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# Prioritising patient-centred care in the management of chronic urticaria in Asia-Pacific countries

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## **ABSTRACT**

Background: Chronic urticaria (CU), in both inducible and spontaneous forms, is associated with a substantial burden in the Asia-Pacific region (APAC). Patient-centred care recognises patients desire to be involved in decisions regarding their health. Although patient-centred approaches have previously not been studied in the context of CU management, they have demonstrated benefits in the management of other chronic conditions.

Methods: Information and opinions regarding the barriers and solutions to the implementation of patient-centred approaches to the management of CU were gathered from a group of 13 expert dermatologists and allergist/immunologists from APAC through surveys and a face-to-face meeting.

Results: Barriers identified there included a lack of awareness of CU amongst patients, delays in consulting healthcare providers, financial constraints, and low adherence. Particular issues raised included a lack of suitable online information for patients (83% of experts), and patients accessing oral corticosteroids without a prescription. Compliance issues were also identified as key reasons for inadequate responses to treatments (67% of experts). Solutions proposed by the authors were improving patients' knowledge about their condition (92% strongly agree, 8% agree), physicians' consideration of patient characteristics when choosing treatments (92% strongly agree, 8% agree), implementing shared decision-making (85% strongly agree, 15% agree), and using patientreported outcome measures (70% strongly agree, 23% agree).

Conclusion: Expert opinion within APAC supports the use of patient-centred approaches to improve the management of CU. We provide several recommendations focusing on patient education and involvement in disease management as well as disease monitoring methods that can be implemented by physicians in APAC.

Keywords: Allergy and immunology, Asia, Chronic urticaria, Dermatology, Patient-centred care, Decision making, Shared, Urticaria

## INTRODUCTION

Chronic urticaria (CU) is defined by the presence of wheals, with or without angioedema, for longer than 6 weeks. Chronic inducible urticaria involves definite and specific triggers that reliably induce wheals and/or angioedema, while wheals/angioedema in chronic spontaneous urticaria (CSU) occur in the absence of triggers but may be exacerbated by non-definite triggers and factors. CSU can be persistent or have an intermittent/recurrent course. Most patients will experience CU for longer than a year, and in some patients it may still be present 5-10 years after diagnosis. 4

CU is more prevalent in Asia compared with Europe and North America.<sup>5</sup> A meta-analysis of epidemiological studies found combined prevalence rates for CU in Asia of 1.4% compared with 0.5% for Europe and 0.1% for North America.<sup>5</sup> Point prevalence values reported for individual countries in Asia-Pacific (APAC) include 1.29% in China,<sup>6</sup> 2.3% in Korea,<sup>7</sup> and 0.79% in Taiwan.<sup>8</sup>

CU is associated with a substantial clinical and humanistic burden. 9-16 Patients with urticaria experience impacts on their mental and physical health compared with matched controls, and an approximately two-fold increase in the risks of depression, anxiety, and sleep difficulties.<sup>11</sup> Data from APAC indicate a high incidence of depressive symptoms among patients with CU (48%)<sup>10</sup> in general and in CSU in particular (26%), as well as anxiety (38% for CU<sup>10</sup> and 54.8% for CSU<sup>9</sup>), and 40% of patients with CU were found to suffer from stress. 10 Patients with CU also report problems attributable to their condition in performing daily activities, social interactions, emotional wellbeing, professional lives. 12-14,16 The urticaria-associated decrease in productivity at work leads to indirect costs to society, in addition to the direct costs associated with its management. 14,17

Patient-centred care may help to improve the management of CU and alleviate some of its associated burden. In patient-centred care, a patient's specific health needs and desired health outcomes are considered when making healthcare decisions. Involving the patient in shared decision-making (SDM) is a key part of patient-centred care. Using patient-centred approaches in

disease management has demonstrated numerous benefits, including improved outcomes and patient satisfaction, <sup>19</sup> and reductions in referrals and diagnostic tests. <sup>20</sup> Similarly, a SDM intervention was shown to improve adherence and clinical outcomes compared with either usual care or a clinician decision-making intervention, where patient preferences were not identified and treatment regimens were recommended rather than negotiated, in asthma management. <sup>21</sup> However, patient-centred care in CU is receiving little attention and its implementation is highly variable in clinical practice.

