

LATEX ALLERGY

Introduction

Latex allergy can occur both in children and in adults. There is still widespread use of latex containing products. In context with children latex is present in commonly used items like diapers, balloons, pacifiers, rubber toys, erasers, shoes and stickers.

Risk factors

The risk of latex allergy is associated with the degree of exposure and sensitization. The vulnerable group includes children who undergo repeated anaesthetics e.g. for spina bifida surgery, and those who undergo repeated surgery and catheterization e.g. for urological abnormalities. Children with a history of more than five anaesthetics and surgeries have a higher risk. The percentage of latex sensitization is approximately 1% in children and increases to 3 to 5% in atopic children.

Clinical Presentation

Clinical presentation can be varied. The condition can present with localized dermatitis, or dryness and redness of areas in contact. More serious presentation is as anaphylactic shock.

Management

Pre-Operative Management

- A patient's latex allergy status should be recorded by the operating room (OR) booking staff.
- It is preferable for latex allergic patients to be scheduled first on the operating list.
- A latex allergy cart should be available.

Intra-Operative Management

- Display a prominent sign "LATEX ALLERGY" at all entry points to the OR, recovery room and the patient's bed/cot. A clean OR should be utilized with all latex products removed. Alert sign should be displayed on the OR door.
- Infusion sets should have 3-way stopcocks.
- Cover the OR table with non-latex materials.

PAEDIATRIC ANAESTHESIA

- Remove all latex materials and use only latex-free gloves throughout.
- Ensure all anaesthetic products like circuits, masks, oxygen masks and re-breathing bags, oropharyngeal airways, endotracheal tubes and mounts are latex free products.
- It is ideal for the staff to remain in the designated latex precaution/latex safe zone for the duration of the surgery.
- Restrict traffic flow in the designated theatre before and during the procedure.

Not all patients will be identifiable. If anaphylaxis occurs and the cause is not readily identified, the possibility of latex induced anaphylaxis must be considered, especially in patients from high-risk groups.

Post-operative recovery

Latex allergic/latex alert patients should be recovered in a designated latex reduced area with latex prevention/management precautions in place as above.

Contents of Latex Allergy Cart:

- Glass syringes / disposable latex free syringes
- IV tubing's without rubber injection ports
- 3-way stopcock
- Latex free breathing systems and self – inflating resuscitation bags
- Laryngeal masks and PVC tracheal tubes
- Cotton gauze and non-latex tapes and bandages
- Non-latex gloves (neoprene / nitrile)

In the event of severe allergy despite precautions, manage as for anaphylaxis protocol.

References:

1. Arasi S, Barni S, Caminiti L, et al. Latex Allergy in Children. *J Clin Med.* 2023 Dec 25;13(1):124. doi: 10.3390/jcm13010124. PMID: 38202131; PMCID: PMC10779698.
2. S. Ahmed and L. Savic. Latex: a rare but important cause of perioperative allergic reactions. *BJA Education*, 20(12): 398e399 (2020) doi: [10.1016/j.bjae.2020.08.002](https://doi.org/10.1016/j.bjae.2020.08.002) (site accessed on 24th September 2024)
3. Latex - management of a patient at risk of or with a known latex allergy. *Nursing Guidelines.* The Royal Childrens Hospital, Melbourne, Australia. https://www.rch.org.au/rchcpg/hospital_clinical_guideline_index/Latex_management_of_a_patient_at_risk_of_or_with_a_known_latex_allergy/. (site accessed on 24th September 2024)