COVID-19 Vaccine Breakthrough Cases

Summary

- A COVID-19 vaccine breakthrough case is defined as a U.S. resident who has SARS-CoV-2 RNA or antigen detected in a respiratory specimen collected ≥14 days after completing the primary series of an FDA-authorized COVID-19 vaccine, in the absence of a positive COVID-19 test in the 45 days prior to the current positive test.
- Report to DHEC any patients meeting the above criteria.
- If available, send residual respiratory specimens from patients meeting above criteria to the DHEC Public Health Laboratory for whole genome sequencing.

Background

As the number of individuals who have received the COVID-19 vaccine increases in South Carolina, the South Carolina Department of Health and Environment Control (DHEC) is working to identify cases of COVID-19 vaccine breakthrough and report these to the Centers for Disease Control and Prevention (CDC). The goal is to identify characteristics of patients, administered vaccines, and the infecting COVID-19 viruses that may contribute to vaccine breakthrough. This HAN Advisory provides information on the definition of COVID-19 vaccine breakthrough, how to report these cases to DHEC, and how to submit patient specimens for further testing to the DHEC Public Health Laboratory (PHL).

COVID-19 Vaccine Breakthrough Definition

COVID-19 vaccine breakthrough cases are defined as a U.S. resident who has SARS-CoV-2 RNA or antigen detected in a respiratory specimen collected ≥14 days after completing the primary series of an FDA-authorized COVID-19 vaccine. Cases who have a positive COVID-19 test in the 45 days prior to the current positive test will not be included as meeting the definition of a vaccine breakthrough case.
How to Report COVID-19 Vaccine Breakthrough Cases

Healthcare providers who identify a patient meeting the vaccine breakthrough case definition should report this case to DHEC by contacting the regional health department where the patient resides. See below for regional health department contact information.

Specimen Submission for COVID-19 Vaccine Breakthrough Cases

After contacting the appropriate regional health department, healthcare providers and laboratories who have residual respiratory specimens from the patient’s current positive test should send these specimens to the DHEC PHL for whole genome sequencing (WGS). Follow the specimen packaging and transport information listed below.

**Specimen packaging information**

a. If using Fed Ex to ship, follow IATA guidelines. This sample will be considered Category B.

b. Ship cold, but not frozen. Use cold packs around the outside of the secondary packaging in an insulated shipper. Do not use ice because it will melt and leak during shipping.

c. If shipping through DHEC or another courier, ensure specimen is kept cold and in a biohazard bag or secondary container in the cooler.

d. Include 2 copies of the lab requisition form (DHEC 1335) and label each specimen for each patient. Please write on the form that the specimen is being sent for WGS for vaccine breakthrough. The form can be found at:  

**Specimen transport**

a. If an established process/courier for transporting specimens to the PHL is already in place, use that system.

   i. On weekdays, facilities can courier specimens to the local health department for transport to the PHL.

   ii. On weekends, the specimens must be transported directly to the PHL, 8231 Parklane Road, Columbia, SC 29223.

   iii. For after hours or weekend specimen drop-off, the courier/volunteer will utilize the animal head drop box at the PHL.

b. If there is no available courier service or there is no option to courier directly to the PHL on the weekend, the provider may consider calling the Medical Reserve Corps (MRC) Volunteer Coordinator for their region to inquire on the availability of volunteers to facilitate transport. See below for Volunteer Coordinator for your region.

**Upstate MRC Volunteer Coordinator** (for the following counties: Abbeville, Anderson, Cherokee, Greenville, Greenwood, Laurens, McCormick, Oconee, Pickens, Spartanburg, Union):

- **Joanne Hobbick** - hobbicjm@dhec.sc.gov (864) 372-1327 (w) / (864) 202-1405 (c)
  - Back up: Renee Campbell 864-982-2875 or Lummie Young 864-608-5592

**Midlands MRC Volunteer Coordinator** (for the following counties: Aiken, Barnwell, Chester, Edgefield, Fairfield, Lancaster, Lexington, Kershaw, Newberry, Richland, Saluda, York):

- **Scott Phillips** - phillist@dhec.sc.gov (803) 576-2694 (w) / (803) 730-0701 (c)
  - Back up: Karen Hutto 803-667-1127
Pee Dee MRC Volunteer Coordinator (for the following counties: Clarendon, Chesterfield, Darlington, Dillon, Florence, Georgetown, Horry, Lee, Marion, Marlboro, Sumter, Williamsburg):

- **Jenny Latour** - latourrj@dhec.sc.gov (803) 934-2898 (w) / (843) 331-7575
- Back up: Ruthie Odom (843) 250-0704 / (803) 250-0704 / (803) 473-5252

Lowcountry MRC Volunteer Coordinator (for the following counties: Allendale, Bamberg, Beaufort, Berkeley, Calhoun, Charleston, Colleton, Dorchester, Hampton, Jasper, Orangeburg):

- **Stefanie Roy** - roysd@dhec.sc.gov (843) 953-0052 (w) / (843) 513-4350 (c)
- Back up – Raymond Barteet (843) 834-0635

**DHEC contact information for reportable diseases and reporting requirements**

Reporting of COVID-19 laboratory results (positive, negative, and indeterminate), deaths, and associated Multisystem Inflammatory Syndrome in Children (MIS-C) is consistent with South Carolina Law requiring the reporting of diseases and conditions to your state or local public health department. (State Law # 44-29-10 and Regulation # 61-20) as per the DHEC 2021 List of Reportable Conditions available at: https://www.scdhec.gov/sites/default/files/Library/CR-009025.pdf

Federal HIPAA legislation allows disclosure of protected health information, without consent of the individual, to public health authorities to collect and receive such information for the purpose of preventing or controlling disease. (HIPAA 45 CFR §164.512).

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### Regional Public Health Offices – 2021

**Mail or call reports to the Epidemiology Office in each Public Health Region**

**MAIL TO:**

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<th>Lowcountry</th>
<th>Midlands</th>
<th>Pee Dee</th>
<th>Upstate</th>
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<tr>
<td>4050 Bridge View Drive, Suite 600 &lt;br&gt;N. Charleston, SC 29405 &lt;br&gt;Fax: (843) 953-0051</td>
<td>2000 Hampton Street &lt;br&gt;Columbia, SC 29204 &lt;br&gt;Fax: (803) 576-2993</td>
<td>1931 Industrial Park Road &lt;br&gt;Conway, SC 29526 &lt;br&gt;Fax: (843) 915-6506</td>
<td>200 University Ridge &lt;br&gt;Greenville, SC 29602 &lt;br&gt;Fax: (864) 282-4373</td>
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**CALL TO:**

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For information on reportable conditions, see https://www.scdhec.gov/ReportableConditions

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**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.
- **Info Service** Provides general information that is not necessarily considered to be of an emergent nature.

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DHEC Bureau of Communicable Disease Prevention & Control

Division of Acute Disease Epidemiology

2100 Bull St, Columbia, SC 29201

Phone: (803) 898-0861
Fax: (803) 898-0897
Nights / Weekends: 1-888-847-0902