Our objective was to identify and describe barriers to the implementation of patient-centred approaches to the management of CU in APAC and to propose solutions. A group of 13 expert dermatologists and allergist/immunologists from the APAC region provided their perspective and insight in urticaria management in a survey and face-to-face meeting.

#### **METHODS**

The positions in this paper represent the opinions of the Specialist Taskforce on Allergy/ Dermatology (STAR) Network urticaria group. This group consisted of 13 expert dermatologists and allergist/immunologists from Australia, China, Hong Kong, India, Malaysia, the Philippines, Taiwan, Thailand, and Vietnam. These experts were selected based on their academic background and active practice in managing patients with chronic urticaria, as well as their interest in participating in this project. In particular, experts were considered if they met at least 3 of the following criteria: >10 years specialist clinical experience, active participation as a keynote speaker at medical education courses, published in national/international journals, involved in disease management guidelines committees, holds a position at an academic institution or professional society, and/or known to be an active contributor to discussion and debate in this area. Information was collected through a survey, a worksheet asking the experts about their level of agreement to different statements, and through discussion between these experts at a meeting.

The survey consisted of 29 questions regarding the practices and experiences in urticaria

management and was conducted online prior to the meeting. The statements and recommendations worksheets were drafted by the lead authors based on existing guidelines, the results of the survey, previous interactions with experts, and information from published literature. No extensive discussions were required prior to finalization. It contained 12 statements and recommendations regarding CU management, with a focus on patient-centred approaches. Each expert indicated their agreement to these statements on a five-point scale ranging from strongly agree to strongly disagree.

The face-to-face expert meeting covered the different stages of the patient journey. For each stage, the relevant survey results were presented and discussed, followed by a chaired discussion of potential barriers and solutions relevant to patient-centred care. The experts also drafted a representation of the patient journey and a treatment choice heatmap.

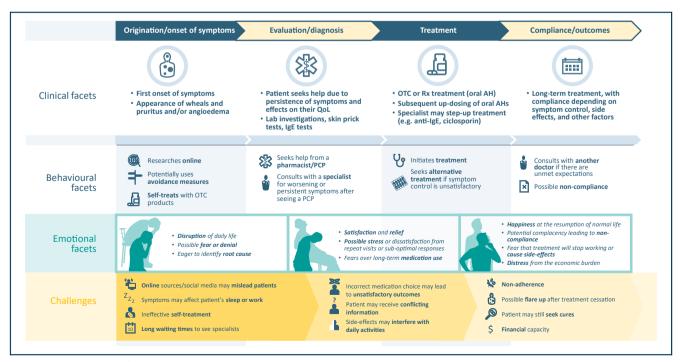
## **RESULTS**

When implementing patient-centred care, it is important to consider the patient journey. This

journey encapsulates the entire experience of the patient from symptom onset to continuous management and can be divided into 4 stages: origievaluation/diagnosis, treatment, fulfilment/adherence. It includes the clinical aspects of diagnosis and treatment of the condition, as well as the patient's behavioural and emotional experiences. 16 A visual guide to this journey for patients with CU was developed through literature review and expert input (Fig. 1). The results of the expert survey used to examine current practices are shown in the supplementary Statements and recommendations agreed on by experts at the STAR-Network meeting are presented in Table 1. The challenges that may be encountered in the implementation of patient-centred care, as well as proposed solutions are described in the following sections.

