

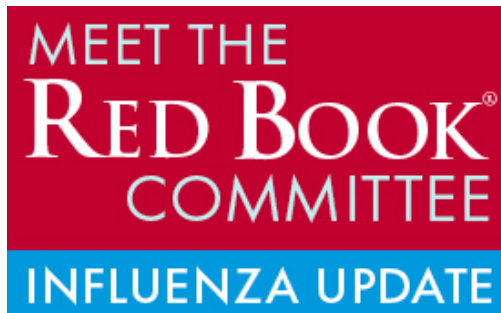


# MEET THE RED BOOK COMMITTEE: INFLUENZA UPDATE

**SEPTEMBER 7, 2022**

# HOUSEKEEPING

- This event will be recorded for educational purposes. The recording will be available within a couple of days on the AAP Red Book Online and Influenza Patient Care web pages.
- The information or content and conclusions are those of the faculty and should not be constructed as the official position or policy of the AAP or the faculty's academic institutions



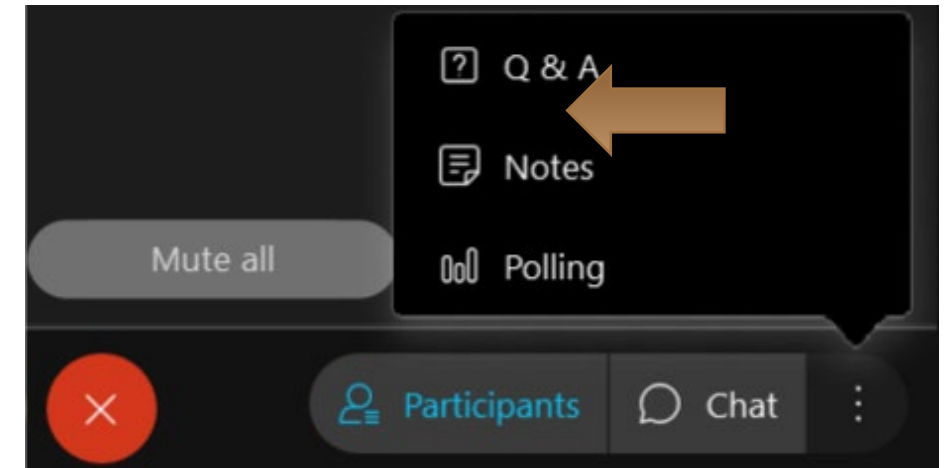
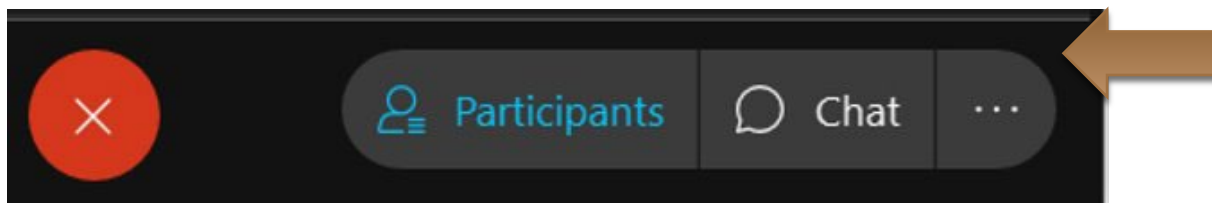
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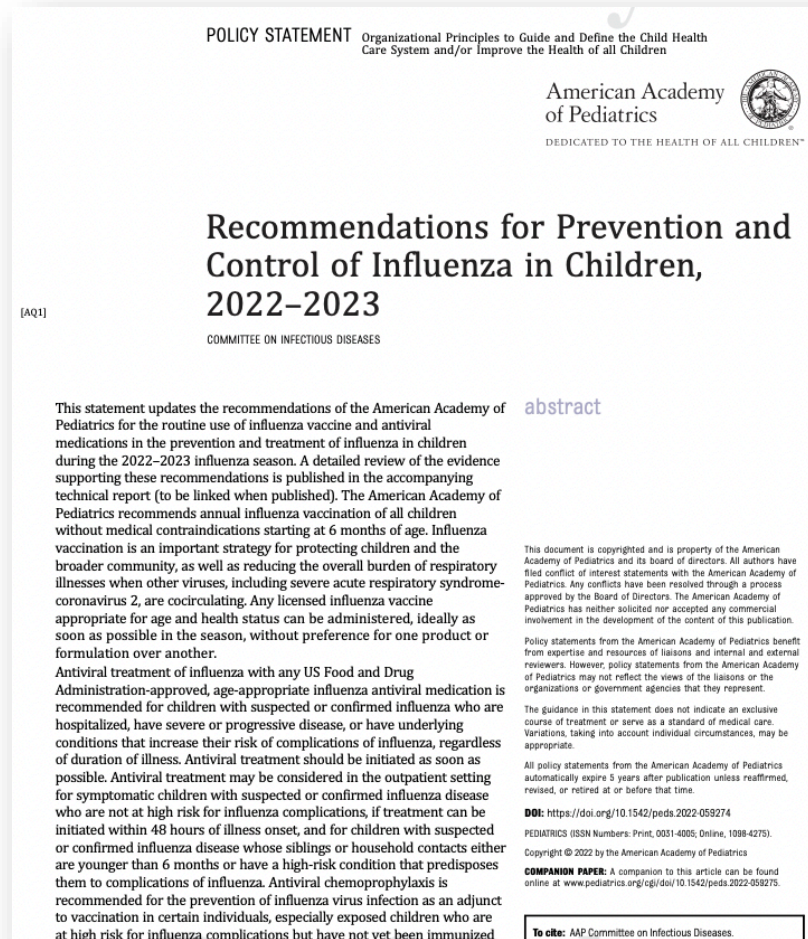


