



INSTITUT JANTUNG NEGARA  
National Heart Institute

# 2014 REPORT



International Accredited Heart Centre



## CARING FOR THE NATION'S HEART

The heart is the core of human existence. It feels things the eyes cannot see, and knows what the mind cannot understand.

To keep the heart of the nation healthy, at Institut Jantung Negara we have an exceptional team of specialist cardiologists, surgeons, anaesthesiologists, paramedics and clinical support staff serving all Malaysians, whatever their background and whatever their walk of life.

We combine excellence in medical care, technology, research and education. But we also understand that kindness and compassion are every bit as important as leading-edge medical practice, and we pride ourselves on being the hospital with a heart.



This annual report is available on the web at [www.ijn.com.my/ar2014](http://www.ijn.com.my/ar2014)

# OUR VISION



To be a **GLOBAL CENTRE** of excellence in **cardiovascular** and **thoracic care**.



# OUR MISSION

- We are committed to serve and provide our patients' need first with safest and highest-quality care
- We are a corporate entity that is committed to provide excellent health services
- We will lead the way in research, development and training to develop cardiovascular and thoracic care capabilities
- We will be the best employer that continuously builds our people to develop the organisation and vocation
- Our objective is to be financially self-sustaining

Our patients look to us for hope: hope that we will help them recover quickly, hope for a better quality of life, hope for a cure. It is our responsibility to keep these hopes alive.

# CONTENTS

- 2 IJN at a Glance
- 4 IJN Milestones
- 6 IJN in 2014
- 8 Chairman's Message
- 10 CEO's Review of Operations

*"In 2014, a total of 50 new research projects were carried out, exceeding the targeted 35, while 21 research papers were published in medical journals"*

DATO' DR MOHD  
AZHARI YAKUB  
Chief Executive Officer

PAGE **10**



## OUR PEOPLE

- 16 Board of Directors and Management Committee

### LEADING THE WAY IN EXPERTISE

- 18 Cardiology Team
- 20 Paediatric and Congenital Cardiology Team
- 22 Cardiothoracic Surgery Team
- 24 Anaesthesiology & Intensive Care Team



## THE IJN EDGE

- 26 Excellence in Research
- 27 Excellence in Technology
- 28 Excellence in Cardiovascular and Thoracic Care
- 29 Excellence in Cardiovascular and Thoracic Education

## THE HOSPITAL WITH A HEART

- 30 Corporate Responsibility
- 32 Quality Assurance and Accreditation



# IJN AT A GLANCE

**IJN WAS ESTABLISHED  
ON 1<sup>ST</sup> AUGUST 1992  
AS A HEART SPECIALIST  
INSTITUTION COMMITTED  
TO DELIVERING  
ADVANCED STANDARDS  
IN CARDIOVASCULAR  
AND THORACIC  
MEDICINE FOR ADULT  
AND PAEDIATRIC HEART  
PATIENTS.**

Previously the institute had been part of the Kuala Lumpur General Hospital. Since the formation of the institute, IJN has treated over two million patients and gained recognition as one of the leading Cardiovascular and Thoracic Care Centre in the region.



YOUR HEART IS  
**ABOUT  
 THE SIZE**  
 OF YOUR FIST

*We are also mindful of the concerns on growing numbers in obesity, especially among children. The links relating obesity and sedentary lifestyles to heart disease have been well documented and we need to do our part to raise awareness on this and promote healthy living. Our role not only entails the treatment aspect and we strongly believe in the mantra "prevention is better than cure".*

**TAN SRI DATU PROF DR MOHAMAD TAHA ARIF**  
 Chairman

Today IJN provides a full range of cardiac services. The institute also houses a number of associated cardiac treatment clinics. The institute is staffed by an experienced and committed team of specialist cardiologists, surgeons, anaesthesiologists, paramedics and clinical support staff. The medical staff are fully supported by the latest technology allowing IJN to treat the most complicated cases.

To ensure IJN continues to be the leading heart institution in the region there are a number of on-going support training schemes and a series of research and development activities. There are also collaborations with leading international medical establishments such as the UK's Papworth Hospital and the Herz-und in Germany, allowing IJN to introduce modern clinical techniques.

