



ascia

australasian society of clinical immunology and allergy

**anaphylaxis e-training
for health professionals**

2023 REPORT



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INTRODUCTION

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

It was mandatory for each course participant to complete the survey which comprised of ten questions. There were 1311 surveys completed as follows:

- 1199 responses from health professionals working in Australia.
- 102 responses from health professionals working in New Zealand.
- 10 responses from health professionals working in another unspecified region.

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

- Information about the survey respondents including 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 members and stakeholders 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.

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 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:

- **63.8%** of respondents work primarily in metropolitan areas.
- **30.6%** of respondents work primarily in regional, rural or remote areas.
- **5.6%** of respondents work in a mix of regions.

Professions:

- **64.1%** were nurses.
- **4.1%** worked in radiology/medical imaging.
- **3.9%** were pharmacists.
- **3.6%** were general practitioners (GP).

Learning needs met:

- **90.2%** indicated that the course had entirely met their learning needs.
- **9.5%** felt that their learning needs were only partially met.
- **0.3%** felt that their learning needs were not met.

Relevancy to current practice:

- **70.5%** indicated that the course was entirely relevant to their current practice.
- **24.8%** felt that the course was only partially relevant to their current practice.
- **0.8%** felt that the course was not relevant to their current practice.
- **3.9%** were unable to assess the relevancy of the course content to current practice as they were:
 - Not working as a health professional (1.8%).
 - Currently undergoing training to become a health professional (2.1%).

Course content:

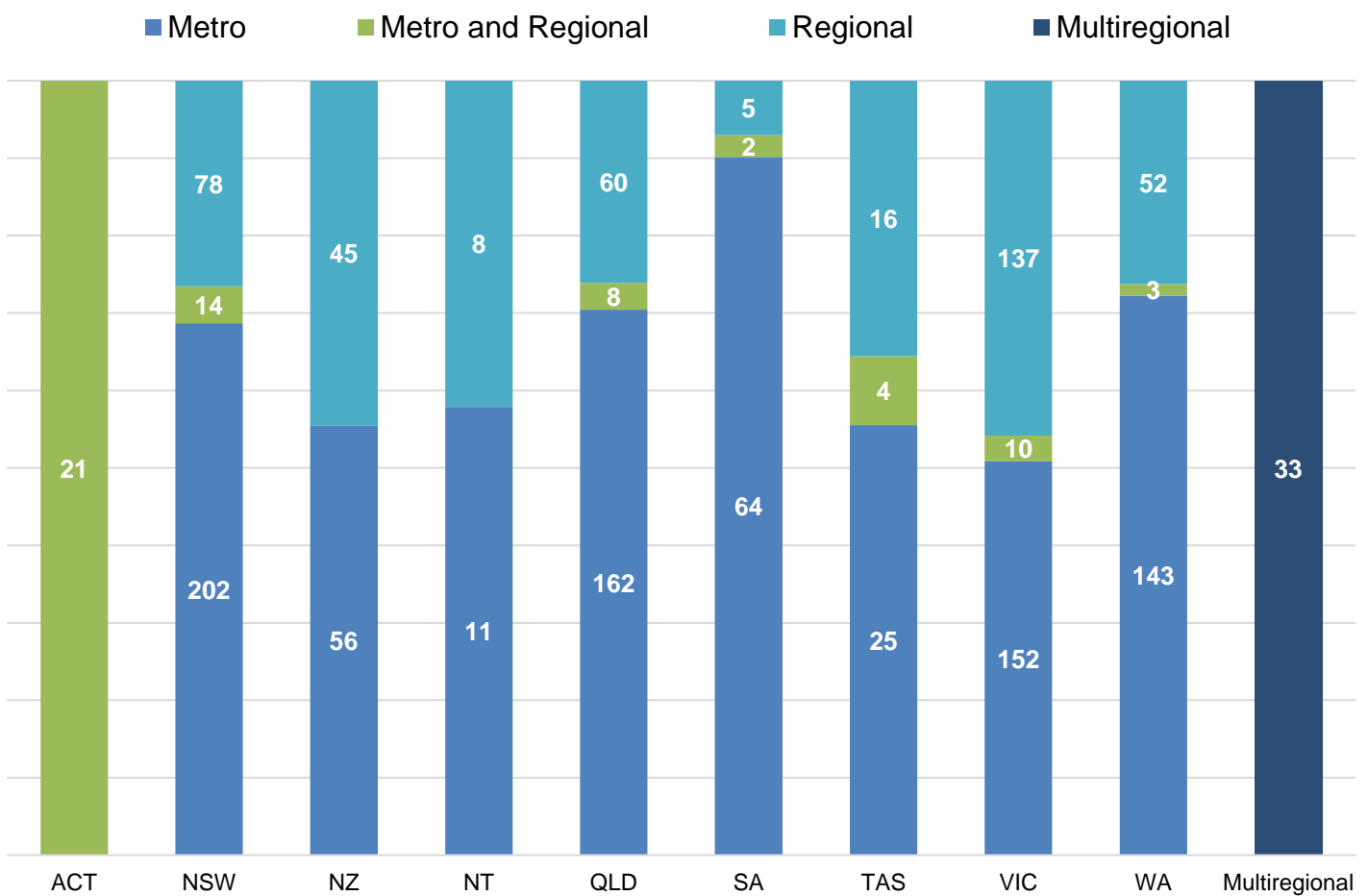
- **95.8%** indicated nothing was missing from the course.
- **93.8%** indicated the course content did not need to be improved.

