VACCINE CASE STUDIES

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Case Study: Logan (Male)

- > 7 months old, no known medical problems, new to your practice
- In the office today (June) for well child visit and routine vaccinations
- Your office stocks:
 - •DTaP
 - •IPV
 - •DTaP-IPV-HepB (Pediarix)
 - •DTaP-IPV (Kinrix)

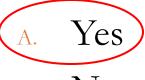
- •Hepatitis B
- •PCV13
- •RV1 (Rotarix)
- •Hib
- •TIV (Flu)

Case Study: Logan (Male) Immunization History

- Immunization history available in your EMR or ImmPact Registry includes:
 - Birth dose of hepatitis B vaccine
 - 7 weeks of age
 - Pentacel (DTaP-IPV/Hib)
 - PCV13
 - RotaTeq (RV5)

Case Study: Logan (Male) Question 1

Your office does not have any Pentacel in stock due to a vaccine shortage. Can Logan receive Pediarix today?



B. No

Interchangeability of DTaP Vaccines

- ACIP recommends that, whenever feasible, the same manufacturer's DTaP product should be used for the pertussis series
- However, vaccination should not be deferred if the specific DTaP vaccine brand previously administered is unavailable or unknown

Case Study: Logan

 Today you administer Pediarix (DTaP #2, IPV #2, Hep B #2)

You also administer PCV #2, Hib #2, TIV #2 and rotavirus vaccine

Case Study: Logan Question 2

- Logan is behind schedule. You make an appointment for him to return in 4 weeks. Can Logan receive Pediarix with his other needed vaccines at that visit?
- A. Yes
- B. No

No wrong or right answer

Key to Combination Vaccines

Product	Official Abbreviation	Vaccine Components
Pediarix	DTaP-IPV-HepB	DTaP IPV HepB

Combination Vaccines and Minimum Intervals

The minimum interval between doses of a combination vaccine is determined by the component with the longest minimum interval

Combination Vaccines and Minimum Intervals

- Minimum intervals for Pediarix components
 - Hepatitis B

2 to 3 = 8 weeks

DTaP

2 to 3 = 4 weeks

IPV

- 2 to 3 = 4 weeks
- Minimum interval between doses 2 and 3 of Hib and RV = 4 weeks

Options for Logan's Next Visit (8 months of age)

- In addition to third dose of RV, PCV13, and Hib
- You can administer:
 - DTaP and IPV as separate injections and wait another month to administer hepatitis B vaccine or
 - Pediarix
 - DTaP, IPV valid
 - Hepatitis B invalid

Uses of Combination Vaccines and Extra Doses of Vaccine Antigens

- Using combination vaccines containing certain antigens not indicated at the time of administration to a patient might be justified when:
 - the extra antigen is not contraindicated
 - Products that contain only the needed antigens are not readily available
 - Potential benefits to the patient outweigh the potential risk for adverse events associated with the extra antigens

Extra Credit

You have DTaP-IPV (Kinrix) in your inventory. Can you use it for the DTaP and IPV dose that Logan needs?

A. No

DTaP – IPV (Kinrix)

- Administer DTaP-IPV for:
 - 5th dose of DTaP
 - 4th dose of IPV
 - Children 4 through 6 years of age

Using DTaP-IPV in a child younger than age 4 or for other doses in the DTaP or IPV series is not recommended

Case Study: Isabella (Female)

- > 12 months old
- In the office to receive her 12 month vaccinations, including:
 - Hep B
 - Hib
 - DTaP
 - PCV13

- IPV
- MMR
- Varicella
- Hep A

Case Study: Isabella

Isabella's mother is concerned by the amount of shots she is receiving during this visit, so the provider suggests combination vaccinations, including ProQuad for the MMR & Varicella.

Is Isabella old enough to receive ProQuad?

- A. Yes, however it is not recommended for 12-15 month olds who have a history of febrile seizures.
- B. No

Case Study: Jaxson (Male)

- > 5 years old
- Returning to the office to receive his 5th dose of DTaP and 4th dose of Polio
- He also needs a dose of Hep B
- > You have Pediarix, Pentacel, Kinrix and Hep B on hand, which vaccine(s) can Jaxson receive today?

Case Study: Jaxson

(Choose all the apply)

- A. Pediarix
- B. Pentacel
- c. Kinrix
- D. Hep B
- E. C&D

Case Study: Jaxson

- ▶ **Pediarix** (DTaP-IPV-HepB) can be given between the ages of 6 weeks up until 7 years of age.
- Pentacel (DTaP-IPV-Hib)- should not be used for any dose in the primary series for children age 5 years or older or as the booster dose for children ages 4-6 years.
- Kinrix (Dtap-IPV) can be used as the fifth dose of DTaP and fourth dose of IPV at age 4 through 6 years.