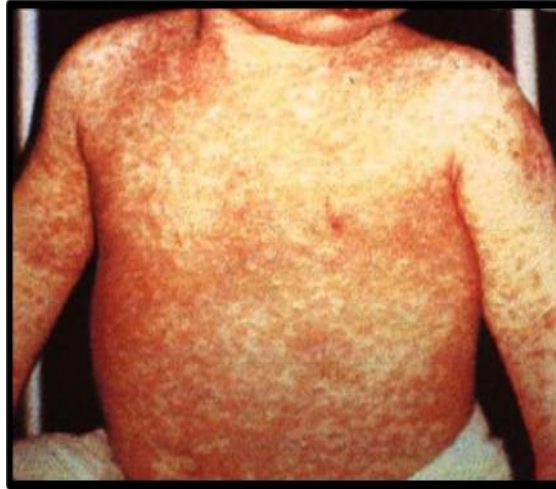


STANDARD OPERATING PROCEDURES (SOPs)

for

Clinical Management of Measles in Rohingya Refugee Camps, Cox's Bazar



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List of Abbreviations

AIDS-Acquired Immune Deficiency Virus
CDS- Communicable Diseases Services
COVID-19- Coronavirus Disease 2019
Epi unit-Epidemiology and Surveillance Unit of WHO
EPI-Expanded Program of Immunization
IVD-Immunization and Vaccine Development
GOB-Government of Bangladesh
HCW- Healthcare Workers
HIV- Human Immunodeficiency Virus
HP-Health Post
PHC-Primary Healthcare Center
IEDCR- Institute of Epidemiology and Diseases Control Research
IPC-Infection Prevention and Control
ITC-Isolation and Treatment Center
MAM-Moderately Acute Malnutrition
MUAC-Mid-Upper Arm Circumference
PEP-Post Exposure Prophylaxis
PPE-Personal Protective Equipment
RT-PCR- Reverse Transcription Polymerase Chain Reaction
SAM- Severe Acute Malnutrition
SARI-Severe Acute Respiratory Infections
SOPs- Standards Operating Procedures
UNICEF- United Nations Children's Emergency Fund
UNHCR-United Nations Higher Commissioner of Refugees
WHO- World Health Organization
WHZ-Weight for Height Z-score

1.0 Purpose and Scope

These standard operating procedures (SOPs) provide a standardized, evidence-based framework for the identification, clinical management, isolation, referral, and reporting of suspected and confirmed measles cases across all health facilities serving the Rohingya refugee population, Cox's Bazar District, Bangladesh.

1.1 Objectives of the SOP

- To provide guidance on the standardized quality of care for measles cases in health facilities and outline referral pathways in camps.
- To reduce the growing burden of disease and avoidable deaths, more specifically among high-risk populations
- Prevent further infection within health facilities and home settings

2. Background and Current Epidemiological Context.

Measles is an acute, and one of the world's most contagious viral illness with a basic reproduction number (R_0) of 12–18, making it one of the most transmissible pathogens known. It spreads by airborne droplet nuclei that can remain infectious in the air and on surfaces for up to two hours after an infected person has left the area. Therefore, appropriate case management and infection prevention are critical to prevent further transmission and avoidable deaths

Bangladesh, including Cox's Bazar district, is experiencing a nationwide surge in measles cases, with 58 out of 54 districts affected. In Rohingya refugee camps, multiple lab-confirmed outbreaks have been reported across camps, with cases surging in April 2026. The number of measles cases that require hospitalization continues to pile pressure on healthcare systems for additional isolation beds, medical supplies, critical care, and the need for standardized quality of care. WHO has therefore developed this SOP to guide standardized quality care for measles and infection prevention strategies to prevent further transmission and limit avoidable deaths among high-risk groups in camps.

3. Case Definitions

The objective of a clinical case definition is to provide guidance to clinicians/case management teams in the correct diagnosis of measles in a healthcare setting. A comprehensive case

definition for surveillance and outbreak response is provided under separate SOPs for measles surveillance and sample collection guidance for the Rohingya camps

3.1 Suspected (Clinical) Case

Any person presenting with:

- Fever (axillary temperature ≥ 38.0 °C or history of fever), AND
- Generalized maculopapular (non-vesicular) rash, AND
- **May have any ONE** of the following: cough, coryza (runny nose), or conjunctivitis (red eyes).