# IJN MILESTONES

## 1992

- IJN establishes balloon dilation for vulvar aortic stenosis
- Radiofrequency ablation of pulmonary atresia

## 1993

- Closure of PDA case with coils, first in Malaysia
- Use homograft for more complex Congenital Heart Surgeries

## 1994

- Coil embolisation of coronary fistula

## 1995

- 1<sup>st</sup> Renal Angioplasty in Malaysia

## 1998

- 1<sup>st</sup> Trans-radial Intervention in Malaysia
- Homograft Bank established
- Integrated Cardiac Rehabilitation unit established

## 1999

- 1<sup>st</sup> Percutaneous Carotid Stenting introduced
- 1<sup>st</sup> Advanced Non-Contact Mapping System (ESI) Radiofrequency Catheter Ablation in Malaysia
- 1<sup>st</sup> Endovascular Aortic Aneurysm Repair in Malaysia
- Emboli Protection Device introduced
- Paediatric intensive care unit (PICU) established

## 2004

- Trans-catheter Ventricular Septal Defect (VSD) occlusion
- **1<sup>st</sup> Certification MS ISO 9001:2000 Quality Management System from SIRIM QAS International & UKAS**
- 1<sup>st</sup> Coronary Artery Bypass Grafting on an awake patient in ASEAN
- Periventricular off-pump VSD closure with Amplatzer device under fluoroscopy
- TEE IJN LIVE 2004

## 1996

- 1<sup>st</sup> Automatic Implantable Cardiac Defibrillator (ICD) in Malaysia

## 1997

- 1<sup>st</sup> Trans-radial Coronary Angiogram in Malaysia
- 1<sup>st</sup> Iliac Stenting in Malaysia
- 1<sup>st</sup> Transcatheter Atrial Septal Defect (ASD) occlusion in Malaysia & Asean
- 1<sup>st</sup> Transcatheter Amplatzer Duct Occluder (ADO) in Malaysia & Asean
- 1<sup>st</sup> Heart Transplant in Malaysia
- 1<sup>st</sup> Renal Stenting in Malaysia

## 2001

- Stentless Aortic Valve Replacement introduced
- 1<sup>st</sup> to perform Endovascular Aortic Aneurysm Repair (AAA)

## 2002

- 1<sup>st</sup> to introduce Drug Eluting Stents in Malaysia

## 2003

- 1<sup>st</sup> Myocardial Stem Cell Transplant in Asean
- 1<sup>st</sup> Endoscopic Harvest of Saphenous Vein and Radial Artery Conduit for Coronary Artery Bypass in Malaysia

## 2005

- Implanted the 1<sup>st</sup> Thoratec IVAD – mechanical heart system – in Asia
- 1<sup>st</sup> Single Lung Transplant in Malaysia
- **1<sup>st</sup> Accreditation Malaysian Society for Quality in Health (MSQH)**

## 2006

- 1<sup>st</sup> Video Assisted Thorascopic Ablation of Atrial Fibrillation in Asia and Australasia

## 2007

- 1<sup>st</sup> Heart and Lung Transplant in Malaysia
- 1<sup>st</sup> to implant breathing pacemaker for patients on ventilator in Malaysia
- 1<sup>st</sup> Sequential Double Heart Transplant (within 24 hours) in Malaysia
- **Recertification MS ISO 9001:2000 Quality Management System**
- Total corrective cardiac surgery on smallest baby weighing 2.3kg

## 2008

- 1<sup>st</sup> minimally invasive procedure to repair congenital chest deformity (Pectus Excavatum) in Malaysia

## 2010

- 1<sup>st</sup> in Malaysia to use the non-irradiating Cardiac Magnetic Resonance system
- 1<sup>st</sup> in Malaysia to implant the Watchman, which reduces stroke risks in Atrial Fibrillation patients
- **Recertification MS ISO 9001:2008 Quality Management System**
- Introduced Heartmate II – a new mechanical heart assist device

## 2012

- 1<sup>st</sup> in Asia to use the new Sutureless Aortic Valve Prostheses
- Launching of dedicated Paediatric Congenital Heart Centre (PCHC)
- **Recertification MS ISO 9001:2008 Quality Management System**
- **Recertification HACCP (Hazard Analysis for Critical Control Point)**
- **Recertification HALAL**

## 2013

- 1<sup>st</sup> in Asia to use the Parachute Ventricular Partitioning Device
- **Reaccreditation Malaysian Society for Quality in Health (2013 – 2017)**
- **Reaccreditation Joint Commission International (2013 – 2016)**

