

Paramedic – Evidence Based Practice (P-EBP) Program

Online Course

Course Goal:

The goals of the Paramedic Evidence-based Practice (P-EBP) course are to provide the tricks and tools needed to efficiently search and appraise the research literature and apply to paramedic clinical practice.

Course Overview:

Participants will learn the fundamentals of developing a concise clinical question and conducting a literature search. P-EBP resources such as the Prehospital Evidence-based Practice (PEP) Program and PubMed/Medline are introduced. The course will explain, step-by-step, how to read research literature, distinguish different study designs, and how to make judgments about the validity and applicability of studies. The participants will be briefly introduced to research language and will gain an awareness of very basic statistics. The course teaches the participant how to appreciate the tools used to appraise literature and compile evidence-based recommendations.

The online P-EBP course complies with the specific competencies and sub-competencies of the NOCP 2011 guidelines for Primary Care level education.

Objectives of each Online P-EBP Course Module:

1. Introduction

Participants will be introduced to the course format and flow, and what will be expected of them throughout the course. Basic definitions and preliminary resources are introduced. Here the course introduces academic research and evidence-based practice.

2. Form a Question

Participants will learn how to form a concise question in the PICO (Population – Intervention – Comparison – Outcome) format, and why a succinct question is so important for effective evidence-based practice.

3. Search the Literature

Participants will learn how a search strategy is developed and how a literature search is conducted. Participants will understand various literature sources, which include electronic databases (PubMed/Medline), the Canadian PEP Project, as well as reference list hand-searching. We introduce the concept of Boolean operators as a tool to help develop electronic search strategies.

4. Introduction to Study Design

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Participants will learn the basic differences in study designs and why those designations are important. They will learn the key questions to ask when reading a study to determine the design and methods. The participant will distinguish between quantitative and qualitative methods.

5. Research Ethics

The participant will learn how to identify ethical considerations in research. This includes the core concepts and definitions outlined by the Tri-council Policy Statement on ethical research. Consent, equal opportunity, confidentiality and transparency are discussed in this module.

6. Reading Research

Participants will be taught the fundamentals of how to read a research paper, beginning with how to choose a relevant paper, and how to approach reading and understanding a research article. The aim is to break the paper down into manageable sections. Participants will gain an understanding of very basic statistics often reported in research studies (p-values, confidence intervals).

7. Assessing Validity

Participants will learn how to ask key questions to determine the validity of each study: internal validity (quality of the conduct of the study) and external validity (generalizability of the findings).

8. Levels of Evidence

Participants will become familiar with the hierarchy of evidence and how to identify a study's level and direction of evidence. The PEP Level of Evidence and Direction of Evidence scales are introduced.

9. Prehospital Evidence-Based Practice Program

Participants will be guided through the use of one of Canada's most useful databases of evidence specific to EMS clinical care. The PEP project is a repository of appraised research literature that is relevant to EMS, organized in a way that allows the user to quickly determine the most recommended interventions.

10. Applying to practice

Participants will be given tools to enable them to incorporate research evidence into their daily practice and to increase their understanding of how their local protocols and guidelines were developed. The concept of knowledge translation (KT) will be introduced. The course will define and explain the role of KT in improving prehospital care with current evidence.