# HOUSEKEEPING

- All audio lines are muted
- Use the Q&A window to submit questions
- Use the Chat window for help with technical difficulties
- **Please participate!**



# AAP RECOMMENDATIONS FOR INFLUENZA SEASON 2022-2023



## Policy Statement and Technical Report

**Publication:**  
**Early released on September 6th**  
October issue of *Pediatrics*

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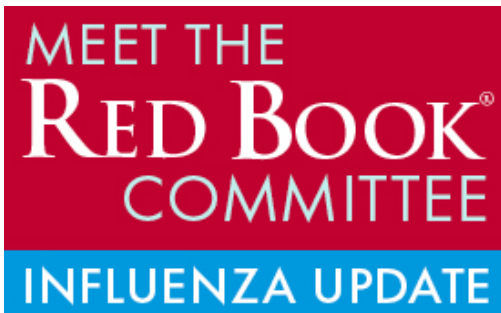
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# WHAT'S NEW FOR 2022-2023?

- Vaccine composition updated
- Age-indication for Flucelvax Quadrivalent lowered to 6 months
- Age indication for peramivir lowered to 6 months (treatment)
- Age indication for baloxavir lowered to 5 years of age (treatment and prophylaxis)
- Elimination of race-based recommendations
- Focus on evidence-based strategies to increase immunization



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# WHAT'S NOT NEW FOR 2022-2023?

- Influenza continues to cause morbidity and mortality in children.
- Annual influenza vaccination is recommended for all persons 6 months and older.
- Any vaccine appropriate for age and health status can be used.
- Influenza vaccine can be administered at the same time as other vaccines, including the COVID-19 vaccine.
- Antiviral treatment recommended for certain children with influenza.



