An aerial photograph of the Dubai skyline, featuring numerous skyscrapers and a complex highway interchange. The image is partially covered by a large green semi-circle on the right side, which contains the event title and date. The bottom of the image has a white background with a pattern of small grey dots.

Indirect Reference Interval Methods: Educational Course & Hands-on Workshop

25 May 2024

Conrad Dubai Hotel
Dubai, UAE



INTRODUCTION

Laboratories are required to verify and/or establish reference intervals to enable the evidence-based interpretation of test results. However, establishment of reference intervals using direct sampling techniques is very often impossible due to practical, economic and ethical reasons. Similarly, verification techniques using a restricted amount of samples from healthy individuals are severely limited. Indirect methods to derive reference intervals have the potential to fill this well-recognized gap, and they have been gradually maturing, especially under the auspices of the IFCC Committee on Reference Intervals and Decision Limits (C-RIDL) and the IFCC Task Force on Global Reference Interval Database (TF-GRID).

However, application of indirect methods on laboratory data a-posteriori has many challenges, the most obvious being the mixed distribution of physiological and pathological test results in the input dataset. Additional challenges include removal of patients with multiple results and consistency of (pre-)analytical processes over the period of data collection, and correctly accounting for covariates, most importantly sex and age. Importantly, the choice of an appropriate statistical algorithm is of critical importance, and we have progressed from early techniques like Hoffman and Bhattacharya to advanced algorithms like TML, cosmic, and refineR.

In this workshop, we will

- provide an educational opportunity for reference interval theory and statistical practice (**EDUCATIONAL WORKSHOP**), and
- provide a workshop for hands-on, critical deployment indirect reference interval tools (refineR) using sample data that explores the technical principles and impacts (**HANDS-ON-WORKSHOP**)

KA Sikaris, T Streichert, J Zierk

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SCIENTIFIC PROGRAM 25 MAY 2024

EDUCATIONAL WORKSHOP

- 08:45 **Welcome and introduction** - J Zierk, T Streichert, K. Adeli
09:00 **Importance of Reference Intervals; Arab Region Perspective**,
A Borai
09:15 **Reference Intervals Theoretical Basis** - MK Bohn
10:00 **Statistical Approaches to Reference Intervals** - A Coskun
- 10:45 Coffee break
- 11:00 **Identifying health by excluding disease** - KA Sikaris
11:45 **Modern tools for reference Interval analysis** - AB Leichtle
- 12:45 Lunch

HANDS-ON-WORKSHOP

Participants analyse datasets on their own laptops in a classroom-style environment

- 13:45 **Introduction to workshop** - T Streichert
14:00 **Workshop Group Activities A (focus: R)** - J Zierk, KA Sikaris, MK Bohn
14:45 **Workshop Group Activities B (focus: refineR)**, J Zierk, AB Leichtle, A Coskun
- 15:30 Coffee break
- 15:45 **Presentation of Group Activities** - All participants
16:45 **Conclusions and Discussion**, J Zierk

GENERAL INFORMATION

REGISTRATIONS

A limited number of places is available. All delegates must register for the congress.

REGISTRATION FEES:

- **FULL DAY** € 500 (5% VAT included)
(EDUCATIONAL MORNING SESSION + INTERACTIVE AFTERNOON WORKSHOP)
The Full Day registration fee includes: access to all the scientific sessions (both morning and afternoon), morning coffee break, lunch and afternoon coffee break.
- **HALF DAY** € 250 (5% VAT included)
(EDUCATIONAL MORNING SESSION ONLY)
The Half Day registration fee includes: access to morning session only, morning coffee break, lunch.

Registrations open on January 2024.
Further information on registration modalities will follow.

INDUSTRY EXHIBITION

An industry exhibition will be open and accessible close to the congress room, according to the times of the scientific programme.

CONGRESS LANGUAGE

The congress' official language is English.

NAME BADGE

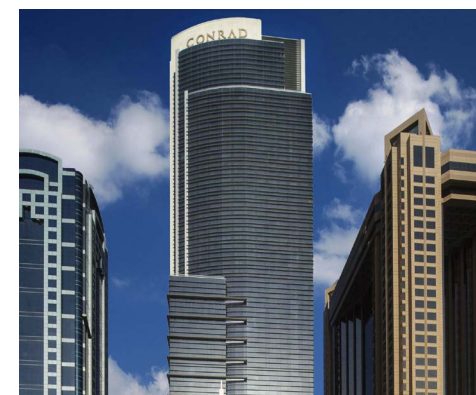
A name badge will be required for access to the congress area. Participants will receive a name badge when they check in at the registration desk. It must be always worn.

CERTIFICATES OF ATTENDANCE

All properly registered attendees will be entitled to receive a certificate of attendance. Certificates of attendances will be sent via email after the end of the Congress.

CONGRESS VENUE

Conrad Dubai Hotel
Sheikh Zayed Rd - Trade Centre
Trade Centre 1
Dubai, United Arab Emirates



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