



ascia

australasian society of clinical immunology and allergy

anaphylaxis refresher e-training for health professionals

2023 REPORT



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INTRODUCTION

From December 2022 to December 2023, ASCIA incorporated a post-training survey into the *ASCIA anaphylaxis refresher e-training for health professionals* course for Australia and New Zealand.

It was mandatory for each respondent to complete the survey which comprised of ten questions. There were 419 surveys completed as follows:

- 389 responses from health professionals working in Australia.
- 22 responses from health professionals working in New Zealand.
- 8 responses from health professionals working in another unspecified region.

Responses from the surveys were analysed in 2024, providing the following valuable insights.

- Information about the survey respondents included their geographical region, their nominated profession, and the work they are engaged in.
- Whether survey respondents felt the training was relevant to their current practice.
- How well the learning needs were met in key areas of anaphylaxis management.
- Whether review and/or modification of practice-based systems and/or processes in relation to anaphylaxis management would be undertaken following the course.

About ASCIA

ASCIA's purpose is to advance the science and practice of allergy and clinical immunology.

ASCIA achieves this by promoting the highest standard of medical practice, training, education, and research to improve the quality of life and health of people with immune system disorders. These include allergies, immunodeficiencies and other immune diseases.

An integral component of this is the provision of high-quality allergy and immunology education resources, including e-training courses for health professionals.

ASCIA e-training courses for health professionals have been developed by the ASCIA to provide ready access to reliable health professional education throughout Australia and New Zealand. ASCIA collaborates with its member committees and working parties to review, update and develop the e-training courses resulting in world leading, accessible, consistent, and evidence-based resources. To facilitate access, ASCIA e-training courses are available at no charge to the user.

ASCIA anaphylaxis e-training is important for the following reasons:

- Anaphylaxis is the most severe type of allergic reaction and should always be treated as a medical emergency.
- Anaphylaxis requires immediate treatment with adrenaline (epinephrine), which is injected into the outer mid-thigh muscle.
- If treatment with adrenaline is delayed, this can result in fatal anaphylaxis.
- Whether review and/or modification of practice-based systems and/or processes in relation to anaphylaxis management would be undertaken following the course.



METHOD AND ANALYSIS

Both quantitative and qualitative analyses of the responses was undertaken by an ASCIA Project Officer who had no prior involvement in the development or delivery of the survey.

Respondents were presented with ten questions throughout the survey which included:

- Three demographic questions.
- Four multiple choice questions.
- One matrix question.
- One request for open text response.
- One open ended question (optional).

The three demographic questions asked respondents to provide some information about the work they are currently undertaking:

1. Geographical region(s) where they were currently either working or undergoing training in the health profession.
2. Health professional roles.
3. Health sector they work in.

The four multiple choice questions obtained information about the type of device used to complete the training module, to determine what aspects of the course the respondents liked, and to indicate how relevant the course material was to their practice.

Respondents were asked to indicate if there **“Was something you expected or wanted in the course, and it wasn’t included?”**. Respondents who indicated “Yes”, were encouraged to provide details in a free text response. These responses were reviewed and analysis for themes was undertaken.

The matrix question presented the respondents with three learning objectives and a three-point Likert-scale giving the options of “Entirely met”, “Partially met”, and “Not met”.

Analysis of the open-text feedback responses to **“Please outline how you might review and/or modify practice-based systems and/or processes relevant to this activity”** revealed five main themes:

- Incorporate new learnings into practice with more confidence.
- Maintain and promote access to information more regularly in order to stay up to date with current practice.
- Confirmation of current practices in place with no intention or perceived need to change.
- Review and update of local policies and procedures.
- Improve current patient education and patient management strategies.

Responses to this question that could not be grouped into either of the above themes included those that stated, “No comment”, “N/A”, or similar. Additionally, those that contained indecipherable or inappropriate text were omitted from this analysis.

The open ended question **“Do you have any comments about how we can improve the course?”** was not compulsory for respondents to answer, however, responses provided underwent review and analysis for the presence of themes of which three were identified:

- More detailed explanation about certain aspects of the course content.
- Information about specific allergies.
- More information specific to anaphylaxis.

