

Effects of a Novel GA²LEN Training Program on Urticaria on the Knowledge of General Practitioners in Saudi-Arabia

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Abstract: Continued education in allergology of both general practitioners and specialists can be achieved by various measures including publications, online tools, and lectures. GA²LEN, the Global Allergy and Asthma European Network, has developed 1-day training programs on a number of allergic diseases including asthma, allergic rhinitis, pruritus, angioedema, and urticaria. Here, we assessed the impact of one of these training programs (on urticaria) on the knowledge of 100 participating physicians in Saudi-Arabia by repeated multiple choice examinations. We found that only 5.7% of 70 participants, who took both the pretraining and posttraining examination, passed the pretraining test, that is, answered 70% of the questions correctly. Notably, 68.6% of these participants passed the examination after participating in the 1-day training program ($P < 0.001$). Participation in the training program also resulted in a significant increase of questions answered correctly ($P < 0.001$). Taken together, the GA²LEN 1-day training programs on selected allergic diseases are an effective means to improve levels of knowledge on these diseases in physicians including general practitioners and the use of these training programs should be promoted and increased.

Key Words: urticaria, training program

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Continued education in allergology of both general practitioners and specialists can be achieved by various measures including publications, online tools, and lectures. Information on the impact of such measures on the level of knowledge in physicians who treat allergic patients is scarce. It is, however, widely held that lectures by specialists, especially a group of lectures on the same indication by several specialists, combined with a test on the material, are among the most effective forms of continued medical education in allergology. For this reason, GA²LEN has developed 1-day training programs on a number of allergic diseases including asthma, allergic rhinitis, pruritus, angioedema, and urticaria.

These 1-day training programs consist of 3 to 5 main lectures on the pathophysiology, diagnostics, comorbidities, clinical picture, quality of life impairment, and treatment options for the condition in question. In addition, participants of GA²LEN training programs take part in several hands-on training sessions and question and answer sessions in which they interact with faculty members in smaller groups. The faculty of GA²LEN training programs usually consists of 3 specialists who jointly develop the agenda and content of the training program, which is then reviewed and approved by GA²LEN. At the end of these 1-day GA²LEN training programs, participants take a multiple choice examination (15 questions), and those participants who correctly answer 70% of the questions are then awarded a GA²LEN certificate of knowledge for the condition in question. Recently, the authors held the first GA²LEN training program outside of Europe and we assessed how this program changed the level of knowledge in participating physicians.

MATERIALS AND METHODS

Participants of the Training Program

There are 100 general practitioners (95%) and specialists (5%), who treat urticaria and pruritus patients in a private praxis and/or a hospital setting, participated in a 1-day GA²LEN training program in Jeddah, Saudi-Arabia. Participants were based throughout Saudi Arabia with most participants located in Riyadh, Jeddah, and the Eastern Coast region of the Kingdom.

GA²LEN Training Program

The focus of this GA²LEN program was urticaria. Participants were introduced to the topic by an overview lecture on the impact of urticaria and other allergic diseases on affected patients and society the day before the actual program. The training program itself started with lectures on the pathophysiology of urticaria^{1,2} and on the classification¹ and diagnosis^{2,3} and then dealt with urticaria subgroups,⁴ it ended in a review of the therapeutic options for treating patients with this condition.^{3,5} The content of the training program was designed to cover the recently published EAACI/GA²LEN/EDF/WAO guidelines on the classification, diagnostics, and on the management of urticaria.^{1,5} Three question and answer sessions over the course of the day allowed for the communication of practical tips and tricks, including the presentation of a video on how to perform skin testing in urticaria patients and interactions of the participants with the faculty.

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Assessment of Knowledge

At the end of the training course participants took a 15 question multiple choice examination for which 20 minutes were allowed. After the test, the faculty discussed all the questions with the participants and explained and discussed the correct answers with them. These multiple choice tests were then graded by the faculty, and participants who had answered 70% of the questions correctly were awarded a GA²LEN certificate of knowledge in urticaria. Before the beginning of the training program, the same 15 question examination was given to the participants. In this pretraining version of the examination the questions were given in a different order, as were the answers. Pretraining examinations were assessed by the faculty, and results were compared with those of the posttraining exams. Participants were only informed about the correct answers of the posttraining, and not the pretraining test. Statistical analyses were done using the Student's *t* test.

RESULTS

Only 5.7% of 70 participants, who took both the pretraining and posttraining examination, passed the pretraining test, that is, answered 70% of the questions correctly. Notably, 68.6% of these participants passed the examination after participating in the 1-day training program ($P < 0.001$ vs. pretraining results). Participation in the training program also resulted in a significant increase of questions answered correctly (mean/median \pm SD: $6.8/7 \pm 2.4$ vs. $12/12 \pm 2.6$, $P < 0.001$; Fig. 1).

DISCUSSION

Here we show that a GA²LEN training program is very effective in improving the level of knowledge in physicians. It also demonstrates the high need for such programs with only 6% of participating physicians showing satisfactory knowledge previous to the training. The physicians who took part in this training program showed low levels of knowledge on physiological aspects, diagnostics classification, and therapy for urticaria before participating in the training program although the written guidelines were already available. Participation in the program resulted in a significant up-regulation of knowledge in all aspects of the disease. Interestingly and importantly, participants showed good to very good knowledge in how to treat urticaria patients after participating in the program. As of yet, there are no similar investigations of the impact of training programs in allergology. It seems that the GA²LEN concept with interactive sessions and the stimulus of an examination that, if passed, qualifies for a certificate is much better than the classic, rather passive way of acquiring CME by reading the literature or listening to talks only. One major limitation of our analyses is that we only assessed very short term effects of the training program. These effects may not reflect the long term knowledge retained by participants. In addition, our results do not provide information on whether or not participants changed, because of what they learned, their approaches for diagnosing and treating urticaria patients. A repeat test a month later combined with a survey study would provide this information and these

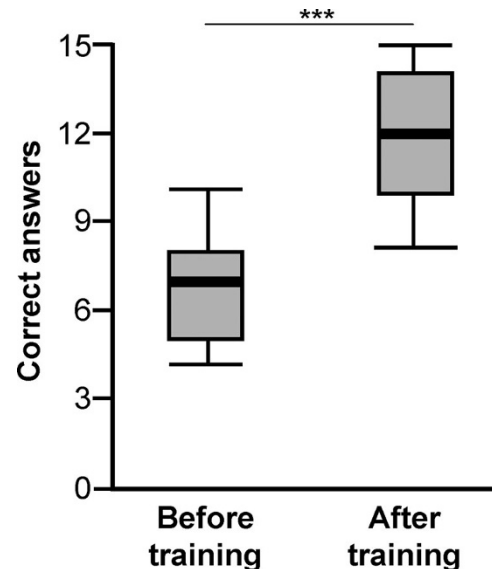


FIGURE 1. Effects of a 1-day GA²LEN training program on urticaria on the level of knowledge of general practitioners in Saudi-Arabia assessed by comparing the mean number of questions answered correctly before and after the training program. The thick middle line of each box-and-whisker plot represents the median score on that scale. The ends of each box represent scores of the 25th and 75th quartiles. The whisker ends represent the scores of the 10th and 90th percentiles. *** = $P < 0.001$.

tools are presently being used to assess the long term effects of GA²LEN training programs. Taken together, the GA²LEN 1-day training programs on selected allergic diseases are an effective means to improve levels of knowledge on these diseases in physicians including general practitioners and the use of these training programs should be promoted and increased.

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