

# Evaluation of nursing staff knowledge of anaphylaxis management in a tertiary paediatric and women's hospital

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## Background

- Anaphylaxis should be promptly recognised and managed
- The Women's and Children's hospital in Adelaide is a tertiary paediatric and women's hospital
- There have been incidents where anaphylaxis has not been appropriately recognised and managed
- There is published data regarding sub-optimal level of knowledge of healthcare providers regarding anaphylaxis and its management (1-3)
- There is no WCHN specific data identifying these knowledge deficits, making education and upskilling challenging

## Objectives

- To survey nursing/midwifery staff about their knowledge of "anaphylaxis symptom recognition and treatment"
- To design education sessions for staff to update knowledge based on the results of this survey

## Method(s)

- A survey was designed to evaluate nursing/midwifery knowledge of anaphylaxis identification and management (fig 1)
- This was distributed via ward educators, organisational committees and in person for staff complete without consulting resources
- Responses were anonymous but participants were asked to indicate their qualification and clinical area
- Pharmacy, nursing and immunology medical staff analysed responses
- The answers were collated based on the following two definitions of anaphylaxis outlined by Australasian Society of Clinical Immunology and Allergy (ASCIA) (4)
  - ✓ Any **acute onset illness** with **typical skin features** (*urticarial rash or erythema/flushing, and/or angioedema*), plus involvement of **respiratory** and/or **cardiovascular** and/or **persistent severe gastrointestinal symptoms** **or**
  - ✓ Any **acute onset of hypotension or bronchospasm or upper airway obstruction** where anaphylaxis is considered possible, **even if typical skin features are not present**

Figure 1: Survey Questions

- Q 1: What are the signs and symptoms of anaphylaxis?
- Q 2: Do you know what medication is used to treat anaphylaxis? If yes, please specify.
- Q 3: Do you know how and where to give medication to treat anaphylaxis? If yes, please list.
- Q 4: Would you feel comfortable administering adrenaline via intramuscular injection if required to?
- Q 5: Do you know where to find resources to guide treatment of anaphylaxis? If yes, please list
- Q 6: What would you find useful to help with anaphylaxis management? Please list.

## Results

Total Responses = 71

Anaphylaxis symptom recognition = 89%

Both definitions = 30%

Single definition = 59%

Adrenaline as treatment of choice 100%

Intramuscular = 96%

ONLY intramuscular = 50%  
Other suggested routes – IV, Oral

Other suggested treatments – Anti-histamines, IV fluids, Salbutamol, steroids, oxygen, glucagon

Uncomfortable administering via Intramuscular route = 11%

Resources for information – 32 different sites stated  
Unsure of where to look – 9%

## Discussion

- Staff knowledge of treatment of choice (adrenaline) and symptom recognition was good
- Staff being uncomfortable administering medicines intramuscularly is concerning. – urgent upskilling is required
- Education modules and resources need to be developed for nursing/midwifery staff for anaphylaxis recognition and treatment
- Simulation training in anaphylaxis management should be expanded to all nursing/midwifery training.
- Multi-modal dissemination of the above education is required
- There needs to be a standardised flow chart to help with anaphylaxis identification and management, easily visible in all clinical areas (Poster 226)

## Conclusion

The nursing and midwifery staff's knowledge of anaphylaxis management - recognition of symptoms and treatment needs improvement  
There is an urgent need for resources and education to preserve patient safety

## References

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