OR any person in whom a clinician suspects measles based on clinical judgement, including recognition of Koplik spots on the buccal mucosa during the prodromal phase.

3.2 Laboratory-Confirmed Case

A case that meets the clinical case definition and has laboratory confirmation of measles virus infection

- Detection of measles-specific IgM antibodies in serum (gold-standard serological test), OR
- Detection of measles virus RNA by RT-PCR from an oropharyngeal/nasopharyngeal swab, urine or blood specimen.

3.3 Infectious Period

A case is considered infectious from 4 days BEFORE until 4 days AFTER the onset of rash (day of rash onset = day 0).

4. Laboratory Confirmation

Collect a serum sample (4–5 mL venous blood) for measles-specific IgM from the FIRST 5–10 suspected cases in any camp/block where an outbreak is suspected, and from sporadic cases wherever feasible. If a syringe is used to collect blood, transfer the blood from the syringe to labeled sterile screw-capped tubes (label with the patient identification and collection date). Minimum 1 ml from younger children and 0.5 ml from infants should be collected.

- In addition, collect an oropharyngeal (throat) swab using a synthetic-fibre swab with a plastic shaft, within the first 7 days of rash onset, for RT-PCR and genotyping. Do NOT use cotton, calcium-alginate or wooden-shaft swabs.
- Maintain the cold chain at 2–8 °C during transport; freeze at – 20 °C or lower if transport is delayed beyond 48 hours.

- Label every specimen with patient identifiers, date of rash onset, date of collection, and vaccination status, and transport with a completed laboratory request form to the IEDCR Field Laboratory / designated reference laboratory through the Civil Surgeon's Office/WHO sample carrier vehicle.
- Once an outbreak is laboratory-confirmed in a given camp, additional suspected cases meeting the clinical definition and epidemiologically linked to the confirmed case(s) do NOT require individual laboratory confirmation – treat and report as measles.
- Response activities (case management, isolation, outbreak response immunization, contact tracing) must NEVER be delayed while awaiting laboratory results.

5. Clinical Assessment and Danger Signs

Every suspected measles case presented to a Health Post, PHC, or Field Hospital must undergo a structured clinical assessment using the Integrated Management of Childhood Illness (IMCI) algorithm for children under 5 years, and standard adult triage for older patients.

5.1 Minimum Assessment Components

- Vital signs: temperature, respiratory rate, heart rate, SpO₂, capillary refill time, level of consciousness (AVPU).
- Hydration status, ability to drink/breastfeed, urine output.
- Nutritional status: MUAC and weight-for-height/length; screen for severe acute malnutrition.
- Eye examination: conjunctivitis, photophobia, corneal clouding, Bitot's spots (sign of vitamin A deficiency).
- Ear examination: signs of otitis media.
- Chest examination: tachypnoea, chest indrawing, crackles, wheeze.
- Oral cavity: Koplik spots, ulcers, candidiasis, ability to swallow.
- Neurological: seizures, stiff neck, altered consciousness.
- Vaccination history (MR1, MR2, outbreak response doses), HIV status, pregnancy status.

5.2 Danger Signs Mandating Immediate Referral to a SARI ITC

- **Any child with a general IMCI danger sign:** unable to drink or breastfeed, vomits everything, convulsions, lethargy or unconsciousness.
- **Severe respiratory signs:** central cyanosis, SpO₂ < 90% on room air, severe chest indrawing, grunting, stridor at rest, respiratory rate ≥ 60/min in infants or ≥ 50/min in children 2–11 months or ≥ 40/min in children 1–5 years.
- **Severe dehydration**, shock, and inability to maintain oral intake.
- **Corneal clouding**, pus in the eye, or any sign of keratomalacia.
- **Suspected encephalitis:** altered mental status, focal neurological deficit, persistent seizures.
- **Severe acute malnutrition** with measles (WHZ < –3 SD, MUAC < 115 mm in children 6–59 months, or bilateral pitting oedema).
- **Pregnancy with measles**, infants < 6 months with measles, and any immunocompromised patient (HIV, on chemotherapy or long-term steroids) with measles – regardless of severity.

