October 2021

Better Pharmacist Knowledge

Jordan Drug Information and Toxicology Center 2021

Invasive fungal infections following COVID-19 (June 2021)

Patients with COVID-19, particularly those treated with Immunosuppressants, are at risk for developing secondary fungal and parasitic infections. Case reports of invasive rhino-orbital mucormycosis have been reported in patients recovering from COVID-19, most commonly among those **treated with corticosteroids and individuals with poorly controlled diabetes mellitus**. Secondary invasive fungal infection should be suspected in patients with these risk factors who develop sinus congestion, blackish or discolored nasal discharge, facial or ocular pain, or visual symptoms following acute COVID-19 illness. [1]

Flu and COVID-19 Vaccines Can Be Given on the Same Day: CDC and AAP

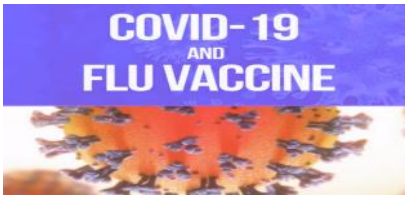
Patients can **now receive their COVID-19 vaccine and flu shot during the same visit**, according to updated recommendations by the Centers for Disease Control and Prevention.

Previously, the CDC recommended that people receive their COVID-19 vaccinations alone and schedule any other vaccinations at least 2 weeks before or after their COVID-19 immunization. "This was out of an abundance of caution during a period when these vaccines were new and not due to any known safety or immunogenicity concerns," the CDC guidance states. "However, substantial data have now been collected regarding the safety of COVID-19 vaccines currently approved or authorized by FDA."

The guidance allowing for coadministration of COVID-19 vaccines with other immunizations, including the flu shot, was issued in mid-May of this year, and was restated in influenza vaccine recommendations released August 27.

The American Academy of Pediatrics (AAP) soon followed suit, announcing earlier this week that for children eligible for the COVID-19 vaccine (age 12 and older), AAP recommendations allow **for both the influenza and COVID-19 vaccines to be administered during the same visit**.

Although there is limited data around giving COVID-19 vaccines with other vaccines, "extensive experience with non-COVID-19 vaccines has demonstrated that immunogenicity and adverse event profiles are generally similar when vaccines are administered simultaneously as when they are administered alone," the recommendations state.



If administering other immunizations along with COVID-19 vaccines, providers should separate injection sites by at least one inch, the CDC recommends, and influenza vaccines that are more likely to cause a local reaction, like high-dose or the adjuvanted inactivated flu vaccine, should be administered in different limbs, if possible.[2]

Third dose of COVID-19 mRNA vaccine for immunocompromised individuals

The US Food and Drug Administration has authorized a third dose of the BNT162b2 (Pfizer-BioNTech) and mRNA-1273 (Moderna) COVID-19 mRNA vaccines for individuals who have **certain immunocompromising conditions, such as active chemotherapy for cancer, hematopoietic cell or solid organ transplant recipients, immunosuppressive therapy (eg, rituximab and other biologic agents, antimetabolites, alkylating agents, prednisone ≥20 mg daily), and advanced or untreated HIV** . The authorization is based upon studies showing that the immune response to a two-dose mRNA vaccine series is suboptimal and that administration of a third dose may improve the immune response without causing short-term adverse events. In agreement with the Advisory Committee on Immunization Practices, **we now suggest giving the mRNA vaccines as a three-dose series in patients with any of the conditions listed in the table**:[3]

Older age (≥65 years)
Obesity or being overweight (eg, adults with BMI >25 kg/m^2, or, if age 12 to 17, have BMI ≥85th percentile for age and sex)
Pregnancy
Chronic kidney disease
Diabetes mellitus
Immunosuppression (immunosuppressive disease or treatment)
Cardiovascular disease (including congenital heart disease) or hypertension
Chronic lung diseases (eg, chronic obstructive pulmonary disease, asthma [moderate to severe], interstitial lung disease, cystic fibrosis, pulmonary hypertension)
Sickle cell disease
Neurodevelopmental disorders (eg, cerebral palsy) or other medically complex conditions that confer medical complexity (eg, genetic or metabolic syndromes and severe congenital anomalies)
Dependence on a medical-related technology (eg, tracheostomy, gastrostomy, or positive pressure ventilation [unrelated to COVID-19])

SARS-CoV-2: severe acute respiratory syndrome coronavirus 2; **BMI:** body mass index; **COVID-19**: coronavirus disease 2019.