## 2009

- 1<sup>st</sup> Transcatheter Aortic Valve Implantation (TAVI) in Malaysia
- **1<sup>st</sup> Certification HALAL from HALAL Industry Development Corporation**
- 1<sup>st</sup> minimally invasive lobectomy for lung disease in Malaysia
- **1<sup>st</sup> Certification HACCP (Hazard Analysis for Critical Control Point) from Lloyd's Register Quality Assurance, UK**
- **Reaccreditation Malaysian Society for Quality in Health (2009 – 2012)**
- **1<sup>st</sup> Accreditation Joint Commission International (2009 – 2012)**
- 1<sup>st</sup> KL Valve Summit November 2009 – live congenital valve surgery
- Live transmission from IJN to World Paediatric Congress (Cairns, Australia)

## 2011

- Introduced MitraClip – non-surgical repair for leaking mitral valve
- 1<sup>st</sup> Implantation of new stent device in Asean – the Bioresorbable Vascular Scaffold (BVS)
- Introduced Heartware – a new mechanical heart device
- 1<sup>st</sup> Transcatheter Renal Denervation, to treat resistant hypertension in Asia
- Paediatric trans-catheter live transmission, beamed to KL Live 2011 congress at the Convention Centre

## 2014

- 1<sup>st</sup> in man implant of the VenTouch Ventricular Reshaping Device - to treat Mitral Valve Regurgitation
- 1<sup>st</sup> Implant in Asia Pacific-MICRA Transcatheter Pacing System - World's Smallest Pacemaker with a size of a vitamin
- **1<sup>st</sup> Accreditation MS ISO 15189:2007 Medical Laboratories from Department of Standards Malaysia**
- **1<sup>st</sup> Certification MS ISO/IEC 27001:2013 Information Security Management System from SIRIM QAS International**
- **Recertification MS ISO 9001:2008 Quality Management System**
- **Recertification HALAL**

# IJN IN 2014



## JANUARY

- 6 JAN - Benchmarking Visit and MoU Signing with Bahrain Cardiac Center
- Opening of Platinum Clinic
- 16 JAN - Visit from Scomi Engineering
- 23 JAN - Press Conference Ventouch First In Man



## FEBRUARY

- 14-16 FEB - CSI Sungai Siput
- 23 FEB - Run For Your Heart

## MARCH

- 7 MAR - Launching of IJN Retail Pharmacy
- 8 MAR - CSI Masjid Bulat
- 19 MAR - Visit from Health Concern Organization Nepal
- 27 MAR - Visit from Tokyo Heart Center



## APRIL

- 1 APR - IJN Nutrition Month
- 9 APR - Launching JCI 5<sup>th</sup> Edition Standards by CEO
- 17 APR - Majlis Penyampaian Sijil Akreditasi MS ISO 15189
- 18 APR - Press Conference Micra Implant
- 21 APR - Official Opening of IJN Sport Complex
- 22 APR - Women Health Screening in Conjunction with International Women's Day
- 25 APR - Visit from Taiwan Medical Association
- 28 APR - PDRM Visit

## MAY

- 3 MAY - CSI & Supermarket Sweep at Giant USJ
- 7 MAY - Health Talk & CPR Demonstration at Alam Melaka
- 14 MAY - MoU Signing with UiTM
- 19 MAY - Sumbangan Kerusi Roda - Yayasan Pesakit Parah Miskin
- 20 MAY - UPM Visit
- 24 MAY - Kayuhan Amal Titipan Kasih Harian Metro
- 27 MAY - Visit from King Fahad Cardiac Center, Saudi Arabia
- 28 MAY - Nurses Day Celebration with Yayasan Naza



## JUNE

- 3 JUNE - Visit from Airlangga University, Indonesia
- Visit From UNISZA
- 3-5 JUNE - APHM
- 8 JUNE - IJN-Kampar Majesty Ride
- 16 JUNE - Visit from Myanmar Yankin Children Hospital
- MoU IJN-UTM
- 20 JUNE - Labour Day Celebration
- 21 JUNE - Infection Control Seminar
- 22-23 JUNE - CSI Ledang
- 24 JUNE - Visit From Puspanita
- 26 JUNE - IJN MITA MoU
- Visit from Green Delta, Bangladesh





