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NICE Bites

Anaphylaxis

NICE CG134; 2011

This guideline covers the assessment to confirm an anaphylactic episode and appropriate referral after emergency treatment for a suspected anaphylactic episode.

Definition of terms

Anaphylaxis	a severe, life-threatening, generalised or systemic hypersensitivity reaction
Biphasic anaphylaxis	after complete recovery of anaphylaxis, a recurrence of symptoms within 72 hours with no further exposure to the allergen
Idiopathic anaphylaxis	a form of anaphylaxis where no identifiable trigger can be found
Suspected anaphylaxis	the diagnosis prior to assessment by a specialist allergist for people who present with symptoms of anaphylaxis

Care Pathway – see full guideline

Investigation

After emergency treatment for a suspected anaphylactic reaction:

- **Adults and young people (≥16 years);** take blood samples for mast cell tryptase testing,
- **Children (<16 years);** consider taking blood samples for mast cell tryptase testing if the cause is likely to be venom-related, drug-related or idiopathic.
- Take a blood sample:
  - as soon as possible after emergency treatment has started, **AND**
  - again ideally within 1 to 2 hours (but no later than 4 hours) from the onset of symptoms.
- Inform the person and/or parent /carer that a blood sample may be required at follow-up with the specialist allergy service.

Assessment

- Document the:
  - acute clinical features of the suspected anaphylactic reaction,
  - time of onset of the reaction,
  - circumstances immediately before the onset of symptoms to help identify the possible trigger.

Observation

- **Adults and young people (≥16 years);** observe for 6 to 12 hours from the onset of symptoms.
- In people with reactions that are controlled promptly and easily, a shorter observation period may be considered if they receive appropriate post-reaction care prior to discharge.
- **Children (<16 years);** admit to hospital under the care of a paediatric medical team.

Referral

- Refer to a specialist allergy service (age-appropriate where possible) with healthcare professionals who have the skills and competencies to accurately investigate, diagnose, monitor and provide on-going management of, and patient education about, anaphylaxis.
- Hospital trusts providing emergency treatment for suspected anaphylaxis should have separate referral pathways for adults (and young people) and children.

Management

- Give an adrenaline injector (see BNF for available products) as an interim measure before the specialist allergy appointment.

Counselling

- Before discharge, a healthcare professional with the appropriate skills and competencies should offer people or, their parent and/or carer, information about:
  - the signs and symptoms of an anaphylactic reaction,
  - the risk of a biphasic reaction,
  - what to do if an anaphylactic reaction occurs; use the adrenaline injector and call emergency services,
  - how to use the adrenaline injector and demonstrate correct use of the device,
  - how to avoid the suspected trigger (if known),
  - the need for referral to a specialist allergy service and the referral process,
  - patient support groups.

NICE has written a booklet for patients and the public explaining its guidance on **anaphylaxis.**

Visit the NICE pathway**:** **Anaphylaxis**

Pharmalgen for the treatment of bee and wasp venom allergy

NICE TA246; 2012

Pharmalgen* is recommended as an option for the treatment of IgE-mediated bee and wasp venom allergy in people who have had:

- a severe systemic reaction to bee or wasp venom, **OR**
- a moderate systemic reaction to bee or wasp venom and who have one or more of the following:
  - a raised baseline serum tryptase,
  - a high risk of future stings,
  - anxiety about future stings.
- Initiate and monitor in a specialist centre experienced in venom immunotherapy.

NICE has written a booklet for patients and the public explaining the guidance on **Pharmalgen.**

*See Summary of Product Characteristics for full prescribing information

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Hepatitis C – Technology appraisals

NICE TA75, 106, 200, 252, 253

NICE has published the following technology appraisals relevant to the management of hepatitis C in adults:
NICE TA75; Interferon alfa (pegylated and non-pegylated) and ribavirin for the treatment of chronic hepatitis C
NICE TA106; Peginterferon alfa and ribavirin for the treatment of mild chronic hepatitis C
NICE TA200; Peginterferon alfa and ribavirin for the treatment of chronic hepatitis C (part review of TAs 75 and 106).
NICE TA252; Telaprevir for the treatment of genotype 1 chronic hepatitis C
NICE TA253; Boceprevir for the treatment of genotype 1 chronic hepatitis C

Chronic hepatitis C

- Chronic hepatitis C infection causes initial inflammation of the liver that progresses through to gradual scarring (fibrosis) and then hardening of liver tissue (cirrhosis).
- Cirrhosis commonly occurs in two stages;
  - compensated - in the first stage of cirrhosis, the liver can compensate for the damage and still has the ability to function normally.
  - decompensated - when extensive damage occurs and the liver can no longer function normally, decompensation occurs.
- There are six genotypes of hepatitis C (1 to 6). In the UK, genotype 1 and 3 are the most common and genotype 1 is the most resistant to treatment.

