

Book review:

Evidence-Based Physical Diagnosis

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Abstract

The fifth edition of “Evidence-Based Physical Diagnosis”, by Steven McGee, is a cornerstone of clinical medical education and emphasizes the key role of the interpretation of physical examination findings. While the classical textbooks on medical semiology often lack complete information on diagnostic accuracy, this book is an essential resource for modern medical practice. To take advantage of its full potential, readers should understand the concepts of probabilities, sensitivity, specificity and pre- and post-test likelihood ratios (LRs).

The book covers 71 well-structured chapters providing invaluable information from head to toe and offers an evidence-based calculator of the post-test probability of the diagnosis. It is an essential physician’s companion, as it serves as a reliable reference for physical examinations and diagnostic decision making, making it an indispensable instrument for every healthcare professional’s tool set. (Acta Med Colomb 2024; 49. DOI: <https://doi.org/10.36104/amc.2024.3158>).

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The first edition of *Evidence-Based Physical Diagnosis* was initially published in 2001, with the main objective of highlighting the essential role of an accurate interpretation of physical exam findings. Twenty years later, in 2021, the fifth edition of this influential work was published (1), Figure 1. The author, Steven McGee, has a degree in medicine and completed his internal medicine residency at the University of Washington, where he currently acts as professor emeritus in the field of internal medicine (2).

The traditional books on medical semiology, such as those by Suros in Spain and Cediell in Colombia, play a fundamental role in teaching medical history taking and physical examination (3, 4). It is worth noting that much of this traditional literature lacks complete information on diagnostic accuracy, pre-test probabilities, post-test probabilities and other diagnostic test characteristics. Ever since the introduction of evidence-based medicine in the late 90s, clinical practice has been examined through the lens of research. The diagnostic field is no exception.

Given this evidence-based practice context, it is essential to incorporate textbooks like *Evidence-Based Physical Diagnosis* into everyday medical practice as an invaluable clinical pearl. When you read this book for the first time, you will find common diseases and Bayesian statistics. Reading this book requires a basic understanding of the concept and interpretation of pre and post-test probabilities, Fagan’s nomogram, sensitivity, specificity, and likelihood

ratios (LRs), the latter considered to be diagnostic weights (1). Unlike positive and negative predictive values, LRs are not affected by the prevalence of the disease. When considering a positive LR (LR+), a higher value means a higher probability of a test accurately predicting the presence of a disease. On the other hand, with a negative LR (LR-), a

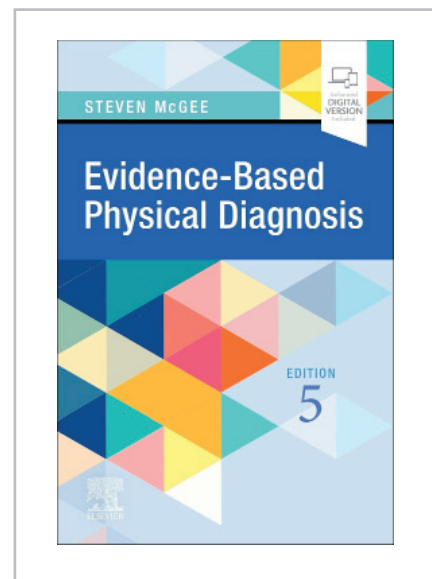


Figure 1. *Evidence-Based Physical Diagnosis* - 5th Edition.

lower value indicates a lower probability of diagnosing the disease (5).

In addition, the book provides valuable information on applied Bayesian statistics, from Chapter 1, “Diagnostic Accuracy of Physical Findings,” to Chapter 5, “Reliability of Physical Findings,” which are essential for understanding how to use the information contained in the book. The author explains concepts like pre-test probability, precision tables, and LR, and introduces an evidence-based calculator. This calculator, which is available online through Elsevier Ebooks, allows users to enter pre-test probabilities and one or more LRs, generating a post-test probability diagnosis (1).

The book covers a total of 71 chapters and offers a well-structured approach to understanding physical diagnosis. Each chapter begins with concise and relevant data for each disease or symptom being analyzed. Chapters 6 to 14 deal with general topics, including mental status, hypovolemia and obesity. Chapters 15-20 provide information on vital sign abnormalities. After this, the chapters are systematically organized from head to toe. Chapters 21-27 cover the head and neck, and 28-49 focus on the thorax, with special emphasis on topics like heart murmurs, heart failure and coronary disease. Chapters 50-53 are devoted to the abdomen, with a specific focus on pain assessment. Chapters 54-57 deal with the extremities, and 58-69 are devoted to the nervous system, divided in sections covering the

cranial nerves, motor function, sensory assessment, and reflexes, as well as tremors and cerebrovascular accidents. The book concludes with Chapter 70, which examines the intensive care unit, and the final chapter, Chapter 71, which serves as an appendix and provides additional information on probability indices, confidence intervals and pre-test probabilities (1).

In conclusion, we consider this book to be obligatory reading for every medical student. From the beginning of medical school through graduate training, *Evidence-Based Physical Diagnosis* is a relevant book that can contribute certainty to the physical exam. This book should be discussed during all medical rounds and be included in every diagnostic decision.

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