FINDINGS

Overall, the *ASCIA anaphylaxis refresher e-training for health professionals* course was successful in meeting the needs of health professionals from Australia and New Zealand with regards to achieving learning outcomes, and the degree of relevancy these had to current practice.

Region of Practice:

- 63.5% of respondents work primarily in metropolitan areas.
- 28.6% of respondents work primarily in regional, rural or remote areas.
- 7.9% of respondents work in a mix of regions.

Professions:

- 67.5% were nurses.
- 5.2% were general practitioners (GP).
- 4.1% were pharmacists.
- 2.4% worked in radiology/medical imaging.

Learning needs met:

- 90.4% indicated that the course had entirely met their learning needs.
- 9.3% felt that their learning needs were only partially met.
- 0.3% felt that their learning needs were not met.

Relevancy to current practice:

- 82.6% indicated that the course was entirely relevant to their current practice.
- 13.8% felt that the course was only partially relevant to their current practice.
- 0.5% felt that the course was not relevant to their current practice.
- 3.1% were unable to assess the relevancy of the course content to current practice as they were:
 - Not working as a health professional (1.4%).
 - Currently undergoing training to become a health professional (1.7%).

Course content:

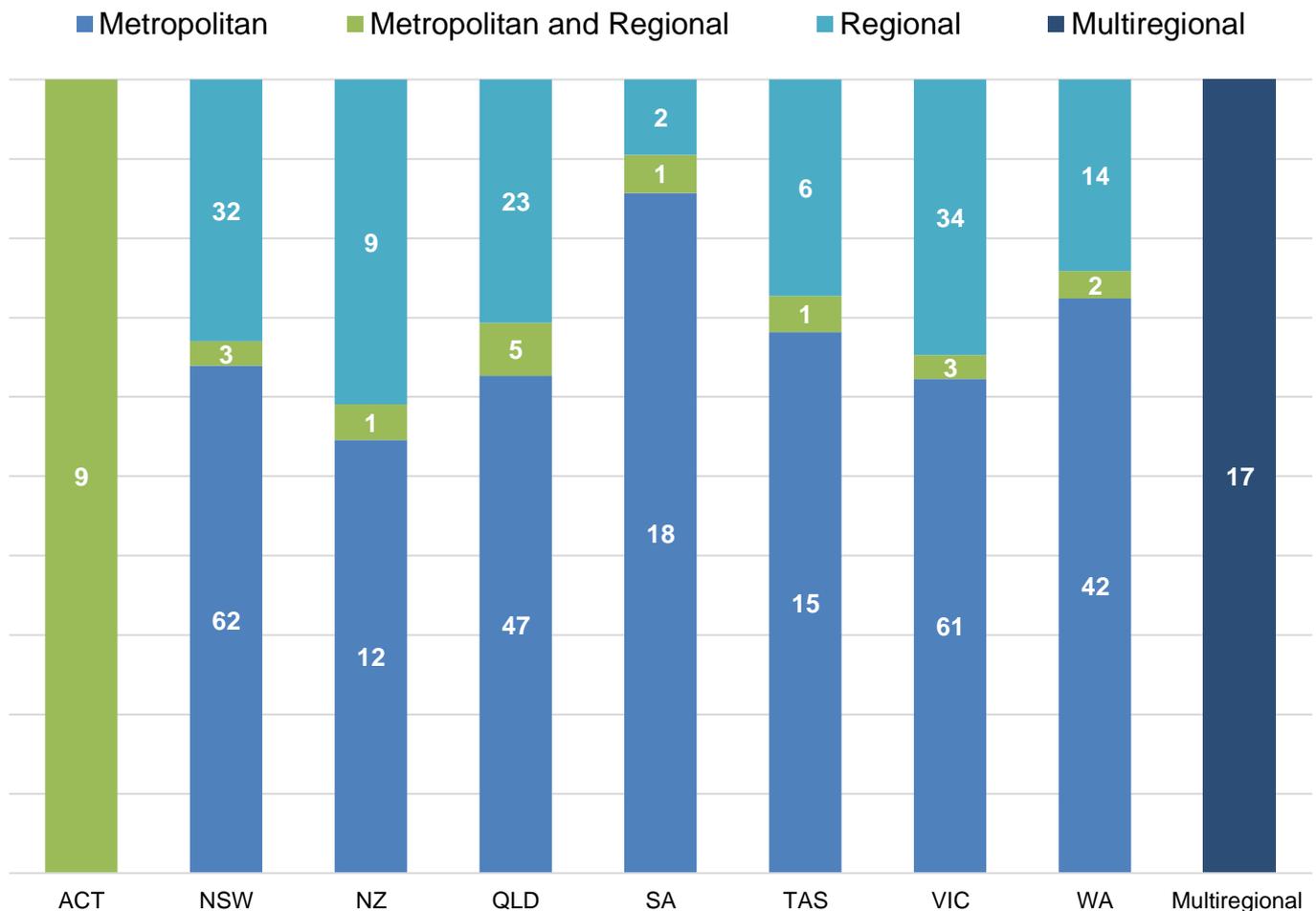
- 96.2% indicated nothing was missing from the course.
- 94.5% indicated the course did not need to be improved.