### JULY

- 11 JULY - IJN IFTAR Perdana
- 19 JULY - CSI – IJN & NST Session with Orang Asli Temuan, Bukit Lanjan
- 22 JULY - IFTAR with Media



### AUGUST

- 15 AUG - IJN Corporate Open House
- 17 AUG - CSI Kem Wardieburn
- 23 AUG - End of Life Symposium
- 11 – 29 AUG - My Heart for Gaza donation drive

### SEPTEMBER

- 3-30 SEPT - World Heart Day Celebration
- 20 SEPT - Public Forum in Conjunction with World Heart Day
- 26-27 SEPT - International Symposium on Frontier in Intelligent Medicine (FIM)



### OCTOBER

- 10 OCT - Visit from Japan Local
- 29 OCT - Public Forum Walk A Way From Heart Disease, Anyone Can Do It



### DECEMBER

- 5 DEC - PCHC – 2<sup>nd</sup> Anniversary 2014 Majlis Makan Malam Amal “Sempurnakan Aku”
- 14-15 DEC - GP Symposium, Avani Gold Coast Sepang, Selangor



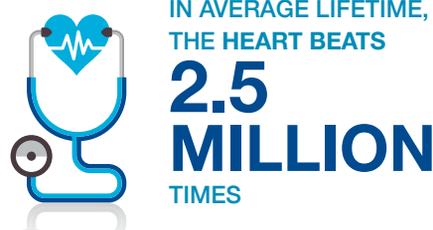
**TAN SRI DATU PROF  
DR MOHAMAD TAHA ARIF**  
Chairman

## CHAIRMAN'S MESSAGE

2014 WAS AN OUTSTANDING YEAR FOR INSTITUT JANTUNG NEGARA, AND WE ENDED THE YEAR ON A HIGH NOTE MEETING ALL THE KEY PERFORMANCE INDICATORS SET BY THE MINISTRY OF FINANCE (MOF) INC. AS AN ESTABLISHED CENTER OF EXCELLENCE, WE HAVE SET OUR PRIORITIES TO MAINTAIN AND FURTHER IMPROVE OUR SERVICES TO ENSURE THAT OUR PATIENTS RECEIVE THE BEST CARE POSSIBLE.

In terms of clinical workload and productivity, we continue to see marked improvements with growing numbers from surgery as well as outpatient treatments, which are on an increasing trend. Our focus is not merely on clinical outcomes but also on patients and their families getting the best service from the moment of their first contact with IJN, be it through the telephone when making enquiries or when they come in for their appointments.

Our Paediatric and Congenital Health Centre (PCHC) has also contributed significantly to this, providing various treatments for the specialised care of children with heart disease. These include surgical and non-surgical CVT treatments as well as clinical assessments at the PCHC Clinic, where we continue to receive referrals from peripheral hospitals locally and from the ASEAN region.



However, we are aware that there are still a lot of things to be improved. Waiting time, for instance, can be improved further and we have done a lot of process improvement to ensure our customers gets the best service. This is an on-going process to ensure that we achieve our goal with consistence excellence, with service being one of our core principles since our inception. What matters most is to gain the trust of our patients so they know that they can rely on us.

We are also mindful of the concerns on growing numbers in obesity, especially among children. The links relating obesity and sedentary lifestyles to heart disease have been well documented and we need to do our part to raise awareness on this and promote healthy living. Our role not only entails the treatment aspect and we strongly believe in the mantra “prevention is better than cure”.

Another area of growth is health tourism. We are fairly new in this area as our priorities before has always been on our social obligation to Malaysians. However, we have seen sharp growth especially with patients from the South East Asia countries such as Indonesia, Vietnam, Bangladesh and Myanmar. We are expecting the numbers to grow and this represents an opportunity for us to tap as we look towards being financially self-sustaining in the future. Although this cannot be at the expense of our priorities towards the Malaysian public, we believe we have adequate capacity to accommodate both international and local patients.

Our strength over the years has always been our people, with every member of our human capital contributing to our success. We believe in our ability to attract the best talents and to retain them. We inculcate a culture of innovation and we carry out programmes to develop both technical and soft skills and we are continuously sending people for training, participating in scientific meetings, conferences and seminars. A testimony to the quality of our staff is the fact that we frequently get visiting doctors and administrators from all over the world to observe and learn from us.

