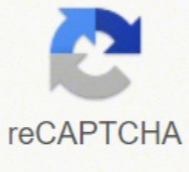




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Adherence to Anaphylaxis Guidelines: Real-World Data From the Emergency Department of a Tertiary Hospital

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Abstract

Background: Few studies have evaluated adherence to anaphylaxis guidelines in emergency departments (ED).
Objective: The objective of this study was to evaluate adherence to anaphylaxis guidelines in the ED of a tertiary hospital.
Methods: Medical records of patients attended in the ED of University Hospital of Salamanca, Spain were reviewed. Those patients fulfilling the anaphylaxis criteria proposed by the NIAID/FAAH were selected.
Results: During a 1-year period, we identified 89 patients (74 adults and 15 children). The anaphylactic reaction was moderate in 65% of adults, severe in 34%, and very severe in 1%. In children, all reactions were moderate. Fewer than half of the patients (42%) received adrenaline in the ED; this was administered intramuscularly in only 19% of cases. As for the severity of the reaction, 65% of patients with moderate reactions and 42% with severe reactions were not treated with adrenaline. At discharge from the ED, an adrenaline auto-injector was recommended to only 5.6% of patients. Fifty-two percent of patients received a documented allergy referral (57% adults vs 27% children, $P=0.047$), 29% instructions about avoidance of triggers (31% adults vs 20% children, NS), and 51% written instructions for recognition of anaphylaxis warning signs (41% adults vs 100% children, $P<0.01$).
Conclusion: The results of the study show a large discrepancy between recommendations in guidelines and management of anaphylaxis in the ED. Additional training efforts are needed to improve the treatment of patients with anaphylactic reactions.
Key words: Anaphylaxis, Guidelines, Adrenaline.

Resumen

Antecedentes: Pocos estudios han evaluado el cumplimiento de las recomendaciones de las guías clínicas de anafilaxia en los servicios de urgencias.
Objetivo: El objetivo de este estudio fue conocer el cumplimiento de las guías de anafilaxia en el servicio de urgencias (SU) de un hospital terciario.
Métodos: Se revisaron los informes de los pacientes atendidos en el SU del Hospital Universitario de Salamanca durante un año y se seleccionaron los que cumplían los criterios de anafilaxia propuestos por el NIAID/FAAH.
Resultados: Se identificaron 89 pacientes, 74 adultos y 15 niños. El 65% de los adultos presentó una reacción moderada, el 34% grave y el 1% muy grave; en todos los niños la gravedad fue moderada. Menos de la mitad de los pacientes (42%) fueron tratados con adrenalina, solo el 19% por vía intramuscular. El 65% de las reacciones moderadas y el 42% de las graves no recibieron adrenalina. Al alta, se recomendó un auto-inyector de adrenalina al 5,6% de los pacientes, se remitió al Servicio de Alergia al 52% (57% adultos frente a 27% niños, $p=0,047$), se dieron indicaciones para evitar posibles desencadenantes al 29% (31% adultos frente a 20% niños, $p=0,51$) e instrucciones para reconocer los signos de alarma de una reacción anafiláctica al 51% (41% adultos frente a 100% niños, $P<0,01$).
Conclusión: Los resultados del estudio muestran importantes discrepancias entre las recomendaciones de las guías clínicas y el manejo de la anafilaxia en un SU hospitalario. Es necesario un mayor esfuerzo en educación para mejorar el tratamiento de los pacientes con anafilaxia.
Palabras clave: Anafilaxia, Guías clínicas, Adrenalina.

ascia
Allergic Society of Australasia
www.allergy.org.au

ACTION PLAN FOR
Anaphylaxis

For use with adrenaline (epinephrine) autoinjectors

Name: _____
 Date of birth: _____

Confirmed allergies: _____

Family/emergency contact names: _____

Work Ph: _____
 Home Ph: _____
 Mobile Ph: _____
 Plan prepared by medical or nurse practitioner: _____

I hereby authorize medications specified on this plan to be administered according to the plan.
 Signed: _____
 Date: _____
 Action Plan due for review - date: _____

How to give EpiPen® adrenaline (epinephrine) autoinjectors

- 1 Remove the cap and **PULL OFF BLUE SAFETY RELEASE**
- 2 Make leg stiff and **PLACE ORANGE END against outer mid-thigh (with or without clothing)**
- 3 **PUSH DOWN HARD** until a click is heard or felt and hold in place for 3 seconds. **REMOVE EpiPen**

EpiPen® is prescribed for children over 20kg and adults. EpiPen® is prescribed for children 10-20kg.

