

# Safety Alert

## Allergy and Anaphylaxis to Known Drug Allergens

### Issue

Allergic and anaphylactic reactions may occur when known drug allergens are prescribed, dispensed and administered to patients. This harm is preventable. Rapid recognition and treatment is essential. Anaphylaxis to drugs begins and progresses rapidly. Severe hypotension +/- tachycardia is common, as are extreme anxiety, agitation and GI disturbance. Respiratory and skin signs may be absent. The most common causes of fatal drug anaphylaxis are neuromuscular blockers, cephalosporins, contrast media, penicillins and NSAIDs<sup>1,2</sup>.

### Evidence of Harm

- Drug allergies and adverse drug reactions led to 62,000 hospital admissions in England annually<sup>2</sup>
- In the UK between 2005 and 2013 18,079 patient safety incidents involved drug allergy. These included 6 deaths, 19 'severe harms', 4980 'other harms' and 13,071 'near-misses'. The majority of these incidents involved a known drug allergen<sup>2</sup>
- In Ireland over one-quarter of all medication-related claims intimated to the Clinical Indemnity Scheme from January 2004 - December 2010 arose as a result of a known allergen being prescribed / administered. This led to 4 patient deaths, with others experiencing significant morbidity<sup>3</sup>.

### How to Reduce the Risks

#### 1. Check allergy status immediately before prescribing, dispensing or administering drugs:

Every drug, every patient, every time.

#### 2. Understand cross-allergies:

Use reliable references to check which drugs are contra-indicated.

#### 3. Ensure patients understand their allergies, which drugs to avoid and the nature of their reaction.

Provide patients with written detailed information on their reaction.

Encourage patients to share their allergy status with all health care professionals they encounter.

Referral to an immunologist may be required where there is difficulty determining the drug allergen.

#### 4. Ensure drug allergies are clearly documented and shared at the point of drug use (Drug Chart/Prescription) before prescribing / administering any drug.

Document the drug / class and nature of the reaction.

#### 5. Maximise the impact of computerised prescribing, where available:

a. Require input of allergies or NKDA (No Known Drug Allergies) before the first prescription.

b. Generate automated alerts to prescribers if an allergen is selected.

c. Ensure alerts for contra-indicated allergens cannot be overridden without amending allergy status.

#### 6. Configure healthcare databases to allow recording of allergy information.

Clarify who is responsible for completing this step.

Ensure that allergy status automatically displays on all screens referred to during medication-related processes.

#### 7. Ensure that guidelines and facilities for diagnosis, treatment and follow up of allergies and anaphylaxis are accessible, clear and that healthcare professionals are trained in their use.

**See the Briefing Document on "Reducing Preventable Harm to Patients with Known Drug Allergies" at <http://www.imsn.ie/all-news/18-briefing-documents/62-allergies> for further information**

#### References

1. Pumphrey, RS. Anaphylaxis: Can we tell who is at risk of a fatal reaction? *Curr Opin Allergy Clin Immunol.* 2004; 4 (4)
2. NICE. *Drug allergy; diagnosis and management* (CG 183). London: NICE 2014. Available at: (<https://www.nice.org.uk/guidance/cg183/chapter/introduction>);
3. Clinical Indemnity Scheme Newsletter, Dublin: CIS; March 2011

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