



VOL. 2 ISSUE NO. 6 JULY - AUGUST 2020

Covid-19 treatment: Indiana Hospital puts all misconceptions to rest

By Dr. Yusuf A. Kumble

With the last few months seeing a fairly big surge in the number of Covid-19 cases in Dakshina district, Indiana Hospital, which had prepared itself well, putting in place all the required facilities & engaging enough doctors to take the pandemic head on, did a remarkable job in the management of Covid-19 & non-Covid patients.

When the graph of Covid-19 numbers began rising in Karnataka, the state government took the decision to admit patients into private hospitals. That decision to share responsibility was a very wise one from the point of view of the government as well as the patient. In Mangalore, Indiana Hospital took up the challenge happily, making elaborate arrangements to install 25 ICU beds, a first-time-feat in Mangalore, which was later emulated by medical colleges and private hospitals.

We then informed the public to immediately admit Covid-19 positive patients in our hospital if their saturation level was low; patients were also provided the home quarantine option. The saturation level dips slightly or becomes low during exertion. This usually happens only after the first week of being tested positive. We will immediately admit them to the ICU & will start steroid injections if the saturation level is less than 94%; then we provide the oxygen therapy and will wait for 2-3 days to see if the patient's condition improves. If the patient doesn't show any improvement, then we will give further medicines, like remdesivir, plasma therapy, etc.

Extra care while in ICU

What we have noticed in the initial period is that the moment someone is diagnosed with corona, he/she is dumped into some ICU & some junior doctors treat them; no experienced doctor will see them properly every day. There is every possibility of a corona patient being afflicted with some



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liver ailment or some other disease, but usually no super-specialty doctor looks into such finer aspects, and the patient will be treated only for corona. If the condition of such patients improves, they can be considered lucky, if their condition worsens, they will die & the death will be attributed to corona. We changed this concept. Our doctors, nephrologists, cardiologists, neurologists, etc., attired in PPE, attend to all Covid-19 patients. No junior doctor is allowed to individually treat these patients. Our physician and intensivist Dr. Adhitya, physician Dr. Sha Alam & other visiting doctors would personally attend to Covid-19 patients 2-3 times a day and monitor their progress. Because of this, our success rate is almost 100%. However, it is not easy to save the lives of Covid-19 patients with less than 50% saturation level & those with kidney failure who get admitted late into the ICU. I have hardly seen a person who got admitted during the early stages of the infection succumbing to the disease.

The message here is that an ideal set up for Covid-19 patients will have an abundant availability of nurses besides specialist doctors. Each patient should have at least one trained nurse attending to him/her. Their condition should be monitored on an hourly basis. Then, based on the doctors' advice, investigations should be carried out and medicines altered as deemed. Providing a patient such treatment while in the ICU will improve the overall outcome.

That was how we went about treating Covid-19 patients from the beginning. In the meanwhile, unfortunately, our doctor (Intensivist) got afflicted with the disease. We however, moved forward without any hesitation; other doctors joined our ranks, and we were able to get good results.

Now the number of patients in Mangaluru has receded & hence we have cut down our ICU-capacity to 10 beds from the previous 25. Patients are now coming to Indiana from other regions such as Shimoga, Chikkamagalur, Bhatkal, Puttur, Kasargod, etc.

Ventilator, the last resort

Many people have a misconception that the minute a patient's condition becomes bad, she/he is placed on the ventilator. We follow a different concept. Actually, ventilator should be the last resort. We now have the HFNC machine. Normally oxygen goes through the oxygen pipe.

Indiana Hospital Praised for Covid-19 management

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Here we deliver flow of oxygen. We have adequate numbers of them with us, so we can manage. We hardly put any patient on the ventilator. Ventilator is just a backup!

We have adequate numbers of trained staff, HFNC, bypap, ventilator with bypap and the support of super specialty doctors. However, all these form only 50% of the treatment. The other 50% is the psychological support we provide. Slowly, doctors have also understood this, and I have managed to convince the sisters, akkas, annas, lab and X-ray technicians in the hospital about the importance of this aspect.

Here we have also made arrangements for a patient's party to stay for a brief while in his/her room after taking adequate precautions. If doctors can approach a patient attired in PPE, why can't the patients' party do the same for 1-2 hours to support them psychologically. This makes them very happy. Our job (treating Covid-19 patients) has become much easier after introducing this concept.

