



कर्णाली प्रदेश सरकार  
सामाजिक विकास मन्त्रालय  
**स्वास्थ्य सेवा निर्देशनालय**

कर्णाली प्रदेश, सुर्खेत  
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SitRep.

34

## TIME DISTRIBUTION (समय विवरण)

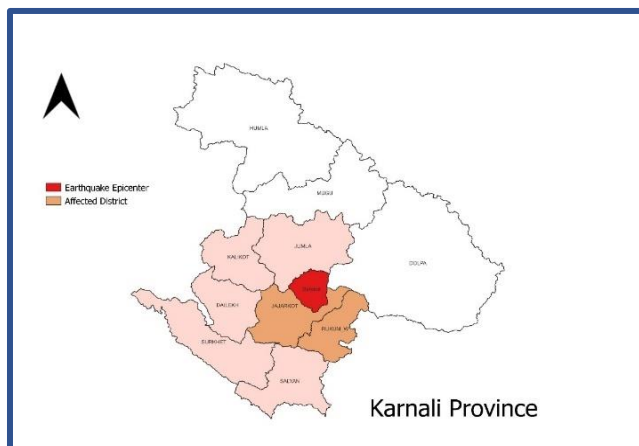
Date: 2080/09/04

20-Dec-2023

4:00 PM

### Situation Overview

On the night of November 3, 2023, a 6.4 magnitude earthquake struck the Jajarkot and Rukum West district of Karnali Province with its epicenter located in Ramidanda, Jajarkot district, at 11:47 PM. Following the initial earthquake, numerous aftershocks occurred, causing fear among the local population. The ongoing aftershocks have compelled residents to evacuate their homes and seek to stay in open areas. A total of 18 local governments are affected where Jajarkot and Rukum West are severely affected in terms of human casualties, and damage to houses in Karnali Province.



<b>Total Death</b>	<b>Total Injured</b>	<b>Total Rescued</b>	<b>Under Treatment</b>
<b>154</b>	<b>934</b>	<b>96</b>	<b>2</b>

Number of Patients Under Treatment	
Province Hospital Surkhet	Spinal Rehabilitation Center (Kavrepalanchok)
<b>1</b>	<b>1</b>

District-wise Details of casualties										
District	Number of Deaths						Total		Total Injured	Rescue/Refer
	Under 5		Under 18		Above 18					
	Female	Male	Female	Male	Female	Male	Female	Male		
Jajarkot	7	9	17	18	30	20	54	47	677	58
Rukum West	4	7	11	8	12	11	27	26	257	38
Total	11	16	28	26	42	31	81	73	934	96

Status of Damaged Health facilities and HH			
District	Damage Health Facility	HH Status	
		Fully Damaged	Partially Damaged
Jajarkot	40	9,794	24,707
Rukum West	31	9,468	13,428
Salyan	6	151	988
Surkhet	0	4	32
Dailekh	0	1	5
Kalikot	0	0	93
Jumla	0	5	116
<b>Grand Total</b>	<b>77</b>	<b>19423</b>	<b>39369</b>



Birthing center equipment support from UNICEF at Limsa hospital Berekot, Jajarkot



## 30TH HEALTH & NUTRITION CLUSTER MEETING, SURKEHT, KARNALI PROVINCE 20 DECEMBER 2023

### Health & Nutrition Cluster Decision made through PHSD meeting on 2080-09-04 at 10:30 AM

Regarding the devastating earthquake in Jajarkot, activities related to management have been updated so far in the health sector. In addition, it has been decided to increase monitoring in the affected earthquake area to manage health risks in a timely manner. According to the need for regular surveillance and syndromic management, health camps will be conducted, and various management and public awareness initiatives will be carried out through information, education and communication media.

From the date Poush 5, 2080 to Poush 14, 2080, and thereafter, the National Measles-Rubella/Typhoid Campaign will be conducted in the districts of Jajarkot, Rukum West, Salyan, Dailekh, Surkhet, Kalikot, and Jumla to make the campaign effective. This decision has been made by the Ministry of Social Development, Department of Health Services, Provincial Supply Management Center, Provincial Public Health Laboratory, and various development partner organizations to deploy mobile teams to all municipalities in each district.

