Short summary of lectures on Evidence –Based Medicine for Medicine masters of First Grade

Lecture 1. Principles of Evidence-based medicine. Role of Evidence-based medicine in Public Health.
Short content.
Introduction. Definition of EBM. Evidence-based health care practice. Importance of EBM. Evolution of EBM. Decision making in EBM. Historical facts and milestones in development of EBM. Components of Evidence-Based Practice: individual clinical espertise, best available clinical evidence, Patients Values and Preferences. Evaluation of EBM. An EBM approach to Education. A. Cochrane. Assumptions of EBM.

Lecture 2.
Short content. Principles of Evidence-based medicine. Background Questions vs Foreground The PICO Model for Clinical Questions. Hierarchy of Scientific Evidence. Using PICO to select relevant studies from your search retrieval Using PICO to select relevant studies from your search Example: Intervention Questions. Formulate the Clinical Question. What are PICO Questions? Classify the type of the question using DEPTH model.

Lecture 3. Second step of EBM – Acquiring the highest quality evidence available by using the Internet and an Electronic Database.
Defining the research question. Best search principles. The advanced search strategy. List of Database. The Cochrane Library databases The Cochrane Library databases. MEDLINE. Papers. REPORTING THE SEARCH STRATEGY. Searching.
Example of a basic search strategy. A Hierarchy of Strength of Evidence for Treatment Decisions. Levels of Evidence.

Lecture 5. Clinical trails' design.
Short content. Experimental studies. Purpose. Phases of clinical trials. Selecting study participants study participants. Random assignment. Analysis. Strengths and Weaknesses. Clinical phases. Types of trial. Clinical trial video.

Lecture 6. Estimation of sensitivity and specificity of tests in Clinical Trials. Prognostic value of a negative and positive result.
Short content. Screening is the application of a test. Picture of screening in Clinical Trial. Outcomes in the Screening Decision Tree. Putting it all together. Sensitivity and Specificity: Tests of Validity. Specificity: Tests of Validity.

Lecture 7. The practical application of principles of Evidence-Based Medicine in diagnostic, etiological (risk assessment), prognostic and therapeutic purposes in medicine.
Short content. The practical application of principles of Evidence-Based Practice in Medicine.The Research.

Lecture 8. Systematic Review.
Short content. Introduction to Systematic Review. Producers and Users of Systematic Reviews.
Rationale for systematic reviews. Framing The Question. Resources for How to Frame Your Question.
Question. Elements of the Question. Refining the Question. Some Examples. Some Examples.
Searching Principles and Assessing Bias. Finding the Evidence: Searching Principles. Identifying Key Sources and Techniques for Searching. Building a High-Quality Search Strategy.
Documenting Your Search and Conclusions. PRIZMA.

Lecture 9. Meta Analysis.
Short content. Introduction to Meta-Analysis. Planning the Meta-Analysis and Statistical Methods. Statistical Methods for Meta-Analysis. Final Peer Review Assignment. Why Do a Meta-Analysis.

Lecture 10. Grading of evidence and levels of recommendation.

Short content. Level of Evidence. Classification of Evidence levels. Grades of recommendations.

The Pyramid of Evidence. RCT. Searching for best Evidence. GRADE.
Module III.
Lecture 11. Step 3 of EBM.
Short content. What is Critical Appraisal. Step critically appraisal in EBM. Critical appraisal : advantages and disadvantages. Critically appraising questions. Clinical importance.
Screening. Validity. . Randomization. Intention to Treat Analysis. Similar Baseline Characteristics of Patients. Blinding. Equal Treatment. Conflict of Interest. Summary of Article's.
Lecture 12. Steps 4 and 5 of EBM.
Short content. Integrating the Evidence and Patients' value. Filtered Resources. Applying the reflected questions. What are the benefits of adopting of EBM? Misconceptions. Benefits. Evidence-Based Public Health. Clinical vs Public Health Interventions. Challenges - Gap.

Lecture13. Clinical practical guidelines: definition, principles of development and using in Medicine.

Short content.   Clinical practical guidelines: definition, principles of development and using in Medicine. Picture of structure of clinical practical guidelines. Evidence-Based Practice. The EBP

Expertise in Client-Centered Practices. Functions of CPGs. How are CPGs developed. How to Evaluate a CPG.   Effectiveness of CPGs in Improving Clinical Outcomes.
Lecture 14. AGREE system and evaluation of Clinical Practical Guideline.

CPG as Tool.   Clinical guidelines are.   Guidelines should be.   Development Process.   Topic Development. Validation.   Dissemination. Update.   Stroke: National Clinical Guideline.

The Appraisal of Guidelines for Research and Evaluation (AGREE) as an Instrument of evoluation. AGREE Reporting Checklist.

Lecture 15. Screening Tests' sensitivity and specificity. Likelihood ratio and prognostic value (negative and positive).

Short content.

Definition of Screening test. Aims of screening program. Criteria for selecting diseases for screening. Criteria for establishing screening program. Screening tests. Sensitivity (positive in disease). Definition of Specificity (negative in health). Likelihood ratio. Validity of test. Positive predictive value. Negative predictive value. Reliability of test. Examples.