

## e5 Atlas of Rashes Associated with Fever

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Given the extremely broad differential diagnosis, the presentation of a patient with fever and rash often poses a thorny diagnostic challenge for even the most astute and experienced clinician. Rapid narrowing of the differential by prompt recognition of a rash's key features can result in appropriate and sometimes life-saving therapy. This atlas presents high-quality images of a variety of rashes that have an infectious etiology and are commonly associated with fever.



**FIGURE e5-1** Lacy reticular rash of **erythema infectiosum** (fifth disease).



**FIGURE e5-2** **Koplik's spots**, which manifest as white or bluish lesions with an erythematous halo on the buccal mucosa, usually occur in the first 2 days of measles symptoms and may briefly overlap the measles exanthem. The presence of the erythematous halo differentiates Koplik's spots from Fordyce's spots (ectopic sebaceous glands), which occur in the mouths of healthy individuals. (Source: CDC. Photo selected by Kenneth M. Kaye, MD.)



**FIGURE e5-3** In **measles**, discrete erythematous lesions become confluent on the face and neck over 2–3 days as the rash spreads downward to the trunk and arms, where lesions remain discrete. (Reprinted from K Wolff, RA Johnson: *Color Atlas & Synopsis of Clinical Dermatology*, 5th ed. New York, McGraw-Hill, 2005, p 788.)



**FIGURE e5-4** In **rubella**, an erythematous exanthem spreads from the hairline downward and clears as it spreads. (Photo courtesy of Stephen E. Gellis, MD; with permission.)





**FIGURE e5-5 Exanthem subitum** occurs most commonly in young children. A diffuse maculopapular exanthem follows resolution of fever. (Photo courtesy of Stephen E. Gellis, MD; with permission.)



**FIGURE e5-6** Erythematous macules and papules are apparent on the trunk and arm of this patient with **primary HIV infection**. (Reprinted from K Wolff, RA Johnson: *Color Atlas & Synopsis of Clinical Dermatology*, 5th ed. New York, McGraw-Hill, 2005.)



**FIGURE e5-7** This **exanthematous drug-induced eruption** consists of brightly erythematous macules and papules, some which are confluent, distributed symmetrically on the trunk and extremities. Ampicillin caused this rash. (Reprinted from K Wolff, RA Johnson: *Color Atlas & Synopsis of Clinical Dermatology*, 5th ed. New York, McGraw-Hill, 2005.)



**FIGURE e5-8 Erythema chronicum migrans** is the early cutaneous manifestation of Lyme disease and is characterized by erythematous annular patches, often with a central erythematous papule at the tick bite site. (Courtesy of Yale Resident's Slide Collection; with permission.)



**FIGURE e5-9 Rose spots** are evident as erythematous macules on the trunk of this patient with **typhoid fever**.



**FIGURE e5-10 Systemic lupus erythematosus** showing prominent, scaly, malar erythema. Involvement of other sun-exposed sites is also common.



**FIGURE e5-11** Acute lupus erythematosus on the upper chest, with brightly erythematous and slightly edematous coalescence papules and plaques. (Courtesy of Robert Swerlick, MD; with permission.)



**FIGURE e5-14** Impetigo contagiosa is a superficial streptococcal or *Staphylococcus aureus* infection consisting of honey-colored crusts and erythematous weeping erosions. Occasionally, bullous lesions may be seen. (Courtesy of Mary Spraker, MD; with permission.)



**FIGURE e5-12** Discoid lupus erythematosus. Violaceous, hyperpigmented, atrophic plaques, often with evidence of follicular plugging (which may result in scarring), are characteristic of this cutaneous form of lupus. (Courtesy of Marilynne McKay, MD; with permission.)

