

Believers Medical Manual

The INTERN

For Junior Doctors and Interns

CIJO ALEX

ABEL K SAMUEL

GEOMCY GEORGE



Believers Church
MEDICAL COLLEGE HOSPITAL



INDIA • SINGAPORE • MALAYSIA



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*Dedicated to all the doctors who have lost their lives
in the battle against COVID - 19*

Contents

<i>Foreword</i>	7
<i>Preface</i>	9
<i>Reviewers & Contributors</i>	11
<i>The Philosophy and Practice of Personalised, Precision Patient Care</i>	15
1. General Aspects.....	19
2. Emergency Medicine	37
3. Internal Medicine	61
4. General Surgery.....	93
5. Pediatrics	103
6. Obstetrics & Gynecology	119
7. Ear, Nose & Throat.....	135
8. Ophthalmology	145
9. Psychiatry	151
10. Dermatology	161
11. Anesthesia	169

▪ 6 ▪ Contents

12. Orthopedics	175
13. Community Medicine	187
14. Radiology	193
<i>Index</i>	203

Foreword

It was the summer of 1974. As a fresh intern, I was in the Medicine ward with my first patient, totally confused and troubled. As I sat perplexed, I reached out to the person I was to report to – a smart, young postgraduate in Internal Medicine, Dr. Philip Stokoe. He patiently and pragmatically taught me the basics of ward practice. He helped me to wade through each difficulty and to put into practice my theoretical knowledge. He taught me to start an IV line, to withdraw blood for investigations, perform lumbar puncture and to do bone marrow aspiration. The initial few weeks were tough and as I started learning the ropes of clinical practice, life became much more meaningful and my whole learning process became a joy.

I remember how excited I was at the prospect of attending my very first “Grand Rounds”. Having written the summaries of all 21 patients under my care meticulously, the excitement of the fascinating world of clinical medicine dawned upon me as I started to present each case to the Professor and Head of my unit, Dr. Benjamin Pulimood. I suddenly realized that I had become the steward of my patients and started to “own” them.

It has been almost half a century since my internship at CMC, Vellore. Looking back, that was undoubtedly the defining period in my professional career. A lot of people including my teachers, seniors and friends helped me in the journey in becoming a competent and compassionate doctor.

It is, therefore, with a sense of fulfillment and pride that the Believers Church Medical College Hospital presents

“The INTERN”, a brilliant product of the insight, thoughtfulness and effort of my colleagues, Drs. Cijo Alex, Abel K. Samuel and Geomcy George. It has been conceived and created with a vision to provide our interns with a manual – a guide which will be a pocket companion, a compass to navigate deftly through the challenging period of internship.

It is a compilation of high quality, pragmatic snippets on the practice of medicine. I am grateful to all those who were involved in the development of this manual. I am proud of the spirit with which this was envisaged – the spirit to train our interns in the art and science of effective, personalized and holistic patient care. In this new era of “high-tech” healthcare, it is imperative that we emphasize the value of “high-touch”, which has become an archaic ritual and is at the brink of extinction.

At Believers Church Medical College Hospital, we are totally committed to creating compassionate, competent and communicative doctors. I am sure that “The INTERN” will guide our Interns towards that end.

I am sure that the Believers Medical Manual, “The INTERN”, will be a great boon not only for our interns but also for those in training at various institutions across the country and that it will become an effective tool to create the “ideal Indian Medical Graduate”.

– Prof. Dr. George Chandy Matteethra
Director & CEO – BCMCH, Thiruvalla
Former Director – CMC, Vellore
BC Roy National Award Recipient

Preface

Welcome to Believer's Medical Manual – The INTERN.

Internship is the time we are expected to apply the theoretical aspects gained during MBBS course. It's the time we master various clinical skills which are going to benefit us throughout our career.

And immediately post internship, most of us will be working as medical officers or junior residents, at least for a few months.

The INTERN aims to be act as a single point handbook which can be carried with you all the time – during your internship and even afterwards.