Looking ahead, we believe we have the necessary resources to continue being the Centre of Excellence for Heart Care in the region. With the contributions from our clinical and non-clinical staff, and the investments we have made to enhance our services, we will not only be able to provide world-class services to Malaysians but also to a growing international base. This, in essence, is the model that will sustain our operations at the highest level.



# CEO'S REVIEW OF OPERATIONS

THIS WILL BE THE FIRST TIME I AM REPORTING AS THE CHIEF EXECUTIVE OFFICER OF INSTITUT JANTUNG NEGARA, AND I AM PLEASED TO REPORT THAT WE MADE TREMENDOUS PROGRESS IN PATIENT CARE AND PROCEDURES IN 2014.

In terms of medical advances, our specialists carried out 124 thoracic surgeries, 985 closed heart surgeries, 2,950 open heart surgeries, 28 vascular surgeries and 3 heart transplants. These represent an overall 4.3% increase over the total number of surgeries carried out in 2013. The increase is indicative of our stellar reputation as a dedicated heart hospital, locally and regionally, with the ability to offer world-class specialised care for all heart related conditions.

The highlight of the year was the successful first-in-man (FIM) procedure to treat mitral valve regurgitation through an incision in the ribcage, resulting from the investment of innovative equipment developed in the United States.

**DATO' DR MOHD AZHARI YAKUB**  
Chief Executive Officer





### MOVING TOWARDS SELF-SUSTAINABILITY

One of our major challenges is to balance the social and commercial aspects of the hospital. For all intents and purposes, we are a social enterprise providing affordable health services to all Malaysians; at the same time we are also a corporate entity that needs to be self-sustaining. Fortunately, we are well on the way towards self-sustainability with the number of private patients increasing year on year. In 2014, the ratio between government patients (i.e. those referred to by the government public health care system) and private patients was 65:35 compared to 70:30 in the previous year. Our goal is to be financially self-sustaining, and we have adequate capacity to accommodate increases from both the government and private sectors without compromising on the quality of healthcare we provide.

The number of international patients have also increased. To promote the hospital, we work closely with the Malaysian Health Tourism Council (MHTC) as well as on our own at major conferences and through the various hospitals we collaborate with globally.



PEOPLE WITH  
**SUPPORTIVE  
FRIENDSHIP  
NETWORKS**  
ARE AT LESS RISK OF  
HEART DISEASE

### HUMAN CAPITAL DEVELOPMENT

Needless to say, our workforce is the mainstay of the hospital that has driven us towards our current success. IJN continues to develop and embellish its clinical and non-clinical staff through courses conducted in collaboration with IJN College.

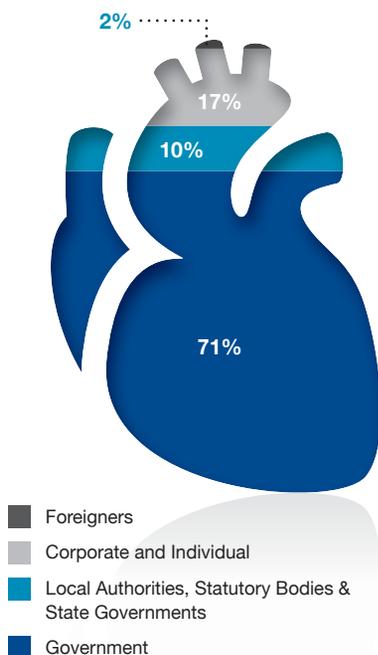
### EDUCATION AND RESEARCH

With our reputation as the premier referral center for cardiovascular and thoracic care services, we are in a position to share our knowledge and expertise with other healthcare professionals within the country and the region.

Leveraging on this, IJN successfully conducted several conferences, seminars, workshops which involves the two disciplines (cardiology and cardiothoracic). It also collaborates with IJN College in conducting 5 conferences in 2014 with total turn out of 700 participants.

# CEO'S REVIEW OF OPERATIONS

## PATIENT CATEGORY Total = RM518.9 Million



On the research side the focus was on research governance and enhancing research facilities in order to improve the quality and relevance of our research. In 2014, a total of 50 new research projects were carried out, exceeding the targeted 35, while 21 research papers were published in medical journals (15 was targeted).