“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. 97.5% of respondents (n = 1278) indicated a single state or territory as their primary location for working or training as a health professional.

Within this group, 96.8% (n = 1237) indicated that they were based in either metropolitan or regional, rural or remote areas within their chosen state or territory. The remaining 3.2% (n = 41) indicated they worked in a combination of both area types within their chosen state or territory.

The remaining **33** 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 **1,311** responses to this question, with the majority of respondents identifying their profession from a list provided:

- **168** respondents did not identify with any of the professions listed so instead selected “Other – please provide details”.
- **145** respondents provided further details in an open text entry.
- **23** respondents did not provide any further information about their professional role.

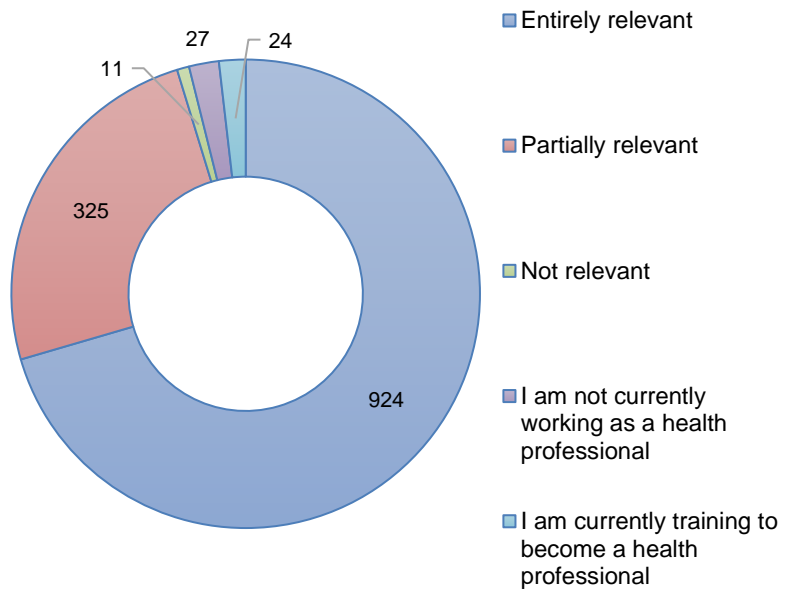
What is your profession?	Total
Nurse	840 (64.1%)
Radiology/Medical Imaging*	54 (4.1%)
Pharmacist	51 (3.9%)
General practitioner (GP)	47 (3.6%)
Student – Nursing	35
Student – Other health professional	29
Dietitian	26
Nurse practitioner	24
I am not currently working as a health professional	21
Occupational Therapist*	19
Paramedic	16
First Aid Trainer/Instructor/Responder*	12
Student – Medical	11
Podiatrist	9
Care Worker*	9
Speech Pathologist*	8
Medical/health educator	8
Paediatrician	7
Dental*	7
General physician	6
Teacher/Trainer/Educator*	4
Pharmacy assistant	3
Psychologist	3
Healthcare service administrator or manager	2
Clinical immunology/allergy specialist in training	1
Gastroenterologist	1
Infectious disease specialist	1
Royal Flying Doctor	1
Researcher	1
Other - Please provide details	55