6. Case Management

There is no specific antiviral therapy for measles. Management is supportive and symptom-directed. All staff must follow the WHO IMCI protocol for paediatric cases and standard adult care for patients aged 5 years and above.

6.1 Uncomplicated Measles (outpatient / Health Post or PHC)

- Counsel caregiver on warning signs (see Annex B) and when to return immediately.
- Ensure adequate oral hydration; continue breastfeeding in infants.
- Paracetamol for fever and discomfort: 10–15 mg/kg orally every 4–6 hours, maximum 4 doses in 24 hours (do NOT use aspirin in children).
- Nutritional support: frequent small feeds of energy- and protein-rich food; continue breastfeeding.
- Eye care: clean eyes with clean water or saline; apply 1% tetracycline eye ointment twice daily if there is purulent discharge; do NOT use steroids.
- Mouth care: clean mouth with clean water after each meal; treat oral candidiasis with nystatin oral suspension if present.
- Administer age-appropriate Vitamin A (see Section 7) – two doses, 24 hours apart.
- Arrange a follow-up visit within 48–72 hours, or sooner if any danger sign develops.

- Isolate at the household level for 4 days from rash onset; provide a surgical mask to the patient and key caregiver, and advise against attending learning centres, food distribution points, markets, or religious gatherings during this period.

6.2 Complicated / Severe Measles (inpatient – SARI ITC)

- Oxygen therapy to maintain SpO₂ ≥ 94% (WHO target; ≥ 90% in settings with limited oxygen).
- Intravenous fluid resuscitation for severe dehydration or shock using Ringer’s lactate according to WHO Plan C; cautious fluid management in children with severe acute malnutrition.
- Empiric antibiotics for secondary bacterial infection (see Section 8).
- Seizure control: diazepam 0.2–0.5 mg/kg IV or 0.5 mg/kg rectally; treat hypoglycaemia and hyperthermia.
- Vitamin A as per Section 7, including a third dose at 2–4 weeks if ocular signs of deficiency are present.
- Nutritional rehabilitation per SAM/MAM protocols; treat co-morbid conditions (diarrhoea with ORS/zinc, malaria, TB screening, HIV testing where indicated).
- Strict airborne + contact precautions until 4 days after rash onset.

7. Vitamin A Supplementation

The Rohingya camp context is a setting of endemic vitamin A deficiency and elevated measles case-fatality risk. In accordance with WHO, UNICEF, and American Academy of Pediatrics guidance, every patient with suspected or confirmed measles must receive age-appropriate Vitamin A, regardless of any previous supplementation. Two oral doses are given on two consecutive days, followed by a third dose 2–4 weeks later if clinical signs of vitamin A deficiency are present (e.g., Bitot’s spots, corneal xerosis, night blindness).

Age group	Dose (orally)	Schedule
Infants < 6 months	50,000 IU	Day 0 and Day 1; 3rd dose at 2–4 weeks if ocular VAD signs
Infants 6–11 months	100,000 IU	Day 0 and Day 1; 3rd dose at 2–4 weeks if ocular VAD signs

Age group	Dose (orally)	Schedule
Children ≥ 12 months, adolescents & adults	200,000 IU	Day 0 and Day 1; 3rd dose at 2–4 weeks if ocular VAD signs
Pregnant women	Do NOT give high-dose Vitamin A (teratogenic risk). If ocular signs of VAD: 10,000 IU daily OR 25,000 IU weekly for ≥ 4 weeks.	

Key safety points: Vitamin A does not prevent measles and should not be given as prophylaxis to contacts. Excessive dosing can cause toxicity (vomiting, bulging fontanelle, hepatotoxicity, raised intracranial pressure). Record every dose on the patient’s Health card and in the DHIS-2 register.

8. Management of Complications

8.1 Pneumonia (the most common cause of measles death)

- Classify using IMCI criteria (pneumonia vs. severe pneumonia).
- Severe pneumonia: admit to SARI ITC or any health sector designated referral hospital, give oxygen, and start first-line parenteral antibiotics – ampicillin 50 mg/kg IV/IM every 6 hours PLUS gentamicin 7.5 mg/kg IV/IM once daily, for a minimum of 5 days. Switch to oral amoxicillin once clinically improved.
- Non-severe pneumonia in ambulatory patients: oral amoxicillin dispersible tablets 40–45 mg/kg/dose twice daily for 5 days.
- Where staphylococcal pneumonia is suspected (post-measles empyema, pneumatoceles), add cloxacillin and consult a pediatrician.