“In what region are you mainly working as a health professional, or training to become a health professional?”

Respondents could select more than one option from the extensive list provided in the survey. 95.9% of respondents (n = 402) indicated a single state or territory as their primary location for working or training as a health professional.

Within this group, 93.8% (n = 377) indicated that they were based in either metropolitan or regional, rural or remote areas within their chosen state or territory. The remaining 6.2% (n = 25) indicated they worked in a combination of both area types within their chosen state or territory. There were no respondents who identified as being from the Northern Territory.

The remaining 17 responses were from health professionals who indicated they worked not only across multiple states and/or territories, but also in various combinations of metropolitan, regional, rural or remote areas. These responses have been represented by the multiregional column in the graph below.



"What is your profession?"

There were **419** responses to this question, with the majority of respondents identifying their profession from a list provided:

- **51** respondents did not identify with any of the professions listed so instead selected "Other – please provide details".
- **41** respondents provided further details in an open text entry.
- **10** respondents did not provide any further information about their professional role.

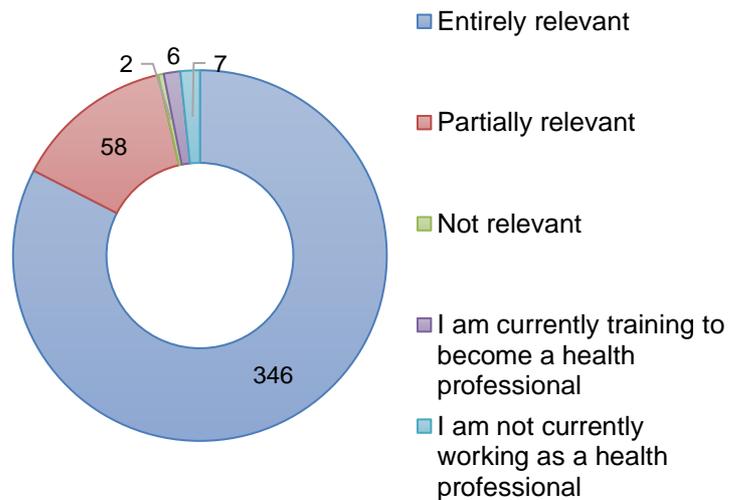
What is your profession?	Total
Nurse	283 (67.5%)
General practitioner (GP)	22 (5.2%)
Pharmacist	17 (4.1%)
Radiologist/Radiographer/Radiology/Medical Imaging*	10 (2.4%)
First Aid Trainer/Responder*	8
I am not currently working as a health professional	7
Podiatrist	7
Nurse practitioner	7
Medical/health educator	6
Paramedic	5
General physician	3
Teacher/Trainer/Educator*	3
Midwife*	2
Dietitian	2
Student – Other health professional	2
Care Worker*	2
Childcare Centre*	2
Student – Medical	1
Clinical immunology/allergy specialist in training	1
Infectious disease specialist	1
Healthcare service administrator or manager	1
Clinical immunology/allergy specialist	1
Student – Nursing	1
Psychologist	1
Other - Please provide details	24

*Indicate professions that were nominated as "Other – please provide more details" and occurred frequently throughout survey responses.