* Indicates 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 **1,311** responses to this question:

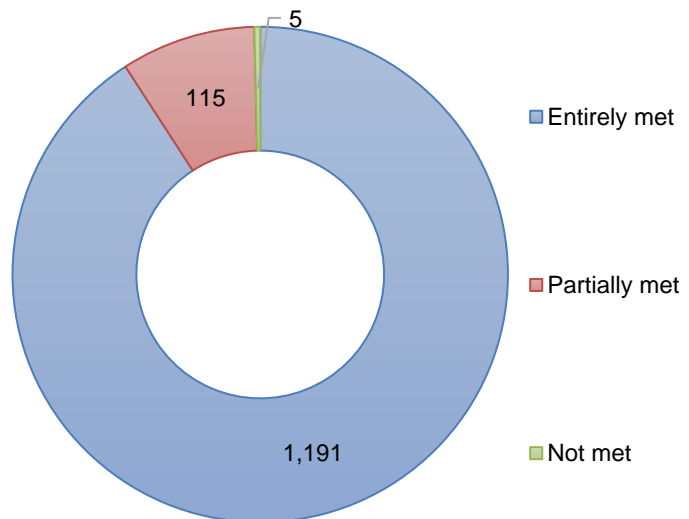
- **924** respondents (70.5%) indicated “Entirely relevant”.
- **325** respondents (24.8%) indicated “Partially relevant”.
- **11** respondents (0.8%) indicated “Not relevant”.
- **51** respondents (3.9%) did not provide an assessment as they were either:
 - not working as a health professional (n = 27).
 - currently training to become a health professional (n = 24).



“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 **1,311** responses to this question:

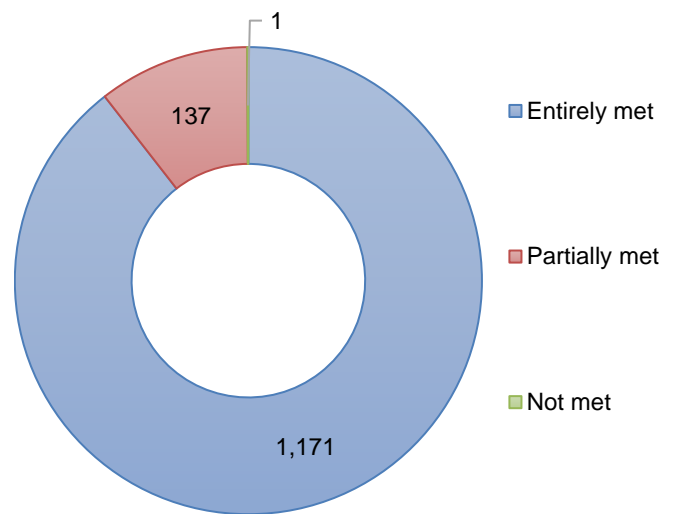
- **1,191** respondents (90.8%) indicated “Entirely met”.
- **115** respondents (8.8%) indicated “Partially met”.
- **5** respondents (0.4%) indicated “Not met”.



“To what degree were your learning needs met for reviewing diagnosis of allergy and risk of anaphylaxis?”