8.2 Acute Otitis Media

- Oral amoxicillin 40–45 mg/kg/dose twice daily for 5 days; dry the ear by wicking; follow up in 5 days.

8.3 Acute Diarrhoea / Dehydration

- ORS and zinc supplementation (10 mg/day for infants < 6 months, 20 mg/day for children ≥ 6 months for 10–14 days); WHO treatment plans A, B or C based on severity.

8.4 Measles-Associated Encephalitis

- Admit to SARI ITC; airway, breathing, circulation; control seizures; manage raised intracranial pressure; exclude bacterial meningitis (lumbar puncture where safe, empiric

ceftriaxone 80–100 mg/kg/day until bacterial cause excluded). Refer to Cox's Bazar Sadar Hospital for further care if patient condition deteriorates

8.5 Stomatitis / Severe Oral Ulcers

- Gentian violet 0.5% aqueous solution twice daily; nystatin for candidiasis; maintain hydration and feeding, consider nasogastric feeding if unable to swallow.

8.6 Eye Complications

- Tetracycline 1% eye ointment for purulent conjunctivitis; urgent ophthalmology referral for corneal clouding or keratomalacia; Vitamin A 3-dose regimen.

9. At-Risk Groups and Special Populations

Severe disease and death are concentrated in the following groups: all require a low threshold for admission to a SARI ITC, even in the absence of classical danger signs:

- Infants under 12 months, especially those under 6 months.
- Pregnant women (all trimesters).
- Children with severe acute malnutrition (SAM).
- Immunocompromised individuals (HIV/AIDS, on chemotherapy, long-term corticosteroids, organ transplant recipients).
- Adults aged 20 years and above.
- Any individual with a chronic lung disease, chronic kidney disease, or poorly controlled diabetes.

9.1 Pregnancy and the Newborn

- Measles in pregnancy is associated with miscarriage, premature labour, low birth weight, and maternal pneumonia.
- Transplacental transmission can cause congenital measles, neonatal pneumonia, and encephalitis with high mortality.
- Pregnant suspected cases must be admitted to a SARI ITC with obstetric capacity; do NOT give the measles vaccine or high-dose Vitamin A during pregnancy.
- Human normal immunoglobulin (400 mg/kg IVIG) should be considered within 6 days of exposure for susceptible pregnant women and for infants < 12 months exposed to measles, where available, through the Health Sector referral pathway.
- Neonates born to mothers with active measles should be isolated with the mother, supported for breastfeeding, monitored for congenital or neonatal measles, and considered for IVIG.

10. Infection Prevention and Control (IPC)

Measles is transmitted by airborne droplet nuclei. Nosocomial transmission is a well-documented risk and has historically amplified camp outbreaks.

10.1 At Point of Triage

- Post visual triage signage (Bangla, Burmese, Rohingya, English) asking any person with fever and rash to identify themselves immediately.
- Provide a surgical mask to the patient and a caregiver at entry; perform hand hygiene.
- Move the patient out of the general waiting area to a designated measles triage point within 5 minutes.

10.2 In Isolation Areas

- Place the patient in an Airborne Infection Isolation Room (AIIR) where available, or a single room with the door kept closed and a dedicated exhaust/open window to the outside.
- Where single rooms are not available, cohort suspected and confirmed measles cases in a dedicated zone, physically separated from other patients.
- Healthcare workers (HCWs) providing care must wear particulate respirators (N95 / FFP2 or equivalent), eye protection, a gown, and gloves. A surgical mask is NOT sufficient for HCWs.
- Limit the number of staff entering the isolation area.
- Visitors should be restricted; where essential, they must wear a surgical mask and receive instruction on hand hygiene and respiratory etiquette.

10.3 Staff Immunity

- All HCWs working in camps should have documented evidence of measles immunity – two documented doses of MR vaccine or a positive measles IgG serology.
- HCWs without evidence of immunity should be vaccinated immediately and must not care for measles patients until 21 days after their dose. UN Staff and their dependents can contact PHC

10.4 Environmental Cleaning and Waste

- After the patient leaves, ventilate the room for at least one full air change before re-use (approximately 1–2 hours depending on ventilation).
- Clean all high-touch surfaces with 0.1% sodium hypochlorite (1,000 ppm).
- Manage all used PPE and patient-care waste as infectious waste by Health Sector IPC guidelines.

