EDITORIAL

Zero tolerance to asthma death

Every year in Hong Kong, more than 20 000 patients are admitted to hospitals with asthma exacerbations, the direct cost of which exceeds 650 million dollars.[1,2] Sadly, about 80 patients die from asthma every year, of which the figure has been relatively stable over the past 10 years.[3] Despite the numerous continuing medical education activities related to asthma treatment in Hong Kong directed at health care professionals, this statistic has not improved. We have to ask the question why so many asthmatics still develop frequent attacks and die, though modern effective and affordable treatments are readily available in developed societies such as in Hong Kong. Unlike the treatment of many other complicated medical conditions, that of asthma is relatively simple, and there are regional and international evidence-based guidelines for the effective treatment of this common condition.[4,5] In Hong Kong, the total number of asthmatics is approximately 400 000, half of whom should be treated with some forms of controller therapy.[6,7] The crude asthma death and hospitalisation rates per 100 000 Hong Kong inhabitants do not appear to be unfavourable compared to those from other countries.[8,9] However, when these crude rates are adjusted for the total number of asthmatics in Hong Kong, the picture begins to change. For example, the crude childhood hospitalisation rate for asthma in Hong Kong is similar to that in Australia but the prevalence of clinical asthma in Australia is about threefold that in Hong Kong. The adjusted case fatality rate of 5.6 per 100 000 in Hong Kong was comparable to that of Thailand (6.2) and Poland (6.6), while it was almost 4 times higher than rates in Canada and Finland in 2004.[9] We should learn from these 'champions' of asthma care such as Finland, and understand the secrets of their success.[10]

In this issue, Dr Ko and her colleagues[11] performed a very important study that aimed to evaluate knowledge about asthma care among practising doctors in Hong Kong using a scenario-based questionnaire and compared their responses with recommendations in the Global Initiative for Asthma (GINA) and the British Thoracic Society guidelines.[4,5] In their questionnaire, there were seven questions asking about the level of asthma control and how the physician may treat such patients using the GINA recommendations as the gold standard. Among those who had been in practice for 20 years or less, out of a total of 14 answers for assessment, the median number of 'correct' answers was only six. For those who were more 'experienced', their ability to identify the levels of asthma control and prescribe the 'correct' treatment were significantly inferior to those with fewer years of experience. One certainly may ask questions regarding the validity of these results, due to a possible sampling bias. Among the 6899 registered practitioners, only 1040 replied, of whom 630 opted not to fill in the simple questionnaire. Are the 410 participants representative of the doctors who care for asthmatics in Hong Kong? Was it conceivable that the non-respondents were somehow more knowledgeable than those who took the time to participate? Readers of the Journal will have their own views on this. Regarding practitioners who care for asthmatics in Hong Kong and did not participate in the survey, I strongly urge them to answer the questionnaire and evaluate their own knowledge of asthma assessment and treatment.

There is little argument that optimal asthma care depends on careful evaluation of the level of asthma control, elimination of possible adverse environmental factors if feasible, and the use of appropriate medications to achieve adequate control. In addition, correct techniques for using the prescribed devices, adherence to treatment, regular evaluation, and adjustment of treatment whenever necessary are also important. For the accurate determination of asthma control, regrettably, there is no laboratory test that can replace a good history and physical examination. It is well-known that asthmatics tend to overestimate their level of control and tolerate their symptoms after enduring them for a period of time.[12-14] The reasons for poor control of asthmatic symptoms are remarkably similar worldwide. They include: underestimation of the level of control by patients and physicians, under-treatment with anti-inflammatory drugs, poor adherence to medications, and poor technique in the use of prescribed devices. Therefore, a variety of simple tools such as the Asthma Control Test have been developed to facilitate the assessment of asthma control.[15,16] Such tools have been evaluated carefully and validated for assessing asthmatics locally.[17,18] There is no doubt that practitioners in Hong Kong are very busy, such that they may not have enough time to evaluate their asthma patients adequately, but is it just a matter of time? Are we assessing the asthmatics accurately? The results of the study by Dr Ko and colleagues[11] revealed that we are not. The investigators suggest that lack of education, training, or awareness of such guidelines may be contributing factors. On an individual level, the passive form of learning such as attendance at lectures may not be sufficient to modify the behaviour of practitioners. Interactive workshops may be more powerful in changing practice.[19] Furthermore, as physicians are rather busy and yet the assessment of asthma control is rather standardised, consideration should be given to nurse-led programmes for the

assessment of asthma control.[20-22]

When looking at the highly successful Finnish model of asthma care, it is evident that a coordinated effort leads to success in reducing asthma morbidity and mortality. From 1981 to 2004, the reduction of total days in hospital and mortality from asthma were reduced by more than 80%, despite an increasing trend in the total number of asthmatics.[10] Finland has a population of 5.2 million and the prevalence of asthma is at least twice as high as in Hong Kong.[9] In 2006, there were a total of 29 asthma deaths under the age of 65 years in Hong Kong,[3] while there were only six in Finland (written communication, Professor Tari Haahtela, 2010). The success of the Finnish asthma programme was thought to be due to the following: (1) targeted treatment for airway inflammation, (2) early detection and intervention, (3) guided self-management, (4) coordination and networking of different members of the health care team, and (5) accurate assessment of control.[10] As there is currently no curative treatment for asthma, the priority is (1) to ensure that effective and affordable asthma treatment is available, and (2) that proven asthma management strategies are applied to those who are vulnerable. We should aim high with zero tolerance for asthma deaths. This year, the GINA group of experts is planning a campaign to challenge the health care community in the world to reduce asthma hospitalisation rates by 50% over the next 5 years. With regard to reducing the morbidity and mortality of asthma in Hong Kong, we know what can be effective and what should be done. Are we ready to take up this challenge?

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