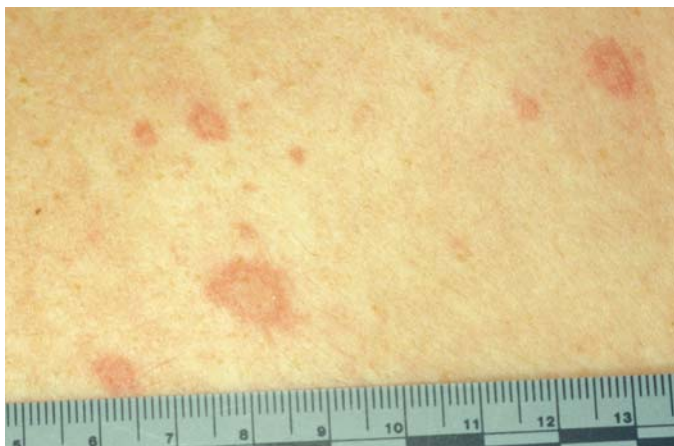


**FIGURE e5-15** Erysipelas is a streptococcal infection of the superficial dermis and consists of well-demarcated, erythematous, edematous, warm plaques.



**FIGURE e5-13** The rash of Still's disease typically exhibits evanescent, erythematous papules that appear at the height of fever on the trunk and proximal extremities. (Courtesy of Stephen E. Gellis, MD; with permission.)





**FIGURE e5-16** *Top:* Petechial lesions of **Rocky Mountain spotted fever** on the lower legs and soles of a young, otherwise-healthy patient. *Bottom:* Close-up of lesions from the same patient. (Photos courtesy of Lindsey Baden, MD; with permission.)



**FIGURE e5-17** **Primary syphilis** with a firm, nontender chancre.



**FIGURE e5-18** **Secondary syphilis** demonstrating the papulosquamous truncal eruption.



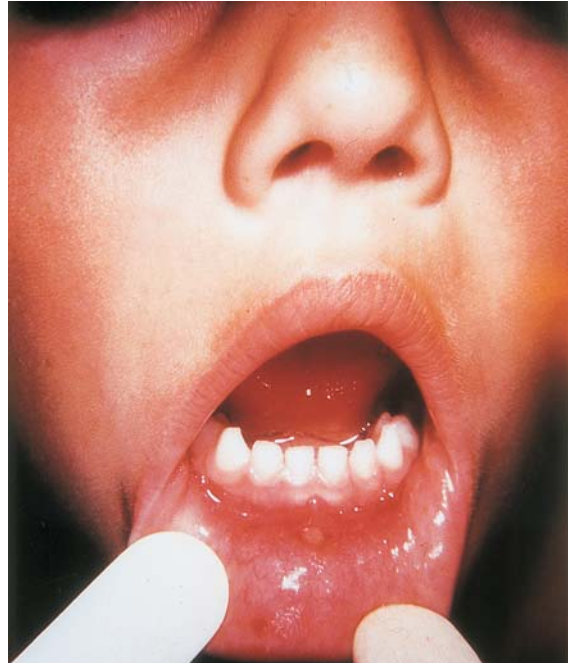
**FIGURE e5-19** **Secondary syphilis** commonly affects the palms and soles with scaling, firm, red-brown papules.



**FIGURE e5-20** **Condylomata lata** are moist, somewhat verrucous intertriginous plaques seen in secondary syphilis.



**FIGURE e5-21** Mucous patches on the tongue of a patient with **secondary syphilis**. (Courtesy of Ron Roddy; with permission.)



**FIGURE e5-23** Tender vesicles and erosions in the mouth of a patient with **hand-foot-and-mouth disease**. (Courtesy of Stephen E. Gellis, MD; with permission.)



**FIGURE e5-22** Petechial lesions in a patient with **atypical measles**. (Photo courtesy of Stephen E. Gellis, MD; with permission.)



**FIGURE e5-24** Septic emboli with hemorrhage and infarction due to acute *Staphylococcus aureus* **endocarditis**. (Courtesy of Lindsey Baden, MD; with permission.)





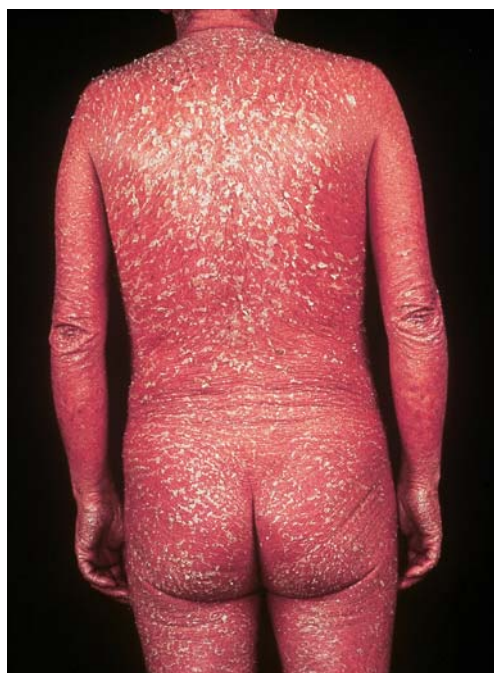
**FIGURE e5-25 Erythema multiforme** is characterized by multiple erythematous plaques with a target or iris morphology and usually represents a hypersensitivity reaction to drugs or infections (especially herpes simplex virus). (Courtesy of the Yale Resident's Slide Collection; with permission.)



