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Consensus summary on paediatric asthma

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I. Introduction

This is the consensus statement of the Joint Chair and Panel Members of the second Asia MetaForum on paediatric asthma in the Asian region. We repeat last year's call for committed support from governments and medical communities in Asia in response to this statement. Public health programmes, in particular programmes of education and communication, are essential. We call on the relevant authorities and bodies to:

(1) Revise and simplify guidelines for the management of paediatric asthma so as to:- improve their applicability to children in Asia, ensure they reflect the latest medical knowledge and make them clear and comprehensible for parents as well as primary care physicians.
(2) Encourage early interventions in response to asthmatic symptoms in children under five as a matter of absolute priority so that opportunities are not missed to prevent irreversible damage to the airways.
(3) Confront widespread misconceptions about asthma that serve directly to deprive asthmatic children of essential exercise, opportunities to achieve sporting excellence, and
(4) Apply outcome-based research findings when determining treatments for asthmatic children.
(5) Present physicians with the full-range of treatment options and encourage them to balance risk benefits of different treatment options. These include:- preventative therapies, early interventions, add-on therapies and the development of patient-specific treatment plans.
(6) Promote a proper understanding of paediatric asthma, and its co-morbid relationship with allergic rhinitis ensuring that all asthma patients are evaluated for allergic rhinitis.

This Consensus Statement was developed on the basis of discussions at the 2006 Asia MetaForum. The terms of the Consensus Statement and Consensus Report of the previous year's 2005 Asia MetaForum were also considered. The MetaForum were supported by funding from Merck & Co., Inc., Whitehouse Station, N.J.

II. Statement

The guidelines

The guidelines for treatment of paediatric asthma need to be revised. Only recently has there been a focus on the young child with asthma and much of what is recommended is based on minimal data or extrapolated from studies in older children and adults. It must be recognised that children are not "little adults" and it is inappropriate to accept data from older children and adults to develop guidelines for younger children where the disease most often begins. As well, asthma guidelines must be interpreted for local use and individual patient needs taken into account, rather than applied uniformly to all patients. Guidelines also need to be simplified in their presentation. They should be written in simple language, and clearly laid out for health care professionals as well as patients and their families.

Children and their families need to be empowered to play an active role in the management of asthma as children cannot be expected to take control of their disease alone. They need to be enabled to do so, with family support. By introducing a strategy that includes an action plan for regular therapy and for managing asthma exacerbations, healthcare professionals will be able to work with parents; they will be better able to assess their fears and concerns. Further, as a chronic disease, the treatment of asthma is long term and needs continuity of care and review of appropriate interventions on a non-going basis.

Regularly updated guidelines should also encompass all the available treatments that doctors may provide, including options for preventative therapy.

Early interventions

The burden of asthma falls significantly on younger children.* Up to 80% of asthma cases develop in the first five years of life. By school age, irreversible and lifelong damage may have been caused to the airways.[1] The MetaForum endorses Martinez's view that: "in order to be successful, strategies for the prevention of deterioration of lung function will need to be focused on very young children, in whom the disease process is just beginning".[1]

The early recognition and proper management of airway inflammation in children must be an absolute priority.

A full-range of treatment options

Guidelines for the treatment of asthma recommend use of inhaled corticosteroids as first choice for preventive therapy for children. However, there are legitimate concerns often expressed by parents about growth suppression effects associated with the use of Inhaled Corticosteroids. Safety issue(s) can preclude appropriate use of regular preventive therapy. In addition, recent research in older children and adults suggests that there are safety issues surrounding the use of Long Acting Beta Antagonists.[2] These are often given in combination with ICS medications; however, there are limited data as to the value of ICS/LABA combinations therapy for the younger child.

Given increasing concerns about the safety of such medications, it is necessary for a full range of alternative treatment options to be made available, and published in the information and guidelines given to doctors and parents, particularly for the younger child.

Agents such as leukotriene receptor antagonists (LTRAs) that target different aspects of the pathophysiology, may be considered as alternative first line therapy, especially in younger children, and as add-on therapies in cases where the use of ICS has not provided acceptable asthma control. Recent evidence also demonstrates that LTRAs, such as montelukast, are as effective as ICS in younger children with mild asthma.[3-5]

Asthma is a chronic illness and therapies may constantly need to be revised. It is also important to consider regular preventative therapies and not rely solely on being able to respond to acute episodes. Children may exacerbate very quickly and unpredictably.

