

Organiser: Chapter of Orthopaedic Surgeons  
Organising Chair: Adj Assoc Prof Ernest Kwek  
Event: Singapore Principles and Practice of Clinical  
Research Course  
Date: 16 September 2017  
Venue: The Learning Studio, Level 5  
Lee Kong Chian School of Medicine  
11 Mandalay Road, Novena Campus, Singapore 308232



### Invited Faculty

Prof Mohit Bhandari, McMaster University, Ontario, Canada

Canada Research Chair in Musculoskeletal Trauma

Assoc Prof Brad Petrisor, McMaster University, Ontario, Canada

Residency Program Director

### Course Details

This course covers the principles of clinical research, research study design, practical aspects of clinical trials, health statistics, disseminating clinical research, and an introduction to the principles of basic science and bench work. This program will provide participants with a comprehensive foundation in the present state of health research methodology by covering basic science methods, evidence based-medicine principles, levels of evidence, research ethics, funding opportunities, as well as data management and budgeting.

A module will also be dedicated to clinicians interested in teaching and mentoring residents in research through educational activities.

In addition to the official program, this course offers opportunities to meet experts in the field and establish relationships with other colleagues. The program also includes multiple integrated panel discussions and focuses on resident research.

### Target Audience

This course is open to all orthopaedic surgery residents and faculty. Non-orthopaedic residents, nursing or allied health staff with a keen interest in gaining a foundation in clinical research are also welcome to register.

## **Topics**

### Module 1: Research Education

Principles of Research Education  
Teaching Evidence Based Medicine On The Fly  
Running an Evidence Based Journal Club  
Being a Good Research Mentor  
Engaging Residents in Research

### Module 2: Principles of EBM

Hierarchy of Evidence  
Basic Science Research  
Survey Design and Execution  
Randomised Controlled Trials  
Meta-analysis  
Economic Analysis

### Module 3: Practical Applications

Language of EBM/ Critical Appraisal  
Practical Statistics  
How to Prepare a Good Study Protocol  
Roles of a Research Coordinator  
Conducting a Cohort and RCT  
Obtaining Ethics Approval  
Budget Basics  
Data management: Design and Data Collection  
Barriers to Research and Solutions

### Module 4: Completing the Cycle of Research

A Resident's Experience with Research  
Writing a Publishable Paper: Practical Tips  
Case Study: Manuscript Submission to Revisions to Publication  
Knowledge Translation: Getting the Word Out/ Presentation Skills  
Case Study: From Idea to Completion of a Large Clinical Trial