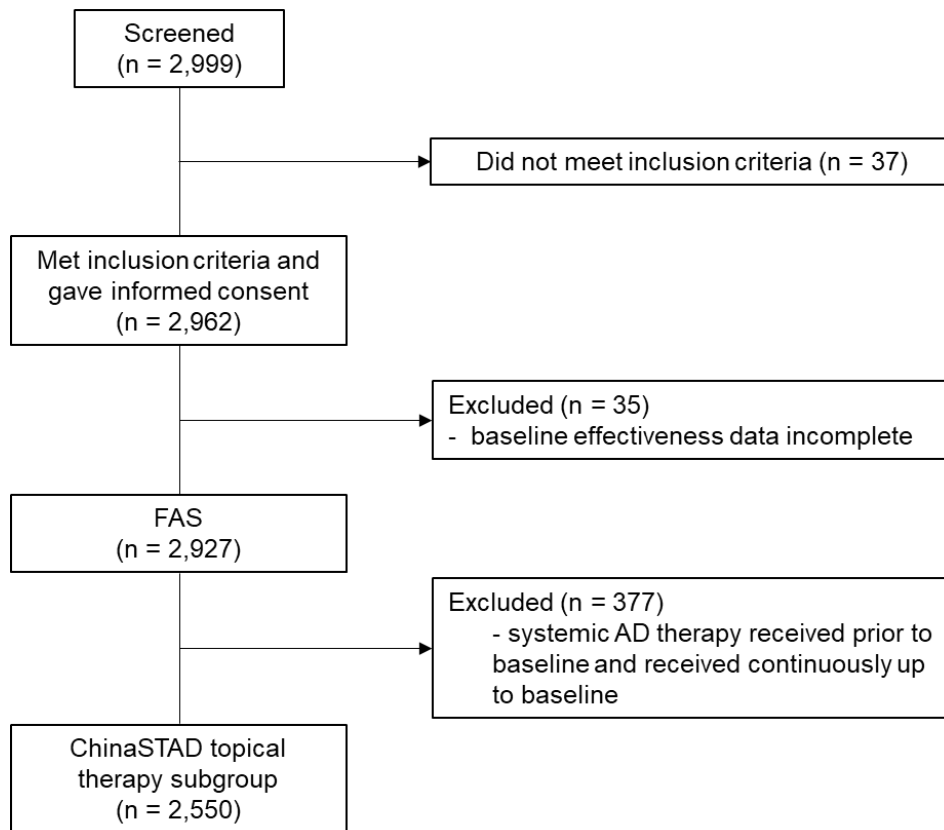
	Analysis population (<i>n</i> = 2,550)
Number of inpatient admissions, ^b <i>n</i> (%)	
0	2,223 (87.2)
1	249 (9.8)
2	46 (1.8)
3	18 (0.7)
4–5	12 (0.5)
Number of outpatient visits, ^b <i>n</i> (%)	
0	308 (12.1)
1	265 (10.4)
2	376 (14.7)
3	315 (12.4)
4	207 (8.1)
5	275 (10.8)
6	138 (5.4)
7–10	347 (13.6)
11–20	260 (10.2)
21–30	49 (1.9)
32–48	8 (0.3)

^aBaseline data comprised healthcare resource use in the year prior to enrolment in the study

^bData missing for 2 patients

SUPPLEMENTARY FIGURES

Fig. S1 Patient disposition at the interim analysis of the subgroup of the ChinaSTAD study.



Continuous systemic atopic dermatitis (AD) therapy received in the group of patients excluded from the full analysis set (FAS) included azathioprine, cyclosporine, dupilumab, Janus kinase inhibitors, methotrexate, mycophenolate mofetil, systemic corticosteroids and omalizumab.

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