



RESEARCH ARTICLE

Suspected Allergic Reaction among Hospitalized Patients: Narrative Review and Consensus Recommendation

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Abstract

Background:

Patients with history of drug allergy pose socio-economic and medical concerns which may lead to deviations from standards of care. Accurate history taking and clear documentation for information transmission are important in prevention of drug allergy administration. Types of allergy, food provided by hospital, hospital environment and internal / external drugs are main important allergic agents are also taken into count. Aim: Drug allergies are unpredictable immunologic adverse effects. Hypersensitivity about especially drug or other hung around patient. To analyze and to find serious cases are aim of the study. Our aim at the paper is to provide proper information and guide for anaesthesiologist and other nursing staff.

Method: Consulting patients with drug allergy history. We find out lots of literature about allergy and inpatient treatment. This paper compares all the studies.

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1 | INTRODUCTION

Whether your immune system overreacts to some substance allergens, than you have an allergy. This article describes two condition (A) Hospitalization due to allergic reaction (B) Allergic reaction during the hospitalization, may or may not be surgery patients. This is not 100% clear that person has that substance allergy because of so many substances. In general, people may have allergy of mould, pollen, food allergy drug allergy (internal/external), pet, dust mite and latex. It may be some unknown substance. In some cases, patient has allergy of antiallergenic drug!! Doctor may, perform an allergy test. Because allergy may be life threading. There are different types of allergy test.

1. Skin prick
2. Intradermal test
3. Patch test.
4. Block (IgE) test.
5. Challenge test.

A doctor who specialises in allergies can perform this test. In both above mention the condition .The most important thing that patients must know about his/her allergy and its magician and other thing that is used in the hospital.

2 | IMPORTANT OBSERVATION

- 1) Shortage of trained allergists at hospitals. Only few patients have the chance to undergo testing.
- 2) There were severe allergy of some drugs and environment / food. Increase hospital readmission rates, length of the hospital stay and economical loss. It also includes mental and physical stress to patient and its well-wisher.
- 3) Current guidelines recommend that skin test should perform on patients, using skin prirock tests and intredermal test. ^{2,4,5}
- 4) Use of simple structured questionnaire to patients at pre-hospitalized stage may be beneficial for the accurate diagnosis of the drug allergies and environmental allergies. ¹
- 5) In modern days, allergic diseases are increase in general. There is big gap of attitudes and opinions between physicians who have and have not taken allergy/immunology rotation. It is advisable, to be compulsory AI Rotation for physician. ⁶
- 6) The Diagnosis of drug hyper sensitivity may sometimes be inaccurate casing deleterious medical and economical results. ⁹⁻¹⁰

- 7) Dizziness, unconsciousness with a weak and rapid pulse are also symptoms of allergy patients.
- 8) Don't advise any liquid to the patients.
- 9) C D C P advises vancomycin use in instances of use in instances of penicillin allergy.¹¹
- 10) Several-allergy labels are incorrect, like up to 98% of penicillin-allergy labels are incorrect when tested.
- 11) Nursing staff should get appropriate training from allergists.
- 12) Training is also related with on the clinical picture and the allergological investigation.
- 13) Immediate allergenic reactions occurs within 24 (normally in a minutes)²
- 14) The incidence of drug allergy and mortality in hospitalized patient is low.³
- 15) An antihistamine pill is not sufficient to treat anaphylaxis.
- 16) Study shows Antibiotic allergy exist is permanent problem.
- 17) Drug related problem, especially for antibiotic in surgical patient is common.

3 | DISCUSSION

There are many studies across the Globe allergic reaction among the hospitalized patients and hospitalization due to allergy related admissions to the hospital. According to some researches up to 30% of hospitalized patients have allergy related problems and all drug related allergy admissions are potentially avoidable.⁷⁻⁸

A life-threatening allergic reaction can be treating comparatively easily since patient is already hospitalized. Symptoms are shock, a sudden drop in blood pressure, redness on skin, trouble breathing, bleeding from the mouth and vomiting, swelling of the face, eyes, lips or throat are common most symptoms.

4 | SURGERY PATIENTS

It is patient's responsibility to inform surgeon about all medication he/she is taking. Prescription drugs, herbal supplements and vitamins and/or and syndrome which should be inform doctor. It is important to disclose all known allergies prior to having surgery. In the case of emergency surgery, repeated aerosolized B₂ agonist/ glucocorticoid along with i.v. corticosteroid may be required. ¹²⁻¹³ The main perioperative risk factor for anaphylaxis is a previous uninvestigated perioperative immediate hypersensitivity reaction. ¹²

Chlorhexidine is an antiseptic and disinfectant, used in surgical practice, it's allergic reactions are rarely reported. ¹⁴

Research reports 40% of surgical patients have some kind of allergy. Since surgical patient needs pre and post operative drug therapy, surgeon must take care of it with help of super specialist. ¹⁰

The prink test and intradermal test must be carried out with drugs used during surgery.

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These drugs are chlorhexidine, lidocaine, cephalothin, acetylcysteine, chloramphenicol, cephalosporin, midazolam, fentanyl and propofol. We can avoid those which we would not be in use.

Anaphylaxis also referred to as known as an anaphylactic reaction, is a response to an allergen, like latex, that is classified as a type I hypersensitivity reaction¹⁵⁻¹⁶. It is serious allergic reaction, may cause death.¹⁷

5 | LATEX ALLERGY

Latex Allergy in surgery patient is second most cause of anaphylaxis. It is direct IgE-mediated immune response to the polypeptides in natural latex. Many surgeons also have similar problem.¹⁵ Since latex exposure is through skin and/or mucosa results in clinical sign it may take time 15-60 minutes¹⁵. 1% to 10% of health care workers regularly exposed to latex and 28% to 67% of children with spina bifida have positive skin test results to latex proteins.¹⁸

The present treatment for latex allergy is careful avoidance of latex material and use of powder free gloves. A minimization at the protein level on latex rubber could prevent allergic reaction.¹⁸

6 | FOOD ALLERGY

Food allergy could affect outcome of hospital services. Problem is serious when we consider, food allergies are estimated 4% to 6% of children but hospitalized children have 8%¹⁹. The dietetics department has to develop on hypoallergenic diet and specific.¹⁹ Diet monitoring sheet is integrated part of patients treatment file] there should be balance food in sense nutrients under nutrition or over nutrition Many hospitals are often behind in food allergy awareness and dangerously leaving patient. Specially prepared safe meal is ready; it is to be serving to the right patient. Mistakes still can happen.

7 | DUST MITE ALLERGY

It is an arthropod, having length at one quarter of millimetre. It is temperature and humidity sensitive. Both the body parts and the waste of the dust mites are allergens for many people.

Hospital must careful for Dust mites free environment with following precaution:

- Have person without dust mite allergy clean hospital / hospital rooms.
- Avoid wall to wall carpeting, curtains, blinds and upholstered furniture.
- Clean and wash sheet and blankets regularly with hot water.
- Cover mattresses and pillows in zippered dustproof covers.
- Keep humidity in rooms less than 50%.
- Use standard filter with air conditioning unit.

Climate change could affect allergic diseases especially due to pollen, specific smell, specific chemical particles in air and radiations. Allergic affect people of all ages, races genders and socioeconomic statuses. It is the most common chronic health conditions in the world. Allergens can be inhaled or enter through the skin. In worst case, some person has allergy of antiallergenic drug. It is very difficult case.

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