

A 3-year-old boy is brought to the office by his parents after exposure to a child with a rash. Three days ago, the patient had a day-long playdate with a friend who had low-grade fever and a vesicular rash. That child and another child in the neighborhood were subsequently diagnosed with chickenpox. The patient has no symptoms and no history of medical problems. His vaccinations are up to date. He lives at home with his mother, father, and 1-year-old brother. The boy's mother is currently pregnant and immune to the varicella zoster virus. Vital signs are within normal limits. Examination of the skin, ears, and mucous membranes is normal; the remainder of the examination is unremarkable. Which of the following is the most appropriate next step in management of this patient?

- ☐ A. Administer acyclovir
- ☐ B. Administer varicella immunoglobulin
- ☐ C. Administer varicella vaccine
- ☐ D. Administer varicella vaccine and varicella immunoglobulin
- ☐ E. Reassurance



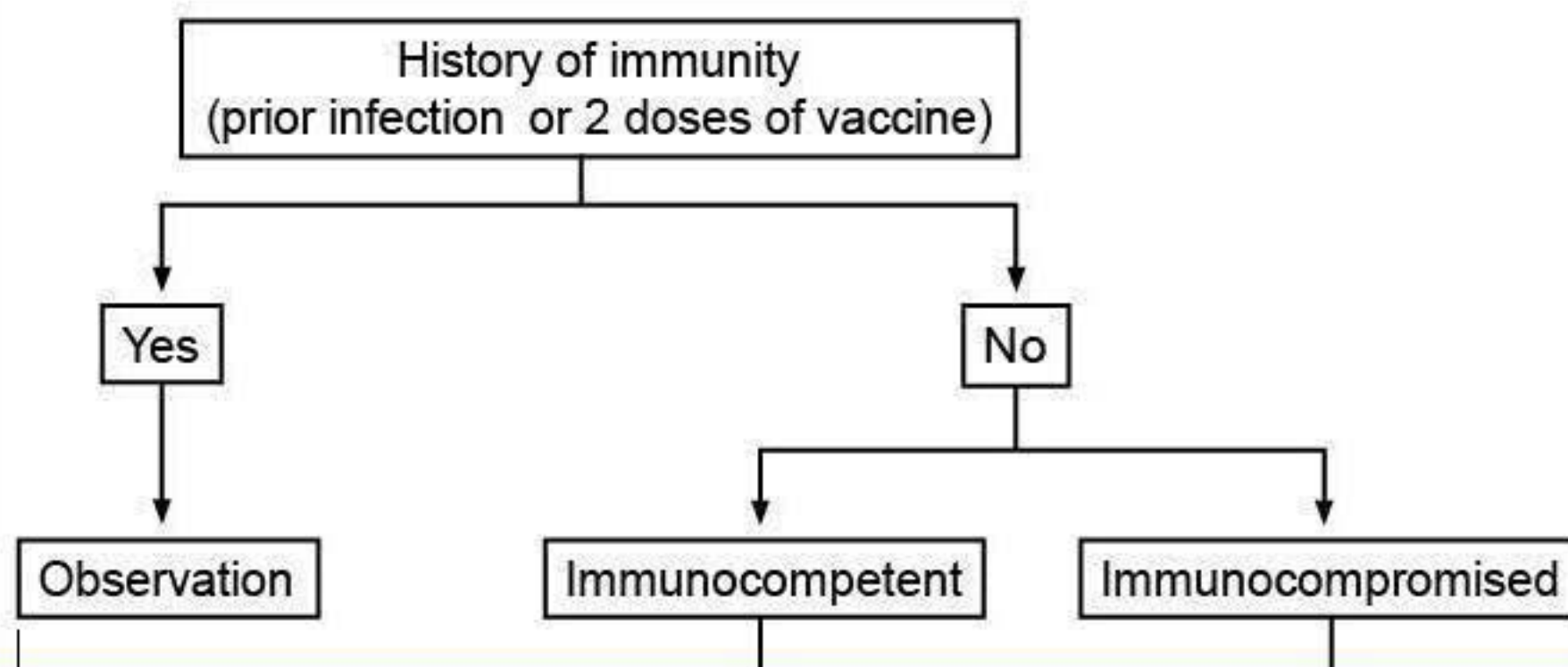
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- ☐ A. Administer acyclovir [2%]
- ☐ B. Administer varicella immunoglobulin [6%]
- ☒ C. Administer varicella vaccine [11%]
- ☐ D. Administer varicella vaccine and varicella immunoglobulin [8%]
- ☐ E. Reassurance [73%]

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

User Id: [REDACTED]