# HEALTH DISPARITIES AND INFLUENZA

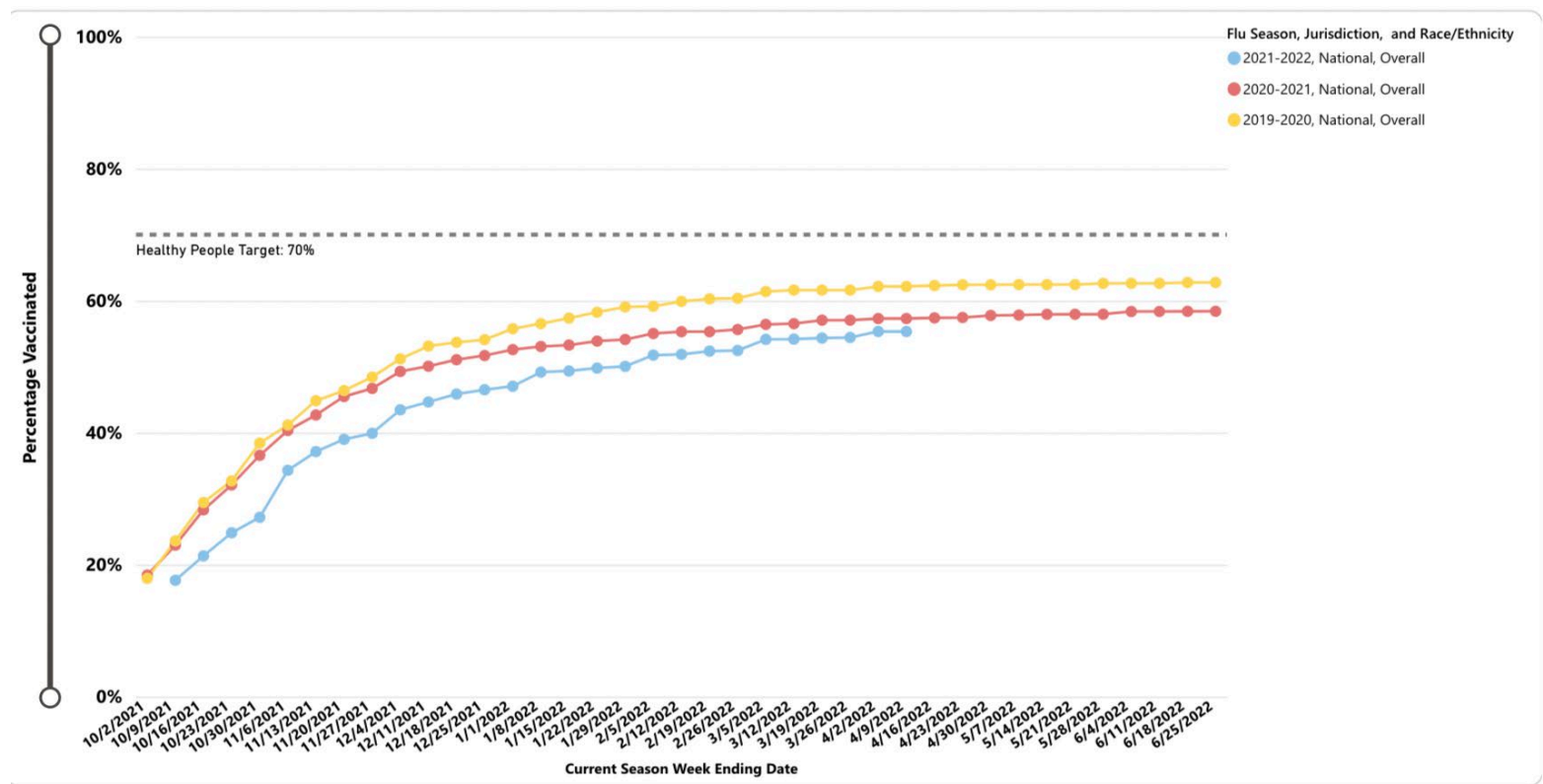
Table 2. Age-Specific Rate Ratios of Hospitalization, ICU Admission, and In-Hospital Death by Race and Ethnicity

Outcome	Rate ratio (95% CI)				
	Non-Hispanic				
	White	Black	American Indian or Alaska Native	Asian or Pacific Islander	Hispanic
Hospitalization, age group, y					
≤4	1 [Reference]	2.21 (2.10-2.33)	3.00 (2.55-3.53)	1.26 (1.16-1.38)	1.87 (1.77-1.97)
5-17	1 [Reference]	1.99 (1.88-2.11)	1.48 (1.16-1.90)	0.81 (0.72-0.91)	1.28 (1.19-1.36)
18-49	1 [Reference]	2.52 (2.44-2.59)	1.72 (1.51-1.96)	0.61 (0.57-0.65)	1.29 (1.24-1.34)
50-64	1 [Reference]	2.50 (2.43-2.57)	1.54 (1.34-1.76)	0.63 (0.59-0.67)	1.25 (1.20-1.31)
65-74	1 [Reference]	1.74 (1.68-1.81)	0.96 (0.79-1.17)	0.84 (0.78-0.89)	1.18 (1.12-1.25)
≥75	1 [Reference]	1.05 (1.02-1.09)	0.79 (0.66-0.94)	1.02 (0.98-1.06)	0.93 (0.89-0.98)
ICU admission, age group, y					
≤4	1 [Reference]	2.74 (2.43-3.09)	3.51 (2.45-5.05)	1.31 (1.06-1.61)	1.96 (1.73-2.23)
5-17	1 [Reference]	2.00 (1.77-2.26)	1.88 (1.18-3.00)	0.97 (0.78-1.22)	1.16 (1.00-1.34)
18-49	1 [Reference]	1.85 (1.72-1.99)	1.84 (1.40-2.42)	0.57 (0.49-0.66)	1.14 (1.04-1.24)
50-64	1 [Reference]	2.09 (1.96-2.23)	1.17 (0.84-1.63)	0.61 (0.53-0.71)	1.04 (0.93-1.15)
65-74	1 [Reference]	1.50 (1.37-1.64)	1.34 (0.91-1.98)	0.87 (0.75-1.00)	1.11 (0.98-1.27)
≥75	1 [Reference]	1.26 (1.15-1.37)	0.72 (0.42-1.21)	1.21 (1.08-1.34)	0.88 (0.77-1.00)
In-hospital death, age group, y					
≤4	1 [Reference]	3.39 (1.40-8.18)	6.71 (0.85-52.97)	4.35 (1.55-12.22)	2.98 (1.23-7.19)
5-17	1 [Reference]	1.19 (0.62-2.28)	4.17 (1.00-17.41)	1.55 (0.68-3.51)	0.80 (0.38-1.69)
18-49	1 [Reference]	1.22 (0.94-1.57)	2.20 (1.04-4.67)	0.55 (0.35-0.87)	1.07 (0.81-1.41)
50-64	1 [Reference]	1.53 (1.28-1.83)	1.24 (0.55-2.77)	0.46 (0.31-0.70)	1.08 (0.83-1.40)
65-74	1 [Reference]	1.19 (0.94-1.51)	0.60 (0.15-2.42)	1.00 (0.72-1.39)	1.07 (0.77-1.48)
≥75	1 [Reference]	0.93 (0.79-1.10)	0.44 (0.14-1.35)	1.22 (1.02-1.46)	0.71 (0.56-0.91)