Treatment and management

- The aims of treatment are to:
  - eradicate the hepatitis C virus in the individual (achieve a SVR),
  - prevent progression of liver disease and development of liver cancer,
  - prevent transmission of hepatitis C virus.

Mild chronic hepatitis C

First-line: combination therapy with peginterferon alfa* and ribavirin* is recommended for the treatment of adults with mild chronic hepatitis C.

Second-line: monotherapy with peginterferon alfa* is recommended for people:
- who are unable to tolerate ribavirin, **OR**
- in whom ribavirin is contraindicated.

- Treatment can be started immediately after diagnosis or delayed until the disease reaches a moderate stage, after a period of 'watchful waiting.'
- This decision should be made by the patient after fully informed consultation with the responsible clinician.
- A biopsy is not necessary prior to initial treatment but may be considered if following a strategy of watchful waiting.

Moderate to severe chronic hepatitis C

First-line: combination therapy with peginterferon alfa* and ribavirin* is recommended for the treatment of adults with moderate to severe chronic hepatitis:
- not previously treated with interferon alfa or peginterferon alfa, **OR**
- treated previously with interferon alfa alone or in combination with ribavirin, **OR**
- co-infected with HIV.

- Re-treatment may be considered in adults:
  - whose condition did not respond to peginterferon alfa alone or in combination with ribavirin, **OR**
  - who responded initially but subsequently relapsed.

Definition of terms

HCV	hepatitis C virus
Moderate to severe chronic hepatitis C	histological evidence of significant scarring (fibrosis) and/or significant necrotic inflammation
SVR	sustained virological response i.e. undetectable serum HCV RNA , 24 weeks after cessation of treatment
Peginterferon alfa	refers to peginterferon alfa type 2a or 2b

Second-line: peginterferon alfa* monotherapy if ribavirin is contraindicated or not tolerated.

Boceprevir*

- Combination therapy with boceprevir, peginterferon alfa and ribavirin is recommended as an option for the treatment of genotype 1 chronic hepatitis C in adults with compensated liver disease:
  - who are previously untreated, **OR**
  - in whom previous treatment has failed.

Telaprevir*

- Combination therapy with telaprevir, peginterferon alfa and ribavirin is recommended as an option for the treatment of genotype 1 chronic hepatitis C in adults with compensated liver disease:
  - who are previously untreated, **OR**
  - in whom previous treatment with interferon alfa (pegylated or non-pegylated) alone or in combination with ribavirin has failed, including people whose condition has relapsed, has partially responded or did not respond.

Duration of treatment

- When deciding on the duration of treatment with combination therapy take into account:
  - the licensed indication,**
  - hepatitis C virus genotype,
  - viral load at start of treatment,
  - response to treatment as indicated by viral load.

Standard courses

- HCV genotype 2 and/or 3: **24 weeks** treatment
- HCV genotype 1, 4, 5 or 6 (or combined genotypes): 12 weeks initial treatment then:
  - continue treatment until **48 weeks** if there is a reduction in viral load to less than 1% of its level at the start of treatment,
  - discontinue treatment if viral load at 12 weeks exceeds 1% of level at start of treatment.

Shortened courses

- Shortened courses of combination therapy with peginterferon alfa** and ribavirin** are recommended for the treatment of adults who:
  - have a rapid virological response to treatment at week 4, identified by a highly sensitive test, **AND**
  - are considered suitable for a shortened course of treatment.

*See Summary of Product Characteristics (SPC) for full prescribing information

**Licensed indications for the different preparations of peginterferon alfa and ribavirin differ considerably regarding dose and duration of treatment.

∞ **Editorial note:** UK consensus guidelines on the use of boceprevir and telaprevir in hepatitis C have recently been published (Aliment Pharmacol Ther 2012;35:647-662).