There were **1,309** responses to this question:

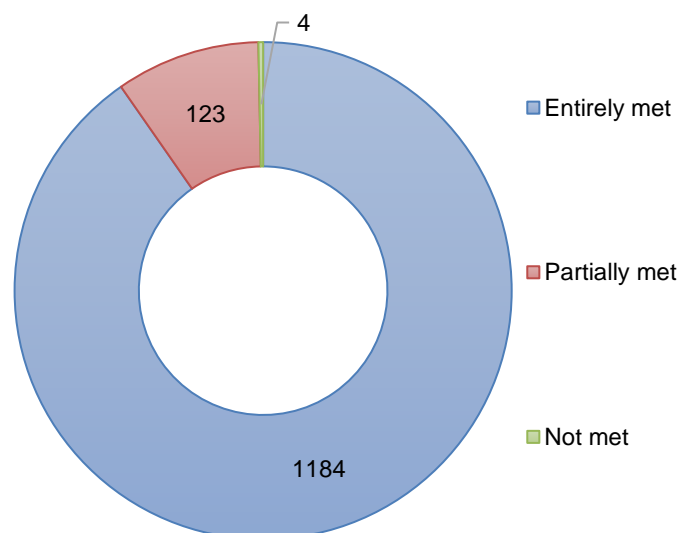
- **1,171** respondents (89.4%) indicated “Entirely met”.
- **137** respondents (10.5%) indicated “Partially met”.
- **1** respondent (0.1%) indicated “Not met”.



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

There were **1,311** responses to this question:

- **1,184** respondents (90.3%) indicated “Entirely met”.
- **123** respondents (9.4%) indicated “Partially met”.
- **4** respondents (0.3%) indicated “Not met”.