## Challenges to patient-centred management of chronic urticaria

A key barrier to patient-centred approaches to care that may be encountered throughout the patient journey is a lack of understanding or awareness of CU among patients. More than half of experts surveyed (58% of experts) reported that



**Fig. 1 Patient Journey for patients with chronic urticaria.** Abbreviations: AH, antihistamine; CSU, chronic spontaneous urticaria; IgE, immunoglobulin E; LTRA, leukotriene receptor antagonist; OTC, over the counter; PCP, primary care provider; QoL, quality of life; Rx, prescription.

their patients are typically unaware of aspects of urticaria. Particular issues encountered in clinical practice included requests for unnecessary allergy testing and a lack of appreciation of the chronic nature of CU, with some patients expecting their disease to be cured. Issues with patient awareness may be further exacerbated by a lack of information sources. When surveyed, 83% of experts indicated online materials providing information about urticaria for patients are either lacking in their country or could be substantially improved. Similarly, 67% of experts reported that patient advocacy or support groups are lacking in their country. Patients may instead tend to rely on family/friends or social media when gathering information about their condition, with all experts estimating 100% of their patients would have accessed these sources prior to referral. A reliance on such sources was reported to expose some patients to misinformation about their condition and potentially lead them to try inappropriate treatments or avoidance measures.

At the evaluation and diagnosis stage of the patient journey (Fig. 1) some patients might experience delays in seeing a primary care provider or specialist. These may occur due to long waiting times for specialist referrals, or because of patient choices. Experts reported that, due to cultural and economic factors, some patients may be reluctant to seek a consultation with a healthcare professional at the onset of symptoms. Instead, they may self-treat and seek information and/or aid from neighbours, family, or friends, before eventually seeing a pharmacist or a general practitioner (GP). Although the patient may experience some relief through self-treatment if they choose appropriate over-the-counter medications such as antihistamines, there is a risk that delays in diagnosis could lead to them presenting with symptoms that have further deteriorated since onset. There is also some variation amongst APAC countries in the types of services and treatments that can be accessed prior to seeing a primary care provider. In some countries, patients may access diagnostic testing (e.g. complete blood counts, thyroid testing, or allergy testing) without consulting with their primary care provider or specialist. Such testing may not be appropriate and could cause further anxiety. Experts reported that some patients may receive oral corticosteroids from

pharmacies without first consulting with a GP or specialist and receiving a prescription. Alternative therapies or herbal medicines may be adulterated with unknown quantities of corticosteroids, <sup>22,23</sup> which can lead to side effects.

After a diagnosis has been made, the patient moves to the treatment stage of the patient journey (Fig. 1), where low adherence is the primary issue. When surveyed, experts estimated an average of 74% of their patients would be adherent to the treatments they prescribe. It is worth noting that, as these experts typically see patients after referrals from GPs, the adherence amongst their patients may be higher than that of the general population with CU. Previous results from surveys of patients with CU attending hospital dermatology clinic in Singapore, indicated that the majority (72%) of patients have low adherence when assessed with the Morisky Medication Adherence Scale (MMAS-8), with only 2.9% having high adherence.<sup>24</sup> Low adherence contribute to inadequate treatment may responses, with the majority of experts surveyed identifying non-adherence (67% of experts) and as-needed use of medications (75% of experts) as being the main reasons for inadequate response. Most (83.3%) experts identified poor symptom control as the most important reason for nonadherence. Other reasons include side effects, or simply a lack of understanding of the disease and need for continuous treatment. Financial constraints can also be a barrier to adherence to medications recommended in international guidelines, particularly in countries where consultations and medications are paid for out-of-pocket. This may be reflected in more frequent use of firstgeneration antihistamines. On average, experts estimated that 37% of their patients would have used first-generation antihistamines prior to referral.

Once the patient reaches the outcomes stage of the patient journey (Fig. 1), a key aspect of their management recommended in international guidelines is the regular assessment of disease activity, control, and impact through the use of patient-reported outcome (PRO) tools. However, the use of these tools may be limited in clinical practice. A common barrier quoted by experts was lack of time (75% of experts). Additionally, patient factors may limit the usefulness of PRO

