

SURGEON - PERFORMED THYROID AND PARATHYROID ULTRASOUND ---

**A COMPREHENSIVE GUIDE FOR
GENERAL AND ENDOCRINE SURGEONS**

SHAHRUN NIZA A. SUHAIMI

PENERBIT UNIVERSITI KEBANGSAAN MALAYSIA
BANGI • 2024
www.ukm.my/penerbit

Cetakan Pertama / *First Printing*, 2024
Hak Cipta / *Copyright* Universiti Kebangsaan Malaysia, 2024

Hak cipta terpelihara. Tiada bahagian daripada terbitan ini boleh diterbitkan semula, disimpan untuk pengeluaran atau ditukarkan ke dalam sebarang bentuk atau dengan sebarang alat juga pun, sama ada dengan cara elektronik, gambar serta rakaman dan sebagainya tanpa kebenaran bertulis daripada Penerbit UKM terlebih dahulu.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopy, recording, or any information storage and retrieval system, without permission in writing from Penerbit UKM.

Diterbitkan di Malaysia oleh/ *Published in Malaysia by*
PENERBIT UNIVERSITI KEBANGSAAN MALAYSIA
43600 UKM Bangi, Selangor Darul Ehsan, MALAYSIA
www.ukm.my/penerbit
e-mel: penerbit@ukm.edu.my

Penerbit UKM adalah anggota/ *is a member of the*
MAJLIS PENERBITAN ILMIAH MALAYSIA/
MALAYSIAN SCHOLARLY PUBLISHING COUNCIL
PERSATUAN PENERBIT BUKU MALAYSIA/
MALAYSIAN BOOK PUBLISHERS ASSOCIATION
No. Ahli/ *Membership No.* 198302

Atur huruf oleh/ *Typeset by*
PENERBIT UNIVERSITI KEBANGSAAN MALAYSIA
43600 UKM Bangi, Selangor Darul Ehsan, MALAYSIA

Dicetak di Malaysia oleh/ *Printed in Malaysia by*
FIRDAUS PRESS SDN BHD
No. 28, Jalan PBS 14/4,
Taman Perindustrian Bukit Serdang,
43300 Seri Kembangan, Selangor Darul Ehsan, MALAYSIA



Cataloguing-in-Publication Data
Perpustakaan Negara Malaysia

A catalogue record for this book is available
from the National Library of Malaysia

ISBN 978-629-486-385-9

Contents

List of Tables and Figures ... 7

Preface ... 15

- CHAPTER 1 Ultrasound Thyroid and Parathyroid: Technical
 Aspects ... 17
- CHAPTER 2 The Clinical Importance Of Surgeon-Performed
 Ultrasound ... 41
- CHAPTER 3 Benign Thyroid Nodule ... 47
- CHAPTER 4 Thyroid Carcinoma ... 75
- CHAPTER 5 Cervical Lymph Nodes ... 96
- CHAPTER 6 Parathyroid Glands ... 115
- CHAPTER 7 Ultrasonography-Guided Fine Needle Aspiration ... 127
- CHAPTER 8 Thyroid Incidentaloma ... 151

References ... 161

Index ... 173

Preface

Alhamdulillah, all gratitude is extended to Allah S.W.T with His graciousness this book has been successfully completed. This book is made possible with UKM's Book Publication Grant (DPBT-2021-13) and Faculty of Medicine Research Grant (FF-157-2013). Special thanks to my wife, Dr Fatimah Ahmad Fauzi's and our beloved children: Maryam Sofiyah and Muhammad Ammar Uwais: without your support and understanding, this book would not have been possible. Similarly, all prayers are offered to the late Haji Abdullah Suhaimi b. Alang Endut and Hajjah Hafsa b. Musa: without their love and guidance it would not have been possible for me to be in this position now. Al Fatihah. My heartfelt gratitude was also extended to my father and mother-in-law Haji Fauzi b. Mustafa and Hajah Azah Mohammed for their patience in helping me since the beginning.

My special thanks go to my mentor and friend, Professor Rohaizak Muhammad for all the guidance, advice and encouragement that has been given tirelessly until this book is completed. I am very lucky and proud to be his protégé because during my 15 years in the field of endocrine surgery, he had always been a guiding force to help and provide useful insights in all aspects. His teaching on knowledge, determination and encouragement are very much appreciated. To my colleagues in the endocrine and breast surgery unit, Professor Norlia Abdullah, Associate Prof Dr Nani Harlina Md Latar, Dr Adi Syazni and Dr Gillian, thank you for the support given during my writing to complete this book.

Finally, I am blessed with all the knowledge and experience as a consultant endocrine surgery over the years and be able to give it back to the surgical fraternity in a form of a book. I have written it with heart, mind and experience, hoping that this material will be able to initiate young surgeons to have baby steps in their career in managing thyroid and parathyroid cases effectively.

Thank you.

Associate Professor Dr. Shahrin Niza b. Abdullah Suhaimi