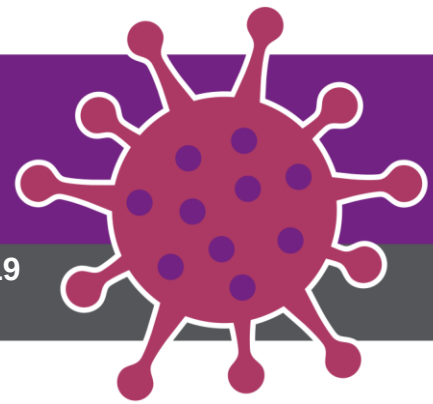


CORONAVIRUS DISEASE 2019 (COVID-19)



Timing of Imaging Studies for Patients Related to Receipt of COVID-19 Vaccine Dose(s)



Audience: Colleagues, Providers and Imaging Services Leaders

Revision Date: 6/16/2022

Version: #1

COVID-19 Response Team Owner: Clinical and Operations

Date of Last Review: 6/16/2022

UNIVERSAL: This guide should be used for all COVID patients regardless of Ministry COVID Levels

Executive Summary:

- Imaging studies such as mammography or CT scan of upper extremities may be safely completed in the context of recent vaccination for COVID-19. The potential for lymphadenopathy associated with vaccination should be taken into consideration when imaging patients who are post-vaccination; however, patients should not delay having these studies completed.
- Documenting or extracting the details on date of recent vaccination, site of vaccination (e.g. left or right arm), etc. within intake forms and having this information available to the radiologist at the time of examination interpretation is recommended.
- Providers can reassure patients regarding any incidental findings that are related to recent COVID-19 vaccination and recommend any follow-up as clinically indicated.

Background:

Reactions to COVID-19 vaccine among recipients primarily include localized, e.g., pain, swelling, erythema, at the injection site and less frequently systemic (e.g., fever, fatigue, headache, chills, myalgia, arthralgia) post-vaccination reactions. Localized axillary lymphadenopathy on the same side as the vaccinated arm has been observed following vaccination with COVID-19 vaccines. Unilateral axillary lymphadenopathy, visible on diverse imaging examinations, after recent coronavirus disease 2019 vaccination has been described. Unilateral axillary lymphadenopathy (i.e., no imaging findings outside of visible lymphadenopathy), which is ipsilateral to recent (prior 6 weeks) vaccination, is most often benign and further imaging is not generally indicated.

Relevant recommendations from the Literature:

- Consider ultrasound imaging if clinical concern persists 6 weeks after the final vaccination dose. In the clinical setting to stage a recent cancer diagnosis or assess response to therapy, encourage prompt recommended imaging and vaccination (possibly in the thigh or contralateral arm according to the location of the known cancer). Management in this clinical context of a current cancer diagnosis is tailored to the specific case, ideally with consultation between the oncology treatment team and the radiologist.¹
- Patients should not delay their screening mammogram because they were recently vaccinated. Lymphadenopathy should be interpreted in the context of patient risk factors with vigilance in patients with concurrent suspicious mammographic findings in the ipsilateral breast. {Wolfson}
- Persistent lymphadenopathy has been observed in some patients following receipt of COVID-19 vaccine. (Ha)

1. Lehman C, et al. Mitigating the Impact of Coronavirus Disease (COVID-19) Vaccinations on Patients Undergoing Breast Imaging Examinations: A Pragmatic Approach. Am J Roentgenology 2021;217: 584-586
2. Wolfson S, et al. Axillary Adenopathy after COVID-19 Vaccine: No Reason to Delay Screening Mammogram Radiology 2022; 303:297–299
3. Ha SM, et al. US Evaluation of Axillary Lymphadenopathy Following COVID-19 Vaccination: A Prospective Longitudinal Study. Radiology 2022 (in press)

Note: Additional investigations noted here for subject matter experts to assesses:

[Time for Resolution of COVID-19 Vaccine-Related Lymphadenopathy and Associated Factors - PubMed \(nih.gov\)](#)

[Management Strategies for Patients Presenting With Symptomatic Lymphadenopathy and Breast Edema After Recent COVID-19 Vaccination - PubMed \(nih.gov\)](#)