MEASLES CAMPAIGN
FIELD GUIDE

EXPANDED PROGRAMME ON IMMUNIZATION

Ministry of National Health Services, Regulation and Coordination

Government of Pakistan

Contents

Preface:

Pakistan is working towards the elimination of the measles virus through implementing all the recommended measles elimination strategies. However due to unsatisfactory routine immunization coverage all over Pakistan, numerous measles outbreaks with thousands of cases have occurred since 2012. There is a need to gear up efforts to contain the spread of virus and also as recommended by the joint GAVI- WHO – UNICEF review mission the nationwide Supplementary Immunization Activity (SIA) is being planned along with strengthening the routine immunization.

This fieldguide will help all health officials and workers at different levels to plan and prepare a high quality SIA. The field guide is prepared in light of the broader guidelines developed for the measles campaign. It will be used for training as well as day to day guide for the field workers to organize a quality campaign, taking into account all operation components prior, during and after the campaign. I hope this document will be useful for all Measles SIA workforce at all levels.

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ACKNOWLEDGMENTS

Federal EPI Program extends special thanks to WHO for providing technical assistance in the development of the Field Guide for Measles SIAs The support and feedback from EPI Colleagues and UNICEF was extremely useful and appreciated..The Field guide will enable the Federal, Provincial and District EPI teams for conducting quality Measles SIAs in line with the WHO recommendations.

Measles Campaign

Case definition of measles:

Any person in whom a clinician suspects measles infection

OR

Any person with fever and maculo-papular rash (i.e. non-vesicular), and any one of the following: cough, coryza (i.e. runny nose) or conjunctivitis (i.e. red eyes)

Campaign background

Pakistan suffered from a huge measles outbreak in 2012. Thousands of children suffered and hundreds of children died due to measles related complication in this outbreak. Most of the affected children were below ten years age and unvaccinated or partially vaccinated. Experts concluded that this massive outbreak happened due to low routine immunization coverage against both doses of measles. To reduce immunity gap, the expert group advised government to conduct a nationwide measles campaign targeting all children aged 06 months to below 10 years as a short term measure and raise routine immunization coverage for both doses of measles vaccine to at least 95%. Accordingly government of Pakistan and all provincial government decided to conduct this measles SIA in all over the country.

Campaign strategy

The measles campaign will be conducted as a rolling campaign at fixed and outreach centers and schools spanning over a period of 12 working days.

School going children will be vaccinated in their respective schools and non-school going children will be vaccinated in outreach centers which will be located in any convenient place in the community. Besides these, all government health facilities and important private health facilities will serve as fixed centers throughout the campaign period. Special mobile vaccination teams will take care of the hard to reach areas, high risk and underserved groups (street children, working children and remotely located scattered population).

To achieve full benefit of the campaign, it is very important to achieve more than 95% coverage in each area

Target children

All children aged 6 months to less than 10 years will be given a single dose of measles vaccine irrespective of the child's previous history of vaccination and measles illness. Beside that, children below 5 years age will be given two drops of OPV and children aged below 2 years will be offered other routine EPI antigens if missed or at default.

Who should be vaccinated?

- **All children aged 6 months to less than 10 years will be vaccinated regardless of previous vaccination status and illness.**
- **During the campaign, vaccinators may encounter children who have had a dose of measles vaccine less than 4 weeks back. This is not a contraindication for measles vaccination. These children should be vaccinated during the campaign.**
- **The measles vaccine given during campaign is considered as an extra dose. Children who completes the age of 9 months during campaign should receive their routine 1st dose of measles vaccine one month after the dose given during campaign. Similarly children aged 15 months should receive their routine 2nd dose of measles vaccine one month after receiving the campaign dose.**
- **All target-age children hospitalized during the campaign should be vaccinated in consultation with their attending physician.**

Duration of the campaign

The measles catch-up campaign will run for total 12 working days. Sunday will be closed.

Types of Vaccination Centers

School vaccination centers: Vaccination session will be held in each and every school and madressah. Duration of these sessions will depend on school timing and number of target. Preferably each school should be completed in a single day, if necessary by assigning more than one team.

Most schools are closed by 01:00 to 02:00 PM. In such cases, vaccination team can move to the adjacent community to vaccinate non-school children up to 04:00 PM.

Outreach vaccination centers: These centers will be located at a convenient place(s) in a village/mohalla targeting non-school going children. Following criteria to be kept in mind in selecting location of such centers:

- Centrally located in the community
- Socio-culturally and geographically acceptable and accessible to all
- Adequate space and furniture is available to run a day long vaccination session in a organized way
- Adequate waiting area for parents should be available.

Example of such places can be schools, health houses, religious institutions, a respected person's residence, *hujra, dera* etc.
The vaccination team can choose multiple locations for holding vaccination session in the same village. They may start at one location on one side of the village, completing that area in 1-2 hours and then move to another location of the same village and so on till the village is complete.
Whenever the vaccination team changes their location, they should leave message to the local community about their next location, so that they can be contacted easily for any Adverse Events Following Immunization (AEFI) or any other reason.

Vaccination session should start from 09:00 AM and will continue without any interruption till 04:00 PM daily. Within this time they should try to vaccinate as many children as possible.

Fixed vaccination centers: Located at all government and important private health facilities in functioning EPI centers. Should be run daily starting at 09:00 AM and continue uninterruptedly till 04:00

PM. Routine EPI service with other antigens will also be provided from fixed centers to eligible children during the campaign period.