### MAINTAINING QUALITY AND HIGH STANDARDS

Despite the success of the hospital, it is critical that we maintain the high standards for which we are known for. Through our accreditation by the Joint Commission International (JCI), we have met the international standards for healthcare, thus assuring patients that they are receiving the best care possible. We are also certified by the

## TOTAL NUMBER OF CARDIAC SURGERIES 2010-2014



Malaysia Society for Quality in Health (MSQH), and in compliance with their 4<sup>th</sup> Edition Standards.

The quality and dedication of our professional consultants and surgeons, as well as our clinical and non-clinical staff, are what sets us apart.

### ACKNOWLEDGEMENT

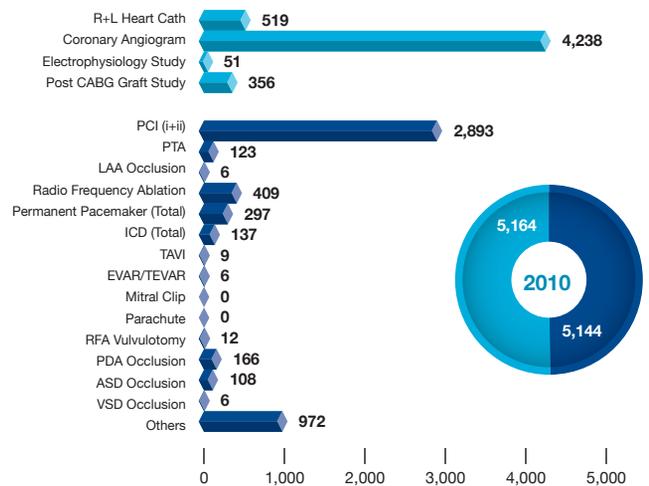
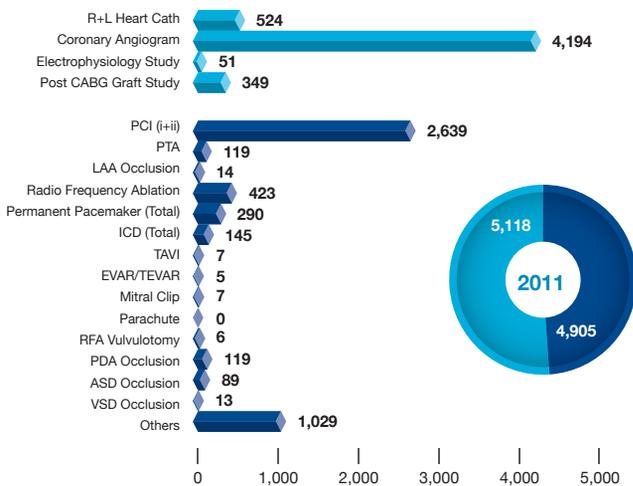
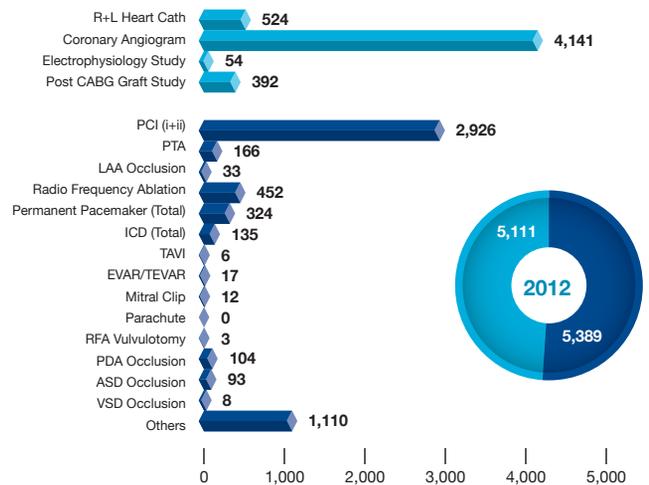
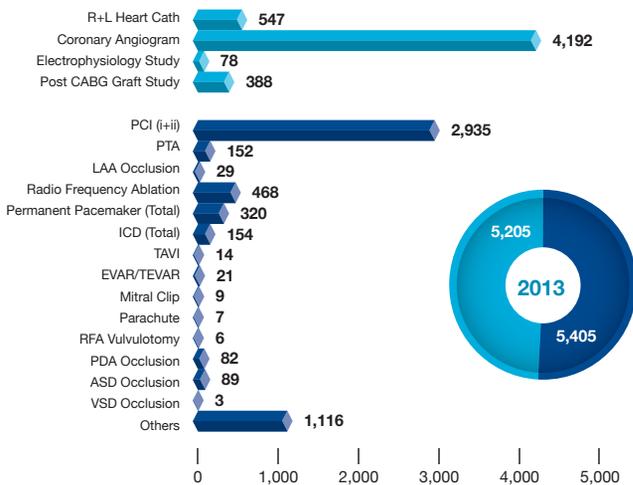
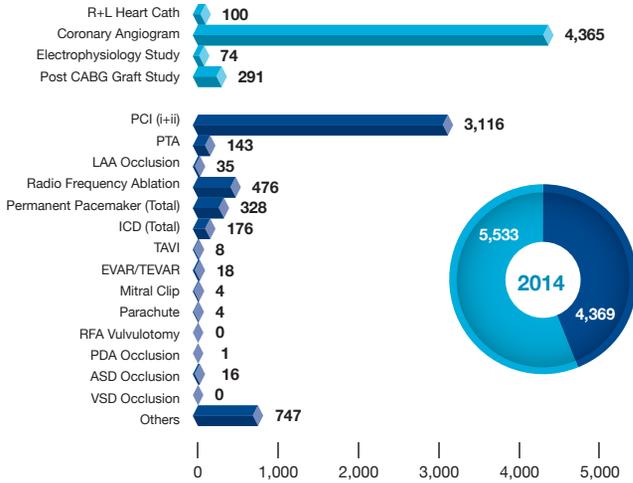
On behalf of the Board of Directors, I would like to record our appreciation and acknowledgement for the excellent work carried out by my predecessor, Tan Sri Dato' Seri Dr. Robaayah Zambahari. Her dedication and leadership has provided me with the platform on which to take IJN to greater heights, while her appointment to the Board will further ensure that we will continue to receive her counsel and wisdom.