“How relevant is this course to your practice?”

There were **419** responses to this question:

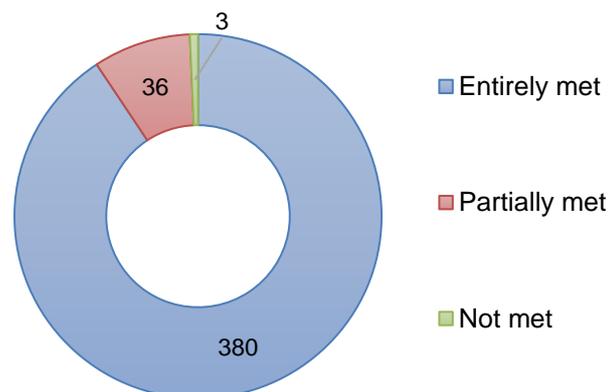
- **346** respondents (82.6%) indicated “Entirely relevant”.
- **58** respondents (13.8%) indicated “Partially relevant”.
- **2** respondents (0.5%) indicated “Not relevant”.
- **13** respondents (3.1%) did not provide as assessment as they were either:
 - not working as a health professional (n = 6).
 - currently training to become a health professional (n = 7).



“To what degree were your learning needs met in terms of being able to differentiate between a mild to moderate allergic reaction and anaphylaxis?”

There were **419** responses to this question:

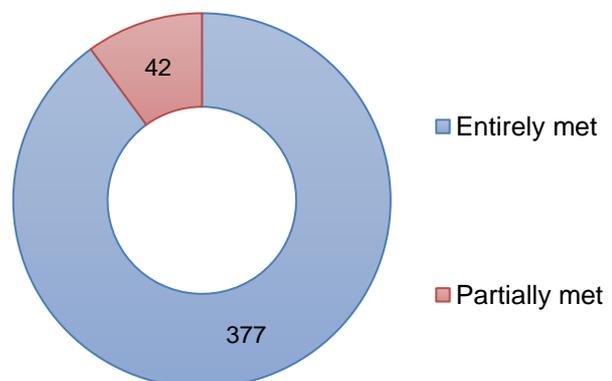
- **380** respondents (90.7%) indicated “Entirely met”.
- **36** respondents (8.6%) indicated “Partially met”.
- **3** respondents (0.7%) indicated “Not met”.



“To what degree were your learning needs met for outlining acute management for mild or moderate allergic reactions and anaphylaxis?”

There were **419** responses to this question:

- **377** respondents (90.0%) indicated “Entirely met”.
- **42** respondents (10.0%) indicated “Partially met”.

