

MEMORANDUM

Date: Tuesday, March 16, 2021

Subject: Recommendations for the COVID-19 Vaccine and Proximity to use of Anti-Inflammatories/Corticosteroids for Treatment of Musculoskeletal Conditions

During the ongoing global pandemic, patients have continued to seek treatment for a variety of musculoskeletal conditions, many of which are best treated with anti-inflammatories or corticosteroids. However, as patients become eligible to receive the COVID-19 vaccine, concerns have been raised regarding the safety of these treatment options in close proximity to receiving the first and/or second dose of the vaccine. To ensure consistent messaging to the patients of Bone and Joint, below are the current recommendations created and supported by the physicians of the Sports Medicine Department. Please note, these recommendations are not intended to supersede clinical judgment and determined urgency of care.

Influence of Anti-Inflammatories/Corticosteroids on Vaccines and Recommendations

Although not specifically evaluated in mRNA vaccines, previous research has suggested the use of anti-inflammatory immediately prior to or at the time of a vaccine, may limit antibody production potential¹⁻³. This decrease in production potential, however, has not been shown to result in an “unimmunized” individual, as antibody concentrations surpassed the threshold to be considered immunized⁴. In light of the uncertainty within research and novelty of the COVID-19 vaccine, the following conservative recommendations have been adopted:

1. For simple vaccine-related symptoms such as site pain or myalgias, oral anti-pyretic or anti-inflammatory medication may be used symptomatically, but should not be used prophylactically.
2. For treatment of painful musculoskeletal conditions of the spine and / or peripheral joints, use of oral anti-pyretic or anti-inflammatory medication may be paused for twenty-four hours prior to vaccination and resumed afterwards if needed.
3. For treatment of painful musculoskeletal conditions of the spine and / or peripheral joints, elective injectable corticosteroid treatments (intra-articular, peri-tendinous, intra-bursal, epidural, etc.) should be avoided within two weeks (prior to or following) any COVID-19 vaccination shot.

References

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2. Saleh E, Moody MA, Walter EB. Effect of antipyretic analgesics on immune responses to vaccination. *Hum Vaccin Immunother.* 2016;12(9):2391-2402.
3. Sytsma TT, Greenlund LK, Greenlund LS. Joint Corticosteroid Injection Associated With Increased Influenza Risk. *Mayo Clin Proc Innov Qual Outcomes.* 2018;2(2):194-198.
4. Doedee AM, Boland GJ, Pennings JL, et al. Effects of prophylactic and therapeutic paracetamol treatment during vaccination on hepatitis B antibody levels in adults: two open-label, randomized controlled trials. *PLoS One.* 2014;9(6):e98175.