### LOOKING AHEAD

The year ahead will pose new challenges both from the economic and medical perspectives. Infectious diseases are a global issue and as a hospital, we need to be prepared for any threats that may come our way. There are also uncertainties in the global economic climate, which will have an impact on our own economy. Healthcare cost is getting more expensive each year, although at IJN we can still offer competitive rates as we are partly government and it is our social obligation to help Malaysians. Nevertheless, we still need to be cautious and look for ways to improve the efficiency of our operations and cut-out unnecessary costs.

### TOTAL NUMBER OF ICL PROCEDURES 2010-2014

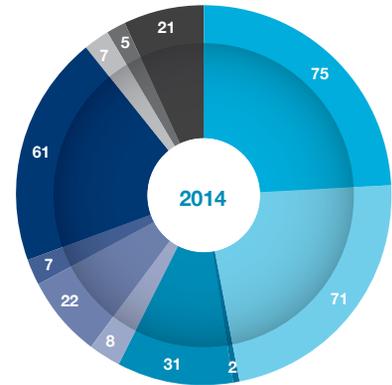
 Diagnostic Procedures  
 Interventional



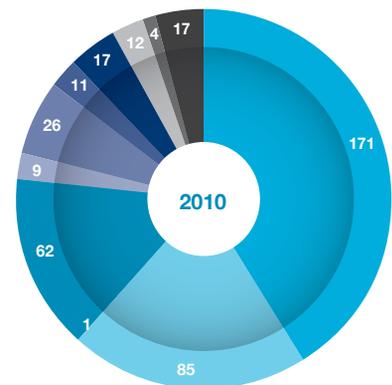
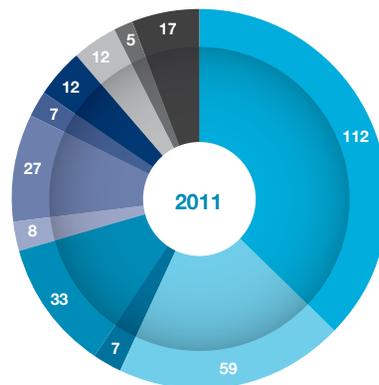
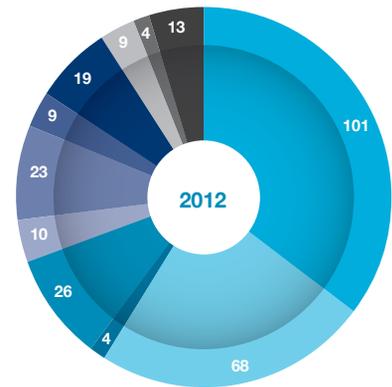
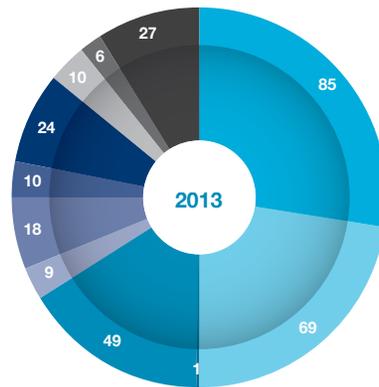
# CEO'S REVIEW OF OPERATIONS