Special mobile team: Special vaccination teams will move from area to area to reach high risk population as well as those living in Hard-to-Reach areas that may not have access to a fixed or outreach vaccination center. If required such team will work at unconventional time, e.g. early morning or after evening or at night according to the situation. Example, special mobile team can be formed for,

a. Street children in big cities – team will move from area to area in the evening when such groups of children are more likely to come back at certain places.
b. Working children in industrial areas, workshops, bazaars – where such children are more likely to be available.
c. Children in prison, hospital, day care center etc.
d. Children in remote sparsely populated area

Vaccination Team composition

	Skilled person	**Team assistant**	**Social mobilizer**
Fixed center	1	2	2
Outreach team (community)	1	2	2
Outreach team (school)	1	2	0
Mobile team	1	1	0

Role of skilled persons in the vaccination team

- Child registration and social mobilization before the campaign
- Vaccinate all children ages 6 months to less than 10 years with a single dose of measles vaccine in the assigned area
- Vaccinate defaulter/missed children with other RI antigens
- Carry all logistics (Vaccine and diluents in vaccine carrier, extra ice packs if needed, syringes, safety box, cotton, finger marker, banners, poster and other communication materials, micro plan, map and recording and reporting forms (tally forms, AEFI form etc.) to the vaccination center
- Maintain cold chain: ensure use of frozen ice packs, protect vials from heat and direct sun light.
- Reconstitute and administer measles vaccine following standard procedures
- Prepare and use safety boxes, secure filled boxes and return them to storage/disposal point for safe disposal.
- Respond to AEFIs and report to supervisor or AEFI focal person at respective level
- Ensure tallies are done correctly by team assistant
- Ensure that unused vaccine and diluents are returned maintaining reverse cold chain along with filled safety boxes, completed tally sheets and AEFI report forms (if any)
- Ensure cleaning the vaccination center and its surroundings and thank the community and inform them about the date of next routine EPI session in the area
- Ensure planning and vaccination of missed children on any later date as soon as possible

Role of Team assistant

- Child registration and social mobilization before the campaign
- Ensure mosque announcement before and on the day of campaign repeatedly
- Control crowds: verify age, maintain the queue, send children for vaccination in an orderly fashion
- Assist skilled person in vaccinating small children
- Provide 2 drops of OPV to all children up to 5 years age visiting the vaccination center

- Mark left little finger nail of all children with indelible ink after vaccination
- Tally for each child after vaccination
- Remind parents about routine immunization when appropriate
- Help skilled team members to manage AEFIs, including escorting sick children to a health facility if needed
- Report any missed child or AEFI if found in the community to the vaccinator/local health facility in-charge
- Help other team members to clean the vaccination center and its surroundings

Role of Social mobilizer

- Child registration and social mobilization before the campaign
- Facilitate mosque announcement before and on the day of campaign repeatedly
- Visit house to house and mobilize all children aged 6 months to <10 years to the nearest outreach or fixed vaccination center for measles and OPV vaccination
- Give two drops of OPV to all children aged less than 6 months during house to house
- Correctly tally marking in the Tally Sheet for Home for every child vaccinated with OPV by them
- Recording absent or refusal children in the same Tally Sheet for Home
- Inform the local vaccinator or UCMO about any missed children or AEFI in their community after the campaign

2. Cold Chain Management

Vaccine vial and diluent storage at district or below level

Measles vaccine is very sensitive to heat and light, especially when reconstituted. After receiving measles vaccine at district, tehsil/taluka or union council level EPI store, attempt should be made to store in ILR at $+2^0$C to $+8^0$C temperature. But if adequate space is not available in ILR, then excess vaccine can be stored in freezer or even in cold box with adequate frozen icepacks. However, diluent should never be stored in freezer or in minus temperature because of threat of micro cracks in the ampoule and thus risk of contamination. Diluent ampoule can be stored in ambient temperature. Only the diluents that will be used on next morning will have to be stored in ILR since previous evening to match temperature with vaccine during reconstitution.

Vaccine carrier packing

Only standard vaccine carrier with four frozen icepacks and a foam pad should be used by vaccination teams during measles campaign. Vaccines and diluents should always be distributed from ILR. Ensure that adequate number of vaccine vials and diluents for next day supply are stored in ILR according to Vaccine and Logistics Management Form on the evening prior to the day of distribution.

During packing a vaccine carrier put the diluents with paper packing box or in casing or wrapped in a thick paper at the center of the vaccine carrier and vaccine vials around. The idea is diluent ampoules don’t come in direct contact with frozen icepacks. Intact sealed vials returned on previous day should get priority during packing and will be kept on the top; so that, those will be used first.

UC supervisors are responsible for distribution of vaccine and logistics from a team support center to all his teams. S/he should arrange packing of vaccine carriers following standard procedure for all teams (according to Team micro plan) by 08:00 AM, so that teams can start session by 09:00 AM. If all required vaccine and diluents of the day for a team can’t be stored in a single vaccine carrier, then a 2nd carrier can be used.

Fixed centers will also use a vaccine carrier.

Cold chain maintenance during vaccination session

All vaccine and diluent should be kept inside the vaccine carrier with the lid closed until a child comes to the center for vaccination. Vaccinators can open and reconstitute only one vial after a child appears at the vaccination center. When there are no children in queue, the reconstituted vial should be kept in the slit of the foam on top of the mouth of the vaccine carrier, thus protecting the vial from sunlight and outside temperature. In such case, all four icepacks should be always kept inside the vaccine carrier. Do not try to replace the lid of the vaccine carrier while the vial is in the foam slit.