There is also a misconception that treating Covid-19 patients involves a lot of unnecessary expenses. That is not true. We have clear guidelines from the government on this and we charge only as per the rates fixed by the authorities.

Indiana's record in the management of Covid-19 patients will be a great model for others to follow. And we will continue to care for patients with a dose of compassion.

COVID-19 UPDATE

The young getting infected in greater numbers



BENGALURU - Contrary to what was earlier projected by experts that the elderly, especially those with comorbidities, are most susceptible to COVID-19, those in the age group of 21-30 seem to be driving the pandemic in Karnataka.

According to the State COVID-19 war room data (updated till August 28) Karnataka reported 3,18,752 cases, of which 86,347 were active as on that day. The highest number of cases - 71,936 - were reported in the 21-30 age group. In the 31-40 age group, there were 69,835 cases, and another 55,032 cases in the 41-50 group. There were 40,040 cases who were aged above 60 years.

Doctors said this is mainly because young people are more mobile and socially active. "They are the ones who go out to work and are likely to get more exposed to the virus. Also some of them tend to violate precautions. They use mobile phones, take off their masks and eat in common places and hence are more likely to interact with others," said C.N. Manjunath, nodal officer for labs and testing in the State's COVID-19 task force.

While this may seem to be a worrying trend, it is good in terms of getting herd immunity, said V. Ravi, senior professor and head of Neuro Virology at NIMHANS, who is part of the State's COVID-19 expert committee.

"The younger lot may be getting infected in high numbers but they are

also recovering fast as they have less severe illness and more favourable outcomes. There is a positive side to this - if more people get infected and recover, herd immunity is not far away. What is important is that they should not pass the infection on to the elderly in their families or to those with comorbidities as the infection is usually severe in this category of the population. The key is to seek medical advice early and get started on treatment as soon as a person develops symptoms," said Dr. Ravi.

Recently, the World Health Organization (WHO) also stated that globally people in their 20s, 30s and 40s, most of them asymptomatic, are driving the COVID-19 pandemic.

Mortality higher in elderly

While the infection rate is higher in the younger lot, mortality is the highest among those aged above 60 years. Of the total 5,368 deaths reported till August 28, 2,692 were above 60 years. In contrast, 131 deaths in the 21-30 age group, 382 in the 31-40 age group and 776 in the 41-50 age group have been reported till then.

(Source - The Hindu)

News Scan

Indiana Hospital opens primary Covid-19 Care Centre at Bhatkal



Bhatkal - A primary Covid-19 Care Centre, under the supervision of Indiana Hospital, was inaugurated in the month of August at Bhatkal, taking into consideration the rising number of people in the region being infected by the dreaded pandemic & having to go either to Mangaluru or Karwar for treatment and oxygen. The Centre has been set up with the support of Majlise Islah Wa Tanzeem, Bhatkal; Indian Nawayath Forum & Bhatkal Muslim Khaleej Council. The Centre has been receiving a fair amount of covid patients.

Dr. Yusuf Kumble, Managing Director and Chief Interventional Cardiologist at Indiana Hospital, Mangaluru said on the occasion that almost 95% of the patients would recover without needing any treatment, but that the remaining 5% could be serious cases and would have to be taken to health centres at the earliest and their condition monitored for 4-5 days before deciding whether they would require ICU care & shifted to betterequipped centres. He said the team of doctors & nurses from Indiana Hospital would be available at the Bhatkal Covid-19 Care Centre to treat patients.

SMArshad Mohtesham, Joint Convenor of the project & Vice-President of Indian Nawayath Forum, speaking on the occasion, appealed to the people in the taluk to visit the centre if they find any Covid-19-related symptoms in them. "Life and death are indeed in the hands of Almighty Allah, but at the same time it is also our duty to take care of our health and take precautionary measures", he added.

Ateequrrahman Muniri, Joint Convenor and Vice-President of Majlise Islah Wa Tanzeem, Bhatkal also spoke. A team of senior ulema, taluk officials, Tanzeem, BMKC and INF officials and many other dignitaries were present on the occasion.