11. Isolation and Designated SARI ITCs

Suspected or confirmed measles cases with any danger sign, high-risk patient characteristic, or complication must be admitted to one of the eight dedicated Severe Acute Respiratory Infection Isolation and Treatment Centres (SARI ITCs) operating in the camps:

#	Facility	Location / Camp
1	MSF Kutupalong Field Hospital	Camp 2W / Kutupalong
2	Save the Children International – PHD Field Hospital	Camp 21
3	Bangladesh Red Crescent Society (BDRCS) Field Hospital	Camp 7, Ukhiya
4	Friendship Primary Health Care	Camp 5
5	Hope Field Hospital for Women	Near Camp 4 Extension
6	IOM Leda Hospital	Camp 24 (Leda)
7	IOM Camp 20 Extension PHC	Camp 20 Extension
8	Turkish Field Hospital	Camp 9, Ukhiya/Teknaf

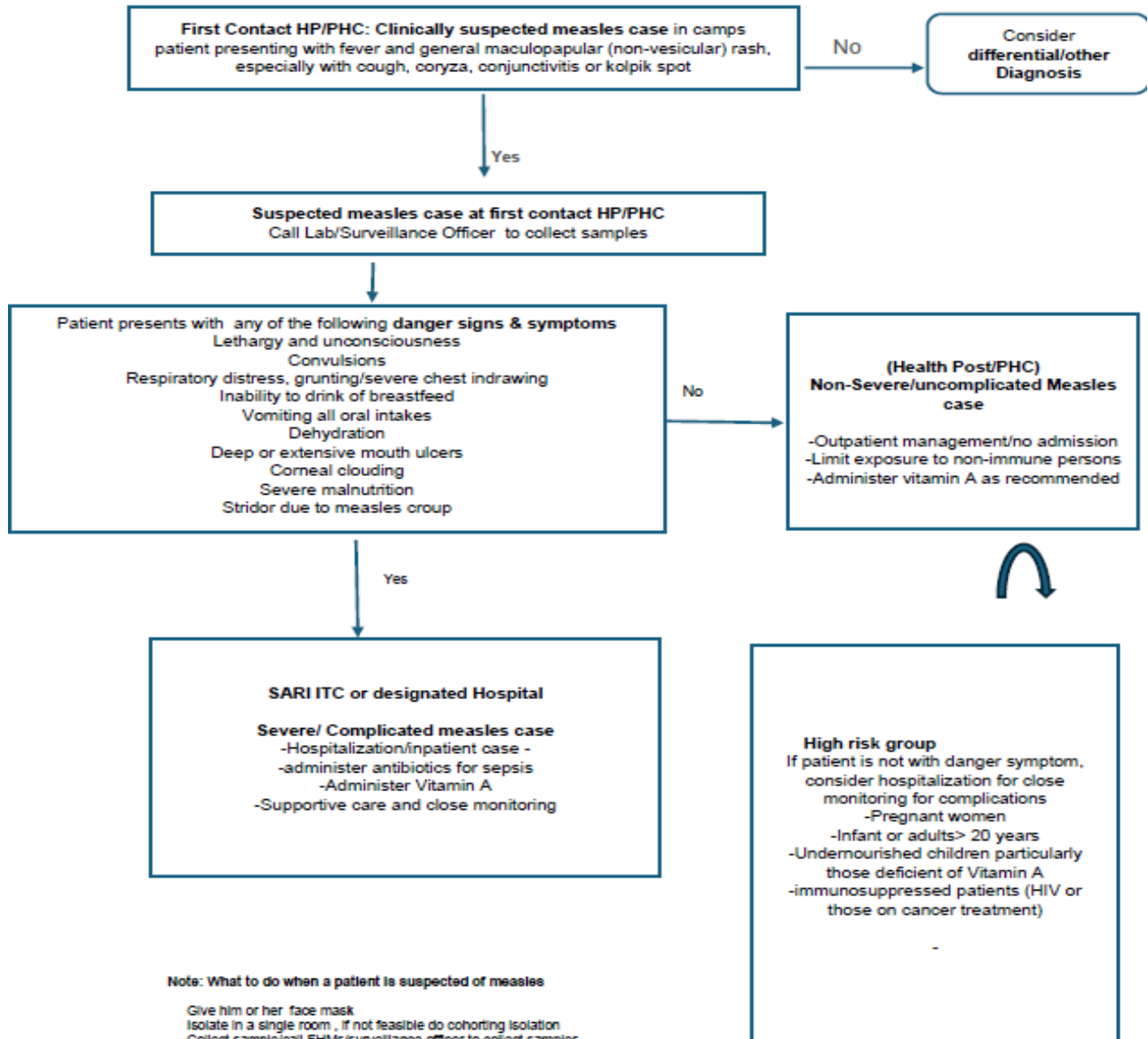
The isolation period for any measles patient (inpatient or home-based) is 4 days from the onset of rash. Patients discharged before day 4 must complete the remainder of isolation at home, supported by community health volunteers.