Vaccine carrier without any foam pad shouldn't be used during the campaign. Melted icepack should be replaced with frozen icepack during the session if necessary. Additional icepack can be carried or supplied to the teams for this purpose.

Remember, Measles vaccine is very sensitive to heat and light after reconstitution.

Once the reconstituted vial is finished, the next vial should be taken out of the vaccine carrier and reconstituted. Never expose the vaccine carrier, the vaccine vial or icepack to direct sunlight.

REMEMBER:
- **Reconstituted measles vaccine quickly loses its potency at room temperatures**
- **At 20^0C temperature, 50% potency is lost in one hour**
- **At 37^0C temperature, 100% potency is lost in one hour**
- **Reconstituted vaccine should NEVER be carried from one place to another**

Returning Unused Supplies

Supplies that remain unused at the end of day's session, including vaccine that have not been reconstituted and diluents, should be returned to the store from where they were distributed maintaining a reverse cold chain for the vaccine. Completed and signed tally sheets should accompany the returned vaccine carrier. It is important to ensure:

- Returned vaccines are immediately stored in ILR at the correct temperature;
- Unused reconstituted measles vaccines should be discarded at the end of the day
- On next day those vials are supplied and are used at first;
- Filled Safety box (three-quarter) and other waste bag are also returned and disposed.

3. Organizing Vaccination Session and Vaccination Method

Most of the campaign vaccination session will be held either in a school or in an outreach location. Vaccination session should take place in a room which has ample space for safe vaccination, children's waiting area and adequate furniture. It is better to keep a separate room ready for children with panic attack. This is more important in schools.

Vaccination teams should carry the following items,

1. Adequate measles vaccine and corresponding number of diluents in a standard vaccine carrier with 4 frozen icepack. If necessary additional vaccine carrier can be used
2. Adequate AD syringe (0.5 ml), reconstitution syringe (5 ml) and safety box
3. Adequate OPV vials with dropper
4. Adequate routine immunization vaccine vials (Fixed center teams: all RI antigens including BCG on the day designated for BCG; Outreach teams: Pentavalent and PCV10; Mobile teams: no RI antigens)
5. Other waste bag/container
6. Campaign Tally sheet (at least one for every day's work for every team)
7. Home tally sheet (at least one every day's work for every social mobilizer)
8. AEFI report form
9. UC Vaccination session micro plan
10. UC map showing microplan
11. Contact number of UC supervisor, local AEFI focal person, local health facility
12. Measles Catch-up Campaign Field guide
13. Daily register and routine EPI tally form (for routine antigens). Not required for mobile teams.
14. Banner and Poster
15. Defaulter lists for RI antigens

Setting a vaccination center

First, hang poster, banner etc. in such a way that these are visible from a distance. Arrange necessary furniture. This is easy in school but may not be so in a village outreach center. Choose a room which has a separate entry and exit. One assistant will stand at the entry to maintain easy, continuous flow of children and provide OPV to <5 years children after screening age. In school, a teacher can help. The skilled person will take position next to a long bench/table with vaccines, syringes, safety box and other necessities. Place a client's stool/chair beside the skill person. The other assistant (tally marker) should sit on the opposite side of the bench/table in a way so that s/he can easily observe measles vaccination by the skilled person as well as administration of OPV by the 1st assistant and so be able to tally correctly. Children should wait in queue outside the room so that, they don't see vaccine administration process and get panic. If possible, put a curtain in front of the vaccination desk. The skilled person or a community volunteer/teacher will put finger marking on left little finger nail of vaccinated children after vaccination.

With the assistance of skilled person, the Tally marker should fill up the top and bottom part of the tally sheet (supply of vaccine and logistics) before starting vaccination. All team members should write their name at the bottom of the tally form before starting session.

Safety box to be prepared and placed at a place so that the skilled person can use with comfort after each vaccination and there is no risk of needle prick for others.

A separate container or bag to be put in place to keep other wastes like empty vial, ampoule, syringe packets, cotton etc.

REMEMBER: A Campaign Banner & Poster must be hanged to mark all vaccination centers in such a manner that it can be seen from a distance

Client flow in the vaccination center-sequence of events

- Children are in queue outside the vaccination room
- An assistant will screen for age and send children one by one to the vaccination table. S/he will also give OPV to <5 years children after screening age.
- Make the child sit on a stool/chair or on the lap of the guardian with left arm exposed towards the vaccinator
- Help the guardian to hold the child firmly in correct position
- Vaccinate the child with one dose of measles vaccine following standard procedure
- If the child is less than two years old and any other routine antigen is due (Penta or PCV10), administer appropriate dose accordingly
- Request the child/guardian to wait for half an hour outside, so that if any AEFI happens, s/he can attend
- Mark the left little finger nail of the vaccinated children
- The tally marker should observe the whole process of vaccination and will put tally in the appropriate area of the Tally sheet

Reconstitution of measles vaccine

- Reconstitution should be done with diluent made by the same manufacturer of the vaccine;
- Both diluent and vaccine should be checked for expiry date;
- Only one vial should be reconstituted at a time. After emptying one vial, the next vial to be reconstituted;
- One 5 ml disposable syringe to be used to reconstitute one vial of vaccine. The same syringe should not be used for reconstituting vaccine in another vial;
- Full aseptic procedure and non-touch technique to be maintained during reconstitution;
- Before breaking, stroke the tip of the ampoule so that all diluent comes at the bottom;
- The **whole amount** of diluent should be drawn carefully into the syringe and mixed slowly with dried vaccine to maintain appropriate dose;
- After adding diluent, for proper mixing, the vial should be gently shaken upside down few times, holding the neck. It should not be rolled between palms.
- Write down the time of reconstitution on the vial label

