

IO2, Learning outcomes and Assessment tools, Evidence-Based Practice in Dentistry

Complementary or prior knowledge and skills:

Ethics in clinical practice

Ethics in human/animal research

Clinical decision-making

Local regulatory requirements for clinical research & -practice

Communication abilities

General knowledge	Appraising the literature and correctly identifying study methodologies	Biostatistics familiarity	Formulating needs for information	Searching the literature and identifying the evidence
<ul style="list-style-type: none"> Describe the <u>ethical</u> principles behind EBP, including shared decision-making (SDM) <p>ESSAY MULTIPLE CHOICE PEER PRESENT PLENUM PRESENT</p> <ul style="list-style-type: none"> Explain the concepts of fallacy and bias, including research biases <p>ESSAY SHORT Q SHORT A ORAL EXAM PLENUM PRESENT</p> <ul style="list-style-type: none"> Describe how EBP may be practiced in real-life by clinicians <p>SHORT Q SHORT A PEER PRESENT</p>	<ul style="list-style-type: none"> Identify the study designs <p>MULTIPLE CHOICE SHORT Q SHORT A PEER PRESENT</p> <ul style="list-style-type: none"> Explain the strengths and limitations of different study designs to answer research questions <p>MULTIPLE CHOICE SHORT Q SHORT A ORAL EXAM</p> <ul style="list-style-type: none"> Explain the key features of RCTs, such as allocation, concealment, blinding, bioethics and probabilities <p>MULTIPLE CHOICE SHORT Q SHORT A ORAL EXAM</p>	<ul style="list-style-type: none"> Explain the statistical principle for stating null-hypotheses in biomedical science <p>ESSAY ORAL EXAM MULTIPLE CHOICE</p> <ul style="list-style-type: none"> Explain: <ul style="list-style-type: none"> p-value confidence interval standard error Odds Risk <p>ESSAY ORAL EXAM MULTIPLE CHOICE</p>	<ul style="list-style-type: none"> Formulate different types of clinical questions <p>ESSAY MULTIPLE CHOICE</p> <ul style="list-style-type: none"> Prepare searchable clinical questions in a PICO format based on a patient scenarios <p>PEER PRESENT</p> <ul style="list-style-type: none"> Describe which study designs are best for answering different types of clinical questions. <p>PEER PRESENT PLENUM PRESENT</p>	<ul style="list-style-type: none"> Explain publication bias <p>MULTIPLE CHOICE SHORT Q SHORT A</p> <ul style="list-style-type: none"> Name different digital information search systems and amount and levels of evidence <p>ESSAY PEER PRESENT ORAL EXAM PLENUM PRESENT</p> <ul style="list-style-type: none"> Prepare search strategies for digital databases based on formulated PICOs <p>PEER PRESENT PLENUM PRESENT</p> <ul style="list-style-type: none"> Manage Pubmed searching and the concept of MESH terms and Boolean functions <p>ORAL EXAM PEER PRESENT PLENUM PRESENT</p> <ul style="list-style-type: none"> Locate best scientific evidence in: Pubmed & Cochrane Library <p>PEER PRESENT</p>

Knowledge and skills for judging evidence of scientific research reports

Studies on interventions (therapy and prevention)	Diagnosis and Screening	Prognosis	Causation, Etiology, Harm,	Systematic Reviews & Meta-analyses	Clinical Guidelines
Familiarity with scoring sheets specific to the study question / design Assess study for validity – recognize: attrition bias					
Explain: <ul style="list-style-type: none"> • Intention-to-treat • rationale and weaknesses of subgroup analyses • ARR – absolute risk reduction • RRR – relative risk reduction, • NNT – numbers needed to treat SHORT Q SHORT A ORAL EXAM	Explain: <ul style="list-style-type: none"> • Gold standard • Test accuracy, including sensitivity, specificity and likelihood ratio • Prevalence, and effects on positive and negative predictive values • Pretest and posttest probabilities SHORT Q SHORT A ORAL EXAM	Explain: <ul style="list-style-type: none"> • Survival statistics SHORT Q SHORT A ORAL EXAM	<ul style="list-style-type: none"> • Describe the features of: Newcastle-Ottawa Scale • Explain causality versus correlation/association SHORT Q SHORT A ORAL EXAM	Explain the information components of a: <ul style="list-style-type: none"> • Forrest-plot • Funnel-plot • Pooled measures • Explain study heterogeneity SHORT Q SHORT A ORAL EXAM	Describe the features of: <ul style="list-style-type: none"> • GRADE • AGREE-2 SHORT Q SHORT A ORAL EXAM
Summarize and interpret evidence for a patient in terms he/she will understand Explain the usefulness and limitations of particular evidence in the care of an individual patient Apply evidence-based practice for shared decision-making in daily patient care ESSAY ORAL EXAM					

Attitude

Motivation for:

- further self-learning and teaching EB-care
- maintaining knowledge and skills through lifelong learning.
- ongoing monitoring of own clinical practice

OBSERVATION OF PROFESSIONAL BEHAVIOR IN CLINICAL PRACTICE & ADOPTION OF EVIDENCE-BASED PROTOCOLS IN PATIENT MANAGEMENT