**FIGURE e5-26 Scarlet fever exanthem.** Finely punctuated erythema has become confluent (scarlatiniform); accentuation of linear erythema in body folds (Pastia's lines) is seen here. (Reprinted from K Wolff, RA Johnson: *Color Atlas & Synopsis of Clinical Dermatology*, 5th ed. New York, McGraw-Hill, 2005.)



**FIGURE e5-27** Erythema progressing to bullae with resulting sloughing of the entire thickness of the epidermis occurs in **toxic epidermal necrolysis**. This reaction was due to a sulfonamide. (Reprinted from K Wolff, RA Johnson: *Color Atlas & Synopsis of Clinical Dermatology*, 5th ed. New York, McGraw-Hill, 2005.)



**FIGURE e5-28** Diffuse erythema and scaling are present in this patient with psoriasis and the **exfoliative erythroderma syndrome**. (Reprinted from K Wolff, RA Johnson: *Color Atlas & Synopsis of Clinical Dermatology*, 5th ed. New York, McGraw-Hill, 2005.)





**FIGURE e5-29** This infant with **staphylococcal scalded skin syndrome** demonstrates generalized desquamation. (Reprinted from K Wolff, RA Johnson: *Color Atlas & Synopsis of Clinical Dermatology*, 5th ed. New York, McGraw-Hill, 2005.)



**FIGURE e5-30** Fissuring of the lips and an erythematous exanthem are evident in this patient with **Kawasaki's disease**. (Courtesy of Stephen E. Gellis, MD; with permission.)



**FIGURE e5-31** Numerous **varicella** lesions at various stages of evolution: vesicles on an erythematous base, umbilical vesicles, and crusts. (Courtesy of R. Hartman; with permission.)



**FIGURE e5-32** Close-up of lesions of **disseminated zoster**. Note lesions at different stages of evolution, including pustules and crusting. (Photo courtesy of Lindsey Baden, MD; with permission.)



**FIGURE e5-33** **Herpes zoster** is seen in this HIV-infected patient as hemorrhagic vesicles and pustules on an erythematous base grouped in a dermatomal distribution.



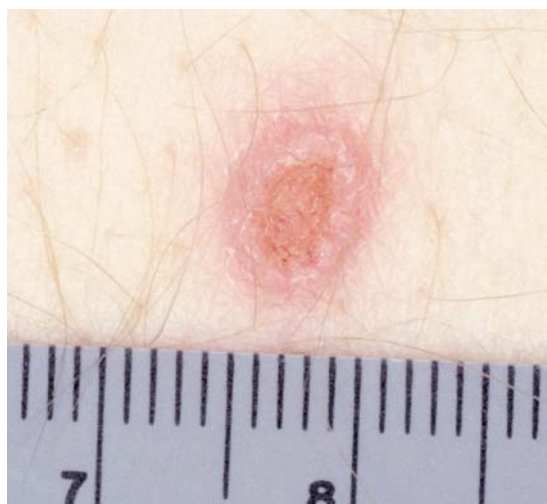
**FIGURE e5-34** **Top:** Eschar at the site of the mite bite in a patient with rickettsialpox. **Middle:** Papulovesicular lesions on the trunk of the same patient. **Bottom:** Close-up of lesions from the same patient. (Reprinted from A Krusell et al: *Emerg Infect Dis* 8:727, 2002. Photos obtained by Kenneth M. Kaye, MD.)