Baby gets a new lease of life at Indiana amidst the pandemic

A challenging TAPVC Repair surgery on a low weight one-and-a-half-year-old at Indiana Hospital and Heart Institute, Mangaluru, has given the baby a new lease of life.

MANGALURU - She will no longer have to suffer from breathlessness and will be able to play around with her peers. A one-and-a-half-year-old girl child with severe cyanotic congenital heart disease underwent TAPVC Repair at Indiana Hospital and Heart Institute, Mangalore recently.

The child arrived at the hospital with issues of bluish discoloration of the skin, severe breathing difficulty and failure to gain weight; her oxygen level was only 80%. At the time of admission, the child was barely 4-kgs, which is generally the weight of a 2-month-old.

The diagnosis of Supracardiac Total Anomalous Pulmonary venous Connection (TAPVC) with severe Pulmonary Hypertension was confirmed with echocardiogram by Dr.Yusuf Kumble, Managing Director and Chief Interventional Cardiologist.

TAPVC is a very rare condition in which the blood vessels that drain the lungs (Pulmonary veins) are connected abnormally to the right side of the heart. This disease causes oxygen-rich good blood to mix with oxygen-poor bad blood on the right side. When this mixture of good & bad blood gets distributed all over the body, it causes

bluish discoloration of the skin & severe breathing difficulty.

The baby underwent the corrective procedure, TAPVC Repair, recently. This procedure involves repairing the abnormal venous connection, so that the oxygen-rich good blood goes to the left side and the oxygen-poor bad blood goes to the right side of the heart, thus separating both like in a normal body, by an Open Heart procedure.

The procedure took about 3 hours & the child was discharged on the 4th day of being admitted after the surgery, bringing her great relief.

According to Dr.Yusuf Kumble, the operation that was undertaken was one among the rarest Open Heart surgeries done on children in Dakshina Kannada & neighbouring districts.

The team that operated on the child at Indiana Hospital and Heart comprised Dr. Yusuf Kumble, Managing Director & Chief Interventional Cardiologist, Dr. Ali Kumble, Chairman and HOD, Paediatrics; Dr. Abhishek, Neonatologist; Dr. Siddharth V.T., Paediatric & Adult Cardiac Surgeon; Dr. Madhan K., Cardiac Anaesthetist & Dr. Arun Varghese, Paediatric Intensivist.

Fathima Foundation donates 1 lakh to the parents



The child's parents are from a poor financial background, but were not a BPL card beneficiary. Taking this into consideration, the Indiana Hospital management-patronized Fathima Health Foundation gifted the child's family Rs. 1 lakh as a goodwill gesture.

The Fathima Foundation Trust regularly

offers financial assistance through Zakaat Fund to those patients admitted in Indiana Hospital who find it difficult to meet their medical expenses. Over the years, the Trust has become a boon to such patients and has set an example worth emulating.

Recent advances in Paediatric Dentistry

By Dr. Meghana S. Kumar

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The field of dentistry has been evolving and changing constantly to suit the times like all other fields in healthcare. There was a time when patients dreaded approaching a dentist for fear of the pain involved. But that was a different past. At present, dentistry, especially paediatric dentistry, is a sophisticated profession providing its little clients the much-needed relief.



Paediatric dentistry being an age-defined specialty, provides both primary and comprehensive preventive and therapeutic oral healthcare for neonates, infants, children and adolescents. It also takes care of those children with special healthcare needs. Treatment options in paediatric dentistry are continuously evolving and improving day by day.

Here are some of the progresses paediatric dentistry has made in recent years:

First, is the effective management of pain which every child as well as its parents is scared of when a child enters the dental clinic. Various new local anaesthesia delivery systems have now made it possible to alleviate the pain associated with dentistry, giving children and their wards the much needed relief.

A look at some of those systems used:





local anaesthesia

Computer controlled

- Vibrotactile devices like Vibraject, Dental Vibe & Accupal: Vibraject is a battery operated device. It operates in such a manner as to carry the vibration message to the brain, thus reducing the amount of pain.
- □ Computer-controlled local anaesthesia.
- Jet Injections.
- Safety dental syringes.
- Comfort control syringes.

