

The Third-tier

GI Endoscopy Atlas

# The Third-tier GI Endoscopy Atlas

## Edited by

Rungsun Rerknimitr, MD.

Division of Gastroenterology, Department of Medicine, Chulalongkorn University, Bangkok, Thailand.

## First edition

Thai Association for Gastrointestinal Endoscopy (TAGE)

## First published 2010

ISBN : 978-616-551-097-4

All rights reserved. No part of this publication may be reproduced or transmitted, modified in any forms or by any means; electronics, mechanical, photocopying, recording, except getting prior written permission from the Thai Association for Gastrointestinal Endoscopy (TAGE) committee.

Graphic design @ Sangsue Co., Ltd, 17/118 Soi Pradiphat 1, Pradiphat Road, Samsen Nai, Phayathai, Bangkok, Thailand, Tel. 0-2271-4339, 0-2279-9636

799 Baht



## Preface

Dear all,

On behalf of the TAGE, I would like to present this valuable and informative third version of our Atlas for GI Endoscopy. We are proud to provide this book with the 9<sup>th</sup> International Endoscopy Workshop this year “Endoscopy beyond the reach” which is the greatest event of our association because we have seven distinguished international speakers to join the faculties.

Hopefully, our practices of endoscopy will be standardized and advance as this book and this will be a part of our progression for knowledge, skill, and attitude.

Finally, I do appreciate and sincere thank to Assoc. Prof. Rungsun Rerknimitr and his team who worked hard for this book, Dr.Thawee Ratanachu-ek for being a very effective secretary, and all of TAGE committee who organize the excellent GI Endoscopy Live Demonstration “Endoscopy Beyond the reach”

Sincerely,

Assoc. Prof. Sukij Panpimanmas, MD.

TAGE President 2008-2010

## Why is it called "the third-tier"?

This has been the third consecutive year of GI Endoscopy Atlas produced by the Thai Association for Gastrointestinal Endoscopy (TAGE) under my editorial response. As our tradition, this atlas contains multiple sections on various GI endoscopy in accordance to many organs; esophagus, stomach, small bowel, pancreas, biliary system, and colon. The new kids on the block for this issue are predominated with endoscopic ultrasound and ERCP sections. In addition, the special treat is the content that synchronized our atlas with the theme for this year course "Endoscopy Beyond the Reach", in this case, I have focused more on advanced imaging techniques and therapeutic endoscopy. Thus, the readers will not only find many interesting case images but they also will be experiencing on the new concepts of how-to therapeutic endoscopy. That is why we should call this issue as "The Third-tier GI Endoscopy Atlas"

Lastly, I would like to salute my sincere thank to all my contributors especially my junior colleagues who helped me on squeezing this third atlas to come out at the nick of time.

Hope you all enjoy reading this issue as much as I have been experiencing.

Sincerely, MD.

Rungsun Rerknimitr, MD.

## Contributors

1) **Akkawat Janchai, MD.**

- Division of Interventional Radiology, Department of Radiology, Chulalongkorn University, Bangkok, Thailand

2) **Asada Methasate, MD.**

- Endo-laparoscopy Unit, Department of Surgery, Siriraj Hospital, Mahidol University, Bangkok, Thailand

3) **Atthaphron Trakransanga, MD.**

- Endo-laparoscopy Unit, Department of Surgery, Siriraj Hospital, Mahidol University, Bangkok, Thailand

4) **Boonlert Imraporn, MD.**

- Division of Gastroenteology, Department of Meidicine, Chulalongkorn University, Bangkok, Thailand

5) **Bubpha Pornthisarn, MD.**

- Division of Gastroenterology, Thammasat University, Patumthani, Thailand

6) **Burin Awapittaya, MD.**

- Department of Surgery, Rajavithi Hospital, Bangkok, Thailand

7) **Chatchai Kriengkirakul, MD.**

- Division of Gastroenteology, Department of Meidicine, Chulalongkorn University, Bangkok, Thailand

8) **Jaturong Amornrattanakosol, MD.**

- Endoscopy Unit, Bangkok Hospital, Bangkok, Thailand

9) **Julajak Limsrivilai, MD.**

- Division of Gastroenteology, Department of Meidicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

10) **Kazuo Ohtsuka, MD.**

- Digestive Disease Center, Showa University, Northern Yokohama Hospital, Japan.