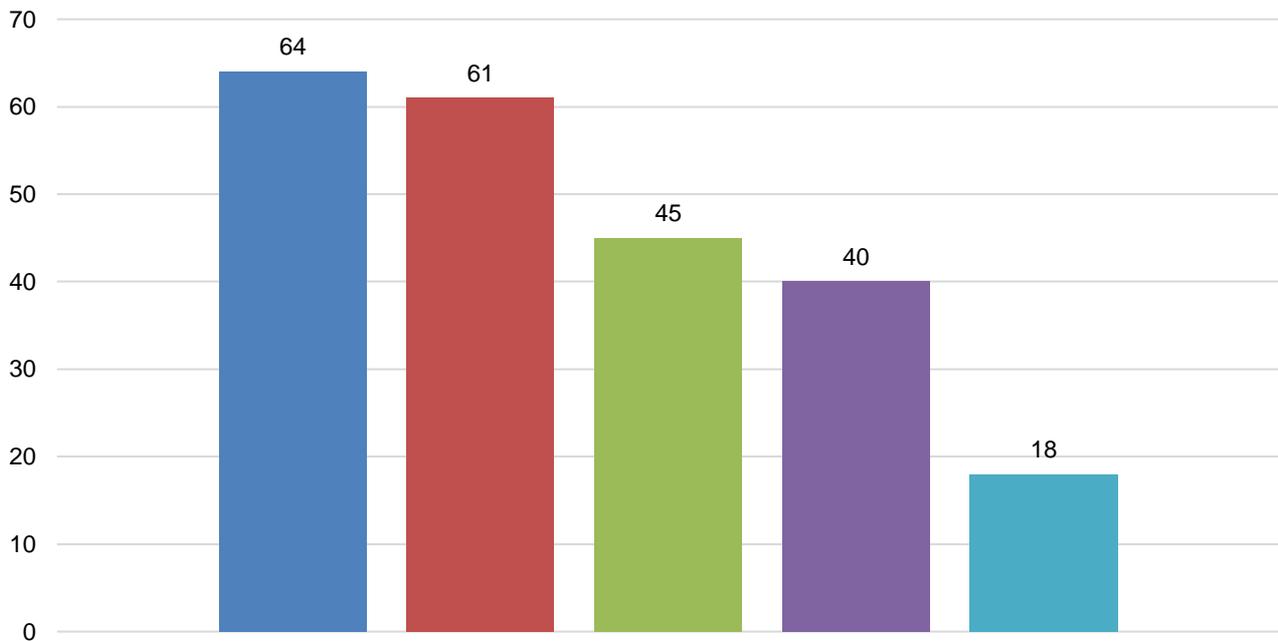


“Please outline how you might review and/or modify practice-based systems and/or processes relevant to this activity.”

Of the 419 responses, **157** (37.5%) of these were omitted from further analysis. Responses such as “Nil”, N/A” or “no comment” are examples of these types of responses that were excluded from any further analysis.

The remaining **262** responses (62.5%) were analysed, revealing five recurring themes.

- Confirmation of current practices in place with no intention or perceived need to change (n = 64).
- Maintain and promote access to information more regularly in order to stay up to date with current practice (n = 61).
- Incorporate new learnings into practice with more confidence (n = 45).
- Review and update of local policies and procedures (n = 40).
- Improve current patient education and patient management strategies (n = 18).



- Confirmation of current practices in place with no intention or perceived need to change
- Maintain and promote access to information more regularly in order to stay up to date with current practice.
- Incorporate new learnings into practice with more confidence.
- Review and update of internal/local protocols and procedures
- Improve current patient education and patient management strategies

1. Confirmation of current practices in place with no intention or perceived need to change (n = 64)

Feedback was received from respondents who consider their own practice to be aligned with the most current advice.

“Refreshed knowledge base for responding to anaphylaxis.”

“I found the course very satisfactory as an update to my previous knowledge.”

“The information confirmed the relevant topics and current information on autoinjectors and why there is a second auto injector.”

“Good to know my knowledge is up to date. Good to revise Anapen use, and indications”.

“Anaphylaxis first aid systems in place. Use of adrenaline ampoules.”

“Practice based systems are well standardised.”

“I am following these recommendations already.”

2. Maintain and promote access to information more regularly in order to stay up to date with current practice (n = 61)

Health professionals have recognised the importance of keeping up to date with current practice through their own regular review of information, and by promoting access to the most up to date information for colleagues.

“Checking with colleagues if they have completed the refresher course and ensuring staff know where adrenaline and emergency equipment is kept.”

“Ensure all staff including admin have refreshed skills every 6 months.”

“Ensure regular practice with training devices, regular training of staff, regular checking of expiry dates.”

“ASCIA charts should be promoted and displayed prominently in hospitals, clinics and other public places (food courts, restaurants, shopping centres), much like AEDs for defibrillation.”

“Ensuring all staff have ASCIA e-training, familiar with location and admin of EpiPens/Adrenaline, check dosages charting and Action Plans.”

“To provide info to other staff, having coloured chart in room for Anapen/ EpiPen use.”

“Keep updated by watching more tutorials and listening to relevant podcasts.”

3. Incorporate new learnings into practice with more confidence (n = 45).

This theme appeared most frequently in responses, with health professionals identifying that not only has existing knowledge about anaphylaxis increased as a result of the course, but also that new knowledge has been gained from the course. Health professionals have indicated a more confident approach will be taken when incorporating this knowledge into existing practice.

“Better practice and knowledge of overall outcome for patients with anaphylaxis.”

“I will apply my knowledge about management of anaphylaxis in my hospital settings to promote and protect the health of each patient.”

“This course added to my knowledge and skills regarding first aid.”

“Better equipped to manage emergency presentations related to anaphylaxis.”

