MESSAGE ID:	**MSHAN-20210723-00525-ALT (Health Alert)**
RECIPIENTS:	**All Physicians, Hospitals, ERs, ICPs, NPs, and Healthcare Providers – Statewide**
	Friday, July 23, 2021
SUBJECT:	**Considerations for COVID-19 Vaccine Booster Dose Among Certain High-Risk Groups**

Dear Colleagues,

Introduction

- The number of cases, hospitalizations, and deaths due to COVID-19 are surging in Mississippi with rapid increases since the end of June 2021.
- MSDH is estimating that >80% of all COVID-19 viruses circulating and causing illness in Mississippi are now due to the Delta Variant through sequencing of representative samples, making this the predominant strain in the state.
- The overwhelming majority of cases, hospitalizations and deaths in Mississippi are among unvaccinated individuals.
- As transmission has increased in the state, deaths in fully vaccinated individuals have been increasingly identified. Since April 1, 2021, more than 35 vaccine breakthrough deaths have been confirmed.
  - The median age of vaccine breakthrough deaths is 79 years with a range of 49-99 years
  - 84% of all the vaccine breakthrough deaths are in individuals 65 years or older
  - For the vaccine breakthrough deaths in which underlying medical history is known, 58% had either a known immunocompromising condition (e.g., history of transplant, cancer, or RA) or a history of renal disease or underlying DM.

High-Risk Groups for COVID-19 Booster Vaccine Consideration

- The Mississippi State Department of Health is advising that Mississippi Physicians and Clinicians consider a booster or third dose of COVID-19 vaccine for certain high-risk groups with immunocompromising conditions.
  - Conditions and treatments associated with moderate to severe immune compromise
    - Active or recent treatment for solid tumor or hematologic malignancies
    - Receipt of solid-organ or recent hematopoietic stem cell transplant
    - Severe primary immunodeficiency
    - Advanced or untreated HIV

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- o Treatment with immunosuppressive medications such as cancer chemotherapeutic agents, TNF blockers, certain biologic agents (e.g., rituximab), and high-dose corticosteroids
- o Chronic conditions associated with varying degrees of immune deficit, such as asplenia or chronic renal disease.
- o Other underlying medical conditions and treatments that may lead to immunosuppression based on the physician or clinical team assessment.

Additional considerations for booster or third doses of COVID-19 vaccination

- Consider waiting at least 4 weeks after the final dose in the original vaccine series prior to administering a booster dose.
- If feasible and available, providers may elect to perform qualitative spike protein antibody testing to determine the presence or absence of detectable antibodies prior to booster dosing. If utilizing antibody testing in the decision process for booster vaccine, consider antibody testing 4-6 weeks after final dose in the original series.
- If original series is with mRNA vaccines (Pfizer or Moderna), the recommendation is to consider utilizing the same manufacturer for the booster or third dose.
- If the original vaccine was Johnson and Johnson, the recommendation is to consider utilizing Pfizer mRNA vaccine as the booster vaccine.

Resources:

Three Doses of an mRNA Covid-19 Vaccine in Solid-Organ Transplant Recipients | NEJM

Safety and Immunogenicity of a Third Dose of SARS-CoV-2 Vaccine in Solid Organ Transplant Recipients: A Case Series | Annals of Internal Medicine (acpjournals.org)

Immunogenicity and safety of the BNT162b2 mRNA COVID-19 vaccine in adult patients with autoimmune inflammatory rheumatic diseases and in the general population: a multicentre study | Annals of the Rheumatic Diseases (bmj.com)

Regards,

Paul Byers, MD
State Epidemiologist

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Alerting Message Specification Settings

Originating Agency:	Mississippi State Department of Health
Alerting Program:	MS Health Alert Network (MS HAN)
Message Identifier:	MSHAN-20210723-00525-ALT
Program (HAN) Type:	Health Alert
Status (Type):	Actual ()
Message Type:	Alert
Reference:	MSHAN-00525
Severity:	Unknown
Acknowledgement:	No
Sensitive:	Not Sensitive
Message Expiration:	Undetermined
Urgency:	Undetermined
Delivery Time:	600 minutes

Definition of Alerting Vocabulary and Message Specification Settings

Originating Agency: A unique identifier for the agency originating the alert.

Alerting Program: The program sending the alert or engaging in alerts and communications using PHIN Communication and Alerting (PCA) as a vehicle for their delivery.

Message Identifier: A unique alert identifier that is generated upon alert activation (MSHAN-yyymmdd-hhmm-TTT (**ALT=Health Alert, ADV=Health Advisory**, **UPD=Health Update, MSG/INFO=Message/Info Service**).

Program (HAN) Type: Categories of Health Alert Messages**.**

Health Alert: Conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: Provides important information for a specific incident or situation; may not require immediate action.

Health Update: Provides updated information regarding an incident or situation; unlikely to require immediate action.

Health Info Service: Provides Message / Notification of general public health information; unlikely to require immediate action.

Status (Type):

Actual:	Communication or alert refers to a live event
Exercise:	Designated recipients must respond to the communication or alert
Test:	Communication or alert is related to a technical, system test and should be disregarded

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Message Type:

Alert:	Indicates an original Alert
Update:	Indicates prior alert has been Updated and/or superseded
Cancel:	Indicates prior alert has been cancelled
Error:	Indicates prior alert has been retracted

Reference: For a communication or alert with a Message Type of "Update" or "Cancel", this attribute contains the unique Message Identifier of the original communication or alert being updated or cancelled. "n/a" = Not Applicable.

Severity:

Extreme:	Extraordinary threat to life or property
Severe:	Significant threat to life or property
Moderate:	Possible threat to life or property
Minor:	Minimal threat to life or property
Unknown:	Unknown threat to life or property

Acknowledgement: Indicates whether an acknowledgement on the part of the recipient is required to confirm that the alert was received, and the timeframe in which a response is required (Yes or No).

Sensitive:

Sensitive:	Indicates the alert contains sensitive content
Not Sensitive:	Indicates non-sensitive content

Message Expiration: Undetermined.

Urgency: Undetermined. Responsive action should be taken immediately.

Delivery Time: Indicates the timeframe for delivery of the alert (15, 60, 1440, 4320 minutes (.25, 1, 24, 72 hours)).

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