LEARNING OBJECTIVES

This educational activity is intended for physicians, PAs, chiropractors, nurses, physical therapists, PTAs, EMTs, athletic trainers, and allied health professionals who have an interest in learning how to facilitate appropriate care for endurance athletes during the COVID-19 pandemic. It is also intended for race directors and others associated with races who are seeking information on how to safely manage events.

The overall goal of this activity is to foster discussion about evidence-based medicine in regards to COVID-19 and to support mitigation strategies that will allow mass-participation events to resume safely.

Day One: The Science of COVID-19

Following the conclusion of this day’s program, the participant will be able to:

- Describe similarities and differences between COVID-19 and influenza viruses, such as that which caused the 1918 pandemic flu.
- Explain the system-based approach to COVID-19 as it is used to evaluate the effects of the disease.
- Outline return-to-sport recommendations following COVID-19 recovery with the focus on evidence-based medicine.
- Discuss current COVID-19 vaccine strategies, focusing on their strengths and limitations.
- Describe strategies to manage expectations about COVID-19 vaccines once released.
- Identify the most common cardiac complications associated with COVID-19, as well as the cardiovascular comorbidities that affect recovery outcome.
- Discuss the pros and cons of different methods for COVID-19 testing with a focus on events managing cost, accuracy, and scalability.
- Discuss personal protective nutrition/lifestyle approaches to enhancing resilience to COVID-19 infection, as well as strategies to prevent and mitigate its impact.

Day Two/Track One: Getting Back to Endurance Medicine Basics in the COVID-19 Era

Following the conclusion of this day’s program, the participant will be able to:

- Summarize the 2020 Marine Corps Marathon medical algorithms.
- Review the epidemiology and pathophysiology of exercise-associated collapse in mass participation events.
- Describe the signs and symptoms of exertional heat stroke (EHS), indicating how it is distinguished from heat exhaustion, exertional collapse associated with sickle cell trait (ECAST), and other conditions.
• Discuss appropriate treatment of EHS, including aggressive whole-body cooling methods and the "cool first, transport second" principle.
• Explain the criteria for diagnosis of exertional hyponatremia and its role in administering appropriate treatment.
• Discuss the benefits of adaptive reconditioning for athletes with disabilities, with a focus on medical implications for competition.
• Outline recommended pre- and post-exercise plans for the insulin-dependent diabetic athlete.
• Describe the important components of a Diabetic PPE and the various types of Type 1 Diabetic Equipment.
• Outline what is required for an effective Diabetes Emergency Action Plan (EAP).
• Describe race-day emergencies that may present in the Masters runner, with a focus on diagnosis and treatment.
• Outline a plan to include COVID readiness and response as a part of race-day medical preparation.

Day Two/Track Two: Race Management in the COVID-19 Era

Following the conclusion of this day’s program, the participant will be able to:

• Identify best practices used to safely promote and execute in-person races.
• Describe medical tent mitigation strategies to protect the medical team and injured participants at races.
• Describe recommended adjustments for race organizers to undertake in order to help ease psychological distress in participants due to COVID-19.
• Identify two common thinking patterns of runners in a pandemic environment with accompanying cognitive behavioral strategies to support and address related stress.
• Explain how to use the World Athletics-IIRM risk assessment and mitigation tool to evaluate the safety of impending activities and develop strategies to improve safety outcomes in regards to COVID-19.
• Describe strategies that should be used to communicate risk and engage events to prevent and respond to infectious diseases.
• List four fundamentals of contact tracing.
• Identify at least three key points about mitigating legal liability when resuming in-person race events.
• Describe how to plan for the future of an event by looking at insurance from a strategic perspective and the use of alternative risk management tools.
• Outline at least four strategies used in the NBA Bubble to maintain a safe environment for players and staff.