



Immunization errors related reactions

Non stérile injection

Reconstitution error

Injection at incorrect site

Vaccine transported/
stored incorrectly

Contraindication ignored



Local injection site reactions.

Toxic shock syndrome.

Blood-borne transmission of disease

Local abscess.

Vaccine ineffective.*

Effect of drug (e.g., insulin, oxytocin, muscle relaxants).

Toxic shock syndrome

Local reaction or abscess or other local reaction.

Local reaction or abscess or other local reaction.

Sciatic nerve damage

Increased local reaction from frozen vaccine.

Ineffective vaccine.

Avoidable severe reaction



Preventing adverse event following immunization

- Ensure health workers are trained – four key messages, reconstitution procedures, administration techniques - safe injection practices
- Train cold chain handlers and vaccinators and monitor correct storage procedures
 - **Do not store drugs and other substances in ILR; use exclusively for vaccines**
 - **Keep reconstituted vaccines on ice pack during session**
 - **Strictly follow Open Vial Policy guidelines**
- Use separate vaccine carriers for separate sessions
- Strictly no house to house vaccination (except SIA-POLIO)
- Observe vaccinated children for 30 minutes after immunization.
- **Investigate and identify immunization error and take steps to avoid recurrence.**



AEFI management centre

- Every government health facility (PHC and above with at least one medical officer) will function as an AEFI management centre.
- They must have the essential drugs to manage allergic/Anaphylactic reactions, fever, febrile seizures, abscesses and other such events.
- Serious events to be identified and referred to higher centre for further care.
- In case of deaths, attendants and family of the deceased to be convinced for an autopsy.



Anaphylaxis kit and AEFI kit

Anaphylaxis kit

At immunization session site

For use by ANM

Contains adrenaline, tuberculin/insulin syringes, 24/25 G one-inch needles, swabs, guidelines/job aid with dose calculation, certification format

AEFI kit

At health facility well equipped to manage anaphylaxis (PHC/CHC, etc.)

For use by medical officer

In addition to contents of the Anaphylaxis kit, contains intubation and resuscitation equipment, hydrocortisone (injection and tablet), Ringer lactate, Normal saline, 5 % dextrose, IV drip set, scalp vein sets etc.



Anaphylaxis

Serious life-threatening allergic condition.

Following vaccination, a case of **anaphylaxis is suspected** if the following criteria are met:

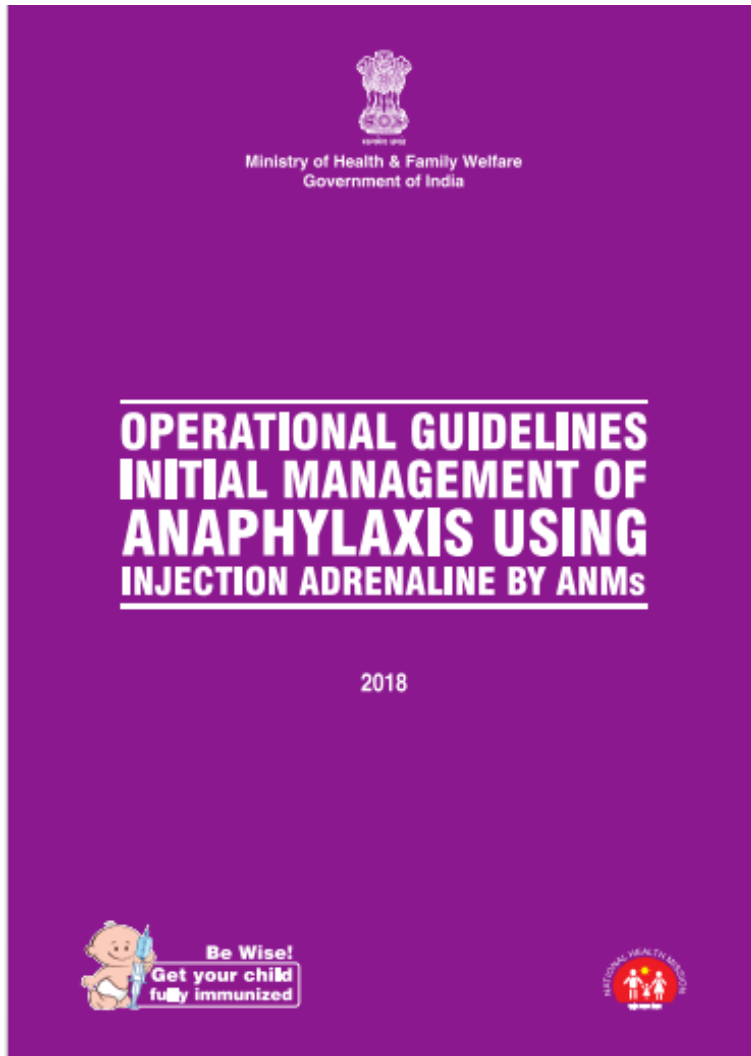
- Sudden, early onset (within minutes to 6 hours) and rapid progression
- At least **one** sign/symptom related to at least two of the following **three** systems - **respiratory, cardiovascular** and **dermatological/mucosal**