WARNING: Never substitute water or any other liquid as diluent for measles vaccine

Reconstituted measles vaccine must be discarded immediately if:

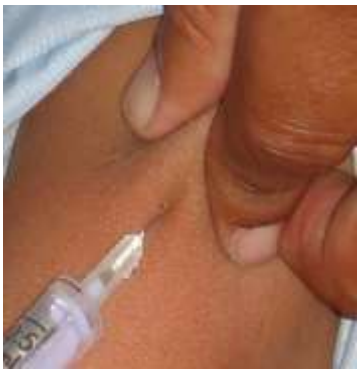
- The vaccine is still unused after 6 hours from reconstitution
- There is any suspicion that the vaccine is contaminated, e.g. any visible dirt inside the vial, the vial falling on the ground, accidentally touching the rubber cap, and submersed in water
- If team decides to shift the session to a new location in the same village; the unused vial should be discarded and a new vial will be opened at the new location
- At the end of a session

Administering measles vaccine

Reconstituted measles vaccine will be given sub-cutaneously at a dose of 0.5 ml to each child. Auto Disable (AD, 0.5 ml) syringes will be used to administer measles vaccine during campaign. Following steps will be followed when administering measles vaccine:

- Take a sterile packed 0.5 ml AD syringe
- Tear off the wrapping from piston end of the syringe
- Take out the whole syringe including the needle cap from the packet
- Take off the needle cap and drop it in the safety box

- Hold the reconstituted vial upside down and carefully insert the needle in the vial
- Take care that the tip of needle is submerged in the vaccine, otherwise air will be sucked in
- Draw the piston up to the end. If there is no air inside, no need to push out
- The dose of 0.5 ml is to be given subcutaneously in the upper part of left arm at root of deltoid muscle.
- If the injection site is clean, there is no need to swab the site. If visible dirt is present, request the guardian to clean the area with plain water and wait to dry.
- The child's arm to be held firmly. Pinch up the skin at the route of deltoid with thumb and index finger.
- The needle to be pushed just beneath the pinched skin to a depth of not more than 1 cm. It should go in at a sloping angle, not straight down.
- The plunger to be pressed with thumb in order to inject the vaccine.
- The needle to be withdrawn and don't massage the injection site. If there is any bleeding press the injection site with sterile cotton for some time until the bleeding stops.



Correct method of sub-

Record keeping of vaccination

Measles

Measles vaccination will only be done in the fixed/outreach center or by mobile team. Their vaccination to be recorded in the respective section of the 'Tally sheet' according to their age. Measles vaccination should never be done house to house.

OPV

a) Children aged less than 6 months will be vaccinated at home by the social mobilizer during house to house visit for child mobilization. They will record those vaccination in the 'Tally Sheet for Home'. Each social mobilizer will carry one copy of 'Tally Sheet for Home' and OPV vaccine in a small vaccine carrier. Separate tally sheet to be used for every day. Social mobilizer should not give OPV to any children aged 6 months or above. These children are to be mobilized to the nearest fixed or outreach vaccination center for measles vaccine.

b) Children over 6 months age will be vaccinated with both OPV and Measles at the fixed/outreach vaccination center. These will be recorded in 'Tally sheet' with the vaccination team. Tally for OPV and Measles vaccine to be marked separately in the respective section of the Tally sheet. Each day separate tally sheet to be used.

c) Mobile vaccination team will record their vaccination (both OPV and Measles) only in the tally sheet. Tally sheet for Home will not be used by mobile teams.

REMEMBER: Separate tally form to be used by every team on every day.

Other routine antigens

Opportunity can be taken to provide other routine antigens to the missed and defaulter children aged less than two years age. Fixed center will provide all routine antigens throughout the campaign period. Outreach vaccination teams will provide only Pentavalent and PCV10 to missed/defaulter children. These routine antigens are to be recorded in routine immunization vaccination card, daily registration form and routine EPI tally form. Defaulter list should be available in the fixed and outreach centers.

REMEMBER:

- **Social mobilizers should NOT give OPV to any child aged 6 months or above.**
- **Measles vaccination NOT to be given house to house**

Contraindications to Measles Vaccination

Measles vaccine is very safe and has virtually no contraindications. However measles vaccine should not be given to children who had a serious reaction to this vaccine in the past and who are severely immunocompromised as a result of congenital disease, HIV infection, leukemia or lymphoma, serious malignant disease, treatment with high dose of steroids or other immunosuppressive agents.

Children with high fever or other signs of serious disease should not be vaccinated but should be advised to come for vaccination when they recover. If the vaccinator has any doubt whether a child should be vaccinated or not, they should refer the child to a nearest doctor. Malnutrition, minor illness (such as mild respiratory infection, diarrhea, and low grade fever) are NOT contraindications for measles vaccination.