	Expert responses to statements ( $n = 13$ )						
Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree		
Burden							
Chronic urticaria is associated with a substantial burden in APAC for healthcare systems, and for society in general through its indirect effects on the productivity of patients.	10	3	0	0	0		
Chronic urticaria can have a substantial negative impact on various aspects of a patient's life, including their professional lives, social interactions, and daily activities.	13	0 0 0		0	0		
Solutions							
For patient-centred care to be effective, patients should be educated about their condition and potential treatment options.	12	1	0	0	0		
Further development of information sources such as online or printed materials would support the use of patient-centred care and shared decision-making in urticaria management.	8	5	0	0	0		
Consistent with international guidelines, the diagnostic work-up for chronic spontaneous urticaria should include history, physical examination, and basic tests such as CRP, ESR, and differential blood count, in addition to the assessment of disease activity, impact, and control.	9	3	0	1	0		
To implement a patient-centred approach to care, the patient's specific health needs and desires should be understood and accounted for.	12	1	0	0	0		
Second-generation antihistamines should be the first-line treatment option for chronic urticaria, with updosing of up to four-fold used for patients with an inadequate response to approved dosages.	12	1	0	0	0		
The use of first-generation antihistamines should be avoided due to their undesirable side effects.	4	8	0	1	0		
Shared decision-making can support adherence and, where feasible, should be implemented when choosing treatments.	11	2	0	0	0		
Understanding the patient's desires with regards to treatment outcomes is an important step in the implementation of patient-centred care.	13	0	0	0	(continued)		

	Expert responses to statements (n $=$ 13)					
Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
PRO tools can provide useful information about treatment response and aid decision-making.	9	3	1	0	0	
Consistent with international guidelines, PRO tools should be used to monitor disease activity, impact, and control.	9	3	1	0	0	

**Table 1. (Continued)** Expert statements regarding urticaria management. Abbreviations: APAC, Asia-Pacific; CRP, C-reactive protein; CV, cardiovascular; ESR, erythrocyte sedimentation rate; PRO, patient-reported outcome.

tools in urticaria management, with experts estimating that an average of only 37% of their patients complete them when they are offered. The experts also reported that patients may need additional education on how to complete PROs accurately, with scores provided by some patients not corresponding to the information they provide in consultations.

# Solutions that support patient-centred management of chronic urticaria

The education of patients about their condition and possible treatment options is crucial to the implementation of patient-centred care, with all experts agreeing that the further development of information sources would support the use of patient-centred care and SDM (62% strongly agree, 38% agree; Table 1). This could include face-to-face education, printed materials, apps, QR codes that link to informative websites, or through patient support groups. Information sources should convey key information about treatment options, particularly that they will help control CU symptoms but not cure the disease. The patient should therefore be advised that they may require long-term continuous treatment to control their symptoms. Additionally, the difference between CU and other atopic diseases needs to be explained. Specifically, the idiopathic or autoimmune nature of CSU should be highlighted. Whilst some factors such as stress, drugs, and infections may exacerbate CSU, 1,25 further diagnostic testing for allergens or avoidance measures may not be appropriate unless indicated on the basis of other comorbidities.

The majority of experts agreed that, consistent with international guidelines, <sup>1</sup> the diagnostic work-

up for CU should include a history, physical examination, and basic tests such as C-reactive protein, erythrocyte sedimentation rate, and differential blood count, in addition to the assessment of disease activity, impact, and control (69% strongly agree, 23% agree; Table 1). Experts agreed that referrals should be considered if the patient has atypical symptoms, an inadequate response to antihistamines continuous treatment with (particularly after up-dosing) or has angioedema. Referrals should also be made for patients who need more than 1 course (<10 days) of oral corticosteroids within a 6-month period.

