The Osteoporosis Essentials Bone Densitometry course by the ISCD (International Society of Clinical Densitometry) and IOF (International Osteoporosis Foundation) and Update on Skeletal Imaging presents the state of the art for skeletal health assessment by leading national and international faculty. Advances in the diagnosis and monitoring of osteoporosis and fracture risk assessment are presented. An advanced curriculum will be presented for both physicians and technologists providing the tools for achieving excellence in skeletal health assessment including optimal BMD scan acquisition, interpretation, reporting and application of DXA technology. The limitations of DXA technology in the diagnosis and monitoring of skeletal health in pre and postmenopausal women, men and children will be presented. Common pitfalls in interpretation will be reviewed. The clinical utility of bone densitometry and quality assurance of this modality will be reviewed.

Target Audience:

Dual track content has been designed for physicians including radiologists, nuclear medicine physicians and medical specialists as well as technologists.

Learning Objectives:

1. Recognize and report fragility fractures and know the impact on fracture risk assessment
2. Evaluate fracture risk utilizing advances in skeletal imaging
3. Integrate trabecular bone score with BMD and FRAX in evaluating fracture risk
4. Recognize early radiographic features of atypical femoral fractures
Independent of the course, voluntary certification will continue to be offered including Certified Clinical Densitometrist (CCD) for physicians and Certified Bone Densitometry Technologist (CBDT) for technologists. Individuals who desire certification should visit www.iscd.org to obtain the appropriate application form, review testing procedures and qualifications as well as information about fees and testing locations. In Canada, certification is not a requirement for technologists and physicians to practice BMD.
**TECHNOLOGISTS & PHYSICIANS COMBINED LECTURES**

**Chair - Hema Choudur**

10:00 - 10:10 **INTRODUCTION AND WELCOME**
Aliya Khan

10:10 - 11:00 **OVERVIEW OF OSTEOPOROSIS**
Aliya Khan

11:00-11:05 **5 MIN BREAK**

11:05 - 12:05 **BONE MEASUREMENT DEVICE OPERATING PRINCIPLES, RADIATION SAFETY**
William Leslie

12:05 - 12:10 **5 MIN BREAK**

12:10 - 13:15 **PRINCIPLES OF DXA INTERPRETATION**
William Leslie & Anita Colquhoun

**TECHNOLOGISTS ONLY Stream**

**Anita Colquhoun, Diana Yau and Queenie Wong**

13:20 - 14:10 **DXA PRACTICE MANAGEMENT**

14:10 - 14:30 **20 MIN BREAK**

14:30 - 15:10 **DXA PRACTICE MANAGEMENT CONT.**

15:10 - 15:15 **5 MIN BREAK**

15:15 - 16:45 **FEMUR & FOREARM SCANS**

16:45 - 16:50 **5 MIN BREAK**

16:50 - 17:50 **LUMBAR SPINE SCANS-ELEMENTS CRITICAL TO QUALITY**

17:50 - 17:55 **5 MIN BREAK**

17:55 - 18:40 **SUPPLEMENTAL DXA APPLICATIONS**

18:40 **DAY 1 CLOSE**

**PHYSICIAN ONLY Stream**

**Chair - Linda Probyn**

13:15 - 14:15 **DIAGNOSIS OF OSTEOPOROSIS**
Aliya Khan

14:20 - 14:40 **20 MIN BREAK**

14:40 - 15:40 **FRACTURE RISK**
Angela Cheung

15:40 - 15:45 **5 MIN BREAK**

15:45 - 16:35 **MONITORING TREATMENT OF OSTEOPOROSIS**
Angela Cheung

16:35 - 16:40 **5 MIN BREAK**

16:40 - 17:40 **PRINCIPLES OF DXA REPORTING**
William Leslie

17:40 - 17:45 **5 MIN BREAK**

17:45 - 18:45 **CASE REVIEW**
Christopher O'Brien

18:45 - 19:00 **CLOSING REMARKS**
Aliya Khan
**ISCD & IOF OSTEOPOROSIS ESSENTIALS COURSE - PROGRAM**

**DAY 2 - SUNDAY DECEMBER 4, 2022**

**TECHNOLOGISTS ONLY Stream** - Anita Colquhoun, Diana Yau and Queenie Wong

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>10:00 - 10:30</td>
<td>APPLICATION OF DXA TOOLS &amp; SOFTWARE FEATURES</td>
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<td>10:30 - 10:35</td>
<td>5 MIN BREAK</td>
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<tr>
<td>10:35 - 11:20</td>
<td>SCAN INTERPRETATION &amp; FRACTURE RISK ASSESSMENT</td>
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<td>11:20 - 11:25</td>
<td>5 MIN BREAK</td>
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<td>11:25 - 12:40</td>
<td>CLINICAL MANAGEMENT OF THE OSTEOPOROTIC PATIENT</td>
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<td>12:40 - 12:45</td>
<td>5 MIN BREAK</td>
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<tr>
<td>12:45 - 13:15</td>
<td>CLINICAL APPLICATION</td>
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<td>13:15 - 13:20</td>
<td>5 MIN BREAK</td>
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<tr>
<td>13:20 - 14:20</td>
<td>TECHNICAL CASES</td>
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<tr>
<td>14:20</td>
<td>CLOSING REMARKS</td>
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**This course will enable the physician to:**

- Explain the value of bone densitometry for diagnosis of osteoporosis, fracture risk estimation and monitoring;
- Describe principles for interpreting central DXA scans;
- Explain fracture risk assessment combining BMD with clinical risk factors (WHO fracture risk model);
- Evaluate non-central DXA technologies for predicting fracture risk;
- Recognize errors in DXA reporting.

**This course will enable the technologist to:**

- Design and implement quality control and assurance practices;
- Understand the importance of precision assessments and how to conduct in a facility;
- Identify lumbar spine, proximal femur and forearm anatomy and recognize abnormal or unusual anatomy and correct patient positioning for scan acquisition and analysis;
- Recognize vertebral fracture significance in osteoporosis and techniques for acquiring VFA scans;
- Critically evaluate DXA scans and identify acquisition and analysis errors as methods to resolve errors;
- Recognize how technical errors impact clinical interpretation and patient care.
**FACULTY - PHYSICIAN STREAM**

ANGELA CHEUNG, MD, PhD, FRCPC  
Professor of Medicine, University of Toronto  
Staff, General Internal Medicine and Endocrinology  
University Health Network and Sinai Health System  
Toronto, ON

HMLA CHAUDHURY, MD, MBBS, FRCPC  
Professor of Radiology,  
McMaster University  
Hamilton, ON

TIM CUDDY, MD, CFPC  
Assistant Clinical Professor, Family Medicine  
McMaster University  
Hamilton, Ontario

ALIYA KHAN, MD, FRCPC, FACP, FACE, FASBMR  
Professor of Clinical Medicine  
Director, Calcium Disorders Clinic  
Director, Fellowship in Metabolic Bone Disease  
McMaster University  
Hamilton, Ontario

WILLIAM LESLIE, MD, MSc, FRCPC, CCD  
Professor of Medicine and Radiology,  
Max Rady College of Medicine, University of Manitoba  
St-Boniface General Hospital  
Winnipeg, Manitoba

CHRISTOPHER O’BRIEN, BSc, MDCM, FRCPC  
Medical Director, Nuclear Medicine  
Brantford General Hospital  
Brantford, Ontario

LINDA PROBYN, ABR, BSc, BScPT, MD, FRCPC,  
Associate Professor and Vice Chair Education,  
University of Toronto, Department of Medical Imaging  
Toronto, Ontario

**FACULTY - TECHNOLOGIST STREAM**

ANITA COLQUHOUN, RTNM, MRT(N) CDT  
Charge Technologist, Centre for Osteoporosis & Bone Health, Women’s College Hospital  
Toronto, Canada

QUEENIE WONG, MRT(N), CDT  
Bone Density Technologist, Center of Excellence in Skeletal Health Assessment, Toronto General Hospital  
Toronto, Canada

DIANA YAU, MRT(N), CDT  
Bone Density Technologist, Center of Excellence in Skeletal Health Assessment, Toronto General Hospital  
Toronto, Canada

CANADIAN SYMPOSIA ON RARE BONE DISEASES 2022

Friday, December 2nd 2022  
Virtual CPD Webinar

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