References:

1. **Invasive fungal infections following COVID-19, accessed online via Uptodate.com**
2. **Flu and COVID-19 Vaccines, accessed online via www.medscape.com/viewartic September 10, 2021**
3. **Third dose of COVID-19 mRNA vaccine for immunocompromised individuals, , accessed online via Uptodate.com**

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Simvastatin / CYP3A4 Inhibitors (Strong) drug interactions(Risk Rating X: Avoid combination)

Do not use simvastatin with strong CYP3A4 inhibitors. Simvastatin prescribing information lists this combination as **contraindicated**. If treatment with a strong CYP3A4 inhibitor is required, discontinue simvastatin during therapy. Alternative HMG-CoA reductase inhibitors that are less likely to be significantly affected by CYP3A4 inhibition include **fluvastatin, rosuvastatin, pitavastatin, and pravastatin.**

CYP3A4 Inhibitors (Strong) Interacting Members Ceritinib, Clarithromycin, Cobicistat, Idelalisib, Itraconazole, Ketoconazole (Systemic), Lonafarnib, Lopinavir, MiFEPRIStone, Nefazodone, Nelfinavir, Ombitasvir, Paritaprevir, and Ritonavir, Ombitasvir, Paritaprevir, Ritonavir, and Dasabuvir, Posaconazole, Ritonavir, Saquinavir, Telithromycin, Tucatinib, Voriconazole

Exceptions Atazanavir, Darunavir, Indinavir.[1]

Intracerebral hemorrhage outcomes in patients taking oral anticoagulants (March 2021)

Prior studies have shown that patients with **intracerebral hemorrhage (ICH)** while taking anticoagulation **have worse outcomes** than those taking no anticoagulation, but the impact of the type of anticoagulation has been uncertain. In a registry-based cohort study of more than 200,000 patients with ICH including nearly **20,000 with anticoagulation-associated ICH**, **the risk of mortality was lower in those taking a direct oral anticoagulant (DOAC) than in those taking warfarin . Rates of disability or dependence at discharge were also lower with DOACs than warfarin and similar for DOACs versus no anticoagulation**. **These results support the view that patients taking DOACs at the time of ICH may have a lower risk of poor outcome than those taking warfarin. [2]**

Clindamycin no longer a suggested alternative for endocarditis prophylaxis (June 2021)

In May 2021, the American Heart Association updated its 2007 guidelines on antibiotic prophylaxis for prevention of streptococcal infective endocarditis among patients with relevant cardiac risk factors undergoing dental procedures. In such patients, the preferred oral regimen is amoxicillin; alternatives for patients with amoxicillin allergy include cephalexin , azithromycin, clarithromycin , and doxycycline

Clindamycin is no longer a suggested alternative because it is associated with more frequent and severe adverse effects (particularly Clostridioides difficile infection) than the others. [3]

Safety of penicillin skin testing and challenge in pregnancy (April 2021).

Penicillin skin testing and challenge has typically been avoided during pregnancy unless penicillin treatment is critical (eg, patients with syphilis), but now there is growing interest in the routine "de-labeling" of patients with a history of possible penicillin allergy. In the largest study to date of testing during pregnancy, 222 patients were referred by obstetricians for outpatient allergy evaluation if they had penicillin reactions that occurred >5 years ago; either with features of IgE-mediated allergy or uncharacterized reactions. Overall, no serious reactions occurred during testing and challenge, and 94 percent of those tested had the label of penicillin allergy removed. **The American College of Obstetrics and Gynecology 2020 guidelines for prevention of Group B streptococcal early-onset disease in newborns also support referral and penicillin skin testing as an option for management of pregnant patients with reported penicillin allergy**. [4]

References:

1. Drug interaction checker, accessed online via UpToDate,
2. Intracerebral hemorrhage outcomes in patients taking oral anticoagulants, accessed online via www.Uptodate.com
3. Clindamycin for endocarditis prophylaxis, accessed online via www.Uptodate.com
4. Safety of penicillin skin testing and challenge in pregnancy, accessed online via www.Uptodate.com

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