Abbreviation: ICU, intensive care unit.

**The rate of in-hospital death was 3- to 4-fold higher in Black, Hispanic, and Asian/Pacific Islander children compared with white children.**

# INFLUENZA IMMUNIZATION RATES FALLING



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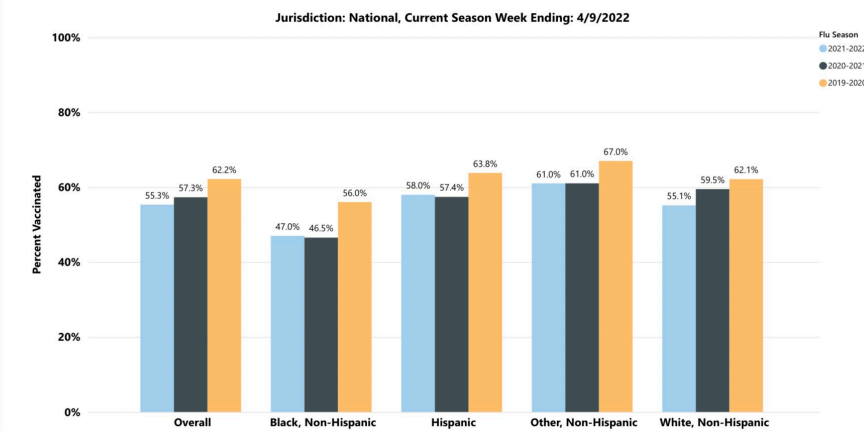
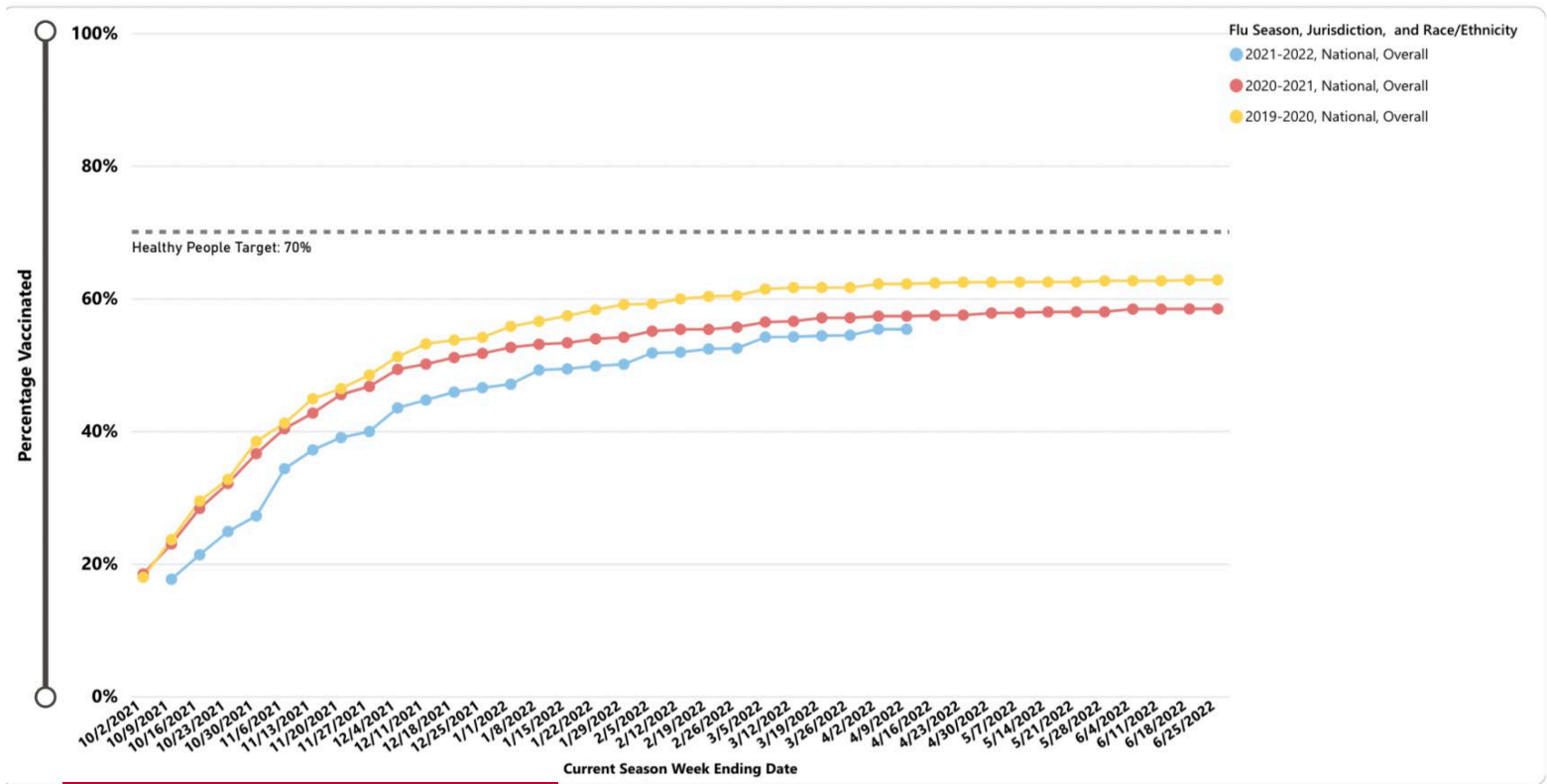
Influenza vaccination coverage in children 6 months to 17 years of age in the United States, 2019–2020 to 2021 -2022. Data source: NIS-Flu.

