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Audit for anaphylaxis management
Subject\management of anaphylaxis in ER department

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Standard used\ NHS Guidelines.
Persons involved \ Patients who had anaphylaxis and anaphylactic shock.
Supervision by \ Dr. Ehab Ibrahim the head of ER department

Abstract: Anaphylaxis is a severe life-threatening, generalized or systemic hypersensitivity reaction. It is chara cterized by rapidly developing, life- threatening problems involving; the airway (pharyngeal or laryngeal oede ma) and/or breathing (bronchospasm with tachypnoea) and/or circulation (hypotension and/or tachycardia).In m ost cases, there are associated skin and mucosal changes. Anaphylaxis and anaphylactic shock are considered a s one of the emergency cases which require immediate action to treat them. The reason for this auditing to fin d out the best way of management of these cases in order to reducing mortality rate and long term complicati ons.

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Keywords: Anaphylaxis; severe; life-threatening; hypersensitivity; reaction; pharyngeal; laryngeal; oedema Bronchospasm; tachypnoea; circulation

Methodology

I conducted my audit of management of a naphylaxis and anaphylactic shock according to N HS guidelines and RCEM guidelines .

According to my observation of number o f anaphylactic cases which were treated her in ER ,I found malpractice in dealing with them.

After reviewing the guidelines and discuss ing them in our weekly department meeting , rema rkable reducing in the mortality rate and complicat ions were noticed

The patients were not involved who had a simple allergic reaction.

The period of study was for 4 weeks.

Introduction

Definition of anaphylaxis

Anaphylaxis is a severe life-threatening, generalized or systemic hypersensitivity reaction. It is characterized by rapidly developing, life- threat ening problems involving; the airway (pharyngeal or laryngeal oedema) and/or breathing (bronchospa sm with tachypnoea) and/or circulation (hypotensio n and/or tachycardia).In most cases, there are asso ciated skin and mucosal changes.

Anaphylaxis and anaphylactic shock are c onsidered as one of the emergency cases which re quire immediate action to treat them.

The reason for this auditing to find out t he best way of management of these cases in orde r to reducing mortality rate and long term complic ations.

I believe that follow the guidelines in tre atment is paramount. Thus , I try to find out the main problems in management that issue in our de partment .In addition to that ,looking for if we foll ow the guidelines in treatment.

The study according to my observations before reviewing guidelines

Name	AGE	GENDER	ALLERGEN	c\p	ACTION TAKEN IN ER
Mahmed Khaled Ali 123542	18 years	Male	Nuts	wheezy chest hypotension and tachycardia	Soluicortive 100 ml and chlorphenamine Discharge after 2h
Salem Abdo Zaher 12875	28 years	male	unknown	Sob dizziness and tachycardia	Dexamethone 12.5mg and chlopehnamine Discharge after 1h
Rodyna baksh Ahmed 15462	9 years	Female	Chocolate	Sob shocked tachycardia Unrecordable blood pr	Solucortive 50 ml and IV Fluid and chlorphnamine 10ml Discharge after one day admission
Marym Salem Ali 12546	16 years	Female	Unknown	Wheals allover the body and itching	Antihistamine tab
Jossef Mohamed Khaled 32412	45years	Male	After taken antibiotic IV	Abd pain sob itching all over the body	DEXAMTHONE IM AND CHLORPHENAMINE IM Discharge after 1 h
Sayed ahmed Syed 12825	41 years	Male	Agumentain tab	Dizziness sob wheals Abd pain	Iv fluid solucortive and chlorphenamine Discharge after 2 h
Freed Ihab jamel 12875	1 year	Male	Unknown	Sob, wheals Hypotension tachycardia	Solucortive IM Admission for one day

Outcome \the first 2 cases AND 4TH AND 5TH ONE retain back at other shift with same proble m(BIPHASIC REACTION).

