



## **NYNG 2020 Frank LeFever Conference**

### **"From HIV to COVID-19: The Neuropsychology of Infectious Disease"**

**Wednesday September 16, 2020  
1.5 Continuing Education Credits**

#### **“Neurological Manifestations of COVID and Lessons Learned from HIV and Other Viral Infections of the Central Nervous System”**

Allison Navis, MD, Assistant Professor, Division Neuro-Infectious Disease, Department of Neurology, Icahn School of Medicine at Mount Sinai

Disclosures: None

COVID infection affects many systems in the body, including the nervous system. Neurological manifestations include encephalopathy, stroke, neuropathies, and less common syndromes like Guillain-Barre and acute disseminated encephalomyelitis. The underlying mechanisms of these manifestations are likely wide-ranging, and depend on severity of infection, complications and comorbidities. Potential etiologies for nervous system damage include inflammation, ischemia and infection; however, bystander effects from systemic complications likely play a role as well. Treatment of neurological complications involves addressing potential reversible causes, or use of immunosuppressants when appropriate.

#### **Learning Objectives:**

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| 1. Describe the common neurological manifestation, and less common neurological syndromes seen in people with acute COVID-19 infection |
| 2. Discuss the potential etiologies for different neurological manifestations of COVID infection                                       |

3. Discuss the neuropathology studies to date that describe potential CNS infection of COVID

4. Describe the overlap, and differences, between neurological manifestations of COVID in the context of HIV and other viral infections of the central nervous system

# “NeuroCOVID – Current Understanding and Methods of Study through the lens of NeuroHIV”

Andrew Levine, PhD, ABPP, Clinical Professor, Department of Neurology, UCLA

Disclosures: None

The virology of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) and the human immune response to the virus are under vigorous investigation. Diverse neurological symptoms and conditions have been widely reported in individuals who develop coronavirus disease 2019 (COVID-19), the syndrome associated with SARS-CoV-2 infection. However, the long-term neurological and cognitive consequence of SARS-CoV-2 infection will remain conjectural for some time, and will likely require the creation of cohort studies that include uninfected individuals. Considering the early evidence indicating that SARS-CoV-2 is neuroinvasive and neurovirulent, it is helpful to compare SARS-CoV-2 to another endemic and neurovirulent virus (Human Immunodeficiency Virus-1) when designing such cohort studies and when making predictions about neuropsychological outcomes. In this presentation, the neurology of COVID-19 and likely mechanisms underlying potential long-term neuropsychological sequelae are discussed. Applications of the knowledge gained from over three decades of neuroHIV research are discussed, with a focus on alerting researchers and clinicians to the challenges in determining the cause of neuropsychological deficits among survivors

## **Learning Objectives:**

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| 1. Attendees will understand the neurologic symptoms and conditions associated with SARS-CoV-2 infection (i.e., neuroCOVID) |
| 2. Attendees will understand the current state of knowledge about neuropsychological outcomes among COVID-19 survivors      |
| 3. Attendees will understand limits to our knowledge about neuroCOVID and how to best study this phenomenon going forward   |

# Thursday September 17, 2020

## 1.5 Continuing Education Credits

### “Health disparities Infectious Disease and Neuropsychological Service Delivery”

Desiree A. Byrd, PHD, ABPP-CN, Associate Professor of Psychology at the City University of New York, Queens College and the Graduate Center with a joint appointment in Neurology at the Icahn School of Medicine at Mount Sinai

Disclosures: None

The discipline of neuropsychology is at an opportune point in history where professionals and clients alike are faced with the pandemic of a highly contagious infectious disease while reckoning with universal response to the centuries-old structural racism pandemic. Both conditions impact neuropsychological service delivery while exerting uneven impact across racial/ethnic groups in the United States. Despite the inherent challenges embedded in mounting comprehensive responses to these pandemics, each provide a unique and unprecedented opportunity for neuropsychologists to complete a critical review and “reset” of their methods, modes of interpretation and measures of impact. This conference presentation will use the clinical and scientific neuropsychological response to HIV as a conceptual frame to explore not only the scientific response to the cognitive effects of COVID but also as a prompt to critique standard models of service delivery with the aim of increased brain health equity

#### **Learning Objectives:**

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| 1. Explain what a health disparity is and discuss how infectious diseases such as HIV and COVID-19 are expressed as health disparities conditions with significant effects on neuropsychological functioning |
| 2. Identify three challenges and solutions associated with the neuropsychological response to the COVID-19 and racism pandemics  |
| 3. Recognize opportunities to utilize neuropsychological service delivery to help achieve brain health equity for ethnic minorities.   |

## **“Rehabilitation Neuropsychology and COVID-19”**

Philip J. Uy, Ph.D., ABPP-RP, ABN, Clinical Assistant Professor, Department of Physical Medicine & Rehabilitation at NYU Langone Health.

Disclosures: None

Coronavirus disease 2019 (COVID-19) has caused significant disruption in healthcare. Although research on the clinical presentation of COVID-19 and its biopsychosocial impact is growing, pressure is placed on neuropsychologists and rehabilitation psychologists who currently work with patients infected with severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). As a result, it is important for providers to understand neurobehavioral changes associated with COVID-19 for clinical conceptualization and treatment planning. In this presentation, COVID-19 neurobehavioral sequela in acute rehabilitation will be discussed. Moreover, the pandemic’s effects on providers in acute rehabilitation settings will be identified and its impact on clinical care. Finally, discussion on adjustment to disability factors will be highlighted.

### **Learning Objectives**

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| 1: Demonstrate neurobehavioral presentations associated with SARS-CoV2 |
| 2: Identify impact of pandemic on acute rehabilitation treatment       |
| 3. Recognize factors that may impact symptoms management/ recovery     |