

Using the care pathway

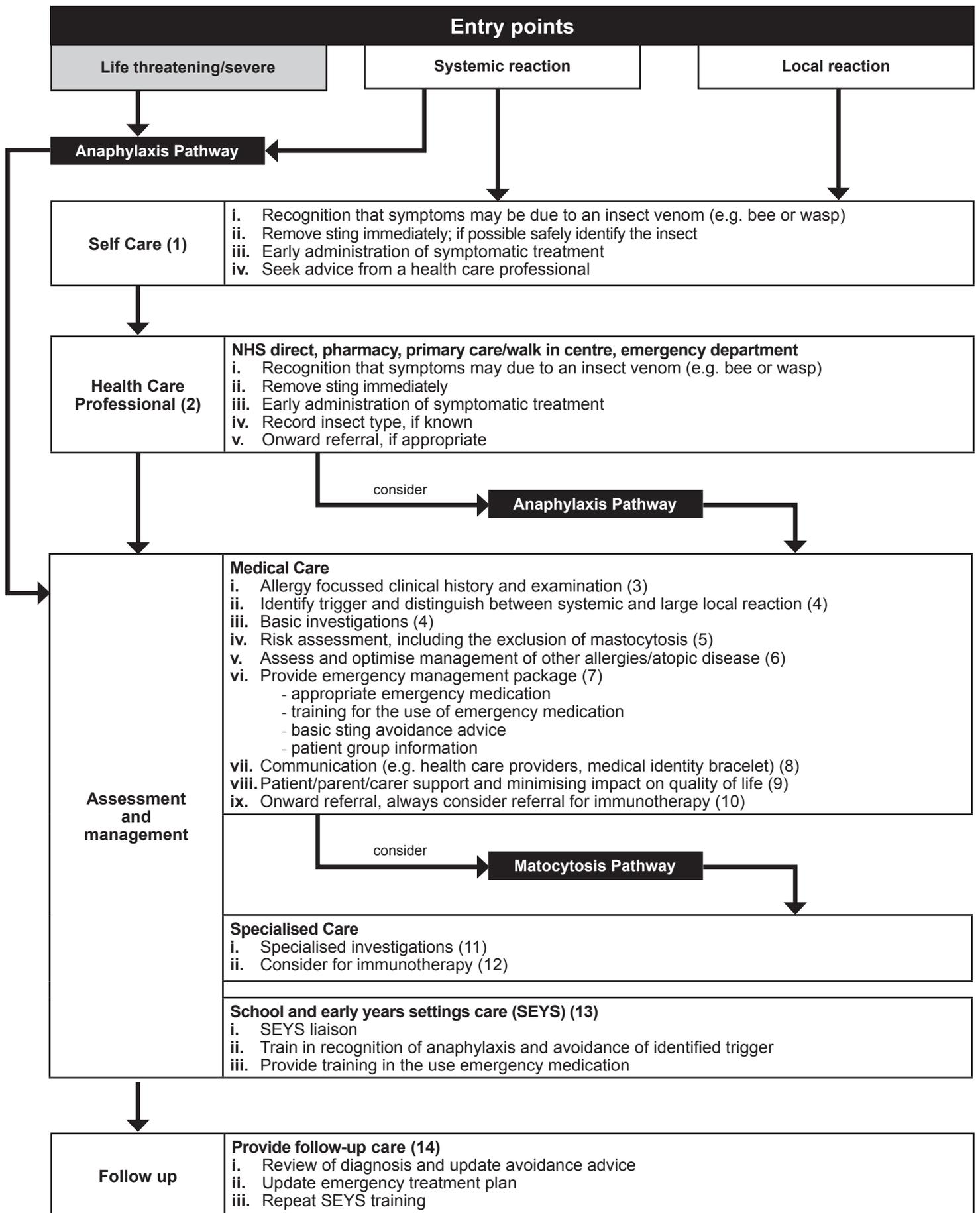
The Royal College of Paediatrics and Child Health (RCPCH) care pathway for venom allergy is presented in two parts: an algorithm with the stages of ideal care and a set of competences required to diagnose, treat and optimally manage venom allergy. The algorithm has numbers which correspond to the competences outlined within the body of the document. These competences have not been assigned to specific health professionals or settings in order to encourage flexibility in service delivery. Each pathway has a set of core knowledge documents of which health professionals should be aware. These documents are the key clinical guidance that inform the pathways.

We recommend that this pathway is implemented locally by a multidisciplinary team with a focus on creating networks between staff in primary and community health care, social care, education and hospital based practice to improve services for children with allergic conditions. All specialists should have paediatric training in line with the principles outlined in the Department of Health Children's National Service Framework - particularly standard 3 which states that staff training should reflect the common core of skills, knowledge and competences that apply to staff who work with children and young people.

For the purposes of the RCPCH care pathways children is an inclusive term that refers to children and young people between the ages of 0-18 years. It is important to recognise that, while the RCPCH venom allergy pathway is linear, entry can occur at any part in the pathway.

