

Policy Statement on the prescribing of Adrenaline Auto-injectors (AAIs)

This policy is not intended to provide full guidance on the management of anaphylaxis. It is designed to provide information about adrenaline auto-injectors, when and how to use them and the policy on the prescribing of them.

Anaphylaxis is a severe, life-threatening allergic reaction which can develop very quickly. It can involve the airway (pharyngeal or laryngeal oedema), breathing (bronchospasm/tachypnoea), circulation (hypotension/tachycardia) and skin changes (urticarial/flushing). An early intramuscular injection of adrenaline using an AAI is the best emergency, on-the-spot treatment. Common allergens that can cause anaphylaxis include food, drugs, wasp/bee stings etc.

Allergic reactions vary in severity, so joint prescribing of AAIs and an oral antihistamine would not be un-reasonable. The decision to prescribe an AAI should be part of a thorough assessment of the patient's needs.

Prescribing recommendations:

- Prescription of an AAI is not usually indicated for patients with drug allergy.
- Prescribe AAIs by brand. The current licensed brands available are Epipen[®], Jext[®] and Emerade[®]
- As brands are linked to a specific device and triggering mechanism, patients should be maintained on the same brand. If there is any doubt which brand to prescribe, check with the patient.
- Demonstration of the correct use of the AAIs (the side of the thigh in the middle between the hip and the knee) and when to use it for anaphylaxis is the responsibility of the initiator and should take place on the ward before discharge, or in the outpatient clinic by experienced hospital staff. On-going advice and further information can be given by the GP / Practice nurse
- Patients should be advised not to inject into the buttocks, inner or front of the thigh and avoid accidental injection to the fingers or hands. Should this occur, the patient should go immediately to the nearest hospital for treatment.
- Advise patients to obtain and practise using a trainer device (available for free from the manufacturers' websites).
- In line with Medicines and Healthcare products Regulatory Agency (MHRA August 2017) recommendation **TWO** auto-injectors should be prescribed per patient and the patient should be advised to carry them both with them at all times.
 - **One is to be used at the first signs of a severe allergic reaction (airway or cardiovascular compromise i.e. difficulty breathing or faintness). If the person does not start to feel better, the second auto-injector should be used 5 to 15 minutes after the first.**
- Patients should be provided with an anaphylaxis allergy plan, these are available to download from the BSACI website
<http://www.bsaci.org/Default.aspx?PageID=13325790&A=SearchResult&SearchID=2465932&ObjectID=13325790&ObjectType=1>
- If the patient is a child, the parent should be advised to carry both devices with them at all times. See school advice below.
- **Patients should be advised that if an AAI is used an ambulance must be called so that any additional treatment and monitoring can be undertaken.**
- Advise patients to check expiry dates regularly. It is the patients' responsibility to replace pens before expiration.
 - Jext, Emerade and Epipen offer a free text alert service that reminds patients that the pen/pens are coming up to its expiry date – see manufacturers' websites.

Although there are no contra-indications to the use of adrenaline in a life-threatening allergic reaction situation, there are some precautions to note.

- Antidepressants such as tricyclic antidepressants or monoamine oxidase-inhibitors, effects of adrenaline may be increased.
- Parkinson's disease medications such as catechol-O-methyl transferase inhibitors, effects of adrenaline may be increased.
- Medicines that may make the heart sensitive to arrhythmias, such as digitalis and quinidine.
- Medicines for heart disease or medicines to treat nervous system disorders called alpha and beta blockers as they may reduce the effect of adrenaline.
- Diabetic patients should monitor blood glucose levels carefully as adrenaline can increase blood glucose levels after use.




Advice for supply to school children

The Department of Education (DfE) and National Union of Teachers recommends that for use at schools, wherever possible, the child should be allowed to carry their own medicines and relevant devices or have quick and easy access to them for self-medication at all times. Parental permission is normally required for the child to self-administer or for appropriately trained staff to help administer if a child is unable to do so themselves. There should always be a spare set held by the school in a place known to and accessible by all staff.