The implementation of patient-centred care at the treatment stage of the patient journey (Fig. 1) can only be achieved by treatments that manage the patient's symptoms whilst accommodating their preferences and desires regarding factors such as outcomes, side-effects, and forms of treatment, as well as encouraging adherence. The outcomes identified by experts as being the most important to patients were a reduction in itching (identified by 83.3% of experts), complete resolution of symptoms (91.7% of experts), and avoidance of treatment side effects (100% of experts). Other outcomes relevant to patients were reduction in visible rash/wheals (75.0% of experts), and prevention of future symptoms (42% of experts). To achieve optimal outcomes, participating APAC experts agreed with current international guidelines on the use of non-sedating second-generation oral anti-H1 antihistamines as a first-line treatment, with up-dosing of those antihistamines by up to fourfold as a second-line treatment (92% strongly agree, 8% agree; Table 1). The majority of experts also agreed that first-generation antihistamines should be avoided due to side effects (31% strongly agree,

62% agree; Table 1). Non-sedating second-generation antihistamines differ in their properties and not every drug is appropriate for patients with particular comorbidities or concomitant medication use.<sup>26</sup> Patient profiles and characteristics should therefore be considered when choosing treatments.<sup>26</sup> To aid choices among secondgeneration antihistamines, heatmaps were developed using information from local prescribing information and expert feedback. Fig. 2 provides information regarding the suitability antihistamines for different age groups. Fig. 3 displays the suitability of different antihistamines according to a variety of patient-centred criteria such as conditions, comorbidities, and other factors. These heatmaps can be used in combination with local prescribing information and recommendations to help select suitable antihistamines for patients with CU.

The use of SDM is integral to understanding patient preferences and ensuring that the most appropriate treatments are chosen. Its implementation may provide an opportunity to support adherence by helping patients understand the need for continuous treatment and encouraging patients to take treatments recommended by guidelines. All experts surveyed agreed that SDM can support adherence and, where feasible, should be implemented when choosing treatments (85% strongly agree, 15% agree; Table 1). Further details regarding the use of SDM have been reviewed elsewhere.<sup>27</sup> Briefly, it should communication between healthcare providers and patients with the aim of facilitating the patient's involvement in decision-making. Such communication can involve discussion about treatment options as well as the provision of educational resources. This should then be

			Age group		
Drug name	Toddlers (6–24 months)	Paediatric (2–12 years)	Adolescent (12–18 years)	Adult (18–65 years)	Elderly (>65 years)
Bilastine [32]		ODT: 6–11 years and >20 kg			
Fexofenadine [33]	Oral suspension: >6 months	Tablet: >6 years Oral suspension: >6 months			a
Cetirizine [34]	Oral solution: >6 months	Tablet: >6 years Oral solution: >2 years			b
Desloratadine [35]	Oral solution: >6 months	Tablet: >12 years. Oral syrup/solution: >6 months			
Levocetirizine [36]	Oral syrup: >6 months	Tablet: >6 years Oral solution: >2 years			С
Loratadine [37]	Oral syrup: >1 year	Tablet: >6 years and >30 kg Oral solution: 2–12 years			
Rupatadine [38]		Oral solution: 2–11 years			d
Ebastine [39]					
Indicat	ted ted with cautions o ted with cautions o commended	•	in particular subgr	oups	

**Fig. 2 Visual guide to the choices of antihistamines for different age groups.** Abbreviation: ODT, orodispersible tablet. This heatmap was drafted using the prescribing information for each included antihistamine<sup>32-39</sup> in addition to input from both the allergic rhinitis and urticaria STAR-Network expert groups. <sup>a</sup>Care should be taken in dose selection due to the potential for renal impairment. <sup>b</sup>Caution in elderly patients with renal/hepatic impairment. <sup>34</sup> <sup>c</sup>With adjustment for renal function. <sup>36</sup> <sup>d</sup>Use with caution. <sup>38</sup>

