

LETTERS

Primary care challenges in treating paediatric asthma in the Asia-Pacific region

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Dear Sirs,

We would like to report the findings and key summary points of a meeting that took place in Singapore in 2012. The main purpose was to share the participants' experiences of treating paediatric patients with asthma in the primary care setting in the Asia-Pacific region; in so doing, we hoped to achieve a better understanding of the challenges encountered in this setting. We believe that the findings from this meeting could help doctors in this region, enabling them to consider how different cultural and economic environments can affect their care of asthma patients and how they can recognise and manage common problems encountered in daily practice.

The meeting participants were the eight authors of this letter – a group of eight general practitioners (GPs) and general paediatricians managing paediatric asthma in the primary care setting from countries around the Asia-Pacific region. The countries included were Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan, Thailand and Vietnam. The term "primary care" here refers to the first-line care of asthma patients in an outpatient clinic setting. In most instances, GPs or general paediatricians provide the primary care services, often with assistance from nurses, and specialists manage more complex cases following referral. However, because the referral systems in these countries do not have strict limitations, occasionally specialists may also provide first-line care. In some countries, GPs or paediatricians are only allowed to prescribe first-line controller treatment for asthma, and patients will be referred to a specialist if a step-up in medication is required. The

specialists will not have limitations on the drugs they can prescribe, but visiting a specialist will be much more expensive for the patient.

Reported prevalence rates of current asthma in children aged 6–7 years in the Asia-Pacific region overall are 10.8% for boys and 8.2% for girls.¹ Although the prevalence rates of asthma vary across the region,^{2,3} we agreed that asthma management forms a significant component of our paediatric practice in primary care.

Approaches to diagnosis, management and monitoring of paediatric asthma were generally consistent across the region. Accordingly, many of the same challenges were experienced in several countries.

One overarching issue is the practical implementation of asthma management guidelines. While the Global Initiative for Asthma (GINA) guidelines⁴ are internationally accepted, they can be difficult to apply in practice, as can national guidelines that are based on GINA. We believe that doctors need practical, primary care-focussed guidelines that are relevant for local settings. Some of the key factors that need to be taken into account should include: the local cultural understanding and acceptance of an asthma diagnosis; the financial capability of patients or parents/caregivers to afford the recommended treatments; and the difficulties of providing care in rural or remote locations. Guidelines also need to be suited to the doctors' scope of practice and the health system in each country – for example, by including locally feasible recommendations for referral to a pulmonary specialist when indicated.

A number of key challenges were identified:

Challenge 1: Poor acceptance of an asthma diagnosis

The diagnosis of asthma in early childhood is clinically challenging.⁴ However, in the Asia-Pacific region there are also significant cultural challenges following a diagnosis of 'asthma' in children of any age. There is often community stigma associated with the diagnosis, and parents/caregivers may have a poor understanding of the condition and its management.⁵ An asthma diagnosis can also affect medical insurance in some countries. The resultant resistance of parents/caregivers to the diagnosis impacts on ongoing

management and particularly medication adherence.⁶ Giving only a provisional or 'likely' diagnosis of asthma until the child needs regular preventer medication is an approach common to both Asia-Pacific and Europe.⁷ This tactic can be used to build trust with parents/caregivers and permits gradual acceptance and understanding of the condition.

Challenge 2: Access to, and affordability of, asthma controller medication

Several management challenges were identified as being common across the region. Although some were not unique to the Asia-Pacific, cultural and regional aspects caused the issues to have greater impact.⁸ For example, the prevalence of poor device technique is a globally recognised problem,⁹ yet we felt this was even more pronounced in our countries where inhaler devices have only had limited availability previously and may not be affordable for some patients.^{10,11} For the low-income population in some developing countries, seeking financial or medication support from all possible sources, including government, is crucial to the management of asthma.

Challenge 3: Seeking traditional medicine

Also, while interest in alternative and complementary therapies is increasing worldwide,¹² traditional medicine is a well-established part of healthcare in the Asia-Pacific region. We regularly experience parents/caregivers turning to traditional medicine practitioners for a second opinion because of a resistance to the diagnosis of asthma or a preference for 'natural' or cheaper treatments. Therefore, general population education regarding the correct concepts of asthma management in the Asia-Pacific region is important.