Closing vaccination session

At the end of session close with following steps,

- Discard all unused reconstituted vaccine and put those in the other waste bag/container
- Count number of unused (seal not broken) vaccine vials and diluents in the vaccine carrier and write down the number at the bottom of the tally form
- Close the vaccine carrier and safety box
- Count the tallies against each age group and then the total
- Collect and review the home tally sheets from the social mobilizer. Transfer data from home tally sheets to the main tally sheet. List missed children in schools with the help of teachers.
- Pull down the banner and posters
- Clean the vaccination center
- Thank the teachers/volunteers and request them to give information about AEFI if any
- Thank the school authority/owner of the center and leave the place informing them their next location. At the last location the team should wait for at least half an hour since the last child is vaccinated.

4. Injection Safety & Waste Disposal

Basic principal of injection safety

- Use only a sterile packed AD syringe (0.5 ml) for administering measles vaccine
- If the syringe pack is broken or expiry date is over, don't use the syringe
- If the seal of the vaccine vial is found broken, expiry date is passed, VVM is at stage 3 or 4, or there is no label on the vial, don't use the vaccine
- Do not use the diluent if it is not of the same manufacturer as of the vaccine or is expired
- Never touch the needle and rubber cap of vaccine vial during reconstitution or drawing vaccine
- Immediately after injecting the child, drop the syringe in to the safety box needle down
- **DO NOT attempt to recap the needle**
- If session is conducted at multiple centers on a same day by a same team, discard the partially used vial at the end of each session in every center and open a new vial in the next center.

REMEMBER INJECTION SAFETY!

- **Dispose off empty diluent ampoules, vials and other wastes in a separate bag/container.**
- **DO NOT reuse reconstitution syringes.**
- **DO NOT keep filled syringe on the table.**
- **DO NOT touch and remove the needle and rubber cap of the vial.**
- **DO NOT recap any needle.**
- **DO NOT leave needles inserted into vial after reconstitution of the vaccine.**

Waste Disposal

Each vaccination team should have sufficient number of safety boxes based on estimated target population. Immediately after vaccinating a child, the AD syringe should be dropped in the safety box keeping the needle down. The reconstitution syringe must also be dropped in the safety box after use. One-fourth of the safety box should be

Waste burned & covered with earth in a disposal

kept unused, keeping the mouth closed, allowing about 100 syringes. Other waste (syringe wrapper, cotton, empty diluent ampoule, used vial etc.) should be kept in a separatebin/bag/container. At the end of the day, filled safety boxes along with other wastes should be sent to disposal point. Safety boxes and other wastes collected at the disposal point will be destroyed by incineration or pit burning under direct supervision of a medical officer. Record should be kept of number of boxes disposed by date. The disposal pit should be prepared in advance in a safe, secured place. The pit should be at least 4 feet deep and after every burning the residue should be covered with a layer of earth.

Correct method

DO NOT RECAP!

5. Management of AEFIs

Measles vaccine is very safe. Nevertheless, some rare reactions that may occur following immunization assume increased significance after mass campaigns. Measles vaccination is normally associated with mild AEFIs, including local reaction at the vaccination site fever and occasionally mild rash. Such AEFIs disappear spontaneously without leaving permanent damage. In some cases (especially among older children), children may suffer panic attack, faint and cause others to do the same. Child usually recovers spontaneously within few minutes.

Few children (1 in 3000) may develop febrile seizure within 6-12 days which require consultation of a doctor.

In VERY rare cases (about 1 in 1,000,000 injections), measles vaccination can cause severe reactions such as severe respiratory distress and anaphylaxis. These require immediate hospitalization for proper management.

When anaphylaxis does occur, the patient must be transferred to a hospital immediately and diagnosed properly, treated and managed urgently by trained medical staff.

It is important not to confuse faints and dizziness following immunization for anaphylaxis. Most episodes of feeling ill or faint, or actual fainting that occur immediately after immunization, are ***not*** due to the onset of anaphylaxis.

During **fainting**, the individual suddenly becomes pale, loses consciousness and collapses to the ground (unless supported). A strong central pulse (e.g. carotid) is maintained during a faint, but not in anaphylaxis. It is managed by simply placing the patient in a recumbent position. Recovery of consciousness occurs within few minutes, but patients may take some more time to recover fully.

An **anxiety spell** can lead to a pale, fearful appearance and symptoms of hyperventilation (light-headed, dizziness, tingling in the hands and around the mouth). **Breath holding** occurs in young children and will lead to facial flushing and cyanosis. It can end in unconsciousness, during which breathing resumes.

Recognition of anaphylaxis

Anaphylaxis is a severe reaction of rapid onset (usually 5-30 minutes after the injection)

The early signs of anaphylaxis are:Generalized redness, swelling with itching (allergy like reaction) difficulty in breathing. Pulse becomes fast and feeble and blood pressure falls.

Vaccinators should be able to recognize the signs and symptoms of anaphylaxis. In general, the more severe the reaction, the more rapid the onset. Most life-threatening reactions begin within 10 minutes of immunization. That's why it is better the vaccinated child wait at the site for at least 30 minutes after the injection for observation.

For anaphylaxis, vaccinators

- should refer the patient immediately to the nearest health facility or a qualified medical doctor

- Report the occurrence immediately to the AEFI focal point and immediate supervisor over telephone and later by form. (all vaccination team should have telephone number of the nearest health facility and local AEFI focal person)

Team members should always inform the incharge of the vaccination center about their next location and will stay at the last vaccination center for at least half an hour after vaccinating the last child. Children should also be requested to wait for at least half an hour after vaccination at the vaccination center. Local volunteers will follow up the vaccinated children in the community for AEFI during and after the session.