**FIGURE e5-35** Ecthyma gangrenosum in a neutropenic patient with *Pseudomonas aeruginosa* bacteremia.



**FIGURE e5-36** Urticaria showing characteristic discrete and confluent, edematous, erythematous papules and plaques.



**FIGURE e5-37** Disseminated cryptococcal infection. A liver transplant recipient developed six cutaneous lesions similar to the one shown. Biopsy and serum antigen testing demonstrated *Cryptococcus*. Important features of the lesion include a benign-appearing fleshy papule with central umbilication resembling molluscum contagiosum. (Photo courtesy of Lindsey Baden, MD; with permission.)





**FIGURE e5-38 Disseminated candidiasis.** Tender, erythematous, nodular lesions developed in a neutropenic patient with leukemia who was undergoing induction chemotherapy. (Photo courtesy of Lindsey Baden, MD; with permission.)



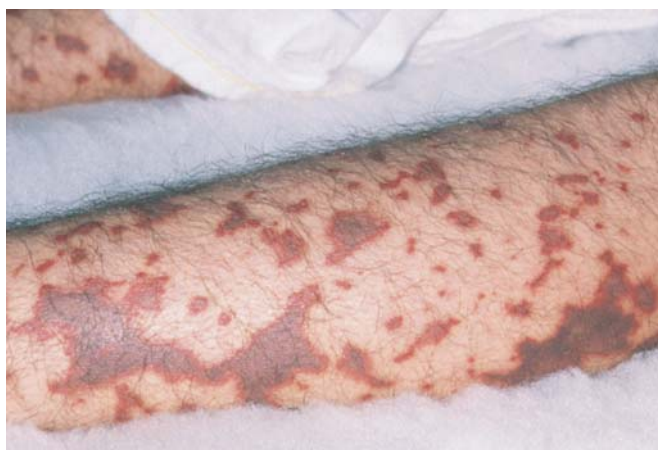
**FIGURE e5-39 Disseminated *Aspergillus* infection.** Multiple necrotic lesions developed in this neutropenic patient undergoing hematopoietic stem cell transplantation. The lesion in the photograph is on the inner thigh and is several centimeters in diameter. Biopsy demonstrated infarction caused by *Aspergillus fumigatus*. (Courtesy of Lindsey Baden, MD; with permission.)



**FIGURE e5-40 Erythema nodosum** is a panniculitis characterized by tender deep-seated nodules and plaques usually located on the lower extremities. (Courtesy of Robert Swerlick, MD; with permission.)



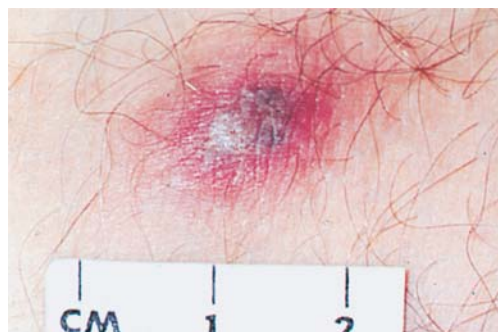
**FIGURE e5-41 Sweet's syndrome:** an erythematous indurated plaque with a pseudovesicular border. (Courtesy of Robert Swerlick, MD; with permission.)



**FIGURE e5-42 Fulminant meningococcemia** with extensive angular purpuric patches. (Courtesy of Stephen E. Gellis, MD; with permission.)



**FIGURE e5-43** Erythematous papular lesions are seen on the leg of this patient with **chronic meningococcemia**. (Courtesy of Kenneth M. Kaye, MD, and Elaine T. Kaye, MD; with permission.)



**FIGURE e5-44** Disseminated gonococcemia in the skin is seen as hemorrhagic papules and pustules with purpuric centers in a centrifugal distribution. (Courtesy of Daniel M. Musher, MD; with permission.)



**FIGURE e5-45** Palpable purpuric papules on the lower legs are seen in this patient with **cutaneous small-vessel vasculitis**. (Courtesy of Robert Swerlick, MD; with permission.)



**FIGURE e5-46** The thumb of a patient with a necrotic ulcer of **tularemia**. (From the Centers for Disease Control and Prevention.)



**FIGURE e5-47** This 50-year-old man developed high fever and massive inguinal lymphadenopathy after a small ulcer healed on his foot. **Tularemia** was diagnosed. (Courtesy of Lindsey Baden, MD; with permission.)