Diaunodent



Second, a lot of advances have been

made in the diagnosis of dental caries, which is the most important complaint among paediatric patients. They include

- Digital radiographic methods.
- Diagnodent laser systems.
- Digital subtraction radiography.
- Tuned aperture computed tomography.
- Digital Imaging Fiber-Optic Trans-**Illumination.** This is a diagnostic imaging instrument that uses light, not X-ray, to detect early tooth decay.

Silver Diamine Fluoride



Third, special mention needs to be made on a newer material, Silver Diamine Fluoride, which is now being used as an anti-plaque & anti-cariogenic agent.

Fourth, a lot of Smart Materials have made their way into all fields of medicine including dentistry, especially paediatric dentistry. These smart materials are able to sense changes in their oral environments & then respond to these changes in predetermined manner. Various smart materials in various fields of dentistry include:

■ Restorative dentistry -Smart Glass Ionomer Cement(GIC), Smart composites & Self-healing composites. There are smart dental burs which selectively cut only the carious tooth, sparing the healthy enamel and dentine. In Prosthetic dentistry, smart ceramics play a significant role. In Orthodontics, we have shapememory alloys. In Preventive dentistry, there are Amorphous Calcium Phosphate(ACP) - releasing pit & fissure sealants which are very

effective in preventing caries.

In Periodontics, there are smart antimicrobial peptides

Here a special mention has to be made about Nano-materials where nanotechnology is driving the dental materials industry to substantial growth. The advent of nanotechnology in dentistry seems to have answers to the mysteries or problems associated with conventional materials as they have the tendency to mimic surface & interface properties of natural tissues. Now we have Nano robotic dentifrices or toothpastes and Resin Modified Nano-glass lonomer Cements. Nanotechnology is also being employed in dental implants, orthodontics and adhesive materials.

Recent advances in paediatric dental crowns include:





Zirconia crowns

- ☐ **Zirconia crowns** Nu smile crowns, EZ pedo crown, Kinder crown.
- □ **Figaro crowns** reinforced fibre glass crowns that are tooth-coloured.
- □ Biological crowns Replacement of decayed tooth with autologous or donated natural crowns.
- □ Luxa crowns semi-permanent composite crowns.

As we have seen, recent advances have brought about a lot of changes in the field of paediatric dentistry & these have given the profession, the much-needed scope for improvement in materials and treatment options over the last few years. This will surely help every paediatric dentist manage her/his patients in a very efficient manner.

COVID-19: Anaesthesia concerns, including airway management and infection control



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- Frequent hand hygiene & proper donning and doffing of their Personal Protective Equipment (PPE) are essential to prevent transmission of coronavirus disease 2019 (COVID-19) to health care workers.
- Aerosol-generating procedures increase
 the risk of COVID-19 being transmitted
 to health care workers. Aerosolgenerating procedures include tracheal
 intubation or extubation, bag-mask
 ventilation, bronchoscopy and
 interventional pulmonology procedures,
 non-invasive ventilation, administration
 of high-flow oxygen or nebulized
 medications, tracheotomy, open
 suctioning of airways, upper endoscopy
 and colonoscopy.
- For patients with confirmed or suspected COVID-19 who undergo aerosol-generating procedures, clinicians involved in their care should use Personal Protective Equipment (PPE) appropriate for contact, aerosol and airborne precautions.

This includes:

- Use of N95 or another respirator (eg: a Powered Air-Purifying Respirator [PAPR] that offers a higher level of protection.
- Eye protection (goggles, face shield that covers the front and sides of the face or full face PAPR).
- Gloves (double gloves for intubation).
- · Water-resistant gown.

In addition, a disposable hair cover cap, beard cover and shoe covers should be used.

- For patients who undergo non-aerosol-generating procedures, the same level of protection should be used as in aerosol-generating procedures if it is available. If N95 or higher respirators or PAPRs are not available, a surgical mask is an acceptable alternative.
- Patients should wear a surgical mask while being transported & should be transported directly to and from the operating room (OR) bypassing the holding area and pre-induction area

