SUPPLEMENTARY MATERIAL

To respond to the items, a unique nine point ordinal Likert-type scale was proposed according to the model developed by UCLA-RAND Corporation (minimum 1, full disagreement; and maximum 9, full agreement). This scale was structured in three groups according to the level of agreement-disagreement of the item: from 1 to 3, interpreted as rejection or disagreement; from 4 to 6, interpreted as no agreement or disagreement; and from 7 to 9, interpreted as expression of agreement or support.

The consensus was reached when two-thirds or more of the respondents scored within the 3-point range (1-3 or 7-9) containing the median. The type of consensus achieved on each item was determined by the median value of the score. There was agreement if the median was ≥ 7, and there was disagreement if the median was ≤ 3. When the median score was located between a 4-6 range, the items were uncertain.

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Table 1. Results achieved by the experts after the two rounds of Delphi consensus

	Median (IQR)	% agreement	% disagreement
Topic 1. Future patient education programs			
1. Health education training of HCPs responsible of asthma patient education is deficient	7 (0)	78.5	5.2
2. The clinical relevance of mild asthma is insufficient to spend time to the education of these patients	2 (2)	7.7	85.5
3. In order to perform asthma education programs, coordination with the community pharmacy is necessary	7 (2)	71.6	4.3
4. Clinical guidelines should propose more demanding educational programs that can be adapted to different levels of care	8 (1)	81.2	4.3
5. Clinical guidelines address asthma patient education in an insufficient manner	7 (1)	71.6	7.8
6. New technologies for asthma education are difficult to use in all patients	7 (2)	51.7	14.7
7. Telemedicine offers the same educational possibilities as face-to-face education	3 (0)	7.8	79.3
8. Audiovisual educational programs are more effective than written programs	8 (3)	75.2	5.1
9. A national plan that considers asthma patients as chronic patients would effectively incorporate educational programs into the care process	8 (2)	84.6	0.0
10. New technologies provide valuable additional information to personalize the education of asthma patients	8 (2)	87.2	0.9
11. New technologies for asthma education improve therapeutic adherence	7 (2)	67.5	0.0
12. New technologies for asthma education cannot be widely used due to patients with poor preparation or limited access to these resources	8 (2)	76.9	8.5
13. New technologies for asthma education cannot be widely used due to the limitations in training and skills of many HCPs	7 (1)	67.2	10.3

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14. New technologies for asthma education should be integrated into the computer systems of health care facilities	8 (2)	87.2	0.9
15. New technologies for asthma education is cost-effective	8 (1)	77.8	0.0
16. New technologies for asthma education are beneficial for the professional and not only for the patient	8 (2)	89.8	0.0
17. Face-to-face education is more effective than e-learning education with new technologies	7 (3)	60.3	3.4
18. Education programs using new technologies are only valid as a complement to face-to-face education	7 (1)	81.9	6.0
19. The educational tools of new technologies must be approved and provided by the Health Administration	8 (2)	86.3	0.9
20. New technologies facilitate healthcare coordination in asthma education	8 (1)	84.6	0.9
21. The educational tools of new technologies should be associated with a common computer system for all levels of care	8 (2)	91.5	2.6
22. Patients should be involved in the development or selection of new technology tools used in asthma education	8 (2)	83.8	1.7
Topic 2. Physician knowledge			
23. Access to brief clinical guidelines should be improved using new technologies	8 (2)	90.6	0.0
24. The knowledge of the clinical guidelines requires training programs performed by reference teachers	8 (3)	75.2	6.8
25. The use of the peak flow meter is useful in the follow-up of hypoperceptive patients	7 (3)	73.5	5.1
26. The use of the peak flow meter is only useful in Specialized Care	2 (2)	6.8	82.1
27. The use of the peak flow meter for the follow-up of patients with asthma is unreliable because it depends on its correct use	3 (3)	22.4	50.9
28. Peak flow meter with electronic recording should be used to ensure the reliability of the measurements	7 (1)	65.5	12.1