Care has been taken to include every specialty as relevant to basic clinical scenarios. We sincerely hope it's of help to you.

And make no mistake – This manual is not intended to replace your senior's guidance or textbooks in anyways.

Wish you a fruitful internship and junior residency,

Your friends from BCMCH

– Cijo Alex, Abel K Samuel, Geomcy George

Reviewers & Contributors

In the order of appearance in text

1. Dr. Titty Mary Thomas MBBS, DNB (Family Medicine)
2. Dr. Ravi Cherian Mathew MD, DM (Cardiology), AFESC
3. Dr. Jiju Joseph MBBS, MEM (Emergency Medicine)
4. Dr. Anju Abraham MBBS, DNB (Emergency Medicine)
5. Prof. Dr. SK Mathew MBBS, MD (Gen. Medicine)
6. Dr. Ani Thampi MBBS, MD (Gen. Medicine)
7. Dr. Joban John MD, DM (Neurology)
8. Dr. Anilkumar Sivan MD, DM (Neurology), FSIN
9. Dr. B. Karthikeya Reddy MBBS, MD (Gen. Medicine)
10. Dr. Aji Mathew Joseph MBBS, MD (Pulmonology), DAA
11. Dr. Bency Koickal Thomas MBBS, MD (Pulmonology)
12. Dr. Renji Mathew MBBS, MS (Gen. Surgery)
13. Dr. Deepak Aravind MS, MCh (Plastic Surgery)
14. Prof. Dr. Girija Mohan MBBS, DCH, MD (Pediatrics)
15. Prof. Dr. KS Vijayakumar MBBS, DCH, MD (Pediatrics)
16. Dr. Jijo Joseph John MBBS, MD (Pediatrics), FPRD, DAA
17. Prof. Dr. Patsy Varghese MBBS, MS(OBG), DGO
18. Dr. Shilpa Ann Baby MBBS, MS(OBG), DNB(OBG)
19. Prof. Dr. George Thomas MBBS, DLO, MS (ENT)
20. Dr. Jincy JP MBBS, MS (ENT)

21. Prof. Dr. Satish Thomas MBBS, MD, DNB
(Ophthalmology)
22. Dr. Jaico Paulose MBBS, MD (Psychiatry)
23. Prof. Dr. S. Ambujam MBBS, MD (Dermatology)
24. Dr. Anita Mathew MBBS, MD (Anesthesia)
25. Dr. Joji Joshua Philipose MBBS, DNB (Orthopedics)
26. Dr. Eknath J MBBS, MS (Orthopedics)
27. Dr. Sangeetha Merrin Varghese MBBS, MD (Comm. Med)
28. Dr. Ashwin Varghese Alexander MBBS, MD (Radiology)
29. Dr. Bejoy Philip Varughese MBBS, MD (Radiology)

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wonderful videos*

✿

Lemmy for the meaningful cover page design

*Access medical educational learning material
including presentations, lectures, videos and more*

@

Believer's eLearning Hub

www.bcmch.org/intern

The Philosophy and Practice of Personalised, Precision Patient Care

The excitement and charm of patient care is in a personalised relationship with the person you are taking care of. Internship gives you the opportunity to own your patients and to be stewards of their care. Patients come to you with various problems. Welcoming them, taking care of them and giving them a good farewell form the core of your activities as an intern, as a doctor in training.

The Philosophy

The philosophy of the Healing Ministry at the Believers Church Medical College Hospital is to create a *Home Away from Home* and to give each patient an *Experience Exceeding Expectations*. The ideology is to be caring, compassionate and empathetic, just as you would do for your own parents and relatives.

The Practice

The practice of patient care includes three major areas: The Welcome, The Caring and The Farewell.

The Welcome

When we have a visitor at home, we would go to the door, welcome him and try to give him the best possible experience. In the hospital, as an intern, you are the person responsible for that activity. Hence, whether in the Emergency Department or

in the Out Patients Service, your duty and responsibility is to respond quickly.