“The course has made me more confident in treating people who experience anaphylaxis or allergic reactions.”

“I will probably be calmer with mild to moderate allergic responses.”

4. Review and update of local policies and procedures (n = 40).

Health professionals have acknowledged the need to review and update local policies and procedures related to anaphylaxis management. In some cases, this includes passing on information to colleagues.

“Re-consider where we currently store anaphylaxis kit. Consider if a kit needs to be in each clinic room.”

“Ensure we have appropriate Action plans in place and regular epipen training.”

“Ensure adrenaline is available at all immunisation clinics.”

“Ensure our policy meets Best Practice Guidelines.”

“Review or workplace practices to ensure compliance and coverage for students.”

5. Improve current patient education and patient management strategies (n = 18).

Health professionals will use the knowledge gained from the course towards supporting their current approach to patient education and to improve patient management strategies.

“It was great to know that the Action Plan date is not an expiry as we have always treated it as such, but it is a useful date to encourage families to have a review with the allergy NP at the hospital.”

“I will be clearly able to explain the rationale for my education.”

“Refresher of things to look out for in emergency situation when vaccinating.”

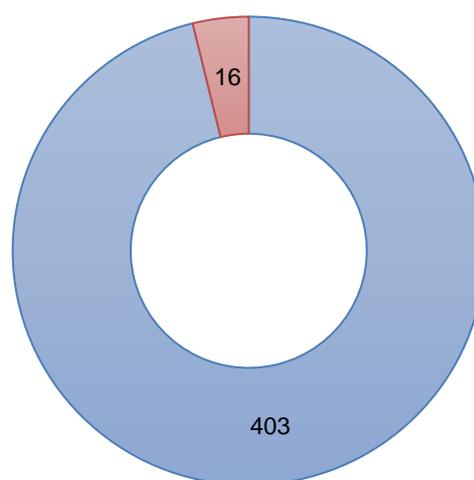
“Have the action plans handy with fact sheet for patients.”

“Have printed resources readily available for parents.”

“Was there something you expected or wanted in the course, and it wasn’t included?”

There were 419 responses to this question:

- **403** respondents (96.2%) indicated “No”
- **16** respondents (3.8%) indicated “Yes” and were given to opportunity to provide more details



■ No ■ Yes - Please provide details

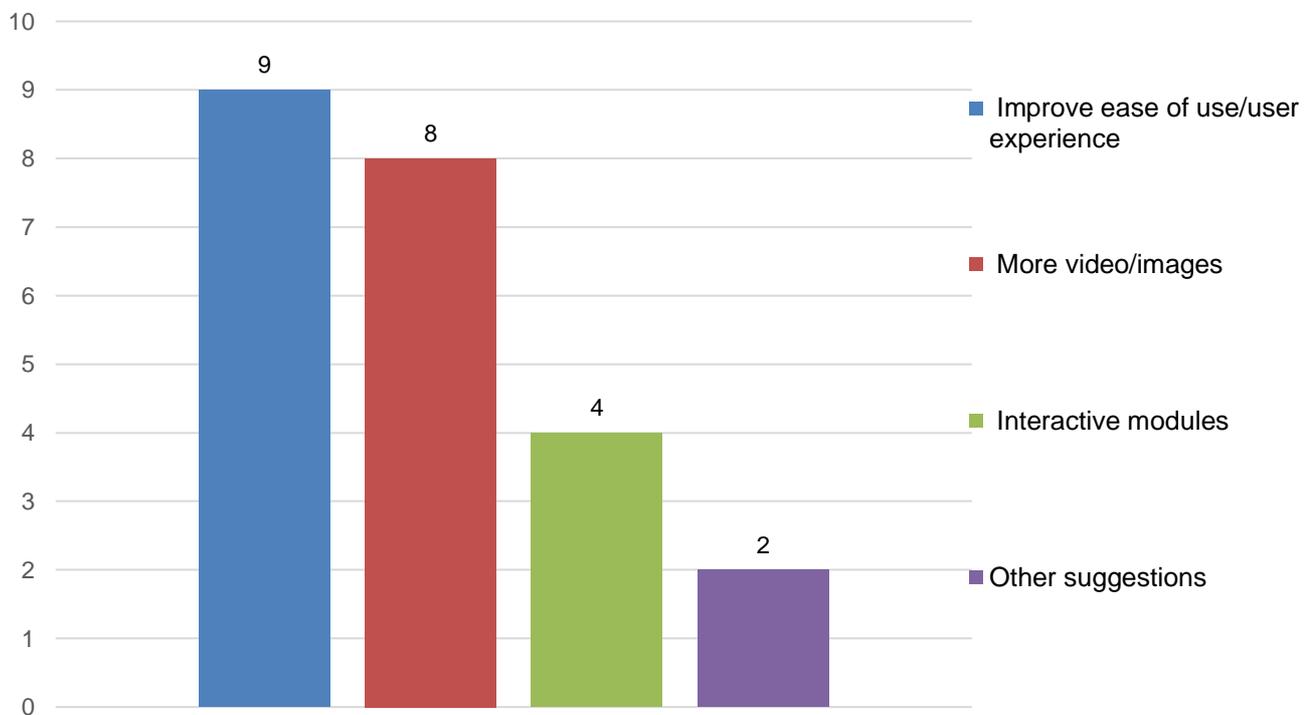
Of the 16 respondents who indicated “Yes”, 6 provided details regarding their expectation of ASCIA *anaphylaxis refresher e-training for health professionals* course content:

“More manually drawn up adrenaline administration content.”
“Multiple case scenarios.”
“A little more on the pathophysiology would make the course more interesting, i.e. how histamine changes the body systems, main mechanism in hypotension etc.”
“Training videos perhaps on administration. Photos or pictures.”
“Gauge of EpiPen, deaths per year from anaphylaxis versus incidences, list of causes from 1-10 in order of most common to least e.g. medications, peanut, dairy, sesame etc.”
“IV management. Differential diagnosis with other adverse reaction and management. Use of Atropine in deep vagal reactions.”

The remaining 10 respondents either provided no further details or entered indecipherable or inappropriate text. Responses of this nature were omitted from any further analysis.

“Do you have any comments about how we can improve the course?”

There were 419 responses to this question. **23** respondents (5.5%) indicated “Yes” and provided feedback regarding how they thought the *ASCIA anaphylaxis refresher e-training for health professionals* course could be improved. **396** (94.5%) respondents indicated “No”, offering no further comment.



1. Improve ease of use/user experience (n = 9).

Suggestions were made regarding how the *ASCIA anaphylaxis refresher e-training for health professionals* course could be improved to enhance the user experience.

“An email to participants each year on anniversary of completing the course to remind you to do it again.”

“Larger font size.”

“It is too long and too long winded. You should only have to go back and only address the answers you got wrong, not do the entire assessment again.”

“I found it difficult to get back to the module that I was doing after I viewed the video on how to use an EpiPen, I did not see a box saying, “Tick here if you want to return to the previous page.”

2. More video/images (n = 8).

Respondents suggested including more videos and visual aids to the module.

“Please provide more videos about the signs and the symptoms of anaphylaxis, and the management including the administration of adrenalin auto-injector.”

“More video content.”

“A video showing how anaphylaxis occurs in the body, and possibly someone experiencing it and being treated for it would help concepts stick even more.”

3. Interactive modules and case studies (n = 4).

Adding some more interactive features could improve the *ASCIA anaphylaxis refresher e-training for health professionals* course.

“Maybe role play videos of a sick patient and how to manage their anaphylaxis.”

“I would appreciate interactive modules.”

“Thank you. It would be good if time is allowed to add some case studies.”

4. Other suggestions (n = 2).

Other suggestions from respondents about how to improve the course that could not be grouped with the three themes were also noted.

“I didn’t learn anything new really so would’ve loved current knowledge on statistics of causes. e.g. 400 cases last year of which 211 were from medication reactions, 75 from peanuts, 35 from dairy, 22 from sesame seeds etc.”

“RANZCR (Royal Australian and New Zealand College of Radiology) now has a CPD requirement for anaphylaxis training. ASCIA with RANZCR should develop a joint training module (preferably in person hands on courses as well).”