12. Referral Pathway

- All suspected measles cases identified in the community by CHWs/outreach workers should immediately be referred to the nearest Health Post or PHC for clinical assessment without further delay.
- All suspected and confirmed measles cases should be clinically classified by severity to guide outpatient management or referral, with treatment and isolation initiated immediately without delay.
- Close contacts, especially household members, pregnant women, infants and immunocompromised persons should be identified, monitored for 21 days and linked to immunization where appropriate.

- Supportive care must include continued feeding and breastfeeding, adequate oral fluids, use of ORS for diarrhoea or mild dehydration, nutritional assessment, and basic eye care to prevent corneal complications, with urgent referral for any visual symptoms.
- Vitamin A supplementation is mandatory for all children with measles according to WHO's age specific dosing schedule regardless of deficiency status.
- Uncomplicated cases out to be managed as outpatients with home-based isolation and scheduled follow-up.
- Cases meeting any danger sign or at-risk criteria (Section 5.2, 9) are referred immediately to a SARI ITC.
- Patients with severe disease or complications should be stabilized and referred promptly to designated SARI ITCs and other designated treatment centers with priority to high-risk group. Therefore, before transfer, the referring facility must: (a) stabilize the patient – oxygen, IV access, first-dose antibiotics, and Vitamin A; (b) place a surgical mask on the patient; (c) call the receiving SARI ITC to confirm capacity and expected arrival time.
- Strict IPC measures should be applied, including patient isolation for 4 days after rash onset. Proper use of facemasks, natural ventilation and cohorting when single room isolation is not feasible, with clear referral communication and feedback to ensure continuity of care.
- Request an ambulance through the Health Sector referral hotline; the patient must be accompanied by a trained HCW wearing an N95 respirator and eye protection.
- The referral form (Annex C) and any available laboratory specimens/results must travel with the patient.
- The receiving facility must formally acknowledge receipt and update the referring facility on the outcome within 72 hours.