I would suggest that we give ourselves a maximum of 5 minutes to get to the patient when called to the Emergency Department. If a patient gets admitted in the ward, you should see him within 10 minutes of admission.

The Welcome includes taking a detailed history. History taking will include not just the clinical history, but also personal, dietary, family and social history...*This takes time...*

You should give yourself at least 30 minutes' time for a new patient. You should follow this up with a detailed examination. And then comes the assessment. You will then order appropriate investigations. Based on all these, you will make your diagnosis.

You will always have a second call to help you with your doubts and clarifications. As part of The Welcome, you must make your patient comfortable and assist him in the settling down process.

The Caring

Once the patient is admitted, he is under your care. He is your guest. As Gandhiji said, *the customer is the most important person in the premises. The patient is the most important person in our premises.* And we are here for our patients, not they for us.

So, our calling, our responsibility, our privilege and our vocation is to take good care of them, which includes, early morning rounds, sometimes even before breakfast. Some people call it pre-rounds where you would see the patient, assess the patient's progress, and plan the investigations and treatment, so that before your seniors come, you would know everything about your patient.

Then, during rounds, as new ideas come, based on your presentation to your seniors, plans are made. And, through the day, you must ensure that effective treatment is given. In the evening, you should do rounds with your second on call. Those of you who are on duty will do a night round as well.

I am sure you would do this if it were your relative or parent. We should do the same because every patient is somebody's father, mother, brother, sister or child.

The Farewell

This, in my opinion, is extremely important yet often neglected. The care that is given should be translated into healing and wholeness even after the patient goes home. Therefore, we call it planning the discharge.

You should plan the discharge two days earlier. You should start talking to your patient about what it will be like at home, plan their medications and management. Having developed a close relationship with your patient, you will be able to discuss the intricate details of his care at home.

Please ensure that you prepare an excellent summary so that at the time of discharge you are actually giving a *farewell* to the patient.

If you practice all these, you will be able to provide personalised, precision patient care which will be holistic and complete.

I wish each one of you the very best in this exciting endeavour.

– Prof. Dr. George Chandy Matteethra
Director & CEO – BCMCH

General Aspects

*Reviewed by
Dr. Titty Mary Thomas MBBS, DNB (Family Medicine)*

Welcome to The INTERN. This chapter on general aspects will help you impart knowledge and skill on basic life support, ECG, parenteral access, IV fluids, catheterization, NG tube insertion, GCS, and normal lab values.

Basic Life Support and CPR

Basic life support including cardiopulmonary resuscitation is of utmost importance in many conditions like cardiac arrest, drowning and choking. It can be considered the bridge or intermediate care until specialist help is available.

A full description of BLS is way beyond the scope of this work, and hence we will limit our discussion to important aspects only. Readers are encouraged to get themselves formally trained in basic as well as advanced life support.

Components of BLS			
Response	Airway	Breathing	Circulation

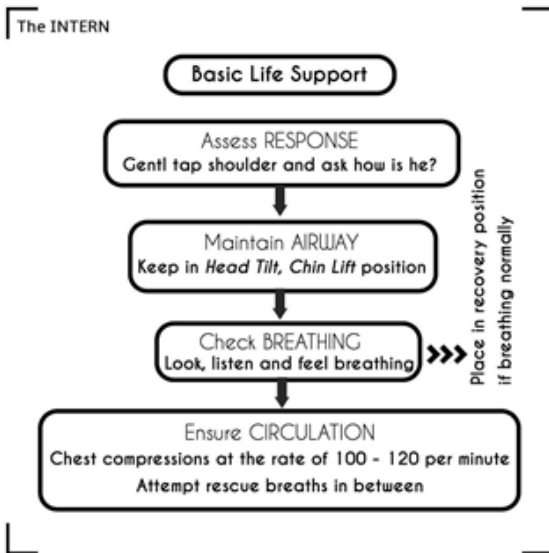
Response – Assessment of response is the first step of BLS. Shake the patient gently by shoulder and say a hello, or ask if he is alright. If the patient is unresponsive, start CPR including airway, breathing and circulation – ABC.