- and the Post-Anaesthesia Care Unit(PACU). For intubated patients, a high-quality viral filter should be placed between the endotracheal tube & the self-inflating (Ambu) bag used for ventilation.
- ◆ The anaesthesia machine and other equipment should be protected from viral contamination using plastic covers and high-quality viral filters inline in the breathing circuit. Filters should be placed at the end of the endotracheal tube connector and on the expiratory limb of the breathing circuit where it connects to the anaesthesia machine. The gas sampling tubing should be connected on the machine side of the filter connected to the endotracheal tube.
- ◆ During the COVID-19 pandemic, preoperative evaluation should include COVID-19 screening or testing of patients who are not known to have COVID-19, as well as of all patients, for risk assessment related to COVID-19. The risks of perioperative morbidity and mortality may be higher in patients with COVID-19. Elective surgery should not be performed on patients who are symptomatic with COVID-19, on those suspected of having COVID-19, or on those who are likely to be still infected after having had COVID-19.
- The choice of anaesthetic technique should be based on factors related to the patient and the planned procedure. Regional anaesthesia is not contraindicated by COVID-19.
- For general anaesthesia, a rapid sequence induction and intubation should be performed, modified for patient factors.
- Goals for endotracheal intubation are to secure the airway rapidly in the first attempt and to reduce or eliminate aerosolization of the respiratory secretions. Key considerations during



- intubation include the following:
- Minimize the number of persons in the room during intubation.
- Pre-oxygenate and position the patient optimally for intubation.
- Have the most experienced clinician perform the intubation.
- Use double gloves for intubation.
- Use whatever type of laryngoscope the clinician finds most comfortable & is likely to achieve intubation most rapidly.
 Video laryngoscopy is typically preferred.
- If rescue ventilation is required, use a supraglottic airway. If mask ventilation is required, use low pressure, low tidal volumes with a two-person, two-hand technique.
- Use end-tidal carbon dioxide (CO2) & proper tube depth during video laryngoscopy to confirm endotracheal tube placement rather than bilateral breath sounds.
- Dispose of the contaminated equipment immediately.
- For mechanically ventilated patients who are not breathing spontaneously, leave the filter on the ETT or pause the ventilator and clamp the endotracheal tube for all breathing circuit disconnects.
- Extubation is as high risk for aerosolization of respiratory secretions as intubation; similar precautions should be followed. Key considerations during extubation include the following:
- Minimize the number of persons in the room during extubation.
- Administer prophylaxis for nausea and vomiting.
- Consider administration of medication (eg: lidocaine, low dose opioid, dexmedetomidine) to reduce cough during emergence and extubation.
- Place wet gauze, a clear plastic drape or the warming blanket over the patient's face during extubation.
- After extubation, place a surgical mask over the patient's airway; apply a plastic mask for supplemental oxygen over the surgical mask or nasal prong oxygen under the mask.
- The basic principles for management of the difficult airway apply to patients with COVID-19. However, awake fiberoptic intubation should generally be avoided if possible.
- It is always safe to have anaesthesiologists and other skilled clinicians performing endotracheal intubation in locations outside the OR.



New treatment of Rheumatoid Arthritis



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By Dr. Arifa Haleema

Jawaharlal Nehru once said: "The future belongs to science and those who make friends with science". Every day, research is producing new knowledge and enabling us to understand this world and the creatures in it better. It is also allowing us to understand how our body functions so efficiently.

Here I would like to make you aware about one of the oldest known diseases, Rheumatoid Arthritis (RA), and the kind of amazing work being carried out by doctors around the world at this very moment to make the lives of patients suffering from this dreaded disease as normal as possible.

RA is the most common form of inflammatory arthritis that affects both large and small joints - hands more than legs, females more than males. This can manifest itself at any age, but occurs most commonly between 20 and 50 years of age. It can also affect other organs of the body such as the eyes, lungs, heart,

kidneys as well as other vital organs if not treated on time.

Early diagnosis and treatment can slow the disease process, and give patients a healthy and active life.

More than 2300 years ago, the father of modern medicine, Hippocrates, was quoted as saying, "It is incredible how fast the mischief spreads." In saying so, Hippocrates was referring to a condition that was arthritic in nature, with its onset occurring in the mid-30s, affecting the hands and the feet first, followed by the elbows and the knees. Many people now believe that the disease Hippocrates was referring to was RA.



RA has also been talked about in ancient Ayurvedic, Roman & Egyptian scriptures.

The disease process basically is mediated by T cells, B cells, and the cytokines and chemokines released by these cells. In RA, cells of our immune system attack the healthy joints and other organs leading to pain, swelling, inflammation of the joints as well as inflammation of various organs affected by this disease.