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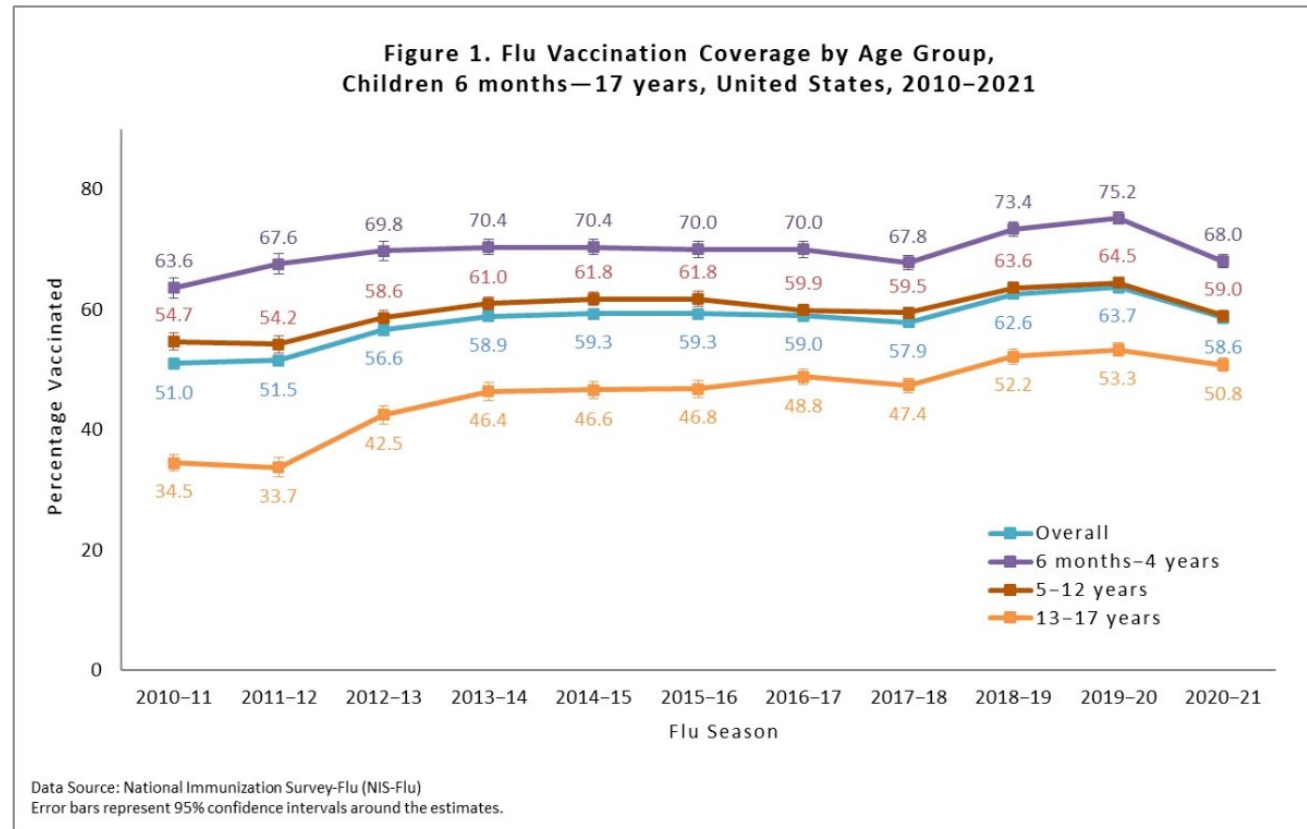
# INFLUENZA IMMUNIZATION RATES FALLING AND HEALTH DISPARITIES PERSIST