Further information regarding the RCPCH allergy care pathways can be downloaded at:
www.rcpch.ac.uk/allergy.





Notes:

- The colours on the pathway and competence table correspond to the modified Scottish Intercollegiate Guidelines Network SIGN grade:

GRADE A	GRADE B	GRADE C	GRADE D	CLINICAL PRACTICE GUIDELINE	GOOD PRACTICE POINT
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- The numbers on the pathway correspond to the competences required to provide care - these are on the following pages
- Links to the references can be found within the competence statements

Venom allergy definition

Venom allergy is defined as an immune mediated (immediate-onset) reaction to a venom. This pathway covers bee and wasp venom allergy which are the most common.

Core knowledge documents

The core knowledge documents

- [Allergen immunotherapy: A practice parameter second update \(15\)](#)
- [EAACI Standards for practical allergen-specific immunotherapy \(16\)](#)

Competence

Ref	Pathway stage	Competence
1	Self care	<p>Know</p> <ul style="list-style-type: none">▪ the difference between bees and wasps <p>Be able to</p> <ul style="list-style-type: none">▪ recognise that symptoms may be caused by a bee or wasp sting▪ remove sting immediately▪ safely identify insect, if possible▪ administer treatment to relieve symptoms (e.g. antihistamine, intramuscular adrenaline injector (17), if indicated)▪ seek advice from a health care professional
2	Health care professional	<p>Know</p> <ul style="list-style-type: none">▪ the difference between bees and wasps▪ the features of a typical bee and wasp sting (e.g. pain and local swelling)▪ large local reactions usually include the following:<ul style="list-style-type: none">– increase in size for 24-48 hours– swelling to more than 10cm in diameter– possible involvement of more than one joint area– 5 to 10 days to resolve (18) <p>Be able to</p> <ul style="list-style-type: none">▪ recognise the signs and symptoms of an allergic reaction▪ recognise that symptoms may be caused by a bee or wasp sting▪ remove sting immediately▪ record insect type, if identified▪ administer treatment to relieve symptoms (e.g. antihistamine, intramuscular adrenaline injector, if indicated)▪ monitor patient until fully recovered▪ refer children with a systemic reaction or a large local reaction to a clinic able to perform further diagnostic tests and provide advice on immunotherapy

Ref	Pathway stage	Competence
3	Assessment and management (medical care) - history and examination	<p>Know</p> <ul style="list-style-type: none"> the clinical features and grading of local and systemic reactions to insect stings <p>Be able to</p> <ul style="list-style-type: none"> take an allergy focused clinical history and examination differentiate between IgE mediated, non IgE mediated reactions identify trigger and distinguish between systemic and large local reactions
4	Assessment and management (medical care) - identify trigger, basic investigations	<p>Have access to:</p> <ul style="list-style-type: none"> sufficient facilities, practical skill and knowledge to undertake and interpret basic investigations including <ul style="list-style-type: none"> skin prick testing measurement of serum specific IgE measurement of serum tryptase (19) appropriate quality control through guidelines and standard operating procedures to ensure the clinical competence of staff conducting SPT access to an accredited laboratory for serum specific IgE and baseline serum tryptase testing <p>Understand the</p> <ul style="list-style-type: none"> relationship between sensitisation and clinical allergy performance (sensitivity and specificity) of tests for sensitisation to bee and wasp venoms <p>Be able to</p> <ul style="list-style-type: none"> interpret the results of investigations in the context of the clinical history
5	Assessment and management (medical care) - risk assessment	<p>Know</p> <ul style="list-style-type: none"> the natural history of venom reactions that some patients are potentially high risk (e.g. mastocytosis, bee keeper families (20)) <p>Be able to</p> <ul style="list-style-type: none"> identify patients at high risk (e.g. mastocytosis) provide the patient/parent/carer with a reasonable risk assessment indicating the likelihood of further reactions advise about the avoidance of stings (18)
6	Assessment and management (medical care) - assess and optimise	<p>Know</p> <ul style="list-style-type: none"> the spectrum of atopic disease <p>Be able to</p> <ul style="list-style-type: none"> assess and initiate the management of patients presenting with allergic conditions