6. Social Mobilization and Communication

At least two weeks before the campaign

LHW/vaccinators/ staff will visit all the households in his/her area and complete a due and defaulter listing of all target age group children. During the visit LHW will inform the parents/care-givers about dates and vaccination sites at schools and communities as relevant. In the week before the campaign LHW will revisit the households with target age group children to inform them the dates and venue of the campaign

Appropriate approach to parents during immunization campaign: Using a respectful and patient approach with parents and seeking assistance when needed..

The Dos…..
Vaccination team members should:

- Treat parents with respect,
- Remain patient with parents, and not get into arguments,
- Listen to reluctant parents' concerns or questions,
- Answer any questions and address concerns with reason,
- Promise to bring to the attention of higher authorities any non-polio health issues that they are concerned about.

The DONT'S…..
Vaccination team members should never:

- Bully parents into accepting immunization,
- Mock parents because they are not informed or have misconceptions about immunization,
- Be disrespectful of parent's values,
- Vaccinate without consent,
- Joke that measles vaccine will make children sick or sterile.

At least 1 week before the campaign:

- Meet community elders to seek help for motivating community to participate in the campaign
- Conduct interpersonal communication (IPC) activities: Under the supervision of UC Supervisor/UCMO, Social mobilizers will visit every household in their assigned area. They will confirm the target against each center; motivate parents/guardians to bring their children to the designated vaccination center or school on scheduled date. Inform them the date and venue of vaccination for their area.
- If parents/guardians plan to travel elsewhere on the day of campaign session, inform them that their children can receive vaccine from any other vaccination center in the district or from any government health facility (fixed center) on any campaign day from 09:00 AM to 04:00 PM.
- Supervisors should monitor closely IPC activities
- Team leaders (skilled person) Should visit every educational institute in their assigned area. They should meet school authorities for,
    - Confirming the date of vaccination in their school.
    - Request assistance of teachers to ensure that all target children are present on that day.
    - Will inform (in writing) dates and venue of campaign vaccination session in nearby villages.
    - Request teachers to disseminate campaign dates and message in the community through the school students.
    - Verify and update the actual target number in schools during these visits. Revise micro plan according to authentic and updated figures.
- Vaccinators should contact all community and religious leaders beforehand and will motivate parents to participate in the campaign and mobilize local resources to make the campaign a success. Arrange announcement about campaign during prayers (especially Friday prayer) and by loud speaker of mosques before and on the day of campaign.
- Hang campaign poster and banners in visible public places in local language
- Arrange announcement by mobile loud speaker in the area on the day before campaign
- Local initiative can be taken with support from people's representatives, local elites and other social workers and associations to build high public awareness and enthusiasm for the campaign.

During the campaign

- After the school phase LHW/Vaccinators/CommNet/Social mobilizers will check and update her due list for children who have been immunized at school and have a second opportunity for IPC for non-school going children and for school going children who have been missed in school phase.
- On the campaign day in the village, by mid-morning LHWs/Vaccinators/CommNet/Social Mobilizers staff will track the un-immunized children from her due list and persuade the parents through IPC to bring their children to the session site for measles immunization.

Using loudspeaker

UC supervisors will organize mobile announcement using loudspeaker in their respective union councils just before the campaign. Mosque and other religious institutions loudspeaker will also be used before and on the day campaign in respective areas.

Seeking Assistance

In certain situations vaccination team members may not be able to change the minds of parents who are reluctant to have their children immunized. If this happens, they should not argue, but conclude the discussion and seek assistance from:.

- other community members who can help such as a religious leader, village health worker, community leader;
- your supervisor;
- neighbors, informing them that their neighbor does not want their child immunized, and explaining the need for all children to be immunized;
- If you do not know the answer to a parent's question, state with confidence that you will find out, and come back to them after you have found out the information

KEY MESSAGES ON MEASLES FOR PARENTS

- Measles is preventable by a vaccine. During the campaign measles vaccine is available at schools, outreach centers and health centers. The vaccine is safe and free of charge
- Measles campaign session will be held in your area on …….. *(tell the date and place according to micro plan)*.
- Take your child for vaccination to the nearest vaccination center or government health facility. Students will be vaccinated at their schools.
- All children ages 6 months to less than 10 years should be vaccinated against measles during the campaign even if they were vaccinated previously or if they had measles.
- If any child is missed for any reason, s/he can get the vaccine from any nearest government health facility on any campaign day from 09:00 AM to 04:00 PM
- Measles vaccine is safe and multiple doses will not harm children. An additional dose will raise the probability of the child to be protected against measles.
- Any child who has not received a measles vaccine is likely to get measles and may even die.
- To ensure protection against measles, it is important that all children 6 months to less than 10 years of age receive one dose of measles vaccination in this campaign.
- Parents should remember that the measles vaccine is the most effective way to protect their children against measles. The vaccine is offered in schools, outreach vaccination centers and health facilities during the campaign.
- To stop measles deaths, every Pakistani family must be a good neighbor and ensure all children 6 months to below 10 years of age in their community are vaccinated against measles.

7. Daily review & report

At the end of the day, all team leaders collect Home Tally Sheets from their social mobilizers and will compile all data in the main Campaign Tally Sheet. Then the team leaders will return to their respective vaccine and logistics distribution point to return unused vaccines and will meet the UC supervisor/UCMO to review their work progress. Team leaders will help UC supervisor in compiling data from their tally sheets to daily report form. All information regarding the total number children vaccinated with measles and OPV and data on vials used from all tally sheets are to be summed up and transferred to respective columns of daily report form. UC supervisor/UCMO will give appropriate guidance for next day work and share any new instruction received from higher offices.

