Research letter

Development of clinical diagnostic criteria for chronic plaque psoriasis: an international e-Delphi study

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Dear Editor, Despite psoriasis being a common disease, surprisingly little guidance exists on clinical diagnostic criteria.[1] The variable presentation of psoriasis and its differential diagnoses make diagnosis challenging,[2] particularly for nondermatologists.

In 2016, the World Health Organization declared psoriasis a global health concern and highlighted the need to tackle the problem of missed or delayed diagnosis of psoriasis.[3] In addition, the UK Psoriasis Association's priority setting partnership listed the top-10 priority research questions on psoriasis; second on this list was 'Does treating psoriasis early (or proactively) reduce the severity of the disease, make it more likely to go into remission, or stop other health conditions developing?'[4] In order to answer this question, an accurate and timely diagnosis of psoriasis is needed.

In response, the Global Psoriasis Atlas, a collaboration between three leading international organizations in world dermatology [International Federation of Psoriasis Associations; International League of Dermatological Societies; and International Psoriasis Council (IPC)] sought to develop clinical diagnostic criteria for chronic plaque psoriasis (CPP) in adults.

To address this, three rounds of an e-Delphi consensus survey was undertaken from January to August 2019 to establish diagnostic criteria. Panel members were 50 IPC councillors recruited from 27 countries across six continents, all of whom were consultant dermatologists.

After a literature review, 21 potential diagnostic criteria were initially extracted. Using a 9-point Likert scale, participants were asked to rank the importance of the proposed items,[5,6] ranging from 'extremely unimportant' to 'extremely important'. Consensus for inclusion was defined as a median score of ≥ 7 (interquartile range 7–9). Consensus for exclusion and neutral corresponded to median scores of ≤ 3 and 4–6, respectively. Participants were also asked to nominate other diagnostic items that they incorporate into their daily practice when diagnosing psoriasis and to comment on the terminology used in the proposed list of items.

Participants were also invited to review a proposed definition of CPP and summary of feedback from each round. Participants were further asked to designate the items that had received a median score of ≥ 7 as either 'essential' or 'supportive' criteria, and to give their opinions about the number of supportive criteria required to accompany the essential criteria in the final diagnostic dataset.

Table 1 Final diagnostic dataset

Definition	CPP is a systemic, inflammatory disease that predominately affect the skin. Skin lesions can occur on any part of the body and particularly affect extensor surfaces of the limbs, especially elbows and knees. Other common sites for psoriasis to appear include the trunk, the umbilicus, over the lower back (sacrum), on the scalp involving the hairline, skin inside and behind the ears, the palms of the hands, soles of the feet and nails. Skin folds such as armpits, between the buttocks, genitals and under the breast may also be affected
Diagnosis	A clinical diagnosis of CPP in adults requires the presence of the essential criterion and at least four out of the eight supportive criteria listed below
Essential clinical diagnostic criterion[a]	Well-demarcated lesion with or without silvery/white scales
Supportive clinical examination diagnostic criteria[b]	Lesions are pink to red in colour. In deeply pigmented skin, lesions may be grey in colour
	Lesions vary in size
	Lesions are palpable
	Lesions are symmetrically distributed
	Family history of psoriasis in first-degree relatives
	Nail involvement (e.g. pitting, onycholysis and subungual hyperkeratosis of the nails)
	Joint pain and/or stiffness
	Itching

CPP, chronic plaque psoriasis. [a]Essential criteria: those that must be present to make a clinical diagnosis of psoriasis. [b]Supportive criteria: those that did not need to be present but whose presence in conjunction with other diagnostic criteria supported a diagnosis of psoriasis.

After three rounds of the e-Delphi consensus exercise, the final diagnostic tool consists of a definition of CPP, one essential diagnostic criterion and eight supportive diagnostic criteria (Table 1). Thirty-two panel members agreed that at least four of the eight supportive diagnostic criteria must be present together with the essential criterion to make a diagnosis of CPP.

The consensus exercise included a recommendation for the clinical diagnosis of CPP across diverse ethnic groups. The definition of CPP highlighted the most common body sites affected by various clinical variants of psoriasis (e.g. intertriginous and scalp psoriasis). The consensus-developed criteria are intended to standardize psoriasis case definition for epidemiological field studies. This is especially important in helping nondermatologist investigators identify psoriasis, particularly in resource-poor settings, thus facilitating comparison and tracking trends of psoriasis incidence and prevalence in different countries. The diagnostic criteria could also serve as a teaching and training tool for healthcare providers involved in psoriasis management (e.g. nurses, pharmacists and doctors in training), especially in those parts of the world where access to specialist dermatology care is limited. Future research will involve implementing the consensus-agreed diagnostic criteria in an online educational tool supported by illustrations and clinical images to improve the diagnostic abilities of nondermatologists such as general practitioners and other healthcare workers.

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M. Abo-Tabik [1], R. Parisi [2], S.C. Willis [3], C.E.M. Griffiths [1,4], D.M. Ashcroft [3] and on behalf of the Global Psoriasis Atlas (GPA)

[1]*Centre for Dermatology Research, Division of Musculoskeletal and Dermatological Sciences, School of Biological Sciences;* [2]*Division of Informatics, Imaging and Data Sciences, School of Health Sciences;* [3]*Division of Pharmacy and Optometry, School of Health Sciences, Faculty of Biology, Medicine and Health, University of Manchester, NIHR Manchester Biomedical Research Centre, Manchester, UK; and* [4]*Dermatology Centre, Salford Royal NHS Foundation Trust, Manchester, UK*

Email: maha.abo-tabik@postgrad.manchester.ac.uk

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Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's website:

Appendix S1. Acknowledgments.

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