Ref	Pathway stage	Competence
7	Assessment and management (medical care) – emergency management package	Be able to: <ul style="list-style-type: none"> ▪ provide an agreed written emergency management plan for future allergic reactions that includes <ul style="list-style-type: none"> – contact details – advice on recognising symptoms – basic sting avoidance advice (18) – guidance when to use each medication during a reaction – age, language and psychosocially appropriate information sources ▪ provide appropriate emergency medication based on risk assessment ▪ provide training in the use of emergency medication ▪ provide patient group information, if relevant (e.g. Anaphylaxis Campaign) ▪ review the emergency management plan, including repeating training
8	Assessment and management (medical care) – communication	Know <ul style="list-style-type: none"> ▪ the importance of effective communication with the entire network of agencies and individuals involved in the child’s care including primary care, community paediatrics, SEYS Be able to <ul style="list-style-type: none"> ▪ provide written communication to patients, parents and carers, primary care, other health care professionals (including school nurses), schools and early years settings (SEYS) and, where necessary, social services ▪ inform children and families about the process and appropriate timing for obtaining a medical alert talisman (e.g. medical identity bracelet)
9	Assessment and management (medical care) – minimise impact on quality of life	Know <ul style="list-style-type: none"> ▪ how venom allergy may impact on different aspects of daily life for the patient, family (e.g. playing outdoors, travelling abroad) ▪ what resources are available locally and nationally to support patients and their families (e.g. Anaphylaxis Campaign, Insect Stings) Be able to <ul style="list-style-type: none"> ▪ explore and manage child/young person’s expectations and concerns about conditions and relevant treatments ▪ ensure age and culturally appropriate education at each contact point ▪ provide support to patients to help minimise the impact of venom allergy (including immunotherapy) on quality of life ▪ provide details of different types of resources, including patient charities, websites and local support groups, as well as psychosocial support, if required

Ref	Pathway stage	Competence
10	Assessment and management (medical care) – onward referral	<p>Know</p> <ul style="list-style-type: none"> ▪ the indications for referral for further investigations ▪ the indications and contra-indications to venom immunotherapy ▪ refer patients to a specialist centre for the administration/ initiation of venom immunotherapy ▪ the indications for investigation of mastocytosis (see the RCPCH mastocytosis pathway)
11	Assessment and management (specialist care) – specialised investigations	<p>Have access to</p> <ul style="list-style-type: none"> ▪ facilities to perform and interpret (in a controlled and safe environment): <ul style="list-style-type: none"> – SPT with serial venom dilutions – intradermal tests <p>Know</p> <ul style="list-style-type: none"> ▪ that specialised investigations occur in addition to other assessment and management <p>Be able to</p> <ul style="list-style-type: none"> ▪ undertake and interpret investigations including <ul style="list-style-type: none"> – SPT (21) with serial venom dilutions – intradermal tests (21)
12	Assessment and management (specialist care) – immunotherapy	<p>Have access to</p> <ul style="list-style-type: none"> ▪ appropriate quality control through guidelines and standard operating procedures to ensure the clinical competence of staff conducting immunotherapy ▪ full resuscitation facilities <p>Know</p> <ul style="list-style-type: none"> ▪ that bee (22, 23) and wasp (19, 22) venom immunotherapy is safe and effective ▪ the indications for and limitations of performing venom immunotherapy (15, 16, 21, 23-25) ▪ the principles of performing venom immunotherapy ▪ the guidelines for the administration of immunotherapy <ul style="list-style-type: none"> – Allergen immunotherapy: A practice parameter second update (15) – Standards for practical allergen-specific immunotherapy (16) ▪ to consider the quality of life of patients regarding immunotherapy (26, 27) <p>Be able to</p> <ul style="list-style-type: none"> ▪ perform and supervise venom immunotherapy in a controlled and safe environment

Ref	Pathway stage	Competence
13	Assessment and management – school and early years settings	<p>Have</p> <ul style="list-style-type: none"> ▪ liaison with SEYS <p>Be able to:</p> <ul style="list-style-type: none"> ▪ advise SEYS on the provision of rescue treatment ▪ train SEYS personnel (e.g. <u>Be AllergyWise - Training for school nurses</u> (28)) <ul style="list-style-type: none"> – risk assessment of environment – on avoidance of insect stings – to be able to use emergency medication when appropriate ▪ repeat training annually
14	Follow up care	<p>Know</p> <ul style="list-style-type: none"> ▪ the natural history of bee and/or wasp venom allergy <p>Be able to</p> <ul style="list-style-type: none"> ▪ reassess risk and review ongoing need for emergency medication ▪ update avoidance advice

References

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2. Venom Allergy Care Pathway: Health Care Professional
3. Venom Allergy Care Pathway: Assessment and Management (Medical Care) – History and Examination.
4. Venom Allergy Care Pathway: Assessment and Management (Medical Care) – Basic Investigations, Identify Trigger.
5. Venom Allergy Care Pathway: Assessment and Management (Medical Care) – Risk Assessment.
6. Venom Allergy Care Pathway: Assessment and Management (Medical Care) – Assess and Optimise.
7. Venom Allergy Care Pathway: Assessment and Management (Medical Care) – Emergency Management Package.
8. Venom Allergy Care Pathway: Assessment and Management (Medical Care) – Communication.
9. Venom Allergy Care Pathway: Assessment and Management (Medical Care) – Minimise Impact on Quality of Life.
10. Venom Allergy Care Pathway: Assessment and Management (Medical Care) – Onward Referral.
11. Venom Allergy Care Pathway: Assessment and Management (Specialist Care) – Specialised Investigations.
12. Venom Allergy Care Pathway: Assessment and Management (Specialist Care) – Immunotherapy
13. Venom Allergy Care Pathway: Assessment and Management – School and Early Years Settings
14. Venom Allergy Care Pathway: Follow-up Care.
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