UC supervisors/UCMO will then meet and share their daily report with district or tehsil/taluka managers and review daily achievement, flaws and opportunities. UC supervisors will also submit their checklists and RCA forms. External observers will also share their observation in the district evening review meetings. Mop-up activities will be planned in areas with low coverage identified through RCA. New instruction, correction and areas of concern will be shared with the UC supervisors, so that those can be disseminated to the teams on next day.

Data from UC supervisors' Daily Report Forms will be compiled together electronically to make the District Daily report to be sent to the Provincial and Federal EPI campaign control room by next morning through an e-mail. A comprehensive report using the template (Annex ….) to be submitted by all UC supervisors to the district office within one week after the campaign. All UC reports will be compiled in a district report which will be shared with the provincial and federal EPI within another one week after the campaign.

Forms to be used in the campaign

1. **Tally sheet for home:** to be used by Social mobilizer during their house to house visit for child mobilization and administering OPV to <6 months children
2. **Tally Sheet: To be used by fixed, outreach and mobile vaccination teams.** Separate tally sheet to be used by every team for each day of work
3. **Daily Report Form:** Same form can be used at UC, Tehsil/Taluka and district level
    a. **UC level:** UC supervisors will compile from all Tally forms of his teams of the day on daily basis during evening review meeting. One copy to be submitted to next level (Tehsil/Taluka or district)
    b. **Tehsil/Taluka level:** Will be compiled from UC level daily report forms on daily basis. Copy to be faxed or sent to EDO-Health office on same day
    c. **District level:** Will be compiled from Tehsil/Taluka level daily report forms. Data compilation will be done in computer in the district campaign control room. Copy to be sent by e-mail to the Provincial and Federal EPI campaign control room on same night.
4. **Final Report Form:** Each UC, Tehsil/Taluka and district should prepare a comprehensive report using a template to be sent to Provincial and Federal EPI campaign control room within one week of end of campaign
5. **AEFI report form:** To be used by vaccination teams for reporting AEFI. Each team should have at least 5 copies of this form in the vaccination center
6. **Observer's Checklist:** Will be used by all observers (local and external including international). External monitors (officials from Federal and Provincial offices and of Partner agencies) should sent their checklist to federal EPI campaign control room within three days by courier or fax
7. **Rapid Convenience Assessment Form:** Will be used by all observers (local and external including international). External monitors (officials from Federal and Provincial offices and of Partner agencies) should sent their checklist to federal EPI campaign control room within three days by courier or fax**.**

8. Monitoring and Supervision

Supervision will be done at every stage from preparation to implementation of the campaign. Existing Provincial Task Force/Steering Committee for Polio Eradication will serve as the oversight body for the measles campaign at the provincial level. District Polio Eradication Committee (DPEC) under the leadership of the DCO and UC level committees (UPEC) will be responsible for overall monitoring of the campaign preparation and implementation at local level. DPEC will lead the whole operations of the campaign and will also act as the top oversight body in the district.

Every Union Council (UC) will have one supervisor who'll preferably be the local health facility in-charge (UCMO). The UC supervisor will act as a first line supervisor for all vaccination teams in his/her UC and as the AEFI surveillance focal point for the UC as well. The UC supervisor will also be responsible for overall preparation for the campaign in his/her assigned UC.

District and sub-district level health officials and other government department officials will be assigned as 2nd level supervisors by the DPEC. For every 3 – 5 UC, one 2nd level supervisor will be assigned. Beside them the DCO may also assign any other institution, organization, CSO for supervision and monitoring as felt required.

Provincial and Federal officers from different government department and development partners will monitor the campaign. A team of international observers are expected to visit different areas to monitor the campaign as well.

Role of UC Supervisors

Before the campaign:

i. Identifying deficit/surplus of cold chain equipments in the UC through physical inventory and communicate with the district well in advance
ii. Identifying vaccination team members from available HR in the UC.
iii. Development of campaign microplan for the UC along with local vaccination teams. The microplan will include,
    a. Identifying specific areas in the UC to be covered by fixed centers, outreach vaccination teams and mobile vaccination teams.
    b. Outreach session plan in the community and in schools during the campaign period.
    c. Plan for reaching hard to reach areas by mobile vaccination teams.
    d. Vaccines, injection equipments and logistics requirement for all the vaccination teams in the UC.
    e. Determining need for additional cold chain support if necessary during the campaign.
    f. Identify route and transportation for every outreach and mobile vaccination teams for every campaign day according to session plan and determining additional resource requirement for transportation of the vaccination teams.
iv. Identifying social mobilizer for every outreach vaccination sites and fixed site from local Lady Health Workers (LHW) or local female volunteer.
v. Arrange training/orientation for the team assistants and social mobilizers in the UC about their roles and responsibilities in the campaign.
vi. Contact local community/religious leaders and notables to inform and advocacy for the campaign
vii. Contact head teachers of local schools to inform and advocacy about the campaign and to share vaccination session plan in schools.
viii. Place requisition for all necessary vaccines, injection equipments, logistics and other support to the district at least one month prior to the campaign start date.
ix. Monitor receive, supply and distribution of all logistics for his/her teams and appropriate feed back
x. Receive all vaccines and ensure its proper storage
xi. Receive operational budget from the district on time and their distribution for the campaign.
xii. Ensure local social mobilization activities are conducted properly.