Drug name low propensity impact cogniti and psychomo	penetrating with	Fast onset and sustained action <sup>c</sup>	Comorbidities				Updosing	Number of ARIA recommended	Clinically relevant	
	impact cognitive and psychomotor performance <sup>a</sup>		CV disease	Renal impairment	Hepatic Impairment	Pregnancy/lactation	supported by evidence <sup>t</sup>	antihistamine properties <sup>u</sup>	drug-drug interactions <sup>w</sup>	Other cautions
Bilastine [32]		Onset: <1 hour Duration: >24 hours				1			х	
Fexofenadine [33]		Onset: 2–3 hours Duration: 12 hours	d			m			у	ad
Cetirizine [34]		Onset: <1 hour Duration: >24 hours		g	j	n				ae
Desloratadine [35]		Onset: 2–4 hours Duration: 24 hours				0			z	af
Levocetirizine [36]		Onset: 1 hour Duration: 24 hours		h		р			aa	ag
Loratadine [37]		Onset: 1–3 hours Duration of action: >24 hours				q				
Rupatadine [38]	b	Onset: 1–2 hours Duration: 24 hours	e	i	i	r		V	ab	
Ebastine [39]		Onset: <1 hour Duration: 48 hours	f		k	S			ac	ah
Colours:  Indicated Indicated with cautions or dose adjustment in particular patient subgroups Indicated with cautions or dose adjustment Not recommended in some patient subgroups Not recommended										

Fig. 3 Visual guide to antihistamine choices from patient-centred criteria Abbreviations: ARIA, Allergic Rhinitis and its Impact on Asthma; CV, cardiovascular. This heatmap was drafted using the prescribing information for each included antihistamine 32-39 in addition to input from both the allergic rhinitis and urticaria STAR-Network expert groups. <sup>a</sup>Colours based on the classification of these antihistamines by H1 receptor occupancy in Kawauchi et al., 40 with green being non-brain penetrating, pale green being non-sedating, and yellow being less sedating. bH1 receptor occupancy data are not available for rupatadine. However, it is classified as non-sedating based on patientreported scales and driving tests. 41 °As reported for histamine skin wheal studies in prescribing information/package inserts. Coloured according to time values. Patients with CV disease or a history of CV disease receiving fexofenadine should be alerted to the fact that antihistamines as a therapeutic group have been associated with the undesirable effects of tachycardia and palpitations. 33 eShould be used with caution in patients with known prolongation of the QT interval, uncorrected hypokalaemia, or ongoing proarrhythmic conditions. fShould be used with caution in patients with prolonged QT interval, hypokalaemia, or with concomitant use of QT-prolonging agents.<sup>39</sup> <sup>9</sup>Dose adjustments required and contraindicated with severe renal impairment.<sup>34</sup> <sup>h</sup>Dose adjustments required. Contraindicated in severe renal impairment. 36 The use of rupatadine is not presently recommended in patients with impaired kidney or liver functions due to a lack of clinical experience in these patients. Dose adjustments are recommended for some forms of cetirizine in patients with hepatic impairment.  $^{k}$ Contraindicated with severe liver failure. Caution with severe hepatic impairment.  $^{l}$ As a precautionary measure, it is preferable to avoid the use of bilastine during pregnancy. <sup>m</sup>Fexofenadine should only be used during pregnancy when the potential benefits justify the possible risks to the foetus. Preferable to avoid use during pregnancy, contraindicated/caution for lactation. Preferable to avoid in pregnancy, not recommended in lactation. PThe use of levocetirizine may be considered during pregnancy, if necessary. Caution should be exercised when prescribing levocetirizine to lactating women. <sup>q</sup>Should only be used if benefits outweigh potential risks. <sup>r</sup>As a precautionary measure it is preferable to avoid the use of rupatadine during pregnancy. SNot recommended in pregnant or lactating women. Green indicates updosing of these antihistamines by up to fourfold is reported as supported by evidence in international guidelines<sup>1</sup>. "As reported in Wang et al. 42 Coloured according to score with 10 as green, 7-10 as pale green, and <7 as yellow. A score for rupatadine was not available in Wang et al. 42 wAs reported in package inserts and prescribing information. \*Plasma concentration may be decreased by OATP1A2 substrates or inhibitors. Avoid coadministration of bilastine and P-glycoprotein inhibitors in patients with moderate or severe renal impairment. YCaution with sedative use. ZErythromycin/ketoconazole may increase plasma levels. Aluminium/magnesium-containing antacids decrease AUC and Cmax if administered at a similar time. aaConcomitant use with central nervous system suppressants should be avoided. Decreased clearance of cetirizine with theophylline. Increased exposure of levocetirizine with ritonavir. ab Avoid use with strong CYP3A4 inhibitors. Caution when co-administering with statins. Concomitant administration with ketoconazole or erythromycin increases systemic exposure to rupatadine. acCaution with QT-prolonging agents, hepatic enzyme inhibitors (CYP450 2J2, 4F12, 3A4) such as imidazole antifungals or macrolide antibiotics. Care should be taken with imidazole antifungals, macrolide antibiotics, and antituberculosis drugs. adCaution in epileptic patients and patients with predisposition to urinary retention. aeCaution should be used in patients with history of seizures and patients with predisposition to urinary retention. afCaution should be used in patients with a history of seizures. agCaution in epileptic patients and patients with predisposition to urinary retention. ah Not for use in patients with rare genetic disorders of galactose intolerance, Lapp lactase deficiency, or glucose-galactose absorption disorders.

followed by collaborative efforts to decide on treatments and optimise care that are continued throughout the course of disease management.

For the outcomes stage of the patient journey (Fig. 1), APAC experts agreed that recommended outcomes measures<sup>1</sup> should be used and that they provide useful information about treatment responses that can aid decision making (69% strongly agree, 23% agree; Table 1). When surveyed, experts also reported that they found PRO tools useful in gathering feedback on treatment response (83.3% of encouraging adherence (50% of experts), and aiding patients in expressing their desires (58.3% of experts). Solutions suggested to make the use of PRO tools more convenient in clinical practice, included providing forms to the patient that they can complete while waiting in the clinic or gathering the information verbally consultations. Additionally, the experts suggested mobile technologies could be used if available, with all agreeing that the development of an app to monitor urticaria symptoms and their effects on quality of life would be a useful step-forward.

## **DISCUSSION**

CU is associated with a substantial burden on patients. Although guidelines provide valuable recommendations regarding approaches to treatment and diagnosis, their implementation in clinical practice can face difficulties such as long waiting times, <sup>15,28</sup> poor adherence, <sup>24,29</sup> or inappropriate treatment choices. <sup>15</sup> While patient-centred approaches have not been well studied in the context of urticaria management, they have previously been shown to be beneficial in other disease areas in aspects such as improving adherence, <sup>21</sup> outcomes, and patient satisfaction, <sup>19</sup> supporting their use in urticaria management.

In this paper, we have described several challenges that may be encountered in the context of urticaria management in APAC, and we have highlighted key barriers and solutions in Table 2. At the early stages of the patient journey, these barriers include a lack of awareness amongst patients, as well as potential delays in consulting with healthcare providers. At later stages of the patient journey, barriers may include financial constraints and low adherence. In addition,

### Key barriers to the implementation of patient-centred care in Asia-Pacifica

Inadequate understanding or awareness of chronic urticaria among patients, particularly of its chronic idiopathic nature as well as of appropriate tests and treatments.

Delays in seeing primary care providers or specialists due to long-waiting times or patient reluctance due to issues such as economic constraints or cultural factors.

Low adherence to prescribed treatments, including as-needed rather than continuous use of medications.

Time constraints encountered in clinical practice, particularly in the context of implementing patient-reported outcome measures.

## Key solutions that will support the implementation of patient-centred care in Asia-Pacific<sup>a</sup>

Further development of information sources for patients explaining chronic urticaria, types of treatments available, and the goals of treatment.

Implementation of shared decision-making when choosing treatments by discussing treatment options, educating and informing the patient, and then collaborating on treatment decisions.

Consideration and accommodation of patient preferences and characteristics when feasible while selecting treatments.

