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**Daniel Lichtenstein:
General Ultrasound in the Critically Ill
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Ultrasonography has enormous utility in the practice of critical care medicine. The field has needed a comprehensive text to define the knowledge base of the discipline and to guide the intensivist in the clinical application of this powerful bedside technique. The second edition of the textbook *General Ultrasound in the Critically Ill*, authored by Dr. Daniel Lichtenstein, accomplishes this difficult task to an admirable extent. The text is absolutely essential reading for all clinicians that are interested in the field.

The book is divided into three parts. The first section discusses some general principles of critical care ultrasonography. It serves as an excellent summary of physical principles and equipment issues of ultrasonography, as well to introduce the reader to some issues specific to the application of ultrasonography to critical care medicine. This section is particularly helpful for the entry-level practitioner. The second and longest section of the book is an extensive and extremely informative organ-specific review of the findings and clinical applications of ultrasonography to critical care medicine. The wealth of information is stunning, as is the depth and insight of the discussion. At all times Dr. Lichtenstein emphasizes the clinical issues. Rather than simply presenting an encyclopedic collection of ultrasound findings, the author presents the imaging modality in a clinical context. This section provides a completely comprehensive review of every aspect of the field. The reader will want to read it slowly and carefully,

and will return to repeatedly as a definitive reference both during clinical training and as attending level intensivist. True to the purpose of the book, the section combines a thorough summary of factual knowledge base to the clinical context. Of singular importance are the chapters on lung ultrasonography. Dr. Lichtenstein has done the major work in this aspect of critical care ultrasonography, and these chapters represent the best available summary of this important use of ultrasonography. The last section of the book summarizes clinical applications of ultrasound. This section will serve to inform and motivate the clinician to develop advanced skills in the field. The discussion of the evaluation of the acute dyspnea is masterful, and the flow diagram guiding ultrasonographic exploration of this problem is a work of genius.

General Ultrasound in the Critically Ill is unusual, as it is a major textbook that is by a single author rather than the more typical multiauthor pattern. As such, it represents the unique perspective of a physician who in his clinical and research work has defined the field of critical care ultrasonography. While defining the knowledge base and clinical application of the field, Dr. Lichtenstein communicates his philosophy of scanning. The writing style of the book reflects the fact that the text is a personal statement by the author, and it is written in a individual style that engages the reader as if the author were actually speaking to us on bedside rounds. The author uses irony, gentle humor, and subtle understatement in his conversation with the reader. Clinical pearls suddenly appear, and cause the reader to stop and think carefully about a new view of the clinical world. The entry level student, the resident or fellow, and the veteran attending ultrasonographer will be continually informed, stimulated, and motivated by this wonderful book.

This text is a "must" read by all clinicians interested in the field of critical care ultrasonography. It is the absolute standard in the field. It belongs in the library of every intensivist, regardless of training level, and in every critical care fellowship program library.