SKILLS COURSE VII: 18th – 20th August 2023
Biostatistics & Clinical Research Methodology Workshop

Day 1(18/08/2023) – Statistics in Clinical practice

Time	Topic	Speaker
8:30 to 9:00 am	*REGISTRATION*	
09.00 – 09.10 am	Introduction to program	Sanjit Agrawal
09.10 – 09.20 am	Welcome speech	Dr. P. Arun
09.20 – 09.50 am	Types of data/measurement scales/ measurements of central tendency/dispersion	Dr. Manas Roy
09.50 – 10.20 am	Tests of significance (p-value and confidence interval)	Dr. Sanjit Agrawal
10.20 – 11.00	Bivariate statistics (Chi square, Fisher exact test, Student t test, Man Whitney test)	Dr. Sanjit Agrawal
11.00 – 11. 30 am	**Tea break**	
11:30 – 12:30 pm	Correlation and regression	Dr Soumitra Shankar Datta
12.30 – 01.30 pm	Survival Analysis- an overview	Dr Sanjit Agrawal
01.30 – 02.30 pm	**Lunch**	
2.30 – 5.30 Workshop (Tea Break – 15 minutes – 4 pm)		
Pubmed search and Reference Management (Zotero)		Dr Paul (Information specialist, CMC Vellore)

Day 2 (19/08/2023): Diagnostic test, IMADS , Research Protocol writing

Time	Topic	Speaker
09.15 - 09.45 am	Diagnostic accuracy testing (Sensitivity, Specificity, predictive power, ROC curve)	Dr SuvroShankar Datta
09.45 – 10. 45 am	Writing a paper (IMRAD)	Dr Soumitra Shankar Datta
10.45 – 11.15 am	**Tea Break**	
11.15 -12.30 am	Summary of research Protocol writing	Dr. Prateek Jain
12.30 – 01.30 pm	Case Control and cohort study	Dr Moses Arun Singh
1:30 – 2:30 pm	**Lunch**	
2.30 – 5.30 Workshop (Tea Break (15 minutes) 4 pm)		
SPPS hands-on training		SanjitAgrawal & SS Datta

Day 3 (20/08/2023): **Clinical Research Methodology**	
09.00- 10.00 am	Randomized controlled Clinical Trials (Randomization, Blinding, Allocation concealment)	Joydeep Ghosh
10.00 – 10.30 am	Tea break	
10.30 – 11:30 pm	Meta – analysis	Dr. Soumitra Shankar Datta
11.30 - 12.30 pm	Critiquing a journal (Group task/ Presentation - Cross sectional studies/Case Control/Cohort studies/ RCT/ Meta - analysis)	All Faculty
12.30 – 01.30 pm**: Lunch, Feedback and certificate** distribution		

Prerequisites

Basic knowledge of computers, using the keyboard, mouse and Windows is required. This is an Intermediate level program, so we will teach you all about Pumbed, Zotero and SPSS and then how to get the most of it for day-to-day use. *We request you to download software – Microsoft Office, Zotero and SPSS in your personal laptop.*

Workshop 1 (PubMed Search and Zero):

- Pubmed Search
- Creating account and compiling the articles
- Maintaining bibliography
- Advanced search
- Citation download
- Setting up a database of references from previous literature search
- Adding, Editing and correcting the references in the database.
- Retrieving references stored in Zotero
- Creating a bibliography of selected references
- Inserting references in MS Word document
- Adding journal abbreviations and altering output styles
- How to search the Internet for publications from within Zotero
- How to merge Zotero databases
- How to create a list of references for a large document (e.g., a thesis)

Workshop 2 - SPSS hands on Training

- Apply the basic statistical tools learnt during the course.
- Manipulate variables
- Transform data for analysis

- Recode and compute variables
- Describe data
- Understand the basic principles for choosing and conducting basic statistical tests.
- Perform the following basic statistical tests using SPSS in Data Set :
    a) Check normalcy of data
    b) Parametric and non parametric tests
    c) Chi square and Fisher exact test
    d) Student t and man Whitney test
    e) Kaplan Meier curve

Cox regression analysis.