29. It is necessary to check that the patient has understood the questions of the asthma control questionnaires to validate their results	9 (1)	94.9	0.9
30. Asthma control questionnaires should be included in the follow-up of patients with asthma	9 (1)	93.2	0.0
31. The use of the TAI should be complemented by checking the withdrawal of medication through the electronic prescription	8 (2)	87.2	0.9
32. The ACT and TAI-10 should be included in the standardized clinical history of patients with asthma, and their use should be mandatory	7 (3)	72.7	7.7
33. Regular and frequent training of nursing professionals in spirometry in the Primary Care setting is necessary	9 (1)	95.7	0.9
34. Primary Care should have a nursing professional specialized in spirometry	9 (1)	91.5	0.9
35. In order to establish spirometry in Primary Care, it is necessary to include asthma in a program of care for chronic patients	8 (2)	80.3	6.0
36. Spirometry should be centralized in the Primary Care setting by creating territorial respiratory function units	6 (3)	49.1	15.5
37. The measurement of PEF is sufficient in the Primary Care setting, and spirometry is not essential	2 (2)	8.5	79.5
38. In the emergency department, PEF measurement is preferable to spirometry	7 (2)	87.9	2.6
39. Allergy tests should be performed on all patients diagnosed with asthma	8 (2)	76.1	10.3
40. Allergy tests should only be performed by the Allergology specialist	7 (8)	55.2	38.8
41. Allergy training of Pneumology and Family Medicine residents should be strengthened	9 (2)	90.6	0.9
42. The contents of knowledge improvement programs should be adapted to each level of care	9 (1)	96.6	0.0
43. Actions aimed at optimizing the knowledge and skills of physicians should be part of a National Strategic Plan for Asthma	9 (1)	93.2	0.9
Topic 3. Nursing involvement			

44. Nursing can perform clinical follow-up only in cases of stable patients	7 (2)	54.3	17.2
45. Nursing should be responsible only for the educational components of patient follow-up	3 (2)	19.0	68.1
46. Nursing should be responsible for administering asthma control questionnaires	8 (2)	88.0	0.9
47. Nursing should be in charge of checking therapeutic adherence including inhalation technique in patient follow-up	8 (2)	94.9	0.0
48. New technologies are an effective alternative in the face-to-face follow-up of patients with asthma by nurses	7 (3)	69.2	6.8
49. The adherence of patients to telemedical follow-up programs is worse than face-to-face follow-up	5 (2)	33.6	7.8
50. Asthma education by the nursing professional should be standardized for all patients	6 (4)	50.0	37.9
51. The nursing professional should adapt asthma education to each patient according to individual patient characteristics	9 (1)	96.6	0.0
52. The nursing professional should prioritize the education of patients with asthma after the resolution of exacerbations because this is the most receptive time for the patient	8 (2)	79.5	4.3
53. The nursing professional should perform asthma education in all interactions with patients, adapting it to each clinical situation	9 (1)	94.0	0.0
54. The main barrier to the success of asthma education programs is the lack of specialized nursing	8 (2)	81.0	8.6
55. The main barrier to the success of asthma education programs is the scarcity of resources committed by Health Administration	8 (2)	82.1	3.4
Topic 4. Role of pharmacists			
56. The community pharmacist can provide health education to patients with asthma	7 (2)	76.7	11.2
57. A system of alerts should be set up so that the pharmacist can alert nurses or physicians about the improper use of medication	8 (1)	94.0	0.9
58. The community pharmacist should be responsible for checking the correct handling of inhalation devices by patients with asthma	7 (2)	65.5	17.2

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59. The community pharmacist should participate in reinforcing the therapeutic adherence of patients with asthma	8 (2)	88.0	2.6
60. The participation of the community pharmacist in the multidisciplinary team that assists patients with asthma helps to improve health outcomes	8 (2)	82.9	0.9

ACT: Asthma Control Test; HCP: health care professional; PEF: peak expiratory flow; TAI: *Test de Adhesión a los Inhaladores* (Inhaler Adherence Test)

Consensus in agreement
Consensus in disagreement
Neither agreement nor disagreement (uncertain)

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