The third case improved .the last case deterio rate and admitted in PICU

GUIDELINES FROM NHS:

Adrenaline is the first line of treatment

Adult

A dose of 500 micrograms adrenaline 1: 1000 solution (0.5 ml) should be administered intramuscularly, and repeated after about 5 minutes in the absence of clinical improvement or if deterioration occurs after the initial treatment, especially if consciousness becomes, or remains impaired as a result of hypotension. In some cases several doses may be required.

**Children **

> 12 years up to 500 micrograms IM (300 micrograms if child is small or pre pubertal

6 - 12 years 100 mg IM

6 mths – 6 years 50 mg IM

Child less than 6 month 25mg IM

Beta 2 Agonist Administration

An inhaled beta2 agonist such as salbutamol is useful as an adjunctive measure if bronchospasm

Intravenous Fluid Administration

If severe hypotension does not respond rapidly to drug treatment, fluid should be infused.

A rapid infusion of 500 – 1000 mL of 0.9% normal saline may be needed. Children should receive 20 ml/kg of 0.9% normal saline rapidly, followed by another similar dose if there is no clinical response.

Observation for Adults & Young People (16 Ye ars or Older)

Adults and young people aged 16 years or older who have emergency treatment for suspected anaphylaxis should be observed for 6-12 hours from the onset of symptoms, depending on their response to emergency treatment.

Admission for Children (Younger than 16 Year s)

Children younger than 16 years who have emergency treatment for suspected anaphylaxis should be admitted to hospital under the care of a paediatric medical team.

The study according to my observations after reviewing guidelines

Name	Sex	age	allergen	Clinical pictures	Actions were taken in ER
SAMYA AHMED DIQ 12347	F	34	UNKNOWN	SOB ,PALPATION ,ABD PAIN, WHEEZY CHEST ABP90\76 PULSE 112 LARANGEL EDEMA	ADRENALINE .5MG IM SOLUCORTIVE 200ML IV CHLORPHENAMINE 10MG VENTOLIN NEBLIZER ADMITTED UNDER OVSERVATION FOR 12 H
ZINAB ALI SEEDIQ 14532	F	20	CHOCHOLATE	SKIN CHANGES, SOB BILATERAL WHHEEZY CHEST BLOOD PR UNREQURDABLE	ADRENALINE .5MG IM SOLUCORTIVE 200ML IV CHLORPHENAMINE 10MG VENTOLIN NEBLIZER ADMITTED UNDER OVSERVATION FOR 24 H FLUID IV MAST CELL TRYPTASE TEST
QASEM ESSAM ALI 12673	M	6	UNKNOWN	SKIN CHANGES, SOB BILATERAL WHHEEZY CHEST ABP100\50 PULSE120	ADRENALIN 300MICRO SOLUCORTIVE 100ML IV CHLORPHENAMINE 5MG VENTOLIN NEBLIZER ADMITTED IN THE WARD UNDER PEDIATRIC SUPERVISION
ASMA SAMY AHMED 12465	F	2	ANTIBIOTIC TAB	SOB ,ABD PAIN WHEEZY CHEST BILATRERALLY ABP90\79 PULSE100	ADRENALIN 150MICRO SOLUCORTIVE 50ML IV CHLORPHENAMINE 2.5M ADMITTED IN THE WARD VENTOLIN NEBLIZER UNDER PEDIATRIC SUPERVISION
ZAINALI AHMED 13425	M	50	POST COLLOID INFUSION	SKIN CHANGES WHEEZY CHEST BILATERALLY VITALLY STABLE	VENTOLIN NEBLIZER ADRENALINE .5MG IM SOLUCORTIVE 200ML IV CHLORPHENAMINE 10MG

OUTCOME
Most of the cases after observation and receiving the treatment in ER did not retain back only follow up with dermatologist in the clinic
The admitted pediatric patients her condition significantly improved .

THE RESULT OF THIS AUDIT
After following the guidelines in management the number of mortality rate reduced and complications
The improvement of the cases were noticed significantly

2/14/2021