Actions that ASCIA will take as a result of e-training surveys

ASCIA will:

- Review and update the *ASCIA anaphylaxis refresher e-training for health professionals* course to improve the user experience based on feedback. In 2024-2025 ASCIA will achieve this by developing:
 - An animated webcast version of the short refresher anaphylaxis course for schools.
 - Professional videos of adrenaline injectors being used.
 - Professional videos and/or animations of case studies and scenarios will be considered.
- Make existing questions at the end of each module optional.
- Promote regular training by encouraging participants to make a reminder note in their calendars to complete the refresher training in 12 months, with a web link to the course.
- Continue to mandate the *ASCIA anaphylaxis refresher e-training for health professionals* course post-training survey and review survey results on a 12 monthly basis and update questions based on previous results.

SURVEY QUESTIONS (2022 – 2023)

ASCIA has provided accessible, consistent and evidence-based anaphylaxis and allergy e-training courses for health professionals since 2011, which are regularly reviewed and updated.

To help ASCIA to improve this course, please complete this short survey which will only take a few minutes. All information collected will be anonymous.

Question 1. [compulsory]

In what region/s (listed below in alphabetical order) are you mainly working as a health professional, or training to become a health professional? [select more than 1 option if applicable]

- Australian Capital Territory
- New South Wales - Metropolitan area (in or near a major city)
- New South Wales - Regional, rural or remote area
- New Zealand - Metropolitan area (in or near a major city)
- New Zealand - Regional, rural or remote area
- Northern Territory - Metropolitan area (in or near a major city)
- Northern Territory - Regional, rural or remote area
- Queensland - Metropolitan area (in or near a major city)
- Queensland - Regional, rural or remote area
- South Australia - Metropolitan area (in or near a major city)
- South Australia - Regional, rural or remote area
- Tasmania - Metropolitan area (in or near a major city)
- Tasmania - Regional, rural or remote area
- Victoria - Metropolitan area (in or near a major city)
- Victoria - Regional, rural or remote area
- Western Australia - Metropolitan area (in or near a major city)
- Western Australia - Regional, rural or remote area
- Other - Please provide details:

Question 2. [compulsory]

What is your profession (listed below in alphabetical order)?

- Clinical immunology/allergy specialist
- Clinical immunology/allergy specialist in training
- Dermatologist
- Dietitian
- Ear, nose and throat (ENT) specialist
- Gastroenterologist
- General practitioner (GP)
- General physician
- Healthcare service administrator or manager
- Infectious disease specialist
- Medical/health educator
- Nurse
- Nurse practitioner
- Ophthalmologist
- Paediatrician
- Paramedic

- Pharmacist
- Pharmacy assistant
- Podiatrist
- Psychologist
- Researcher
- Respiratory specialist
- Royal Flying Doctor
- Rural generalist
- Student – Medical
- Student – Nursing
- Student – Other health professional
- Other - Please provide details:
- I am not currently working as a health professional

Question 3. [compulsory]

Do you work in:

- Private practice or organisation
- Public hospital clinic or institution
- Combination of private practice/organisation and public hospital clinic/institution
- I am not currently working as a health professional

Question 4. [compulsory]

What device did you use to complete the course?

- Desktop computer
- Laptop computer
- iPad or tablet
- Smart phone

Question 5. [compulsory]

What did you like about the course?

Select one or more of the following:

- Content
- Length
- Images, videos and animations
- Assessment questions
- Ability to complete the course on your chosen device
- The course was easy to understand

Question 6. [compulsory]

How relevant is this course to your practice?

- Entirely relevant
- Partially relevant
- Not relevant
- I am not currently working as a health professional
- I am currently training to become a health professional

Question 7. [compulsory]

To what degree were your learning needs met?

	Entirely met	Partially met	Not met
Differentiate between a mild to moderate allergic reaction and anaphylaxis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outline acute management for mild or moderate allergic reactions and anaphylaxis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Question 8. [compulsory]

Please outline how you might review and/or modify practice-based systems and/or processes relevant to this course.

Please provide details:

Question 9. [compulsory]

Was there something you expected or wanted in the course, and it wasn't included?

- Yes - Please provide details:
- No

Question 10.

Do you have any comments about how we can improve the course?

Please provide details: