

Abdominal Imaging 2017: Quality, Safety, and Dose Optimization Book Review
By: Frances L. Neagley, BS, CNMT, FSNMMITS

There is an old adage warning us to not judge books by their covers. Nonetheless, when I was first handed *Abdominal Imaging 2017: Quality, Safety, and Dose Optimization*, I was really taken with its appearance. It is a trade paperback of approximately 130 pages, measuring eight inches tall, six inches wide and a half-inch thick on quality cardstock. While it may not quite fit in all lab coat pockets, it is designed to be carried and for repeated, long-term handling. The images and the text are crisp and sharp.

After I read this publication, it more than lived up to my first impression. It covers the full spectrum of clinical abdominal imaging, from everyday procedures to those performed less often. There are twelve chapters, including an introduction; each addresses a different procedure and each chapter is written by a technologist who is currently working in nuclear medicine. The procedures covered are:

- Hepatobiliary Imaging
- Gastric Emptying Scintigraphy
- Lower GI Motility Scintigraphy
- Liver-Spleen Imaging
- GI Bleed Imaging
- Meckel's Diverticulum Imaging
- Hemangioma Study
- Esophageal Transit Study
- Peritoneovenous Shunt Patency
- Salivary Gland Imaging
- ¹⁴C Breath Testing

The chapters are broken into subgroups covering the history and rationale of the study, indications/contraindications, patient preparation, imaging/testing procedures, radiation exposure, interventions, processing, interpretation, results, artifacts and a bibliography. The tables and images are of good quality and complement the text.

For example, Chapter 2: Hepatobiliary Imaging begins with an overview of the history of this imaging procedure beginning in 1923 when rose bengal was first used for liver function studies and then labeled with Iodine-131 in 1955 and continues through to the radiopharmaceuticals in use today. This is followed by a discussion of the prevalence of gall bladder disease in the United States, the common diagnostic choices and how hepatobiliary scintigraphy evaluates function. Imaging procedure guidelines also include patient preparation, doses and radiation exposures and possible pharmaceutical interventions. Included are numerous images for normal and abnormal studies along with possible artifacts. There is data

on the sensitivity and specificity of the study. The chapter ends with nineteen references and suggested readings, many of which have hyperlinks.

Every succeeding chapter is equally complete and informative. Chapter 3, Gastric Emptying Scintigraphy, has one table on factors affecting increased and decreased rates of emptying and another on the normal values over a four-hour period. Chapter 4, Lower Gastrointestinal Motility Scintigraphy, has a great image evaluating options for imaging whole-gut transit versus small-bowel only transit versus colon only transit. Chapter 5, Liver-Spleen Imaging, presents a good overview of a study that has generally been supplanted by other modalities. Chapters 6 and 7, Gastrointestinal Bleed Imaging and Meckel's Diverticulum Imaging, are short but succinct in their presentation of these important procedures. Chapter 8, Hemangioma Study, has good images that support the presentation on interpretation. Chapter 9, Esophageal Transit Study, presents a good overview of a study that is rarely performed and lacks standardization while encouraging the reader toward further investigation. There are a significant number of images in Chapter 10, Peritoneovenous Shunt Patency, reinforcing their assertion that this is a visual study that does not require processing. Chapter 11, Salivary Gland Imaging, presents some excellent images and graphs and reminds us that this underutilized study has a sensitivity of 100%. Lastly, Chapter 12, ¹⁴C Urea Breath Testing, stresses the importance of patient preparation and adherence.

All-in-all, this is an excellent primer for all technologists. It can be use to verify, modify or even initiate new procedures or as a guideline for procedure manuals. It can help answer patient concerns. It contains all the information one would need to make an oral presentation on one of the procedures.

While I am very impressed with the production value and overall appearance of this book, I would be remiss if I didn't mention that as a member benefit, this publication is free to members in the form of an e-book. For additional information, visit <http://www.snmni.org/Store/ProductDetail.aspx?ItemNumber=24213>.

Kathy Thomas
JNMT Book Review Editor