xiii. Will act as AEFI surveillance focal point in the UC and will make all arrangements in the health facility for emergency management of any AEFI expected in measles campaign.
xiv. Ensure final waste disposal site is prepared according to guideline

During the campaign

xv. Ensure vaccination team reach the vaccination center with vaccines and all logistics on time; if not, inform the authorities for back-up
xvi. Shift vaccinators and volunteers from completed centers to those with unexpectedly higher targets or with absent workers
xvii. Arrange replenishment of logistics, vaccine or diluent if there are stock outs
xviii. Make sure cold chain is maintained, injection technique is correct, and waste management is done properly
xix. Check that tally sheets are being filled in correct way and put initial
xx. Complete check-lists for each team visited
xxi. Manage AEFI cases and accompany with child to the nearest health facility if needed
xxii. Ensure return of unused vaccine and diluents, filled safety boxes, tally sheets, AEFI report forms (if any) and his/her own check-list at the end of the day to the health center
xxiii. Ensure receipt of daily report from all vaccination team under his supervision and send compiled report to the district control room daily.
xxiv. Conduct RCA by visiting 10 households having target-aged children in areas where the campaign has already completed. Focus on high-risk populations such as homeless children, street boys, working children, children of working parents, children of nomadic groups and of minority population, children who live in orphanages, hospitals, prisons, boarding houses and hostels
xxv. Arrange vaccination of missed children
xxvi. Plan for mop-up activities in areas found with low coverage (more than 1 missed children in the area)
xxvii. Conducting daily evening review meeting and compilation of daily report and submission.
xxviii. After completion of campaign, prepare final report of respective union council

During campaign, the UC supervisor will visit all teams under his control at least once daily. S/he will carry followings with him/her during supervision,

i. Extra logistics (syringes, safety boxes etc.)
ii. Extra vaccine (5-10 vials with diluents in a small vaccine carrier)
iii. AEFI kits (if the UC supervisor is a qualified medical doctor)
iv. Micro plan of his all teams with area map
v. Contact number of team leaders of all his teams
vi. Planning and Operational guide for Measles campaign

Frequently Asked Questions (FAQ)

Q. How can a child get measles?
A. Measles virus spread from one child to another by coughing and sneezing even before a rash is seen. It spreads faster in crowded areas like schools, market etc. particularly if they are not immunized.
Q. What can happen to a child if contracts measles?
A. Measles reduces the child's ability to fight other diseases resulting in frequent illnesses.
If not treated quickly and properly a child with measles can develop problems such as diarrhea, pneumonia, blindness, hearing loss, brain damage and even death.
Q. Is measles vaccine safe?
A. Absolutely – the safety of the measles vaccine is well documented. Serious side affects are very rare. In fact it is more risky not to vaccinate a child against measles. It is safer to have the vaccine than the disease.
Q. Can the vaccine cause reaction?
A. Sometimes a vaccine can cause mild adverse reaction, including a fever, rash or a local reaction (swelling, burning) at the site of injection. If the child gets fever after the vaccination, bathe the child in lukewarm water but do not apply oil, neither wrap the child in warm clothes. Most side effects will disappear after a short time.
Q. Where do I vaccinate my child against measles?
A. Measles vaccine will be offered to all children between the ages of 6 months to less than 10 years. School age children will receive measles vaccine in their schools. Outreach session will also be held in your community. You can also take your children to any government health facility on any day from 09:00 AM to 04:00 PM during the campaign period.
Q. A child is due for routine measles vaccine dose during the campaign, what to do?
A. Vaccinate the child, consider this as campaign dose and request the parent/caregiver to bring the child to a routine EPI center after one month for routine dose.
Q. In such case, should this campaign dose be recorded in the routine EPI card or register book?
A. No. Routine EPI card and register book will be filled up only after giving the routine dose after one month.
Q. If the same child is due for any dose of other antigen (e.g. Pentavalent or PCV10), what to do?
A. Dose of other antigens can be given during the campaign and be recorded in the EPI card and registration book as routine dose.
Q. A child had received his routine measles vaccine dose just 2-3 days back. Should we give him another dose during campaign?
A. Yes, s/he should get the campaign dose irrespective of time gap with previous dose. This is safe.
Q. A child has fever or any other minor illness. Should s/he be vaccinated?
A. Yes. A child with minor illness like fever, cold should also be vaccinated? But if the child is hospitalized, the attending doctor should be consulted before vaccination.
Q. A child has measles like symptom (rash and fever). Should s/he be vaccinated?
A. Yes. It may or may not be measles. Even if it is measles, there is no harm in vaccination.
Q. A child who has completed 10 years came to the center for vaccination. Should s/he be vaccinated?
A. No. Target age of this campaign is 6 months to less than 10 years old children. There is no need to vaccinate children out of this age range. Explain to the child or caregiver politely.
Q. A child within target age range came for vaccination to a center in another area. Should s/he be vaccinated?
A. Yes, any child within target age range should be vaccinated irrespective of place of residence.
Q. A child develops fever and rash after vaccination, what to do?
A. Assure the parent and send him to local health facility for consultation with doctor. Inform your AEFI focal person and report it.
Q. Which Child should not be vaccinated?
A. A child with previous severe reaction to measles vaccine, Sick Child with malignant disease or HIV, Child taking Cortisone treatment or other treatment for cancer.
. DON'T VACCINATE THE CHILD.