Outcome-based research

Randomised controlled trials evaluate the ***efficacy*** of therapeutic agents; i.e., the ability of the intervention to have beneficial effects under the ideal conditions of a clinical trial.[6-9]

Outcomes research studies assess the ***effectiveness*** of an intervention; i.e., the ability to exert beneficial effects in a real-world setting.[11] Hence, outcomes research studies can complement the results of randomised controlled trials, revealing whether conclusions from the more formal studies can be extrapolated to the general population.[6,11]

When choosing a medication for the treatment of asthma in children, one should consider available outcome-based research that indicates the potential "real world" effectiveness of the medication in practice.

In the Metaforum, providers were encouraged to review Outcomes Research data in addition to clinical trial data when evaluating treatment choice for paediatric asthma patients.

Widespread misconceptions concerning exercise

There is a common misconception that asthma should always limit a child's activity. In fact, children with asthma should exercise as much as they can. There should be no exercise limitation. The prevalence of the misconception that exercise "causes" asthma illustrates how the communication problems and misunderstandings about exercise for children with asthma can have a direct and at times inappropriate impact on activity level adding to the burden of the disease.

The misconceptions can deprive asthmatic children of:- essential exercise, opportunities to excel in sport and other areas.

Communication

There is a need for improvement in the understanding, communication and trust, involving genuine partnerships between patients, patient organisations, schools and

healthcare professionals. These partnerships are essential in enabling the child, in order to effectively manage disease, and to take control.

The scientific knowledge of physicians and researchers needs to be delivered to patients in an easy to understand way. Likewise, patients and parents need the opportunity to clearly communicate their personal concerns and experiences to physicians so that the health care team understands the true impact of disease.

Conferences and meetings between healthcare experts and professionals at national and international levels – such as this MetaForum – assist in the dissemination and comparison of ideas and experiences, and are extremely useful and helpful.

Secondary care

Asthma management needs to extend beyond primary care. Children cannot be expected to take control of their disease alone. They need to be enabled to do so. This requires family support, and regular interventions from the healthcare team.

This new more inclusive way of improving asthma therapy should include a training pack of skills developed for continued professional development and extend into training of physicians, nurses, respiratory therapists, pharmacists and all health care professionals. Education programs focused on "training of trainers" may be particularly useful.

Conclusion

The burden of asthma in children is unusually broad, in the requirements that it makes of the child's family and the home environment, and in the constant review of treatment that is required. These needs place a significant burden on those affected. But they cannot be met unless they are first recognised. Further research, communication and education are essential if the rising prevalence of asthma is effectively to be managed.

Recent research has also raised concerns as to the efficacy, effectiveness and tolerability of asthma therapies. We are moving into an era where the treatment of asthma will be characterised by the availability of a whole range of alternative therapies. These will apply differently depending on factors such as disease characteristics in the individual, patient-parent and doctor preferences, and age group. But this wealth of research also creates a glut of information, and there has never been a more important time for clear, simplified and authoritative guidelines to guide healthcare professionals through the maze.

To this end, regional co-operation, meetings and communications are also powerful tools. But often not as powerful as the apathy that surrounds us. So we have once again to repeat a call made at the MetaForum last year: The most urgent and pressing need is for greater focus on asthma research in the young child so that guidelines may be appropriately revised, made simpler and more suitable for children. That is now our key recommendation. It would be a sad metaphor for the pre-school years of a child's life, when opportunities for early intervention are so often missed, if we had to repeat it for the third time next year.

* Hospital figures do not portray the whole burden, but give some guidance:- In Hong Kong in 1998 almost half (42.6%) of the referrals from regional A&E to paediatric specialists concerned asthma or suspected asthma; In South Korea in 2003 2% of children between 1 and 2 were admitted to hospital because of asthma; In China in the year 2002/3, 3.5% of asthmatic children in the 6 to 11 age group were admitted to hospital.

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