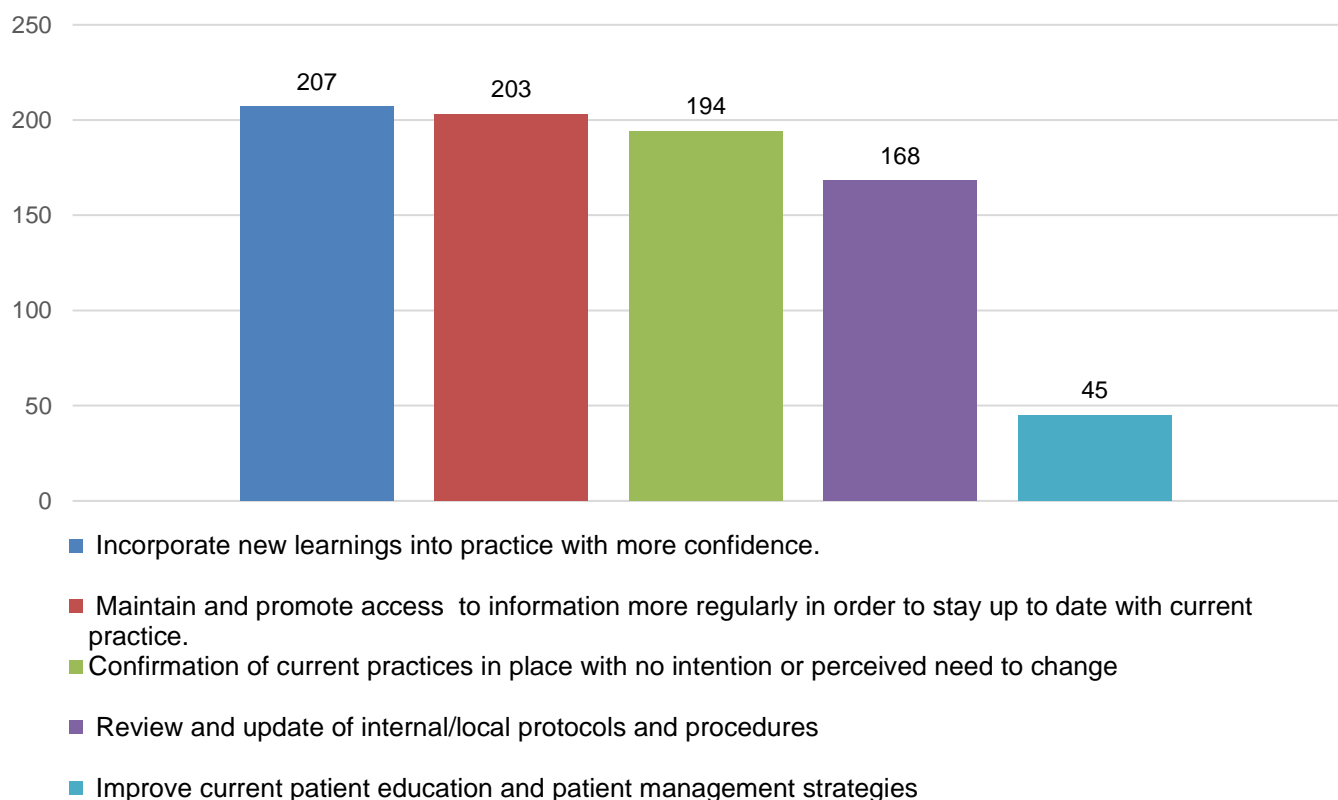


“Please outline how you might review and/or modify practice-based systems and/or processes relevant to this activity.”

Of the 1311 responses, **449** (39.8%) 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 **862** responses (76.2%) were analysed, revealing five recurring themes.

- Incorporate new learnings into practice with more confidence (n = 207).
- Maintain and promote access to information more regularly in order to stay up to date with current practice (n = 203).
- Confirmation of current practices in place with no intention or perceived need to change (n = 194).
- Review and update of local policies and procedures (n = 168).
- Improve current patient education and patient management strategies (n = 45).



1. Incorporate new learnings into practice with more confidence (n = 207).

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.

“With greater understanding about treatment of allergic reactions, I am able to modify my own practice to ensure I am confident in assisting with a case of allergic reaction.”

“My knowledge base has improved, and I am confident I can deal with anaphylaxis more competently.”

“Very encompassing, the referral to the immunologist, while not strictly in my domain, as a nurse, we are often asked for advice so definitely important knowledge.”

“This information has assisted a better understanding of Anaphylaxis.”

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

“Knowing the correct referral criteria and roles of GP or Immunologist/Allergist.”

“Know how to identify to respond and how to identify anaphylaxis quickly.”

“Improved understanding of when to refer to immunology.”

“I would identify allergy and/or anaphylaxis risk more easily now and refer to GP for ongoing management.”

“I have better understanding of anaphylaxis and testing for allergies for when patients ask me. I feel more comfortable informing them of legitimate tests and to follow up with their GP for referral to clinical immunologist.”

“I feel I will be better prepared if I am seeing a child who is at risk of anaphylaxis or has an episode whilst providing therapy.”

“Better understanding of assessing patients with suspected anaphylaxis - more confidence in managing such presentations.”

2. Maintain and promote access to information more regularly in order to stay up to date with current practice (n = 203)

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.

“Check to ensure all clinic resources are up to date and ensure all clinical staff have completed appropriate training.”

“By continuously referring to the information provided and apply this to my practice.”

“Access evidence-based resources to review information and keep up to date with best practice.”

“Add posters around store and continue to refresh memory on information learnt in this module.”

“Anaphylaxis management chart in all clinical rooms where immunisations are given”.

“Educate other staff members and point them towards completing the training for themselves.”

“Ensure all colleagues are aware of this PD also ensure ASCIA Action Plans visible in clinic rooms.”

“I printed ASCIA action plans and distributed in the practice with explanation of the content to the other employees. I also recommended the course for the rest of health care workers in the practice.”

“Increased signage in clinical areas relating to management of anaphylaxis”.

“Inclusion of ASCIA action plan poster in consult room.”

“Staff administering contrast could undertake this course to increase their knowledge about reactions to contrast.”

“Use the resources on ASCIA website especially the patient specific action plans.”

3. Confirmation of current practices in place with no intention or perceived need to change (n = 194)

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

“Already practicing as per ASCIA best practice guidelines. This course was done to update as a refresher.”