The activities carried out and ongoing by the organizations that have been working in the earthquake-affected areas will be reported in the 4W format to the PHEOC.



*Installation of 5.45 KW solar panel at Barekot & Junichande Birthing Centres*



*Preparatory meeting with HSO Jajarkot for MR and TCV campaign*



Sub cluster	(Key activities performed)
<b>Reproductive Health</b>	Targeting pregnant and post-partum women, two nutritional packets of 3 kg each were distributed to 14,286 people with the support of WFP.
	IEC materials regarding hygiene and reproductive health were distributed in eight affected municipalities of Jajarkot and Rukum West districts.
	RH Kits have been distributed to birthing centres in the affected areas.
	Hygiene Kits distributed to pregnant mothers.
	Birthing centres are provided with essential obstetric drugs and quality equipment.
	Warm clothes were distributed to the pregnant mother and new-borns.
<b>Child Health and Nutritional Support</b>	Ensuring regular vaccination services provided by health institutions.
	Nutritious food items were distributed to the population of risk groups such as pregnant, pregnant mother, children aged 6-23 months.
	Ensuring the availability of essential medicines related to child health at the district and local levels.
<b>Mental Health and NCDs</b>	IEC materials regarding mental health were distributed in eight affected municipalities of Jajarkot and Rukum West districts.
	School teachers and health workers were provided Psychological First Aid, Primary Psychological Support (PSS) training and mobilized to provide PFA or PSS services to the needy people by teachers and by health workers.
	In coordination with the local level, the availability of medicines that people with chronic diseases are taking regularly and medical adherence are ensured.
<b>Disease Surveillance &amp; Control</b>	Orientation on Community based surveillance for FCHVs and health facility staff of municipalities and rural municipalities of Jajarkot and Rukum West is initiated. The program comprises the components of event-based surveillance relative to FCHVs along with the orientation to RRTs and national surveillance system.
	Active Syndromic Surveillance is being continued by the WHO in coordination with the relevant local level health coordinators in the local levels of Jajarkot- Kushe, Nalgad, Bheri, Barekot, Junichande, Chedagad, Shivalaya and Rukum West local levels- Athabiscot, Chaurjahari, Sanibheri.
	To increase health awareness after the disaster, IEC materials regarding sanitation, hand hygiene and awareness related to diarrhoea have been distributed to municipalities and rural municipalities.
	RDT Test kits have been sent to District Hospital, Jajarkot from Province Health Logistics Management Centre to support and strengthen the testing capacity of earthquake affected areas.
<b>Rehabilitation</b>	Two trained physiotherapists were assigned to provide for the needy people in the affected areas.
	The availability of rehabilitation services and assistive devices in earthquake affected health facilities is ongoing.
	In support of EDCCD a temporary rehabilitation facility will be set up with physiotherapy service and assistive devices in Bheri, Nalgad and Aathbiskot Municipalities.



