

Update on the role of steroids used in pain intervention techniques during the current COVID-19 pandemic

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The Faculty of Pain Medicine is committed to reviewing its guidelines on the delivery of pain medicine as the COVID-19 pandemic continues to evolve.

Current evidence is not sufficient to allow us to quantify the risk associated with steroid use for pain intervention procedures, should a patient come into contact with COVID-19 during the period of immunosuppression that inevitably occurs after use of steroids.

The current Public Health England guidance¹ for the management of oxygen or ventilator dependent COVID-19 is in specific patient groups to consider the use of dexamethasone. Preliminary results from the Recovery Trial^{2,3} on the use of Dexamethasone for patients hospitalised with COVID-19 infection show that the use of dexamethasone for up to 10 days resulted in lower 28-day mortality than usual care in patients who were receiving invasive mechanical ventilation at randomization and those who were receiving oxygen without invasive mechanical ventilation. However, there was no evidence that dexamethasone provided any benefit among patients who were not receiving respiratory support at randomization, and the results were consistent with possible harm in this subgroup.³ Moreover, as we have previously noted there is evidence that widespread or unfocussed use of systemic corticosteroids in COVID-19, influenza or Middle East respiratory syndrome coronavirus (MERS-CoV) infection, is associated with a risk benefit analysis towards overall harm.^{4,5,6} In a recent editorial in the Journal of Clinical Endocrinology & Metabolism (JCEM) editors⁷ have examined the coronavirus pandemic's impact on patients with endocrine system related diseases. They have concluded that individuals taking steroids for conditions such as asthma, allergies and arthritis, on a routine basis, are at higher risk if they become infected with the COVID-19. This is thought to be due to in an inability to mount a normal stress response.^{7,8}

Therefore, managing this issue through a competent evidence base that steroids are absolutely safe with COVID-19 is not and may never be possible.^{9,10,11} Moreover, waiting for such evidence may be very lengthy and result in significant patient suffering in the interim. We are therefore faced with an ethical dilemma of asking our patients to make the choice of consenting to a potential risk inherent in these procedures or to face insufferable pain.

As the COVID-19 pandemic evolves it is becoming evident currently that the number of patients who are actively known to be infected with the virus is diminishing. This means that the risk of a patient being exposed to the virus has becomes less and this may be taken into consideration when weighing individual risk. We note however that there are regional variations with "hotspots" of the virus appearing intermittently across parts of the country and therefore pain physicians need to remain aware of updated epidemiological data from Public Health England. If current trends in the prevalence of COVID-19 continue, patients may elect for less urgent injections with increasing confidence that the risks of coming into contact with the virus are low.

Our previous recommendations - *"FPM & BPS Joint Guidance on Pain Interventions during the COVID-19 Recovery Phase"* published on the 8th of June 2020¹² in conjunction with the British Pain Society and summarised in the table below still stand. We however recommend that risk benefit ratio is also measured in the context of the local prevalence of the COVID-19 virus at that point in time.

Summary of Recommendations from Joint Guidance¹²

- The decision to resume injections should be based on a balance of risks and benefits for individual patients
- The decision to resume injections should take into account the current COVID-19 situation in that region
- Injections should be prioritised according to the level of urgency suggested by the FPM guidance on recovery of services
- An individualised treatment plan for difficult cases should be supported by the MDT with a minimum of two clinicians involved
- All reasonable non-injection pain management measures should be explored before injections are started or resumed
- Protective measures should be taken by local protocol to minimise the risks to patients and staff
- Pain services must aim for the resumption of fully commissioned services when safe to deliver

The FPM will continue to monitor the pandemic and will issue further guidelines as and when appropriate.

- MHRA Department of Health and Social Care Dexamethasone in the treatment of COVID-19 Implementation and management of supply for treatment in hospitals – 16th June 2020
- 2. The RECOVERY Collaborative Group. Dexamethasone in Hospitalized Patients with Covid-19 Preliminary Report. NEJM. doi:10.1056/NEJMoa2021436 (Published 17 July 2020)
- 3. Editorial: Dexamethasone in the management of COVID -19 BMJ 2020; 370 https://doi.org/10.1136/bmj.m2648 (Published 03 July 2020)

- Arabi YM, Mandourah Y, Al-Hameed F, et al., Saudi Critical Care Trial Group. Corticosteroid therapy for critically ill patients with Middle East respiratory syndrome. Am J Respir Crit Care Med2018;197:757-67. doi:10.1164/rccm.201706-1172OC pmid:29161116CrossRefPubMedGoogle Scholar
- Corman VM, Albarrak AM, Omrani AS, et al. Viral shedding and antibody response in 37 patients with Middle East respiratory syndrome coronavirus infection. Clin Infect Dis2016;62:477-83.pmid:26565003CrossRefPubMedGoogle Scholar
- 6. Stockman LJ, Bellamy R, Garner P, SARS. SARS: systematic review of treatment effects. PLoS Med2006;3:e343. doi:10.1371/journal.pmed.0030343 pmid:16968120
- 7. Kaiser UB, Mirmira RG, Stewart P: Our Response to COVID-19 as Endocrinologists and Diabetologists J Clin Endocrinol Metab, May 2020, 105(5):1299–1301
- 8. Friedly J et al, Systemic effects of epidural steroid injections for spinal stenosis, Pain: May 2018, Vol 159, Issue 5, p876 883
- Clinical management of severe acute respiratory infection when novel coronavirus (nCoV) infection is suspected. 2020 World Health Organization. WHO. <u>https://www.who.int/docs/default-</u> <u>source/coronaviruse/clinical-management-of-novel-cov.pdf</u>
- 10. Russell CD, Millar JE, Baillie JK. Clinical evidence does not support corticosteroid treatment for 2019nCoV lung injury. Lancet 2020; 395:473.
- 11. Huang et al, Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China www.thelancet.com Vol 395 February 15, 2020
- 12. FPM & BPS Joint Guidance on Pain Interventions during the COVID-19 Recovery Phase. 8 June 2020. https://fpm.ac.uk/media/2436