“Change nothing, just completed course for reassurance of our practice.”

“I found everything was covered and applied to our systems and processes.”

“There is nothing to change within my scope of practice, but to be involved in improving general education around anaphylaxis management within our clinic for all clinical”.

“We have very good procedures in place.”

“Course validated current clinical knowledge.”

“Current policies comply.”

“Reinforced my knowledge base.”

4. Review and update of local policies and procedures (n = 168).

Health professionals have acknowledged the need to review and update local policies and procedures related to anaphylaxis management. This includes passing on information to colleagues.

“Review current practices and advise if ours need updating.”

“Review the anaphylaxis management and use of adrenaline (auto injectors and amps).”

“We are rolling out an anaphylaxis project and education in our hospital and have written a policy on the management of anaphylaxis based off the national standards and this course.”

“Help develop allergy pathway in the Emergency Department.”

“Will place an anaphylaxis management chart at our resus trolley where EpiPens are stored. Will highlight importance of laying and not standing if experiencing anaphylaxis in training sessions.”

“Update our policies and resources with updated information like Anapen.”

“Review vaccination aftercare and general first aid care in the pharmacy.”

“Totally review the workplace policy, use the posters for health professionals and run some practical sessions.”

“Review process in GP clinic setting.”

“Develop/update policies and protocols to reflect ASCIA recommendations.”

5. Improve current patient education and patient management strategies (n = 45).

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

“Ensure patients with auto-injector devices are reviewed annually to 18 months - check on expiry date and ability to use. Educate patients on allergy and encourage review in event of reaction. Educate patients on correct removal of ticks.”

“Ensure someone that attends my program that is anaphylactic to a food has an EpiPen and red management plan with them.”

“Ensure our clients in community health have all allergies documented including food and insect bites.”

“Updated information will be put into practice. Will educate other staff members and family.”

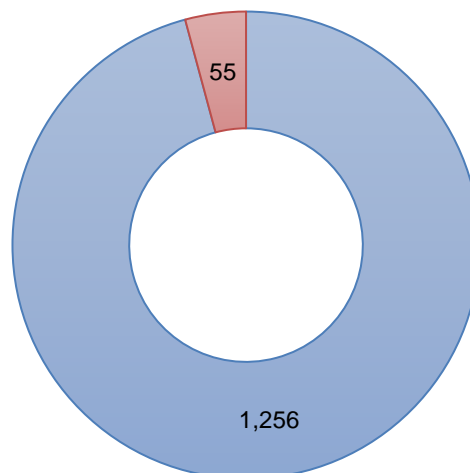
“Ensure allergies are recorded for patients. Monitor those that are unable to give answers to allergy questions.”

“I will be able educate patients with a history of allergies and anaphylaxis better.”

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

There were 1,311 responses to this question:

- **1,256** respondents (95.8%) indicated “No”.
- **55** respondents (4.2%) indicated “Yes” and were given the opportunity to provide more details.