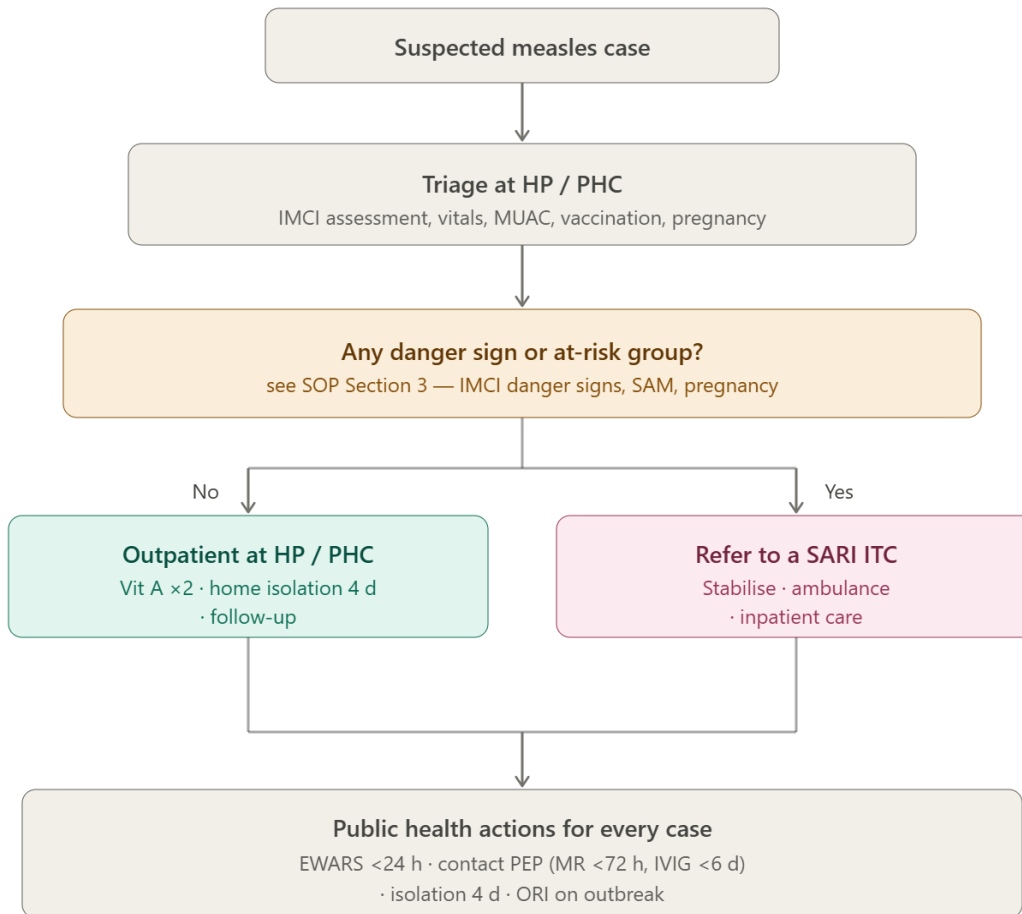
Diagnosis and triaging for complicated and uncomplicated measles cases In Rohingya camps



Note: What to do when a patient is suspected of measles

- Give him or her face mask
- Isolate in a single room, if not feasible do cohorting Isolation
- Collect sample/call FHM/surveillance officer to collect samples
- Inform IPC staff
- Conduct triage and prioritize admission of severe cases

Flowchart of services at the health facility level for measles cases detected in the Rohingya refugee camps



13. Post-Exposure Prophylaxis (PEP)

- Identify household contacts, shelter-block contacts, learning-center classmates, and health-facility contacts of every confirmed case within 24 hours.
- Susceptible contacts (no documented 2 doses of MR vaccine, no laboratory evidence of immunity, no prior laboratory-confirmed measles) are eligible for PEP.
- **Measles-containing vaccine (MR):** administer within 72 hours of first exposure to susceptible contacts aged ≥ 6 months (not contraindicated). A dose given to a child aged 6–8 months is a ‘measles zero’ dose and does NOT count towards the routine schedule – MR1 and MR2 must still be given at the standard ages.
- **Human normal immunoglobulin (IVIG 400 mg/kg OR IMIG 0.5 mL/kg, max 15 mL):** administer within 6 days of exposure to susceptible contacts who cannot receive the vaccine – infants < 6 months, pregnant women, severely immunocompromised patients – where the product is available through the Health Sector supply chain.

14. Surveillance, Notification and Reporting

- Measles is an immediately notifiable disease under the Early Warning, Alert and Response System (EWARS) operated by WHO.
- Every suspected case must be reported within 24 hours via EWARS by the attending health facility.

Vaccination and Outbreak Response Immunization

- Routine immunization: MR1 at 9 months and MR2 at 15 months, delivered by EPI through fixed posts and outreach.
- During an outbreak, an early MR dose (the ‘measles zero’ dose) may be given to infants aged 6–8 months, following national policy direction. These children still receive MR1 and MR2 at the routine ages.
- Outbreak Response Immunization (ORI) campaigns target children 6–59 months in the affected area within 14 days of outbreak declaration, coordinated by WHO/UNICEF/GoB/Health Sector.
- Every new Rohingya arrival must be screened at the transit Centres and offered MR vaccination irrespective of previous history (no documented dose = vaccinate).

