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Commentary

A Commentary: Is Context an Important Consideration in Asthma?

Asthma is a well known and high impact global health problem [1]. It shares, along with other prevalent entities, a number of not insignificant difficulties in the delivery of health care needs for it's control [2]. From a clinical Point of view, the use of inhaled steroid medications (Clinical Efficacy measured as: No. of asthmatics patients controlled /No. of asthmatics patients treated) have proven their worth and are the mainstay of treatment in many Published Guidelines about asthma; and deservedly so. However, from a public health point of view, the clinical effectiveness of such strategies (Clinical Effectiveness measured as: No. of asthmatics patients controlled. Total No. of asthmatic patients) remains a problem around the world [1,3,4]. Many draw backs seems to exist in this over all lack of capacity to deliver comprehensive health care to asthmatic patients and their families. Some of these have been extensively considered, such as: a. need for intensive / recurrent education efforts [1] about the disease and it's treatment; b. the inconveniences with the use of inhaled medications [5]; c. un modifiable housing environmental conditions [3]; d. tobacco smoke exposure [1,3]; e. the culture around poverty and all that it implies [3,4]; f. patient's adherence and the cost of these treatments, among many others.

These drawbacks raise at least 2 questions: 1. could some of these be circumvented with a simpler, oral and cost-effective treatment strategy? 2. In the realm of public health settings, suitable examples for such an approach exist?

Many examples from other disease entities come to mind when trying to answer the second question; oral rehydration therapies (ORT) stand at the forefront. Over many years ORT have been very successful in curtailing morbidity and mortality from diarrhea and dehydration, particularly in third world countries. They are simple to implement, orally administered, and above all, highly cost/effective. We would like to address asthma under such conceptual framework and in the context of a third world country like Venezuela looking for alternative as well as feasible / effective approaches to adequately answer the first question.

Venezuela is geographically a tropical country (10 degrees above the equator), with a population close to 30 million of mostly young inhabitants (< 15 years old), living in crowded urban environments (> 90 %) and under variable conditions of poverty (> 50 % Graffar's D and E). the public health ambulatory services provided by the Ministry of Health (MoH) care for around 80 % of this population.

Asthma exacerbations represent the second cause for consultations (on occasions even ahead of diarrheas) in such settings, after the most common and so called "viral syndrome" diagnosis. Further, more asthma prevails in the majority and deprived socioeconomic strata of our population [3,4,6]. Since the 1990's, rates of asthma exacerbations have been steadily increasing (at above mentioned ambulatory facilities), approaching a million acute episodes/year; this is about 5 times the rates for asthma exacerbations cared for in the US [7]. Emergency room settings (with close to 10 times the population). Not with standing, there exists a National Asthma Control Program operating over many years under GINA Guidelines (Beclomethasone as first line of medications), though very poorly implemented and last revised in 1998 [3,4]. There remains an adamant perception (in the layman as well as in the public medical establishment) that asthma is basically an acute problem and as such is well taken care of by the Public Health System. Acknowledging not only the culture of asthma control but also that the greatest impact comes from these recurrent acute visits and hospitalizations [3,4], is found wanting. As depicted above, our asthma outcomes have not improved over the years with the use of such a "standard" [3,4] approach employing inhaled medications ; some of their inconveniences [5] make them cumbersome, to say the least. Education into asthma is a must, both for the lay public and medical profession alike.

However, switching the focus to the control of acute exacerbations, employing a simpler and easy to implement approach, could be a welcomed initiative. Of the orally available medications for asthma control, Montelukast (MLK) comes ahead of oral steroids and theophylline because of it's less adverse effects. Furthermore, it performs better in a setting of environmental tobacco smoke exposure, has practically no interactions with other medications, impacts positively on exercise induced wheezing and is in no need of an elaborate time-consuming health education efforts (like learning the use of spacers, how to set upnebulizers for the appropriate techniques of drug delivery, etc), and overcomes common cultural "fears "against use of inhalers.

But, a paramount question to answer is: is it as effective as inhaled steroids for asthma control? The medical literature seems to answer positively to this question, for both adults and children, but only if the impact on acute exacerbations is taken into account [4]. Another important element to consider here is rhinitis, a significant comorbidity of asthma that needs proper recognition for asthma control [8]; it is known the favorable impact MLK has on allergic

rhinitis. An oral product combination of a second generation antihistamine / MLK, available in many countries, appeals as highly suitable for such a task.

Could our impoverished urban majorities, with their highest prevalence of asthma exacerbations, profit from it? Inaction is not an option if the social determinants of asthma are to be considered [9]. We carried out a successful real - life pilot study to test this hypothesis, pending confirmation with greater number of patients [9]. This approach centers the treatment of asthma at the primary care level and due to it's simplicity it could be carried out by health personnel (nurses, etc) other than physicians.

Our proposal is the following

1. Use the only contact an asthmatic patient has (during an exacerbation) with the Health Care System, to initiate MLK for asthma control.
2. To determine, at the ambulatory /primary care level and by using a simplified score system (like the rule of 2's), which patients are in need of control medications such as oral MLK.
3. To supply patients / families with a minimal oral education about asthma during these acute episodes, and that is to be complemented with written pictorial one page material to take home (practical advice on tobacco exposure, pets , irritants ,housing environment, etc) .
4. Follow - up can be accomplished with SMS text messages, since there is practically no urban home in Venezuela without a cell phone line (remember: take your meds!).
5. If adequate control is not achieved, and other contributing factors have been ruled out clinically (i.e: sinus infection, G/E reflux, etc), then a proper referral to an asthma clinic can be entertained. This will allow for a better allocation of resources.

Cost, a highly significant and important issue, has to be addressed within this context. The recent expiration of the MLK patent offers significant opportunities to take advantage of.

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