

**TABLE 88-4** FEVER AND RASH IN VIRAL INFECTION

VIRUS	DISEASE FEATURES	INCUBATION AND EARLY SYMPTOMS
Coxsackie, ECHO virus	Maculopapular rubelliform, 1-3 mm, faint pink, begins on face, spreading to chest and extremities Herpetiform vesicular stomatitis with peripheral exanthema (papules and clear vesicles on an erythematous base), including palms and soles (hand, foot, and mouth disease)	Summertime No itching or lymphadenopathy Multiple cases in household or community-wide epidemic Mostly diseases of children
Measles	Erythematous, maculopapular rash begins on upper face and spreads down to involve extremities, including palms and soles. Koplik's spots are blue-gray specks on a red base found on buccal mucosa near second molars. Atypical measles occurs in individuals who received killed vaccine and then are exposed to measles. The rash begins peripherally and is urticarial, vascular, or hemorrhagic.	Incubation period 10-14 days First, severe upper respiratory symptoms, coryza, cough, and conjunctivitis; then Koplik's spots, then rash
Rubella	Maculopapular rash beginning on face and moving down; petechiae on soft palate	Incubation 12-23 days Adenopathy; posterior auricular, posterior cervical, and suboccipital
Varicella	Generalized vesicular eruption; pruritic lesions in different stages from erythematous macules to vesicles to crusted; spread from trunk centrifugally; zoster lesions are painful and often dermatomal	Incubation 14-15 days; late winter, early spring Herpes zoster is a reactivation, occurs any season
Herpes simplex virus	Oral primary: small vesicles on pharynx, oral mucosa that ulcerates; painful and tender Recurrent: vermilion border, one or few lesions, genital; may be asymptomatic or appear similar to oral lesions on genital mucosa	Incubation 2-12 days
Hepatitis B and C virus	Prodrome in one fifth; erythematous, maculopapular rash, urticaria Leukocytoclastic vasculitis occurs in hepatitis C	Arthralgias, arthritis; abnormal liver function test results; hepatitis B antigenemia
Epstein-Barr virus	Erythematous, maculopapular rash on trunk and proximal extremities Occasionally urticarial or hemorrhagic	Transiently occurs in 5-10% of patients during first week of illness
Human immunodeficiency virus	Maculopapular truncal rash may occur as early manifestation of infection	Associated fever, sore throat, and lymph node enlargement may persist for 2 or more weeks

TABLE 88-5 COMMON SYNDROMES AND DISEASES ASSOCIATED WITH FEVER IN RETURNED TRAVELERS

SORE THROAT	COUGH	ABDOMINAL PAIN	ARTHRALGIA OR MYALGIA	DIARRHEA
Bacterial pharyngitis	Amebiasis (hepatic)	Amebiasis (intestinal)	Arboviruses	Amebiasis (intestinal)
Diphtheria	Anthrax	Anthrax	Dengue	Anthrax
Infectious mononucleosis	Bacterial pneumonia	<i>Campylobacter enteritis</i>	Yellow fever	<i>Campylobacter enteritis</i>
HIV seroconversion	Filarial fever	Legionnaires disease	Babesiosis	HIV seroconversion
Lyme disease	TPE	Malaria	Bartonellosis	Legionnaires disease
Poliomyelitis	Histoplasmosis	Measles	Brucellosis	Malaria melioidosis
Psittacosis	Legionnaires' disease	Melioidosis	Erythema nodosum leprosum	Plague
Tularemia	Leishmaniasis (visceral)	Plague	Hepatitis (viral)	Relapsing fever
Viral hemorrhagic fever (Lassa)	Loeffler syndrome	Relapsing fevers	Histoplasmosis	Salmonellosis
Nonspecific viral URTI	Malaria	Salmonellosis	HIV seroconversion	Schistosomiasis (acute)
	Measles	Schistosomiasis (acute)	Legionnaires disease	Shigellosis
	Melioidosis	Shigellosis	Leptospirosis	Typhoid in children
	Plague	Typhoid fever	Lyme disease	Viral hemorrhagic fevers
	Q fever	Viral hemorrhagic fevers	Malaria	Yersiniosis
	Relapsing fever	Yersiniosis	Plague	
	Schistosomiasis (acute)		Poliomyelitis	
	Toxocariasis		Q fever	
	Trichinosis		Relapsing fevers	
	Tuberculosis		Secondary syphilis	
	Tularemia		Toxoplasmosis	
	Typhoid and paratyphoid		Trichinosis	
	Typhus		Trypanosomiasis (African)	
	Viral hemorrhagic fevers		Tularemia	
	Nonspecific viral URTIs		Typhoid and paratyphoid	
			Typhus	
			Viral hemorrhagic fevers	

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HIV, Human immunodeficiency virus; TPE, tropical pulmonary eosinophilia; URTI, upper respiratory tract infection.

Table 88-7 shows the most common causes of unexplained fevers.

The term *fever of unknown origin* (FUO) identifies a pattern of fever with temperatures greater than 38.3° C (101° F) on several occasions over more than 3 weeks after an initial diagnostic

work-up for which the diagnosis remains uncertain. Verifying the presence or absence of fever is important; up to 35% of 347 patients admitted to the National Institutes of Health (NIH) for evaluation of prolonged fever were determined not to have significant fever or had fever of factitious origin. Cases of FUO are