16. Roles and Responsibilities

Actor	Key Responsibilities
Community Health Workers (CHWs)	Active case search; refer suspected cases to nearest Health Post within 24 h; support home isolation and follow-up; community risk communication; line-list contacts and report defaulters.
Health Post / PHC	Clinical assessment using IMCI; outpatient management of uncomplicated cases; Vitamin A administration; specimen collection; EWARS reporting within 24 h; stabilize and refer complicated/at-risk cases to a SARI ITC.
SARI ITC / Field Hospital	Inpatient care of severe/complicated and at-risk cases; strict airborne IPC with AIIR or cohort isolation; HCW vaccination and N95 fit testing; daily reporting; outcome feedback to referring facility within 72 h.
Civil Surgeon’s Office / IEDCR	Official case confirmation; outbreak declaration; coordination of ORI campaigns with EPI and partners; data validation and publication.

Actor	Key Responsibilities
WHO / Health Sector	Technical guidance and SOP updates; Coordination and leadership, epidemiology and surveillance, case management and IPC, vaccination delivery in populations laboratory and cold-chain support; partner coordination. weekly epidemiological bulletins and dashboards.
UNICEF / EPI / UNHCR	Vaccine supply and cold chain; campaign logistics; protection of vulnerable populations including new arrivals; RCCE, CHWs network services, social mobilization through majhis, imams and women's groups.

17. Annex A – Vitamin A Dosing Quick Card

Age	Dose	Day 0	Day 1 (24 h later)
< 6 months	50,000 IU	✓	✓
6–11 months	100,000 IU	✓	✓
≥ 12 months / adults	200,000 IU	✓	✓
Pregnant women	Do NOT give high dose. If VAD: 10,000 IU daily or 25,000 IU weekly x 4 wk		

Add a 3rd dose 2–4 weeks later if ocular signs of vitamin A deficiency are present (Bitot's spots, corneal xerosis, corneal ulceration, night blindness).

18. Annex B – Danger Signs Checklist

Tick any box to trigger immediate referral to a SARI ITC:

- Unable to drink/breastfeed
- Vomits everything
- Convulsions (past or present)
- Lethargy/unconsciousness / altered mental status
- Central cyanosis or SpO₂ < 90% room air
- Severe chest indrawing/grunting/stridor at rest
- Tachypnoea above age cut-off (< 2 mo ≥ 60; 2–11 mo ≥ 50; 1–5 yr ≥ 40)
- Severe dehydration/shock
- Corneal clouding/keratomalacia/pus in eye
- Severe acute malnutrition (MUAC < 115 mm, WHZ < -3 SD, bilateral oedema)
- Age < 6 months with measles
- Pregnant woman with measles
- Known immunocompromised patient with measles

19. Annex C – Referral Form (essential fields)

- Patient full name, age, sex, Progress No, FCN/MRN, camp/block/shelter.
- Date of symptom onset, date of rash onset, and current day of illness.
- Key findings: temperature, RR, HR, SpO₂, hydration, nutrition, neurological status.
- Measles vaccination history (MR1, MR2, ORI doses).
- Treatment given before transfer: Vitamin A (dose, time), antibiotics, IV fluids, oxygen, paracetamol.
- Specimens collected and dispatched (type, time, destination).
- Pregnancy status / HIV status / known comorbidities.
- Name, designation, facility, and contact number of referring clinician.
- Receiving SARI ITC confirmed by (name, time), ambulance call sign, escort HCW name.

20. References

- World Health Organization. Measles fact sheet (updated November 2025).
- World Health Organization. Guide for clinical case management and infection prevention and control during a measles outbreak (WHO/IVB/2022; ISBN 9789240052079).
- World Health Organization, South-East Asia Regional Office. Bangladesh Measles Outbreak Response Update, 15 April 2026.
- Centers for Disease Control and Prevention. Interim Infection Prevention and Control Recommendations for Measles in Healthcare Settings (updated August 2025).
- Centers for Disease Control and Prevention. Healthcare Providers: Stay Alert for Measles Cases (updated January 2026).
- World Health Organization. Manual for the Laboratory-based Surveillance of Measles, Rubella and Congenital Rubella Syndrome.
- Moss WJ, Griffin DE. Measles 2025. N Engl J Med 2025; 392:2350–2363 (review).
- World Health Organization, UNICEF. IMCI chart booklet (latest edition).
- Cox's Bazar Health Sector. Monthly and Weekly Epidemiological Bulletins, 2024–2026.
- Government of Bangladesh, Directorate General of Health Services. Measles-Rubella vaccination policy and EPI schedule.

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