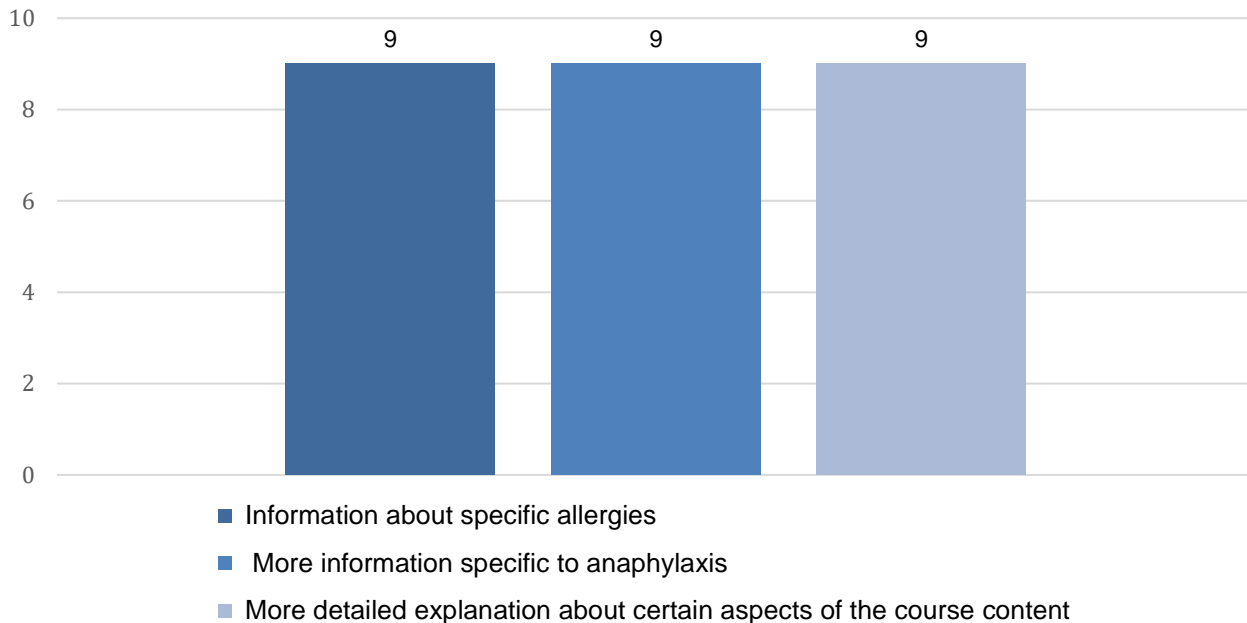


■ No ■ Yes - Please provide details

A total of **28** respondents did not provide any further details or entered indecipherable or inappropriate text and were omitted from any further analysis.

A total of **27** respondents did provide further details when prompted. Analysis of these revealed three themes:

- Information about specific allergies (n = 9).
- More information specific to anaphylaxis (n = 9).
- More detailed explanation about certain aspects of the course content (n = 9).



Information about specific allergies (n = 9).

Requests for information about specific allergies including contrast allergy were noted.

“More about anaphylaxis to drug reactions, specifically contrast media.”

“Management of IV contrast reactions - perhaps this needs its own course for Radiologists.”

“Vaccination and allergy.”

2. More information specific to anaphylaxis (n = 9).

Respondents suggested including additional information about anaphylaxis including rates of diagnosis, differential diagnoses, and approaches to management in real time.

“Spider, scorpion, snake and marine stingers rates of anaphylaxis.”

“More about differentiation of anaphylaxis from vasovagal is helpful (bradycardia suggests vasovagal, tachycardia suggests anaphylaxis).”

“Scenario video on how to manage an anaphylaxis.”

3. More detailed explanation about other aspects of the course content (n = 9).

Health professionals identified some additional areas relating to anaphylaxis that could be included in the course.

“I guess as a nursing student, perhaps a more nurse specific section on the quick identification of anaphylaxis and maybe a simulation activity or something for the administration of adrenaline could be cool.”