Challenge 4: Poor compliance

Another common concern is poor adherence by patients and parents/caregivers to medication regimens.^{5,8} While this is reported in many countries, we believe it is a particular problem in our region due to a lack of understanding of asthma in many communities and the relative expense of medications. Using appropriately trained nursing staff to support doctors in providing asthma education can help.^{13,14} Also, it is essential to check that the patient and/or the parent/caregiver has understood the education.

Challenge 5: Steroid phobia

Steroid phobia is a widespread problem amongst parents/caregivers in our region.^{5,6,8} In addition, and in our experience, some healthcare professionals are not confident in their knowledge on this topic.¹⁵ Asking parents/caregivers about their concerns in an open manner can help identify those with strong feelings or misunderstandings about the medication. Doctor education to ensure healthcare professionals are informed on this issue may in turn improve parent/caregiver education and acceptance.

Challenge 6: Cultural concerns

A number of cultural and environmental challenges were also shared, such as the prevalence of second-hand smoking by family members. Asking an older family member to change their behaviour

can be difficult culturally; having support from the child's doctor may help due to the cultural regard for doctors.

Other shared cultural challenges included having a nanny or maid (often with limited local language skills) or a grandparent as the main caregiver. Consequently, if only the caregiver or only the parent attends the consultation, they may not communicate adequately the outcomes from the consultation and the explanations given. Asking all the relevant caregivers – parents, grandparents and nannies – to attend an asthma consultation together may help ensure ongoing adherence.

This partnership approach should extend to all those involved in the child's asthma management; parents/caregivers need to be empowered to form a partnership with the doctor and wider healthcare team. We believe that asthma management is most effective when the patient and parent/caregiver are actively engaged and informed, with the doctor setting patient-specific treatment goals that are appropriate and understood.

Meeting the challenges

We were heartened to find that some of our local challenges were also experienced in neighbouring countries. We hope that sharing our experiences across the Asia-Pacific region will help other primary care practitioners who may encounter similar problems. In recognising our similarities, we also recognise that meeting these challenges requires different strategies depending on the local setting. We believe that every country should have its own local asthma management guideline adapted to fit the local conditions. Since the cultural and economic circumstances are unlikely to change quickly, studies focusing on asthma management in these suboptimal conditions are required to help develop practical guidelines. Financial support (either national or international) and asthma education will ultimately be needed for ideal asthma care in the future.

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References

1. Mallol J, Crane J, von Mutius E *et al*. The International Study of Asthma and Allergies in Childhood (ISAAC) Phase Three: A global synthesis. *Allergol Immunopathol (Madr)* 2013;**41**(2):73–85.