<https://www.cdc.gov/flu/fluview/dashboard/vaccination-coverage-race.html>



# COVID-19 IMPACT ON INFLUENZA VACCINATION RATES



# ANTIVIRAL TREATMENT OF INFLUENZA IN CHILDREN

***Offer treatment as early as possible regardless of influenza vaccination status and duration of symptoms for:***

- Any child hospitalized with suspected or confirmed influenza disease
- Any child with severe, complicated, or progressive influenza disease regardless of health care setting (ie, inpatient or outpatient)
- Any child with suspected or confirmed influenza disease of any severity if they are at high risk for influenza complications, regardless of health care setting (ie, inpatient or outpatient)

# ANTIVIRAL TREATMENT OF INFLUENZA IN CHILDREN

## ***Consider treatment in the outpatient setting for:***

- Any child with suspected or confirmed influenza disease who is not at high risk for influenza complications, if treatment can be initiated within 48 hours of illness onset
- Any child with suspected or confirmed influenza disease whose siblings or household contacts are either younger than 6 months or at high risk for influenza complications

# ANTIVIRALS FOR INFLUENZA

Drug (Trade Name)	Virus	Route	Treatment <sup>a,b</sup> (Duration)	Chemoprophylaxis <sup>d</sup> (Duration)	Adverse Effects
<b>Oseltamivir</b> (Tamiflu)	A and B	Oral	Birth or older <sup>c</sup> (5 days)	≥ 3 mo	Nausea, vomiting, headache, skin reactions, diarrhea**
<b>Zanamivir</b> (Relenza)	A and B	Inhalation	≥ 5 years (5 days)	≥ 5 y (7 days)	Bronchospasm
<b>Peramivir</b> (Rapivab)	A and B	IV	≥ 6 months (one dose)	NA	Diarrhea; some reports of skin reactions
<b>Baloxavir</b> (Zofluxa)	A and B	Oral	≥ 5 years (one dose)	≥ 5 years (one dose)	Vomiting, diarrhea

- a. Treatment within 48 hr of onset of illness has greatest effect in reduction of symptoms and duration of illness
- b. No antiviral is specifically approved for severe influenza, but observational studies support effect on reduction of complications, and most experts support use
- c. FDA approved for children 2 wk of age and older but AAP supports use from birth in term and preterm infants
- d. Chemoprophylaxis: High risk children who cannot get vaccinated or may not respond to vaccine; within 2 weeks after vaccination if circulation of influenza, contacts of HR patients, control of outbreaks

# EXPERT PANELISTS



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**Pia Pannaraj, MD,  
MPH, FAAP**



**Kristina A. Bryant, MD, FAAP  
(Moderator)**

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