11) **Kittiya Setrkraising, MD.**

- Division of Pediatric Gastroenterology, Department of Pediatrics, Chulalongkorn University, Bangkok, Thailand

12) **Naruemon Klaikaw, MD.**

- Department of Pathology, Chulalongkorn University, Bangkok, Thailand

**13) Nonthalee Pausawasdi, MD.**

- Division of Gastroenterology, Department of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**14) Patommatat Bhanthumkomol, MD.**

- Division of Gastroenterology, Department of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**15) Patcharin Amornvipas, MD.**

- Division of Pediatric Gastroenterology, Department of Pediatrics, Chulalongkorn University, Bangkok, Thailand

**16) Pawinee Rerknimitr, MD.**

- Division of Dermatology, Thammasat University, Patumthani, Thailand

**17) Pimsiri Sripongpun, MD.**

- Division of Gastroenterology, Department of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**18) Pradermchai Kongkam, MD.**

- Division of Gastroenterology, Department of Medicine, Chulalongkorn University, Bangkok, Thailand

**19) Phonthep Angsuwatcharakon, MD.**

- Division of Gastroenterology, Department of Medicine, Chulalongkorn University, Bangkok, Thailand

**20) Rapat Pittayanon, MD.**

- Division of Gastroenterology, Department of Medicine, Chulalongkorn University, Bangkok, Thailand

**21) Rapeeporn Lorchatchawankul, MD.**

- Division of Pediatric Gastroenterology, Department of Pediatrics, Chulalongkorn University, Bangkok, Thailand

**22) Rungsun Rerknimitr, MD.**

- Division of Gastroenterology, Department of Medicine, Chulalongkorn University, Bangkok, Thailand

**23) Salyavit Chittmittrapap, MD.**

- Division of Gastroenterology, Department of Medicine, Chulalongkorn University, Bangkok, Thailand

**24) Somchai Leelakusolvong, MD.**

- Division of Gastroenterology, Department of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**25) Stimai Aniwon, MD.**

- Division of Gastroenterology, Department of Medicine, Chulalongkorn University, Bangkok, Thailand

**26) Suchart Sawadsukho**

- Endoscopy Unit, Bangkok Hospital, Bangkok, Thailand

**27) Supaporn Opasanon, MD.**

- Division of Trauma Surgery, Department of Surgery, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**28) Supot Pongprasobchai, MD.**

- Division of Gastroenterology, Department of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**29) Surachai Amornsawadwattana, MD.**

- Division of Gastroenterology, Department of Medicine, Chulalongkorn University, Bangkok, Thailand

**30) Sirinthip Sridermma, MD.**

- Division of Gastroenterology, Department of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**31) Sunthorn Treesaranuwattana, MD.**

- Department of Surgery, St. Mary Hospital, Nakhon Rachasima, Thailand

**32) Sutep Golachanvit, MD.**

- Division of Gastroenterology, Department of Medicine, Chulalongkorn University, Bangkok, Thailand

**33) Soros Anuchapreeda, MD.**

- Division of Gastroenterology, Department of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**34) Tanyawat Prangboonyarat, MD.**

- Division of Gastroenterology, Department of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**35) Tassanee Sriprayoon, MD.**

- Division of Gastroenterology, Department of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**36) Taweesak Deekajorn, MD.**

- Department of Surgery, St. Mary Hospital, Nakhon Rachasima, Thailand

**37) Thawatchai Akaraviputh, MD.**

- Endo-laparoscopy Unit, Department of

Surgery, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**38) Thawee Ratanachu-ek, MD.**

- Department of Surgery, Rajavithi Hospital, Bangkok, Thailand

**39) Thiridchai Supasit, MD.**

- Digestive Disease Center, Bamrungrad Hospital, Bangkok, Thailand

**40) Toomas Kariis, MD.**

- Diagnostic Clinic, East Tallinn Central Hospital, Tallinn, Estonia

**41) Varayu Prachayakul, MD.**

- Division of Gastroenterology, Department of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**42) Voranush Chongsrisawat, MD.**

- Division of Pediatric Gastroenterology, Department of Pediatrics, Chulalongkorn University, Bangkok, Thailand

**43) Wichit Srikureja, MD.**

- Division of Gastroenterology, Department of Medicine, Siriraj Hospital, Mahidol University, Bangkok, Thailand

**44) Wiriyaorn Ridditid, MD.**

- Division of Gastroenterology, Department of Medicine, Chulalongkorn University, Bangkok, Thailand

**45) Yudhtana Sattawatthamrong, MD.**

- Digestive Disease Center, Bamrungrad Hospital, Bangkok, Thailand

## Preface

## Why is it called “the third-tier”?

## Contributors

Esophagus	1
Stomach	30
Small bowel	61
Colon	105
ERCP	168
EUS	229
Index	310