Airway – Position the unresponsive patient on their back and open up the airway using *head tilt and chin lift*.

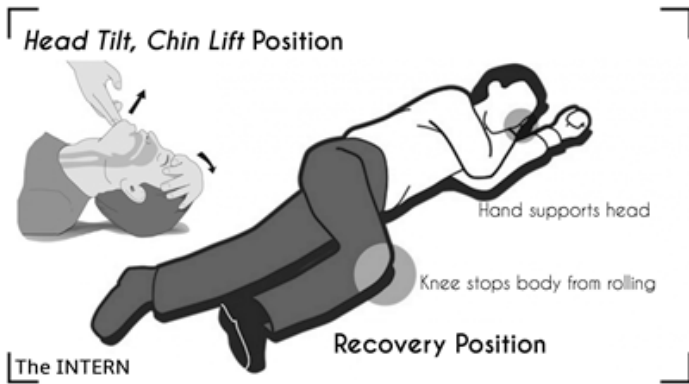
Breathing – Look, listen and feel for breathing for not more than 10 seconds. If breathing properly, keep him in a recovery position. If not breathing properly, start chest compressions.

Circulation – Start chest compressions after kneeling down by the side of the victim. Place the heel of one hand in the lower half of the victim's sternum. Place the heel of your other hand on top of the first hand and interlock your fingers.

Keep your arms straight and position yourself vertically above the victim's chest. Press down on the sternum at least 5 cm, and not more than 6 cm at the rate of 100 – 120 per minute. Consider administering rescue breaths in between, after 30 compressions.



As already described, if the patient is unresponsive but breathing properly, keep him in a recovery position and monitor. Be ready to initiate chest compressions in case breathing stops.



Special populations like pregnant women, children and neonates require modified basic life support and CPR.

Note – Do not panic when you get a patient who is acutely short of breath. Ensure that the patient is alert (ie able to protect airway) and getting adequate oxygen to keep saturations up. Obtain the history and examine the patient. Send all necessary investigations including ABG, especially if the patient is desaturating.

If the patient is drowsy (i.e., unable to protect airway) or has poor saturations despite being on non-breathable mask requiring high O₂ support, escalate to your senior while waiting for the investigation results.

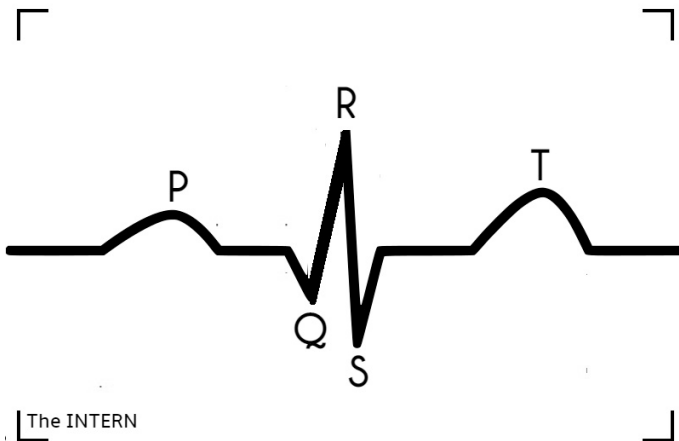
Let the nursing staff know that the patient is sick and ask for their help in administering oxygen, and monitoring.

Access the European Resuscitation Council 2021 Guidelines on BLS by scanning the QR code below.



ECG

Electrocardiography or ECG refers to the measuring and recording of electrical activity of the heart. A properly taken ECG can help in the diagnosis of various health conditions including myocardial infarction, arrhythmias and electrolyte imbalances. P, Q, R, S and T are the main waves or features of a normal ECG.



Before attempting to interpret an ECG, it is important to understand certain basic information. The ECG is usually recorded on a standard graph paper having a Y and X axis. The