In such a case,

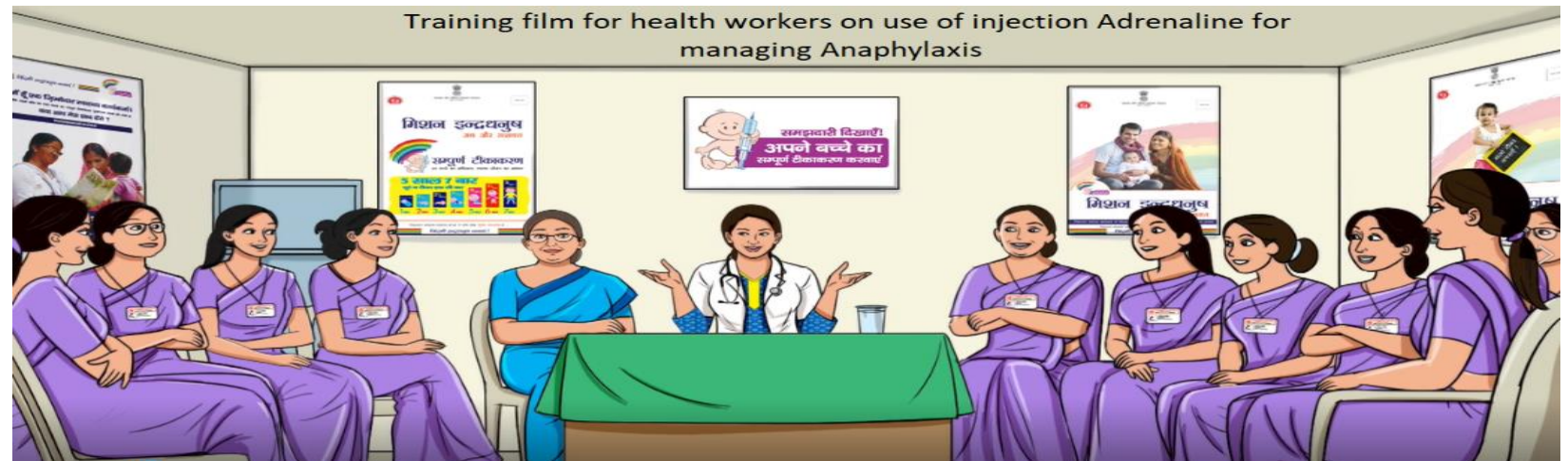
- Reassure the patient, parents and relatives.
- Suspected case should never be left alone.
- If conscious, he/she should be kept in a supine position with lower limbs raised higher than head level.
- If the patient is unconscious, he/she should be kept in left lateral position.
- Administer one age appropriate dose of injection adrenaline by deep intramuscular route



Training of ANM



- HWs/ANMs to administer **single age-appropriate dose** of injection Adrenaline intramuscularly for initial management of suspected anaphylaxis.
- Operational Guidelines and Animated training video provided for training them.
- Must be provided with Anaphylaxis kit
- Should be taught to distinguish Anaphylaxis from Syncope and minor allergic reactions.





Anaphylaxis Kit



Must contain:

- Two Tuberculin or insulin syringes
- Two, 24 or 25 G, one inch long needles
- Two vials of Inj. Adrenaline (within expiry)
- Dose chart and Certificate by MO



Age (in years)	Needle	Age specific dose of adrenaline (1:1000) in ml (tuberculin) or units (insulin)
0-1	1 inch long of 24G or 25G	0.05 ml / 2 units
1-6		0.1 ml / 4 units
6-12		0.2 ml / 8 units
12-18		0.3 ml / 12 units
Adults		0.5 ml / 20 units



Certification

FORMAT FOR QUARTERLY CERTIFICATION OF ANAPHYLAXIS KITS BY MEDICAL OFFICER PHC

Name of ANM:		Subcentre:		Name, contact number of MO:	
Date of checking	Contents	Expiry dates	Signature of MO	Action required (replace ampoule/ syringe)	Action taken, signature of MO, date
	1 mL ampoule adrenaline (1:1000) – 3 nos.				
	1 mL/40-unit syringes – 3 nos.				
	24/25 G one-inch needle- 3 nos.				
	1 mL ampoule adrenaline (1:1000) – 3 nos.				
	1 mL/40-unit syringes – 3 nos.				
	24/25 G one-inch needle- 3 nos.				
	1 mL ampoule adrenaline (1:1000) – 3 nos.				
	1 mL/40-unit syringes – 3 nos.				
	24/25 G one-inch needle- 3 nos.				
	1 mL ampoule adrenaline (1:1000) – 3 nos.				
	1 mL/40-unit syringes – 3 nos.				
	24/25 G one-inch needle- 3 nos.				

- Once in three months (quarterly)
- Medical officer will check contents of anaphylaxis kits
- Ensure insulin/tuberculin syringes supplied do not have fixed needles
- Specifically check expiry dates of all adrenaline vials to ensure expiry is not within next three months
- If expiry is within next three months, ensure replacement of adrenaline vials with expiry beyond three months

Anaphylaxis kit is to be quarterly certified by the medical officer in the format



Summary

- Ensure training of Health workers in safe injection practices and cold chain handlers for vaccine handling so as to prevent avoidable AEFI
- AEFI Management centre to manage AEFI and refer to higher centres
- Distinguish Anaphylaxis and AEFI kits
- Train ANM on single dose administration of Adrenaline in suspected anaphylaxis and ensure availability of anaphylaxis kit.
- Quarterly certification of Anaphylaxis kit



Thank you