### Varicella post-exposure prophylaxis

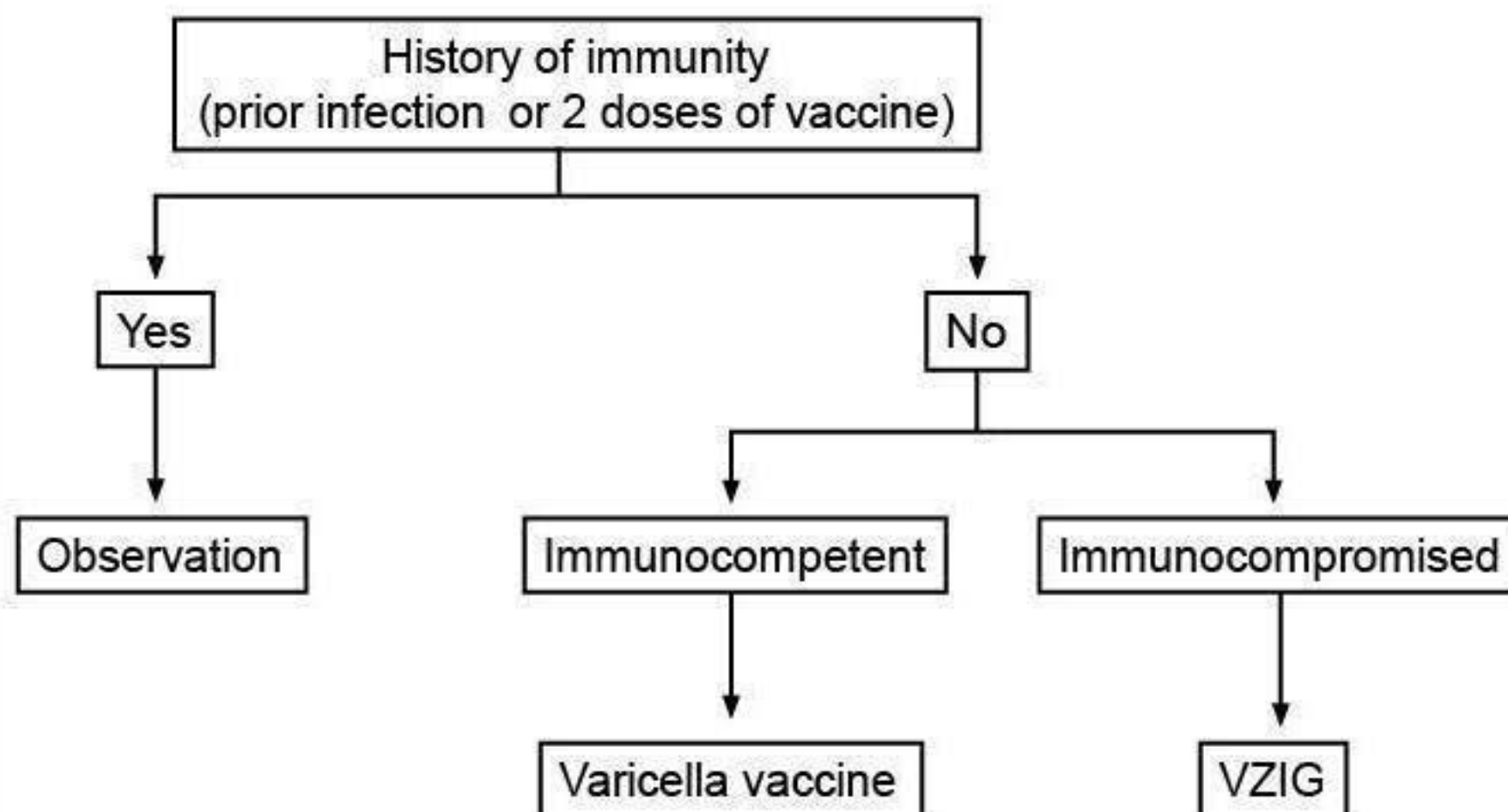




Explanation:

User Id: [REDACTED]

## Varicella post-exposure prophylaxis



VZIG = varicella-zoster immune globulin.

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This child has been exposed to **varicella-zoster virus (VZV)** and does not have evidence of immunity (ie, 2 doses of vaccine or prior infection). Varicella is transmitted via airborne particles and is extremely infectious. Up to 90% of susceptible individuals will develop varicella after exposure to an infected person. Varicella is usually self-limited and mild, but serious complications include pneumonia, central nervous system disease (eg, cerebellar ataxia), and aggressive skin infections. These complications are more common in adolescents and adults, particularly those who are immunocompromised or pregnant.

Immunity to varicella is acquired by prior infection or by receiving **2 doses of VZV vaccine** (at ages 1 and 4 years). **Postexposure prophylaxis** with VZV vaccine is indicated for this incompletely immunized child age >1 year who was exposed within the preceding 5 days. For susceptible individuals who cannot receive live-virus vaccines (eg, immunocompromised or pregnant patients), postexposure prophylaxis can be provided using varicella immune globulin. Infants (age <1 year) outside the neonatal



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Immunity to varicella is acquired by prior infection or by receiving **2 doses of VZV vaccine** (at ages 1 and 4 years). **Postexposure prophylaxis** with VZV vaccine is indicated for this incompletely immunized child age >1 year who was exposed within the preceding 5 days. For susceptible individuals who cannot receive live-virus vaccines (eg, immunocompromised or pregnant patients), postexposure prophylaxis can be provided using **varicella immunoglobulin**. Infants (age <1 year) outside the neonatal period are not eligible for VZV vaccine and do not require immunoglobulin as they are at lower risk than neonates or older children.

**(Choice A)** Acyclovir is not routinely recommended for postexposure prophylaxis, regardless of immune status. However, it can be used to treat active varicella infection.

**(Choices B and D)** Because the varicella vaccine is made from a live virus, it is contraindicated in pregnant women, immunocompromised hosts, and neonates. Postexposure prophylaxis can be achieved in these patients using varicella immunoglobulin as soon as possible (within 10 days) after exposure. Varicella immunoglobulin is not given in conjunction with the vaccine and is not indicated for this otherwise healthy child.

**(Choice E)** Reassurance alone without vaccination is inappropriate as varicella vaccine may prevent future infection. Reassurance would be appropriate for a child who had received the full 2-dose VZV vaccine series.

#### Educational objective:

All nonimmune, asymptomatic, healthy patients age >1 year with varicella exposure should receive postexposure prophylaxis. At-risk patients who cannot receive varicella vaccine should receive varicella immunoglobulin instead.

#### References:

1. **Vaccines for postexposure prophylaxis against varicella (chickenpox) in children and adults.**



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#### References:

1. [Vaccines for postexposure prophylaxis against varicella \(chickenpox\) in children and adults.](#)
2. [FDA approval of an extended period for administering VariZIG for postexposure prophylaxis of varicella.](#)