**Table 2.** Summary of key barriers and solutions for the implementation of patient-centred approaches to urticaria management in Asia-Pacific. <sup>a</sup>The key barriers and solutions identified in this table are based on the questionnaire results and discussion points described in the results section, in addition to the expert statements listed in Table 1.

general barriers to patient centricity may be encountered, such as perceptions it will take too much time,<sup>27</sup> or difficulties with particular patients such as those with low literacy.<sup>30</sup>

The authors put forward and discussed several solutions to support the implementation of patientcentred approaches based on their expert opinion (summarised in Table 2). Educating patients about their condition and the available treatment options not only supports adherence by helping them understand the need for continuous treatment, but also facilitates other aspects of patient-centred care such as SDM. Involving the patient in management decisions through SDM may provide them with a better understanding of the available treatments, as well as facilitate the choice of the most suitable one, which they are more likely to adhere to. Such implementation of SDM would be aided by a shift in the education of physicians to include SDM and patient preference considerations. These changes would be timely given the patients' increasing access to medical knowledge and willingness to be involved in their treatment decisions. The importance of considering patient characteristics and profiles when choosing between antihistamines has been highlighted previously, 26,31 and the authors have created a simple visual guide to support decision-making.

The limitations of this study include the relatively small number of experts surveyed as well as the lack of patient input. As APAC is a diverse region, with economic and healthcare differences between countries, not all solutions and barriers discussed here will necessarily be generalisable to all practices in the region. Additionally, the focus of this study was on patient-centred approaches to care, and we have therefore not examined all available treatment options for CU in detail. The recommendations made here should thus be used only to optimise management in combination with local or international quidelines.

The implementation of the solutions identified here will require optimising the delivery of education and informative materials that aid patients in understanding their condition, in addition to examining methods that could improve the implementation of PRO measures to make them more convenient in clinical practice. Action from

GPs, specialists, and healthcare systems, acting in cooperation, is needed to improve the current management of CU and put more focus on a patient-centred approach. There is a need to include patient-centred methods such as SDM, in consensus guidelines that are based on data generated in APAC.

#### **Abbreviations**

APAC: Asia-Pacific; CSU: chronic spontaneous urticaria; CU: chronic urticaria; GP: general practitioner; PRO: patient-reported outcome; SDM: shared decision-making; STAR: Specialist Taskforce on Allergy/Dermatology

#### Submission declaration

This manuscript is original, has not been published before, is not currently being considered for publication elsewhere.

#### Authors' consent for publication

All authors have agreed with the publication of this manuscript in the World Allergy Organization Journal.

## Data and materials availability

Data from the questionnaire are included in full in the supplementary materials. All other data or materials are available from the corresponding author upon reasonable request.

#### **Author contributions**

All authors contributed to the development of the manuscript at a face-to-face meeting and reviewed the final draft of the manuscript. MTR, KW, and DN contributed to and reviewed the questionnaire, meeting materials, and initial drafts of the manuscript.

#### Funding

This study was sponsored by A. Menarini Asia Pacific Pte Ltd. Medical writing support was provided by Clarivate and funded by A. Menarini Asia Pacific Pte Ltd.

#### Declaration of competing interest

The authors received honoraria and support from A. Menarini Asia Pacific Pte Ltd for transportation and accommodation for the STAR Network meeting. A. Menarini also provided support staff at the meeting and funded medical writing support from Clarivate for the development of the manuscript.

MTR also reports the following outside of the submitted work: payments or honoraria from A. Menarini to act as an advisory board member; payments or honoraria from Bayer and Cathay Drug to act as a speaker; and support from A. Menarini, Cathay Drug, and United Laboratories Philippines to attend meetings and international allergy conferences.

KW also reports the following outside of the submitted work: payments/honoraria and support for attending meetings from A. Menarini.

KK also reports the following outside of the submitted work: payments or honoraria for speaking/presenting from A. Menarini, Novartis, and Sandoz; and support for attending meetings from A. Menarini.

ML also reports the following outside of the submitted

work: honoraria for educational lectures from GSK, AstraZeneca, A. Menarini, Sanofi, and Takeda.

DN works with A. Menarini Asia Pacific Pte Ltd. and was involved in facilitating the expert meeting.

The remaining authors report no additional disclosures.

The remaining authors report no additional disclosures outside of the submitted work.

#### **Acknowledgments**

The face-to-face STAR-Network expert meeting and development of this manuscript were sponsored by A. Menarini Asia Pacific Pte Ltd. Medical writing support was provided by Clarivate.

#### Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.waojou.2024.100984.

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