

# Understanding anaphylaxis and adrenaline auto-injectors:

## A conversation with Professor Adam Fox



In a recent interview with Professor Adam Fox, a leading paediatric allergist and expert on anaphylaxis, Head of Clinical Services at Allergy UK, Amena Warner delves into the complexities of managing severe allergic reactions and the critical role of adrenaline auto-injectors (AAIs). Their conversation explores some of the most pressing questions healthcare professionals and patients alike have about anaphylaxis, its causes, and how to address it effectively. Here's what healthcare professionals need to know from their in-depth discussion.

### What exactly is anaphylaxis, and why are we seeing more cases?

Anaphylaxis is a severe, potentially life-threatening allergic reaction that involves multiple body systems and can escalate within minutes. Anaphylaxis can cause symptoms ranging from skin reactions like hives to more severe respiratory and cardiovascular symptoms, such as airway constriction and a dangerous drop in blood pressure. The rapid onset and intensity of these symptoms make anaphylaxis a true medical emergency.

While we don't fully understand all the reasons why we are seeing more cases, we suspect it's a mix of genetics, environmental changes, and lifestyle factors. Urbanisation shifts in diet, increased use of certain medications, all of these could be playing a role in making allergic responses more common and severe.

It's essential for healthcare professionals to stay aware of this rise, not only to improve patient care but also to support broader public health strategies aimed at understanding and mitigating allergic diseases. Each healthcare provider plays a part in shaping how we view and treat allergic diseases, so the knowledge we share with patients can make a significant difference.

### Why is adrenaline so important in treating anaphylaxis?

Adrenaline is absolutely the first line of treatment because it counteracts the effects of histamine and other mediators released during an allergic reaction. It's lifesaving, but many healthcare professionals may still hesitate or wait for the reaction to progress, which can be dangerous.

Administered quickly, it can prevent the progression of the reaction, buying critical time until further medical help can arrive.

In the healthcare community, there is a noticeable reluctance when it comes to administering adrenaline, often due to concerns about possible side effects. However, the risks associated with delayed adrenaline administration far outweigh the relatively low risk of adverse effects. It is important for healthcare providers to reinforce to their patients that when in doubt, it's better to administer adrenaline than to wait.

### What stops people from using adrenaline auto-injectors right away?

One of the biggest misconceptions is that adrenaline should only be used as a last resort, but that's absolutely not the case. Adrenaline is the treatment for anaphylaxis, not the backup plan. The biggest danger is in not using it soon enough.

Healthcare professionals must actively work to dispel these myths, ensuring patients understand that adrenaline should be administered at the first sign of a severe reaction. When patients are hesitant, it's often because they don't feel confident in their ability to identify symptoms or use the injector correctly. This is an area where healthcare providers can make a difference by offering practical advice and clear instructions.

Each time a patient is prescribed an AAI, healthcare providers should consider it an opportunity to go over its usage. We should be telling our patients that it's better to use it a minute too early than a minute too late.

## How can we improve education on anaphylaxis and AAI use?

While there are already guidelines in place, there's room for more hands-on training, especially in primary care settings, where healthcare professionals may not frequently encounter anaphylaxis.

One thing we see is that, particularly in general practice, professionals aren't always familiar with AAIs because they don't see them every day. But we need to be prepared. Basic training on AAI use should be part of every healthcare professional's toolkit, no matter their speciality.

For patients, easy-to-understand educational materials, including videos and in-person demonstrations are vital. When patients can practice using an AAI under the guidance of a healthcare provider, they're less likely to feel intimidated by the device later on. Even practicing with a training injector can provide a significant confidence boost.

## What should healthcare professionals keep in mind when supporting patients with AAIs?

When a patient leaves the clinic, they should feel like they know exactly what to do in an emergency situation. It's our job to make sure they walk away feeling confident and prepared."

Several key messages that healthcare professionals should communicate to patients with AAIs are:

- 1. Recognise early symptoms:** Patients should understand the early signs of anaphylaxis, such as swelling, rash, and respiratory symptoms. The sooner a patient can recognise these symptoms, the quicker they can act.
- 2. Trust your judgment:** I urge patients to trust their instincts. If they think they might be experiencing anaphylaxis, they shouldn't hesitate to use their AAI.
- 3. Use first, worry later:** The risks of using adrenaline inappropriately are low, especially compared to the risks of not using it when it's truly needed.

By consistently sharing these messages, healthcare professionals can help reduce the hesitancy patients may feel, ensuring they're ready to take immediate action if necessary.

## How do we continue to improve anaphylaxis management?

I am optimistic, there have been recent advancements in allergy treatments and research on better diagnostic tools. The growing public awareness of anaphylaxis, which has led to more robust support networks for patients is encouraging.

However, I do believe there's more work to be done within the healthcare community to create a cohesive approach to anaphylaxis. I envision a future where all healthcare professionals, from primary care physicians to emergency responders, receive standardised training on anaphylaxis and AAI use. This could help ensure that patients receive consistent care and advice across different settings.

There's a shared responsibility here, as healthcare professionals, we must take an active role in supporting patients and advocating for continued advancements in allergy care. The more we learn and the better prepared we are, the better outcomes we can achieve. We all have a role in managing anaphylaxis effectively, and it starts with education, compassion, and communication.



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