

An 8-year-old boy is brought to the physician for evaluation of a painful non-itchy rash on his face for the past 3 days. He has no fever, chills, sore throat, or other symptoms. The patient has a history of mild eczema on his arms to which his parents apply topical petroleum jelly. He takes no medications and his immunizations are up to date. His vital signs are normal. Examination shows erythematous papules, pustules, and honey-colored crusts around his mouth, nose, and neck. A few pustules are also present on his right index finger. Which of the following is the most likely diagnosis?

- ☐ A. Chickenpox
- ☐ B. Eczema herpeticum
- ☐ C. Erysipelas
- ☐ D. Hand-foot-mouth syndrome
- ☐ E. Herpes simplex infection
- ☐ F. Impetigo

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- ☐ A. Chickenpox [1%]
- ☐ B. Eczema herpeticum [7%]
- ☐ C. Erysipelas [2%]
- ☐ D. Hand-foot-mouth syndrome [4%]
- ☐ E. Herpes simplex infection [2%]
- ☒ F. Impetigo [85%]

[Proceed to Next Item](#)**Explanation:**User Id: XXXXXXXXXX

Nonbullous impetigo	
Microbiology	<ul style="list-style-type: none">• <i>Staphylococcus aureus</i>• Group A beta-hemolytic <i>Streptococcus</i> (<i>S pyogenes</i>)
Clinical features	<ul style="list-style-type: none">• Painful non-itchy pustules & honey-crusts lesions
Treatment	<ul style="list-style-type: none">• Topical antibiotics (eg, mupirocin)
Complications	<ul style="list-style-type: none">• Poststreptococcal glomerulonephritis

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Non-bullous impetigo is a common pediatric infection characterized by erythematous papules that evolve rapidly into painful **pustules**. The pustules later rupture and leave **honey-colored crusted exudates**. The rash is not pruritic and systemic symptoms (eg, fever) are typically absent. Patients with underlying skin problems (eg, eczema, abrasion, insect bite) are at increased risk of developing superinfection.

Non-bullous impetigo is caused by *Staphylococcus aureus* and/or *Streptococcus pyogenes*. Topical antibiotics are the treatment of choice.

(Choice A) **Chickenpox** starts as a pruritic vesicular rash that eventually ruptures to leave scabs. Usually, several stages of lesions are present simultaneously throughout the body. Chickenpox is unlikely as this patient is fully vaccinated.

(Choice B) **Eczema herpeticum** is a superinfection of herpes simplex virus (HSV) in areas of severe eczema. The rash can progress rapidly and is accompanied by fever. This patient has a history of mild eczema on his extremities and not the face, making this diagnosis unlikely.

(Choice C) Erysipelas begins as a small erythematous patch that progresses to a red, indurated, tense, and shiny plaque. The presence of a raised, sharply demarcated margin is a classic feature. Overlying skin streaking and regional lymphadenopathy indicate lymphatic involvement. These patients usually have fever and chills.

(Choice D) **Hand-foot-mouth disease** is characterized by vesicles on the posterior oropharynx, hands, and/or feet. The rash is not typically present on the face and does not crust.

(Choice E) HSV infection presents as painful groups of vesicles on the vermillion border of the lip. These lesions can crust as the vesicles rupture and the fluid dries; the finger can become infected as well (**herpetic whitlow**). The distribution of lesions in impetigo can be distinguished from HSV; impetigo spreads around the face while HSV is usually limited to the orolabial region.

Educational objective:

Impetigo initially presents as papules which rapidly become pustules that rupture into honey-colored crusted exudates. *Staphylococcus aureus* and *Streptococcus pyogenes* are the most common causes of this contagious infection.

References:

1. **Bacterial resistance and impetigo treatment trends: a review.**
2. **Impetigo - review**

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References:

1. **Bacterial resistance and impetigo treatment trends: a review.**
2. **Impetigo - review.**
3. **Treatment of impetigo: oral antibiotics most commonly prescribed.**

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varicella infection



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herpeticum Eczema herpeticum



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herpeticum Eczema herpeticum



Media Exhibit

Foot and mouth disease Hand foot and mouth



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Foot and mouth disease Hand foot and mouth



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c whitlow