For this reason a maximum of 4 devices may be prescribed for the initial supply (2 for school and 2 to be kept with the child at all times). Subsequent supplies to top up should only require 2 to be supplied at a time. Those of secondary school age may be able to hold their own and 2 may be appropriate.

Alternative arrangements will need to be made where the child is not thought to be able to look after their own medication.

Choice of Adrenaline Autoinjectors

	Epipen®	Jext®	Emerade®
Image of adrenaline auto-injector			
Strengths and dosing	150mcg (EpiPen® Jr) Children 7.5- 25kg body weight Current cost: £26.45 (As per SPC)	150mcg: Children 15-30kg body weight Current cost: £23.99	150mcg: Children 15-30kg body weight Current cost: £26.94
	300mcg Patients over 25kg Current cost: £26.45	300mcg Patients over 30kg Current cost: £26.45	300mcg Patients between 30-60kg Current cost: £26.94
			300-500mcg (higher dose clinical judgement) Patients over 60kg Current cost: £28.74
Auto-injector instructions for use	<p>BSACI has Standard Operating Procedures for teaching patients to use AAI's. http://www.bsaci.org/Guidelines/SOPs</p> <p>Carry two pens at all times.</p> <p>AAIs can be injected through clothing.</p> <p>Call for urgent medical attention: dial 999 and say 'ANAPHYLAXIS' even if symptoms are improving.</p> <p>Lie Flat with Legs raised to maintain blood flow: If breathing is difficult sit up to make breathing easier. If the individual does not feel better or begins to deteriorate, use a SECOND auto-injector 5-15 minutes after.</p>		
Website	http://www.epipen.co.uk/	http://www.jext.co.uk/	http://www.emerade-bausch.co.uk/
Patient information leaflets/link to video demonstrations	http://www.epipen.co.uk/fileadmin/user_upload/epipen_uk/16592-Guide-to-Using-Your-EpiPen-4pp-DL-V5pr.pdf http://www.epipen.co.uk/patients/demonstrationvideo/	http://www.jext.co.uk/jext-video-demonstrations.aspx	http://www.emerade-bausch.co.uk/patient/how-to-use-emerade
Storage	Adrenaline is sensitive to light. Keep the auto-injector in the outer carton. Do not store above 25°C. Do not refrigerate or freeze. The solution is clear and colourless.	Do not freeze. The solution is clear and colourless.	Keep in the original package. Do not freeze. The solution is clear and colourless.
SPC links	EpiPen Auto-Injector 0.3mg Epipen Auto-injector 0.15mg	Jext Auto-injector 150mcg Jext Auto-injector 300 mcg	Emerade Auto-injector150 mcg Emerade Auto-injector 300 mcg Emerade Auto-injector 500 mcg

All used or expired pens should be returned to a pharmacy for safe disposal. Epipen, Emerade and Jext auto-injectors have a protective sheath that covers the needle as it is removed from the thigh allowing safe disposal in household waste.

Title	Policy Statement - Prescribing of Adrenaline Auto-injectors (AAIs)
Document reference	AAIPOL201706V1.0FINAL
Reference	Supporting pupils at school with medical conditions. Department of Education December 2015 - Link to website National Union of Teachers. Health and Safety Briefing. Anaphylaxis in Schools. October 2015 https://www.teachers.org.uk/help-and-advice/health-and-safety/a/anaphylaxis-schools Electronic medicines compendium (eMC) for specific Summary of Product Characteristics (SPC)- Link to website Adrenaline auto-injectors: updated advice after European review MHRA Drug Safety Update August 2017 - Link to Website
Author	Catherine Mayhew, Prescribing support Technician, MECCG Natalie Prior, Senior Pharmacist, MECCG
Consulted with	Kathryn Powrie, Allergy Nurse Specialist, MEHT
Approved by	Mid Essex CCG Medicines Management Committee
Date approved	June 2017
Next review date	June 2019
Previous version	Key Changes
-	New guidance