- <http://dx.doi.org/10.1016/j.aller.2012.03.001>
- Park HS, Choi GS, Cho JS *et al.* Epidemiology and current status of allergic rhinitis, asthma, and associated allergic diseases in Korea: ARIA Asia-Pacific workshop report. *Asian Pac J Allergy Immunol* 2009;**27**(2-3):167-71.
 - Bunnag C, Jareoncharisri P, Tantilipikorn P *et al.* Epidemiology and current status of allergic rhinitis and asthma in Thailand -- ARIA Asia-Pacific Workshop report. *Asian Pac J Allergy Immunol* 2009;**27**(1):79-86
 - Global Initiative for Asthma (GINA). Global Strategy for Asthma Management and Prevention. GINA, 2011. Available from: www.ginasthma.org
 - Zhao J, He Q, Zhang G *et al.* Status of asthma control in children and the effect of parents' knowledge, attitude, and practice (KAP) in China: a multicenter study. *Ann Allergy Asthma Immunol* 2012;**109**(3):190-4. <http://dx.doi.org/10.1016/j.anai.2012.07.005>.
 - Chan PW, DeBruyne JA. Parental concern towards the use of inhaled therapy in children with chronic asthma. *Pediatr Int* 2000;**42**(5):547-51. <http://dx.doi.org/10.1046/j.1442-200x.2000.01278.x>
 - Brand PL, Baraldi E, Bisgaard H *et al.* Definition, assessment and treatment of wheezing disorders in preschool children: an evidence-based approach [European Respiratory Society Taskforce]. *Eur Resp J* 2008;**32**:1096-110. <http://dx.doi.org/10.1183/09031936.00002108>
 - Wong GW, Kwon N, Hong JG *et al.* Pediatric asthma control in Asia: Phase 2 of the Asthma Insights and Reality in Asia-Pacific (AIRAP 2) survey. *Allergy* 2013;**68**(4):524-30. <http://dx.doi.org/10.1111/all.12117>.
 - Sleath B, Ayala GX, Gillette C *et al.* Provider demonstration and assessment of child device technique during pediatric asthma visits. *Pediatrics* 2011;**127**: 642-8. <http://dx.doi.org/10.1542/peds.2010-1206>
 - Ait-Khaled N, Enarson DA, Bissell K *et al.* Access to inhaled corticosteroids is key to improving quality of care for asthma in developing countries. *Allergy* 2007;**62**(3):230-6. <http://dx.doi.org/10.1111/j.1398-9995.2007.01326.x>
 - Ait-Khaled N, Auregan G, Bencharif N *et al.* Affordability of inhaled corticosteroids as a potential barrier to treatment of asthma in some developing countries. *Int J Tuberc Lung Dis* 2000;**4**(3):268-71.
 - Slader CA, Reddel HK, Jenkins CR *et al.* Complementary and alternative medicine use in asthma: who is using what? *Respirology* 2006;**11**:373-87. <http://dx.doi.org/10.1111/j.1440-1843.2006.00861.x>
 - Prabhakaran L, Lim G, Abisheganaden J *et al.* Impact of an asthma education programme on patients' knowledge, inhaler technique and compliance to treatment. *Singapore Med J* 2006;**47**(3):225-31.
 - Wang KY, Chian CF, Lai HR *et al.* Clinical pharmacist counseling improves outcomes for Taiwanese asthma patients. *Pharm World Sci* 2010;**32**(6):721-9. <http://dx.doi.org/10.1007/s11096-010-9427-4>
 - Yeh KW, Chen SH, Chiang LC *et al.* Survey of asthma care in Taiwan: a comparison of asthma specialists and general practitioners. *Ann Allergy Asthma Immunol* 2006;**96**(4):593-9. [http://dx.doi.org/10.1016/S1081-1206\(10\)63555-7](http://dx.doi.org/10.1016/S1081-1206(10)63555-7)

Everyday clinical practice and its relationship to 2010 and 2011 GOLD guideline recommendations for the management of COPD

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Dear Sirs,

Chronic obstructive pulmonary disease (COPD) represents a leading cause of morbidity and mortality in ageing populations.¹ However, there is a significant dissociation between guideline recommendations for managing COPD and clinicians' practice. Several studies have suggested that adoption of the GOLD guidelines has been suboptimal. For the first time, the revised GOLD Guidelines published in 2011² suggest a combined assessment of symptoms, the degree of airflow limitation as measured by spirometry, and the risk of future exacerbation, with patients grouped into four different classes in order to guide therapy.

We therefore conducted a study to compare the regular pharmacological treatment of stable COPD patients in clinical practice with the previous (2010) and current (2011) GOLD guidelines and to investigate whether the new classification of patients improved adherence to GOLD recommendations.

A cohort of 127 consecutively selected patients with stable

COPD (122 male, mean age 69.6 ± 8.8years (range: 47-83)) were enrolled in the study. COPD diagnosis was based on global assessment including clinical history and an obstructive spirometry pattern (post-bronchodilator FEV₁/FVC ratio <0.70). Initially, the appropriateness and inappropriateness (under- or over-prescription) of pharmacotherapy was established in accordance with the previous GOLD guidelines.³ Afterwards, the study population's treatment was reassessed based on current GOLD recommendations.² Individuals with a history of upper or lower respiratory tract infection during the previous four weeks, co-existing asthma, cancer or serious uncontrolled disease were excluded from the study. The protocol was approved by the local ethics committee of the University Hospital of Thessaly and all patients provided written informed consent.

A total of 117 patients (92.1%) received bronchodilators. Long-acting antimuscarinic agents (LAMAs) were the most prescribed drugs, being included in the standard therapy of 98 patients (77.1%), and used as monotherapy in 15 patients (11.8%). Long-acting β₂-agonists (LABAs) were prescribed in 86 patients (67.7%). Triple therapy (LAMA, LABA and inhaled corticosteroid (ICS)) was used in 57 patients (44.8%) at all stages of the disease.

The patterns (correct, under- and over-treatment) of COPD patients' treatment in daily practice according to the GOLD 2010 and 2011 recommendations are shown in Table 1. COPD patients with early disease presented higher rates of over-treatment compared to patients with advanced disease according to both