SIGNS OF MILD TO MODERATE ALLERGIC REACTION

- Swelling of lips, face, eyes
- Hives or welts
- Tingling mouth
- Abdominal pain, vomiting (these are signs of anaphylaxis for insect allergy)

ACTION FOR MILD TO MODERATE ALLERGIC REACTION

- For insect allergy - Flick out sting if visible
- For tick allergy - seek medical help or freeze tick and let it drop off
- Stay with person and call for help
- Locate adrenaline autoinjector
- Give other medications (if prescribed)
- Phone family/emergency contact

Mild to moderate allergic reactions (such as hives or swelling) may not always occur before anaphylaxis

WATCH FOR ANY ONE OF THE FOLLOWING SIGNS OF ANAPHYLAXIS (SEVERE ALLERGIC REACTION)

- Difficult, noisy breathing
- Swelling of tongue
- Swelling/tightness in throat
- Wheeze or persistent cough
- Difficulty talking and/or hoarse voice
- Persistent dizziness or collapse
- Pale and floppy (young children)

ACTION FOR ANAPHYLAXIS

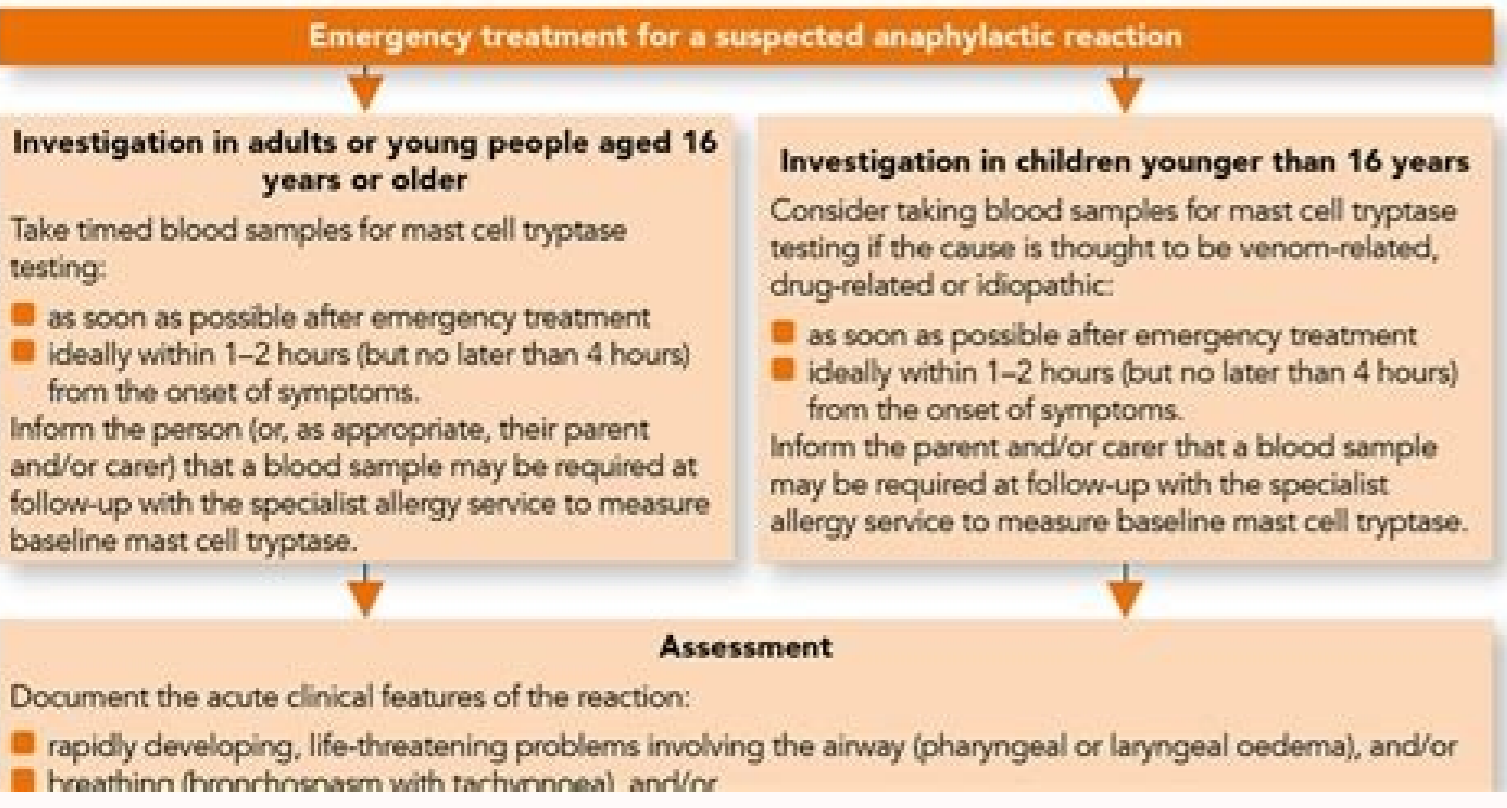
- 1 Lay person flat - do NOT allow them to stand or walk
 - If unconscious, place in recovery position
 - If breathing is difficult allow them to sit
- 2 Give adrenaline autoinjector
- 3 Phone ambulance - 000 (AU) or 111 (NZ)
- 4 Phone family/emergency contact
- 5 Further adrenaline doses may be given if no response after 5 minutes
- 6 Transfer person to hospital for at least 4 hours of observation

If in doubt give adrenaline autoinjector
 Commence CPR at any time if person is unresponsive and not breathing normally

ALWAYS give adrenaline autoinjector FIRST, and then asthma reliever puffer if someone with known asthma and allergy to food, insects or medication has SUDDEN BREATHING DIFFICULTY (including wheeze, persistent cough or hoarse voice) even if there are no skin symptoms.

Asthma reliever medication prescribed: Y N

• If adrenaline is accidentally injected (e.g. into a thumb) please your local poisons information centre.
 • Continue to follow this action plan for the person with the allergic reaction.



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