WINFOCUS WORLD CONGRESS 2025

COSTA RICA December the 5th 2025

INTRODUCTION AND PROGRAM - CAMPUS: on the Assessment on Brain PERFUSION AND SYSTEMIC CONGESTION

Date: December 5, 2025
Time: 8:50 am to 1:00 pm
Duration: 40 minutes
5 Slots Available: (9:00–9:40) (9:50–10:30) (10:40–11:30) (11:30–12:10) (12:20–13:00)
Language: English

INTRODUCTION

In recent years, ultrasonography has emerged as a powerful, non-invasive tool for bedside assessment of the brain and intracranial dynamics, revolutionizing the way clinicians approach neurological monitoring in critical and emergency care. This workshop is designed to introduce participants to the principles, techniques, and clinical applications of brain ultrasonography and optic nerve sheath diameter (ONSD) sonography, with a particular focus on their role in the evaluation of intracranial pressure (ICP) and cerebral hemodynamics. Through a combination of theoretical sessions and hands-on practice, participants will gain familiarity with the use of ultrasound for assessing the transcranial window, visualizing intracranial structures, and performing Doppler studies of major cerebral vessels such as the middle cerebral artery

GENERAL OBJECTIVE:

How to assess brain perfusion and evaluate ICP

By the end of the workshop, participants will be able to integrate ultrasound as both a diagnostic and procedural tool in the assessment of brain perfusion and estimation of intracranial pressure.

SPECIFIC OBJECTIVES

1. Identify and insonate transtemporal window
2. Identify Wills Circle through application of color doppler mode
3. Perform pulsed doppler analysis of middle cerebral artery.
4. Waveform analysis for the assessment of cerebral perfusion and intracranial pressure
5. Perform basic ocular ultrasound, identify optic nerve and optic nerve sheath (ONSD) and measure ONSD.

ADVANCED WORKSHOP PROGRAM – BRAIN PERFUSION ASSESSMENT

Timing	**Activity**	**Faculty**
5 minutes	Welcome and introduction of the faculty. Group allocation.	Dr. Giada Cucciolini
30 minutes	**- Hands-on Stations** **Technical skills:** - Identify and insonate transtemporal window - Identify Wills Circle through application of color doppler mode - Perform pulsed doppler analysis of middle cerebral artery. - Waveform analysis for the assessment of cerebral perfusion and intracranial pressure - Perform basic ocular ultrasound, identify optic nerve and optic nerve sheath (ONSD) and measure ONSD **Non-technical skills:** – Integrating and interpreting ultrasound findings in the clinical context of acute brain injury	Dr. Giada Cucciolini Dr. Adrian Wong Dr. Rita Bertuetti Dr. Adriana Yock Dr. Balan Cosmin

5 minutes	Ending remarks	Dr. Giada Cucciolini

FACULTY TEAM

Dr. Giada Cucciolini (Coordinator)

Dr. Adrian Wong

Dr. Rita Bertuetti

Dr. Adriana Yock

Dr. Balan Cosmin