PFA through focal teachers at Shree Buddhi basic-School Bheri-4, Bohara

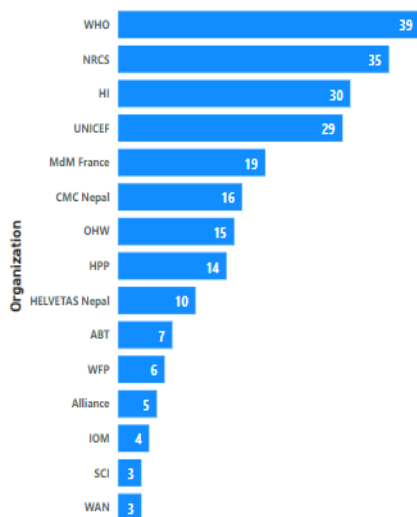


Two-day training on primary psychological support for teachers from CMC Nepal

## 4W Reporting from the Development Partners

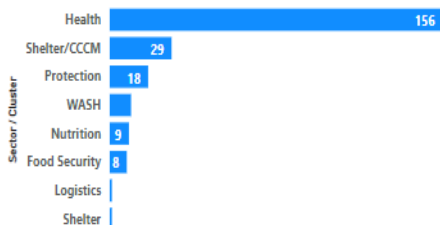
### WHO

Number of Activities per Organization

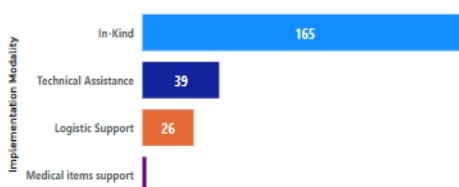


### WHAT

Number of Activities by area of Support

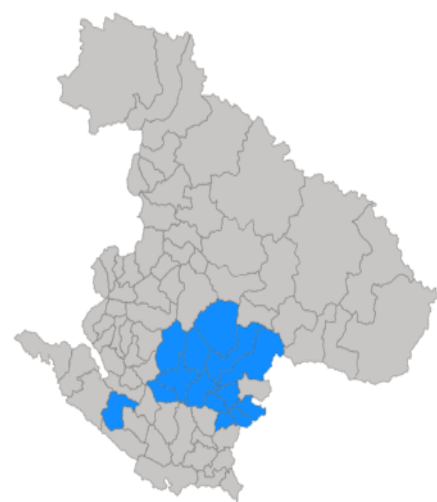


Number of Activities by Modality

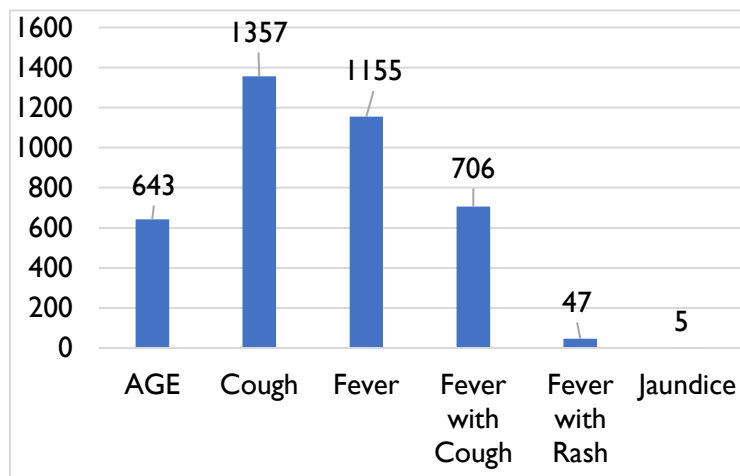


### WHERE

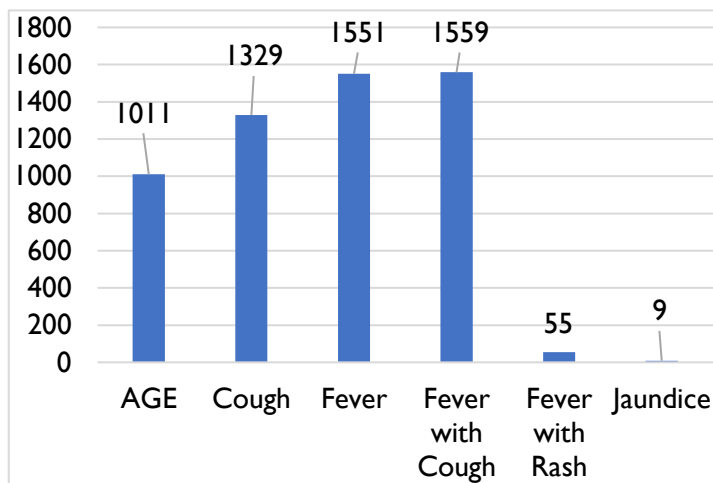
Activities by Municipality\_Karnali Province



## Active Syndromic Surveillance



TOTAL NUMBER OF CASE REPORTED FROM NOV 09 TO DEC 17, 2023



TORAN NUMBER OF CASE REPORTED FROM NOV 05 TO DEC 17

# INFLUENZA

## Case Management

### Look for these symptoms:

- high fever (greater than or equal to 38°C/101° F)
- Sore throat and coryza (runny nose)
- Cough (Dry; no production of sputum)
- Muscle ache/ Lethargy
- Eye infection/ Conjunctivitis

**High risk population-** Age ≥65 years, people with certain chronic medical conditions (such as asthma, diabetes, or heart disease), pregnant people and children ≤5 years may develop complications (such as pneumonia) which can be life-threatening, people.

### Key Facts

- Humans can be infected with avian influenza viruses, such as avian influenza virus subtypes A(H5N1), A(H7N9), and A(H9N2).
- Influenza infections in humans may cause disease ranging from mild conjunctivitis to severe pneumonia and even death.
- The majority of human cases of A(H5N1) and A(H7N9) infection have been associated with direct or indirect contact with infected live or dead poultry. Controlling the disease in the animal source is critical to decrease risk to humans.
- Influenza viruses, with the vast silent reservoir in aquatic birds, are impossible to eradicate. Zoonotic influenza infection in humans can continue to occur. To minimize public health risk, quality surveillance in both animal and human populations, thorough investigation of every human infection and risk-based pandemic planning are essential.
- To reduce transmission of influenza, hand hygiene should be done before and after patient contact and always wearing a mask when in patient care areas.

Warning Signs	Children		Adults	
	Temperature 104°F not controlled by antipyretics		Difficulty breathing	
	Fast breathing or trouble breathing, Indrawing of ribs		Persistent chest pain	
	Bluish lips or face		Persistent dizziness, confusion	
	Child refuses to walk due to muscle pain		Severe muscle weakness	
	Dry mouth, no tears when crying, No urine for 8 hours		Signs of dehydration- decreased urine output	
	Not interacting when awake		Worsening of chronic medical conditions	
	Seizures		Seizures	
Laboratory confirmation	Clinical Sample to be collected		Assay	Facility
	Nasopharyngeal swab		RT-PCR	Reference Laboratory/Tertiary level/Secondary level
Treatment	<ul style="list-style-type: none"> <li>• Supportive- antipyretics and oral fluids</li> <li>• Antiviral drug (oseltamivir) is usually given to high-risk population.  <i>The standard recommended dosage for chemoprophylaxis against avian influenza is 75mg of oseltamivir, once daily (OD) for each day that exposure occurs. This should be continued for 10 days after the last exposure to the incident. Dose adjustment may be required for those with co-morbidities such as renal impairment.</i>  <i>In a person with suspected or confirmed influenza virus infection or at risk of severe illness (i.e. including seasonal influenza, pandemic influenza and zoonotic influenza), we suggest administering oseltamivir as soon as possible (vs not administering oseltamivir) (conditional recommendation, low-quality evidence)</i> </li> </ul>			
Vaccine	<ul style="list-style-type: none"> <li>• Available as flu shot (inactivated influenza vaccine).</li> <li>• The vaccination is only for prophylactic purpose Flu vaccination can reduce flu illnesses, doctor visits, and missed work and school due to flu, as well as prevent flu-related hospitalizations and deaths.</li> <li>• Vaccination is a must for people suffering from respiratory diseases (Bronchial Asthma, COPD, etc.)</li> <li>• Vaccines are available in two different forms               <ol style="list-style-type: none"> <li>Trivalent vaccines protect against two influenza A viruses (an H1N1 and an H3N2) and an influenza B virus.</li> <li>Quadrivalent vaccines protect against two influenza A viruses and two influenza B viruses.</li> </ol> </li> </ul>			
Prevention	<p>Health care workers are at high risk of acquiring influenza virus infection during patient care. Preventive measures are as follows.</p> <ol style="list-style-type: none"> <li>Please wear mask while providing care.</li> <li>Regular hand hygiene and proper respiratory hygiene.</li> <li>Proper cleaning and disinfection of personal care equipment</li> <li>Disposal of waste contaminated with patient's respiratory secretion</li> </ol>			





# Acute Watery Diarrhea

## Case Management

### Look for these symptoms:

- Loose stools, typically at least three times in a 24-hour period.
- \* Watery diarrhea is characteristically non-bloody, a "rice-water" appearance of stool flecked with mucous is suggestive of cholera whereas diarrhea with visible blood is dysentery*
- Associated features- abdominal cramping, vomiting, tenesmus and fever
- Signs of dehydration

### Key Facts

- Diarrhea is defined as the passage of three or more loose or liquid stools per day (or more frequent passage than is normal for the individual).
- Diarrheal diseases are due to an infection in the intestinal tract, which can be caused by bacterial, viral and parasitic organisms.

### Causative organisms:

- Diarrhea may also occur in other systemic infections, such as influenza, dengue fever, scrub typhus and malaria.
- Acute diarrhea can occur at any age, but children are more commonly affected
- Rota virus, Entamoeba histolytica, cholera and E.coli are the common causative organisms in Nepal.

### Assessment of severity of dehydration among patients with acute watery diarrhea

	Examination	No signs of dehydration	Some dehydration	Severe dehydration
Look	Mental status	Alert	Restless, irritable	Lethargic, unconscious
	Eyes/anterior fontanelle in infant	Normal	Sunken	Very sunken
	Tears	Present	Absent	Absent
	Mouth/tongue	Moist/slightly dry	Dry	Very dry
	Thirst	Increased thirst	Thirsty, drinks eagerly	Drinks poorly or unable to drink
	Urine output	Normal or mildly reduced	Markedly reduced	Anuria
Feel	Skin pinch	Goes back rapidly	Goes back slowly	Tenting
	Pulse	Normal	Rapid, weak	Very weak or unpalpable
	Estimated fluid loss	< 50 ml/kg	50-100 ml/kg	>100 ml/kg

Laboratory Tests	Clinical Sample to be collected	Method	Assay	Facility
	Stool	Stool microscopy	Culture	Reference Laboratory/Tertiary level/Secondary level
		Stool dipsticks for cholera	RDT	All level
Other laboratory findings	<ul style="list-style-type: none"> <li>Leukocytosis with thrombocytopenia is common. Liver enzymes- SGPT and SGOT may be elevated.</li> <li>Urea and creatinine may be elevated.</li> </ul>			
Treatment	<ul style="list-style-type: none"> <li><b>Supportive care:</b> Easily treatable with inexpensive antibiotics with dramatic results and <b>needs to be started on clinical suspicion.</b></li> <li>Rehydrate with oral rehydration solution. Patients with severe dehydration and persistent vomiting require intravenous fluid- normal saline or ringer lactate</li> <li>Zinc supplement 10 mg/day for 14 days for children</li> <li>Antimicrobials <ul style="list-style-type: none"> <li>Severe diarrhea/cholera outbreak setting– doxycycline 300 mg (4-6 mg/kg for children) single dose</li> <li>Blood mixed diarrhea (Shigellosis)- ciprofloxacin 500 mg (children 10 mg/kg 12 hourly) for 3 days.</li> <li>E. histolytica- metronidazole (400 mg 8 hourly for 5 days)</li> </ul> </li> <li>Nutrient-rich food- boiled starches, and cereals (potatoes, noodles, rice, wheat and oats) with salts are recommended</li> </ul>			
Prevention	<ul style="list-style-type: none"> <li>Encourage to drink safe (purified) drinking-water.</li> <li>Use of improved sanitation.</li> <li>Hand washing with soap and water.</li> <li>Good personal and food hygiene;</li> <li>Health education about how infections spread; and</li> <li>rotavirus vaccination.</li> </ul> <p># exclusive breastfeeding for the infant up to first six months of life;</p>			



# TETANUS

## Case Management

Look for these symptoms:

- Spasm of the muscles of the jaw or "lockjaw"
- Stiff neck
- Opisthotonus (rigid and arches their back, with their head thrown backward)
- Risus sardonius (sardonic smile)
- Board-like rigid abdomen
- Periods of apnea and/or upper airway obstruction due contraction of the thoracic muscles and/or glottal or pharyngeal muscle contraction, respectively
- Dysphagia

### Key Facts

- Tetanus occurs when spores of *Clostridium tetani*, an anerobic bacterium found in soil gains access to damaged human tissue.
- The bacteria produce tetanus toxin- tetanospasmin which causes muscle spasms.
- Tetanus is endemic in resource-limited settings, and the incidence often increases following natural disasters such as earthquakes.
- Unvaccinated or inadequately vaccinated individuals with penetrating injury with inoculation of spores of *C. tetani*, devitalized tissue, a foreign body, or local ischemia are at risk for tetanus.
- Incubation period- approximately 8 days (3-21 days)
- Clinical forms- generalized, localized and cephalic. Clinical features of generalized tetanus are due to tonic contraction of their skeletal muscles and intermittent intense muscular spasms which may be triggered by loud noises, physical contact, or light.

Laboratory diagnosis	Tetanus can be diagnosed based on the clinical presentation, examining someone for certain signs and symptoms and inquiring about recent history of cuts, scrapes, punctures, and trauma. <b>There are no hospital lab tests that can confirm tetanus.</b>																			
Treatment	<ul style="list-style-type: none"><li>• Tetanus is a medical emergency requiring hospitalization in ICU for early airway management.</li><li>• Control muscle spasm with benzodiazepines (e.g., diazepam)</li><li>• Aggressive wound care- wound debridement to eradicate spores and necrotic tissue</li><li>• Immediate treatment with human tetanus immunoglobulin (HTIG)- a single dose of 500 units intramuscularly</li><li>• Antibiotics- intravenous metronidazole 500 mg 3 times daily for 7-10 days.</li></ul> <p><b>Guidelines for tetanus prophylaxis with TIG in routine wound management</b></p> <table><tr><th rowspan="2">Vaccination status</th><th colspan="2">Clean, minor wound</th><th colspan="2">All other wounds</th></tr><tr><th>Tetanus toxoid</th><th>HTIG</th><th>Tetanus toxoid</th><th>HTIG</th></tr><tr><td>Unknown or &lt; 3 vaccines</td><td>Yes</td><td>No</td><td>Yes</td><td>Yes (250 IU for prophylaxis)</td></tr><tr><td>≥ 3 vaccines</td><td>No*</td><td>No</td><td>No**</td><td>No</td></tr></table> <p><i>* Yes if ≥ 10 years of last TT, ** yes if ≥ 5 years of last TT</i></p>	Vaccination status	Clean, minor wound		All other wounds		Tetanus toxoid	HTIG	Tetanus toxoid	HTIG	Unknown or < 3 vaccines	Yes	No	Yes	Yes (250 IU for prophylaxis)	≥ 3 vaccines	No*	No	No**	No
Vaccination status	Clean, minor wound		All other wounds																	
	Tetanus toxoid	HTIG	Tetanus toxoid	HTIG																
Unknown or < 3 vaccines	Yes	No	Yes	Yes (250 IU for prophylaxis)																
≥ 3 vaccines	No*	No	No**	No																
Prevention	<p>Tetanus can be prevented through immunization with tetanus-toxoid-containing vaccines (TTCV). There are many kinds of vaccines used to protect against tetanus:</p> <ul style="list-style-type: none"><li>• diphtheria and tetanus (DT) vaccines</li><li>• diphtheria, tetanus, and pertussis (whooping cough) (DTaP) vaccines</li><li>• tetanus and diphtheria (Td) vaccines</li><li>• tetanus, diphtheria, and pertussis (Tdap) vaccines.</li></ul> <p>To be protected throughout life, WHO recommends that an individual receives 6 doses (3 primary plus 3 booster doses) of TTCV.</p> <ul style="list-style-type: none"><li>• The 3-dose primary series should begin as early as 6 weeks of age, with subsequent doses given with a minimum interval of 4 weeks between doses.</li><li>• The 3 booster doses should preferably be given during the<ul style="list-style-type: none"><li>✓ second year of life (12–23 months),</li><li>✓ at 4–7 years of age, and</li><li>✓ at 9–15 years of age.</li></ul></li></ul> <p>Ideally, there should be at least 4 years between booster doses.</p> <p>Proper wound care or surgical procedure.</p> <p>Immunizing pregnant lady/ women of reproductive age, clean delivery, and cord care to prevent neonatal tetanus.</p>																			





# MEASLES

## Case Management

### Look for these symptoms:

- Fever
- Maculo-papular rashes
- Conjunctivitis
- Coryza
- Cough



### Key Facts

- Suspected measles case definition: A patient with fever and maculopapular (non-vesicular) rash, or in whom a health care worker suspects measles.
- It is highly contagious disease with incubation period of 7-21 day
- Rash arises approximately 2-4 days after onset of fever, it consists of an erythematous, maculopapular, blanching rash, which classically begins on the face and spreads cephalocaudally (characteristic of measles) and centrifugally to involve the neck, upper trunk, lower trunk, and extremities
- The period of contagiousness is from four days before the appearance of rash to four days afterward.
- Complications associated with measles most commonly involve the respiratory and/or digestive tracts: otitis media, pneumonia, laryngotracheobronchitis (croup), diarrhea and stomatitis.
- Measles spread by contact with infected nasal or throat secretions (coughing or sneezing).
- Respiratory droplets can remain airborne for up to 2 hours.
- It can affect all age group but is common among children.

Rashes arises approximately 2-4 days after onset of fever; it consists of an erythematous, maculopapular, blanching rash, which classically begins on the face and spreads cephalocaudally (characteristic of measles) and centrifugally to involve the neck, upper trunk, lower trunk, and extremities

Laboratory confirmation	Clinical Samples to be collected	Method	Time of collection	Remarks
	5 ml blood sample >1 year of age 1ml of blood <1 year of age	Serology/ELISA	<b>3-28 days of rash onset/first contact</b>	In outbreak condition, serum collected after 4 days of rash onset
	throat swab, urine	Virology/RT-PCR	<b>Within 3-5 days of rash onset</b>	Only taken at the time of suspected outbreak, the Sample should reach to National Public Health Laboratory (NPHL within 24 hours of collection)
Note: The sample must be stored and transported maintaining proper cold chain (2 – 8°C).				
Treatment	<ul style="list-style-type: none"> <li>• No specific anti-viral therapy.</li> <li>• Symptomatic treatment for prevention of complications</li> <li>• Treatment is supportive- antipyretics, fluids, and treatment of superinfection like pneumonia and otitis media.</li> <li>• Immediate administration of Vitamin A</li> </ul> <b>In children</b> <ul style="list-style-type: none"> <li>◦ &lt; 6 months- 50,000 IU</li> <li>◦ 6-11 months- 100,000 IU, and</li> <li>◦ ≥ 12 months- 200,000 IU</li> </ul>			
Prevention	<ul style="list-style-type: none"> <li>• IPC intervention is the first step while handling a suspected measles case.</li> <li>• Immediately place patients with known or clinically suspected measles in a separate area until examined or in an airborne infection isolation room (AIIR), where available.</li> <li>• Vaccination is the most effective way to prevent measles.</li> <li>• Two doses of the MR vaccines are given at 9 months and 15 months of age as per the immunization schedule of the National Immunization Program.</li> <li>• While treating measles, where isolation rooms are not available, a separate area or structure for clinically suspected measles patients should be used.</li> <li>• Isolation should continue until the case is discharged, or for 4 days after rash onset, whichever is later.</li> <li>• Provide patients with confirmed or clinically suspected measles with a medical-surgical facemask and separate these individuals from non-measles patients prior to or as soon as possible upon entering a healthcare facility.</li> <li>• Limit transport of patients with clinically suspected and confirmed measles cases, if transportation is unavoidable provide surgical/medical mask to patient, cover patients body with full sleeves gown.</li> <li>• Encourage patients for proper respiratory hygiene and hand hygiene.</li> <li>• Use disposable patient care equipment if possible.</li> <li>• Cleaning and disinfection of patient care equipment and linen used by patients.</li> </ul>			

Note: Fever and Rash case must be reported to Health office or WHO-IPD Surveillance Medical Officer



Karnali Province Government  
Ministry of Social Development  
**Health Service Directorate**  
Birendranagar, Surkhet

Source: [https://cdn.who.int/media/docs/default-source/immunization/vpd\\_surveillance/lab\\_networks/measles\\_rubella/manual/chapter-8.pdf?sfvrsn=5c8a7038\\_2&download=true](https://cdn.who.int/media/docs/default-source/immunization/vpd_surveillance/lab_networks/measles_rubella/manual/chapter-8.pdf?sfvrsn=5c8a7038_2&download=true)  
<https://iris.who.int/bitstream/handle/10665/331599/9789240002869-eng.pdf?sequence=1>



# SCRUB TYPHUS

## Case Management

Look for these symptoms:

- High grade fever ( $>104^{\circ}\text{F}$ )
- Severe headache and Myalgia
- Profuse sweating and chills
- Painless black eschar (scab) in site of bite (seen in 40% of cases)

- Cough
- Rashes
- Red eye
- Diarrhea
- Enlargement of Lymph node



Eschar

### Key Facts

- Scrub typhus is an acute, febrile, infectious illness that is caused by *bacteria Orientis* (formerly *Rickettsia tsutsugamushi*).
- Humans are accidental hosts in this zoonotic disease.
- Scrub typhus is transmitted to humans and rodents by some species of trombiculid mites ("chiggers", *Leptotrombidium delicense*).
- Humans acquire the disease from the bite of an infected larval stage of the mite (chigger). The bite of the mite leaves a characteristic 'eschar' that is useful for making the diagnosis.
- Scrub typhus is generally seen in people whose occupational or recreational activities bring them into contact with habitat of chiggers such as vegetation- consisting of low-lying trees and bushes in banks of rivers, rice fields, poorly maintained kitchen gardens, grassy lawns.
- It occurs more frequently before and after the rainy season. Outbreaks of Scrub Typhus were reported across the country after the Nepal earthquake 2015.
- The disease is difficult to recognize and diagnose because the symptoms and signs of the illness are often non-specific.
- The incubation period of scrub typhus is about 5 to 20 days (mean 10-12 days) after the initial bite.
- A study on the etiology of febrile illness among adults in Patan hospital showed that 3.2% patients (N=876) were serologically positive to scrub typhus.
- For contaminated clothing, ensure proper management by containment and washing clothing/linens in hot water  $>60$  degrees or chlorinated bleach solution (0.5% bleach)

Laboratory diagnosis	Clinical Sample to be collected	Method	Assay	Facility
	2-4 ml blood sample in a plain vacutainer	Serology	ELISA	Reference Laboratory/Tertiary level/Secondary level
		Serology	RDT	All level
Treatment	<ul style="list-style-type: none"> <li>• Treatment should be initiated early on clinical suspicion as morbidity and mortality increases rapidly with delay in the treatment. Patient with mild illness without organ dysfunction can be managed with antipyretics (e.g. paracetamol) and antibiotics.</li> <li>• <u>Antibiotics</u> <ul style="list-style-type: none"> <li>• Doxycycline (Drug of choice) 100 mg twice daily for individuals above 45 kg (10 mg/Kg in 2 divided doses for children below 45 Kg) for 7 days. Capsule should be swallowed with a glass of water in sitting or standing position. OR</li> <li>• Azithromycin 500 mg (10 mg/Kg in children) once daily orally for 5 days.</li> <li>• <i>Azithromycin or chloramphenicol is useful for treating infection in children and pregnant woman. When patient cannot swallow or is critically ill, intravenous therapy of doxycycline or azithromycin preferred until condition improves. Total duration is 10-15 days.</i></li> </ul> </li> </ul> <p><b>*No vaccines are available till date for Scrub Typhus.</b></p>			
Prevention	<ul style="list-style-type: none"> <li>• Avoiding contact with infected chiggers.</li> <li>• In the areas with lots of vegetation and bush where chiggers may be found wear protective clothing, use insect repellents or insecticides treated clothing.</li> <li>• Chigger control by removal of bush/vegetation and residual spraying of vegetation.</li> </ul>			



Karnali Province Government  
Ministry of Social Development  
**Health Service Directorate**  
Birendranagar, Surkhet

Reference: National Guideline on Diagnosis, Management and Prevention of Scrub typhus in