In the past, doctors did not have many options in treating RA, and those afflicted

used to lead a miserable life, leading to a slow and painful death. People were being treated with heavy metals like gold, which in turn adversely affected their vital organs on account of the severe side effects. Today, however, science and ongoing research have helped change the life of RA patients for the better.

We now have medications which help us control the immune system well enough to help RA patients lead a healthy life.

Molecules called Biologicals that scientists have developed act at the cellular and cytokine levels and help stop the disease process almost completely. These molecules act at various levels in our immune system - like Rituximab which acts on CD20 cells, Tocilizumab which works on IL6, which is a pro-inflammatory cytokine; various TNF alpha inhibitors, both murine, and now the latest ones, fully human, which reduce the risks of side effects. These days we also have small molecules such as JAK inhibitors like baricitinib, and many more.

These medications have changed the complete outlook of doctors as well as patients towards Rheumatologic diseases. There are many more drugs in the pipeline.

Louis Pasteur once said, "Science knows no country, because knowledge belongs to humanity and is the torch which illuminates the world." These new molecules and medicines have brought a new ray of light and hope to many patients who have been suffering for long. Come help us to help you fight this disease, because together we can.

Govt launches KIRAN, a 24×7 helpline for people to seek mental health counselling

The social justice and empowerment ministry has set up the

toll-free number (1800-599-0019) to encourage people to reach out for help. The helpline has 13 language options



New Delhi: Social Justice and Empowerment Minister Thawarch and Gehlot launched a 24×7 toll-free mental health rehabilitation helpline 'KIRAN' (1800-599-0019) recently. The helpline, which was developed by the Department of Empowerment of Persons with Disabilities (DEPwD), aims to provide the first line of counselling in response to the increasing mental health issues among people due to the Covid-19 pandemic. It will offer mental health rehabilitation services such as early screening, first-aid, psychologicalm support, distress

management, promoting positive behaviour & mental well-being & psychological crisis management.

It will also provide first stage counselling, advice and also refer patients with severe illnesses to counsellors, with a special focus on persons with disabilities.

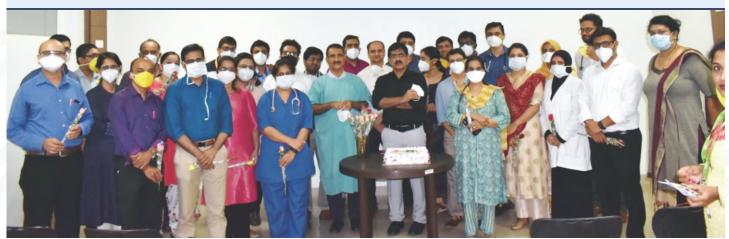
Stressing on the need for mental health treatment, Probodh Seth, joint secretary at DEPwD, said, "With the ongoing pandemic we are witnessing a rise in mental health problems. Our observations suggest that there is an acute shortage of mental health professionals in the country

and to overcome this problem we are launching KIRAN as a dedicated helpline providing rehabilitation services for patients with mental illness."

The helpline will be available in 13 languages including Tamil, Hindi, English, Gujarati, Urdu, Assamese, Kannada and Malayalam.

It will be operated by 75 mental health professionals from 25 helpline centres, who will act as the first line of support. Of these, eight are national institutes, 14 are composite regional mental health centres and three are regional centres.

Doctors' Day observed at Indiana



Indiana Hospital, Mangaluru celebrated the National Doctors' Day on July 1. The day is observed to commemorate B.C. Roy, a highly respected physician and a freedom fighter who was the second Chief Minister of West Bengal in Independent India. Dr. Yusuf A. Kumble, managing director, Indiana observed that the medical professionals must derive inspiration from Dr. Roy and recommit themselves to the Hippocratic Oath. Doctors & HODs of the hospital participated. A cake was cut to mark the celebrations.

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Chief Editor: Dr. Yusuf A. Kumble: Editor: Aftab H. Kola Published by Marketing Department at Indiana Hospital & Heart Institute Ltd., Mangaluru for private circulation Designed by Brand Mango, Mangaluru and printed at Digantha Mudrana Ltd., Mangaluru

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