

ILumens Protocol

Management of anaphylaxis following drug administration

Aim

Establishment of a protocol for the management of anaphylaxis following drug administration

Field of application and professionals concerned

All patients, all services

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Reference documents

- Recommendations by the French Society of Emergency Medicine
- Public Health Code - Articles R 4311
- Decree of 31 July 2009 on the state diploma of nurses

Associated documents

- Ann. Med. Emergency (2016) 6: 342-364

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RECOMMENDATIONS: Management of anaphylaxis in emergency medicine. Recommendations of the French Society of Emergency Medicine (SFMU) in partnership with the French Society of Allergy (SFA) and the French Group for Resuscitation and Pediatric Emergencies (GFRUP), and the support of the Pediatric Society of Pneumology and Allergy.

- Clinical criteria of Sampson

Generalities

Allergic reactions may occur after each drug administration. Paramedical staff can therefore find themselves confronted at any time, whatever their place of exercise. They must check before each administration of therapy that the patient is not allergic, but this does not protect them from an inaugural reaction. The possibility that the reaction is dazzling leaves the paramedics to have to potentially manage alone the first minutes. They are therefore offered this procedure.

Definition of anaphylaxis

Anaphylaxis is a systemic, generalized, severe hypersensitivity (or allergic) reaction that can be life-threatening. It occurs after a delay of a few minutes to a few hours following exposure to a triggering factor. It is characterized by the sudden onset of upper or lower airway disease, or potentially fatal cardiovascular disease. It is usually, but not always, associated with mucocutaneous involvement. Digestive signs may also be present. The symptoms depend on the organs affected and evolve rapidly. International recommendations have agreed on the term anaphylaxis and no longer use the term "anaphylactic shock" which focuses on cardiovascular disease and is responsible for an underestimation of respiratory and digestive symptoms, causing a fault of diagnosis.

➤ Clinical diagnosis

Sampson Criteria: Anaphylaxis is likely when any of these three clinical situations occur

| | |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Installation aiguë (minutes à quelques heures) d'une atteinte cutanéomuqueuse de type urticarienne ^a ET au moins un des éléments suivants : <ul style="list-style-type: none">• Atteinte respiratoire^b• Hypotension artérielle ou signe de mauvaise perfusion d'organes^c |
| 2 | Au moins deux des éléments suivants apparaissant rapidement après exposition à un probable allergène pour ce patient (minutes à quelques heures) : <ul style="list-style-type: none">• Atteinte cutanéomuqueuse^a• Atteinte respiratoire^b• Hypotension artérielle ou signes de mauvaise perfusion d'organes^c• Signes gastro-intestinaux persistants^d (douleurs abdominales, vomissements, etc.) |
| 3 | Hypotension artérielle après exposition à un allergène connu pour ce patient (minutes à quelques heures) : <ul style="list-style-type: none">• De 1 mois à 1 an, PAS < 70 mmHg• De 1 à 10 ans, PAS < 70 + (2 × âge) mmHg• De 11 à 17 ans, PAS < 90 mmHg• Adulte, PAS < 90 mmHg ou baisse de plus de 30 % par rapport à sa valeur habituelle |

PAS : pression artérielle systolique.
^a Éruption généralisée, prurit, flush, œdème des lèvres, de la langue ou de la luette, etc.
^b Dyspnée, bronchospasme, hypoxémie, stridor, diminution du débit expiratoire de pointe, etc.
^c Syncope, collapsus, hypotonie, incontinence.
^d Le groupe propose d'entendre par « persistant » une symptomatologie encore présente au moment du contact médical.

Severity

Various classifications. The best known is Ring and Messmer.

| Tableau 1. Grade de sévérité pour quantifier une réaction d'hypersensibilité selon les symptômes d'après la classification de Ring et Messmer (HAS, 2013). | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Grade | Symptômes |
| I | Signes cutanés, érythème généralisé, angioœdème |
| II | Symptômes qualifiables mais ne menaçant pas la vie : signes cutanés, hypotension, tachycardie, difficultés ventilatoires, difficultés à gonfler les poumons |
| III | Symptômes menaçant la vie : collapsus, tachycardie ou bradycardie, arythmies, bronchospasme |
| IV | Arrêt cardiaque et/ou respiratoire |

Support protocol

During anaphylaxis in a patient during drug administration

If IV route, discontinuation of administration and removal of triggering factor

Taking vital parameters and putting in place safeguards:

- Half sitting and with oxygen if desaturation
- Trendelenburg (elevation of lower limbs) if hypotension
- Permeability verification of the infusion
- Ask if the allergy is known and the presence of an adrenaline pen injector with the patient

Reference doctor's call: estimated severity of allergy

According to vital parameters and evolution of anaphylaxis, bring emergency cart and adrenaline closer

Stay with the patient to reassure him