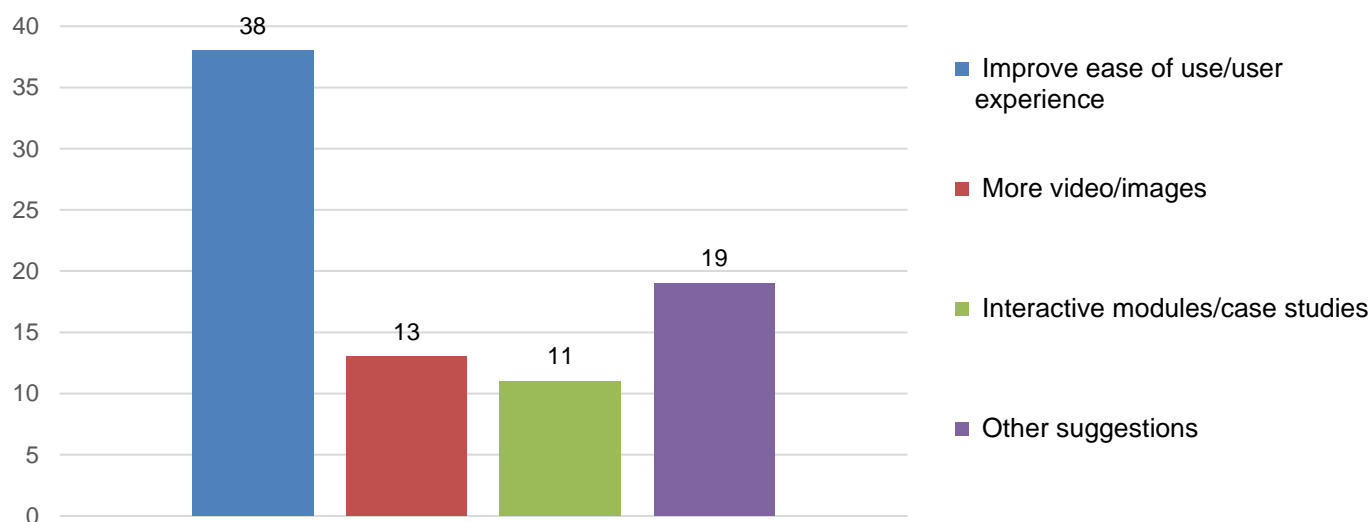
“The apps that patients can download to keep a track of expiry dates etc, good for us to be able to remind patients to do this. Also, resources on how to store/brand names for storage devices for EpiPen/Anapen again for counselling purposes.”

“Coverage of links to actual content or advice for prevention of triggers that can be provided to patients as appropriate.”

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

There were 1,311 responses to this question:

- **81** respondents (6.2%) indicated “Yes” and provided feedback regarding how they thought the ASCIA *anaphylaxis e-training for health professionals* course could be improved.
- **1,230** (93.8%) respondents indicated “No”, offering no further comment.



1. Improve ease of use/user experience (n = 38).

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

“I enjoyed the course, maybe make the buttons or the picture a little clearer and easier to click on.”

“Enlarge the images and action plan.”

“Make text to voice easily accessible.”

“Make the reading more presentable or attractive.”

“Pictures of charts very hard to read due to small font size.”

“The information was informative but too long. A lot to read. Simplifying it would be advised.”

“Better wording, highlight relevant pieces of information.”

“The questions were confusing. There were a lot of double negatives which made it difficult.”

“Ability to review all course slides.”

“The length is too long for nursing staff - too many questions for example - 5 questions at the end of each module should be sufficient, instead of having another 15 questions at the end, that was very frustrating, especially when this is an added course on top of everything else, we need to mark off. Either questions in the modules only OR questions at the end only - not both.”

2. More video/images (n = 13).

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

“It would be great to have videos included in the presentation, as some people are more visual learners and get more out of others explaining the content.”

“Maybe picture examples for some questions instead of descriptions such as cutaneous symptoms and swelling.”

“More pictures or short videos are always good in e-learning.”

“More picture and animation videos.”

3. Interactive modules and case studies (n = 11).

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

“As a nurse immuniser, it would be fantastic if we could do more scenarios on anaphylaxis post vaccines.”

“Maybe pretend video scenarios of real time what first aid implementation looks like.”

“Making it more interactive.”

“More details on how to manage anaphylaxis in the clinical environment through case studies.”

4. Other suggestions (n = 19).

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

“Include more information and statistics regarding New Zealand.”

“Large numbers of patients receive intravenous contrast agents throughout Australia every day in imaging practices. Some coverage of management options for those patients, would be helpful.”

“Could possibly incorporate perioperative environment treatment.”

“Have it presented as a webinar as well as written.”

“Include a session on managing allergic reactions to IV contrast media relevant to all those working in Radiology Departments.”

“Direct links to printable documents within the course content (had to go searching for some of the relevant documents).”

“Further information on administering adrenaline vials.”

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

ASCIA will:

- Review and update the *ASCIA anaphylaxis 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 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"/>
Review diagnosis of allergy and risk of 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: