Lecrure1

1- HOW TO READ A RESEARCH ARTICLE ?

2- STUDY DESIGNS

3- RESEARCH HYPOTHESIS

4- P-VALUE

5- SEARCH THE DATABASES

6- ICMJE CRITERIA FOR AUTHORSHIP

Lecture 2

INTRODUCTION TO MEDICAL STATISTICS

(TYPE OF DATA):

● DESCRIPTIVE AND INFERENTIAL STATISTICS

● CONTINUOUS AND CATEGORICAL DATA

● NORMALLY DISTRIBUTED VS NON-NORMALLY DISTRIBUTED DATA

● P-VALUE AND CONFIDENCE INTERVAL … WHAT IS THE DIFFERENCE?

Lecture 3

SCIENTIFIC WRITING: (PART1)

● STEPS OF SCIENTIFIC WRITING

● RULES OF SCIENTIFIC WRITING

● RESEARCH ARTICLE TITLES

STUDY DESIGN GUIDELINES

CAEOS

SCIENTIFIC WRITING: (PART2)

● **INTRODUCTION SECTION**

● **HOW TO WRITE GOOD**

METHODOLOGY

● **RESULT SECTION**

Scientific writing: (Part3)

- Discussion section

- Ethical approval .... Is it essential?

How to write research protocol

(research proposal)?

Lecture 6

Primary data analysis: (Part 1)

● **Introduction to SPSS software**

● **Types of data variables**

Introduction commonly used

statistical tests

Primary data analysis: (Part 2)

● Statistical tests to compare means

and medians.

● Central limit theory

● P-value types

Primary data analysis: (Part 3)

● **Correlation tests**

● **The present and the future of statistical analysis (Regression models)**

Primary data analysis: (Part 4)

- Survival analysis (Oncology!!!)

Lecture 10

How to conduct a systematic review (and meta-analysis) study? (Part 1)

- protocol writing (Prospero)
- Research question/research title (Pico)
- 3- Preliminary search (to check that it is not done before)
- Search strategy (mesh + and-or rule)
- Searching databases (PubMed +Embase + Scopus + web of science...)
- Inclusion and exclusion criteria
- Endnote software for duplicate removal and making screening sheet of the included studies.

How to conduct a systematic review (and meta-analysis) study? (part 2)

● Screening

● Full text downloading and screening.

● Manual search (references, related articles on PubMed)

● Data extraction and quality assessment

Lecture 12

How to conduct a systematic review (and meta-analysis) study? (Part 3)

● Statistical analysis (Rev-man software ...etc.)

● Exporting figures (Forest plots)

● Sensitivity analysis

Double arm VS single arm Analysis

SAEOS

Submission and publication (Part1):

- How to find suitable journal?

- How to prepare your manuscript for submission?

- How to prepare your reference list using Mendeley software?

Lecture 14

Submission and publication (Part2):

- Cover letter
- Peer-review process

CAEOS

Diagnostic test accuracy (DTA):

- DTA analysis using SPSS.

- ROC curve

- Meta-analysis of DTA

Sample size:

- How to calculate the sample size of your paper or thesis?

- Effect size and power of analysis?

- G*Power

- How to write sample size section in your manuscript?