## TOTAL NUMBER OF PAEDIATRIC CARDIOLOGY PROCEDURES 2010-2014

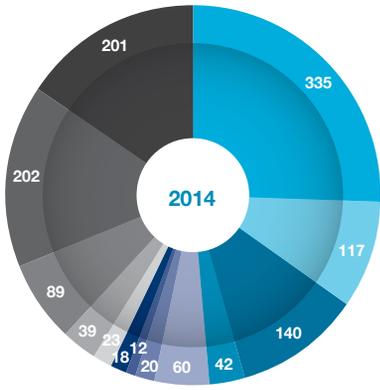
Procedure	2010	2011	2012	2013	2014
Cardiac Cath	438	446	463	507	447
Interventional	559	468	462	515	504



- PDA
- ASD (ASO)
- VSD Closure
- PTBV
- BAS
- RFA for Arrhythmia
- Balloon CoA
- PDA Stent
- RFV
- Coronary Artery Fistula
- Pacemaker

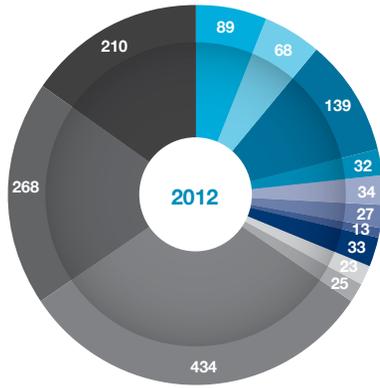
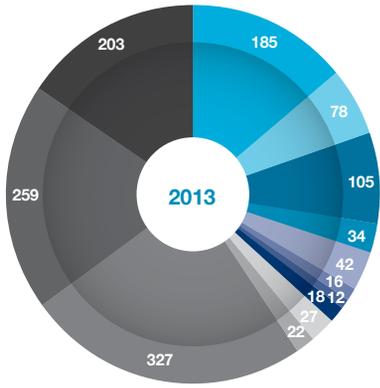


TOTAL NUMBER OF PAEDIATRIC CARDIAC SURGERIES  
2010-2014

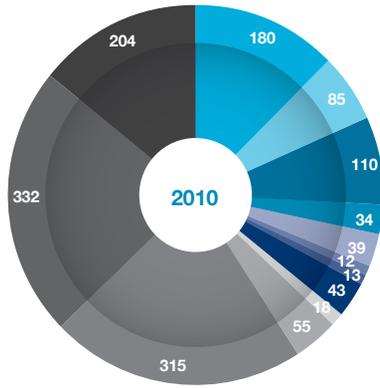
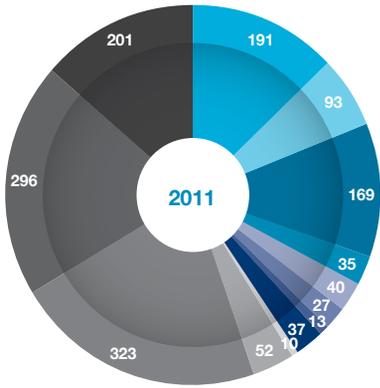


Surgery	2010	2011	2012	2013	2014
Closed Heart *	332	296	268	259	202
Open Heart	904	990	917	866	895
Others **	204	201	210	203	201

\* e.g. Blalock Taussig Shunt, PDA Ligation, Pacemaker etc  
 \*\* e.g. Chest Re-Opening, Sternal Wire Removal, Delayed Sternal Closure etc



- VSD
- ASD
- Tetralogy of Fallot
- Alterial Switch
- Glenn Shunt
- Fontan
- Truncus
- Rastelli
- TAPVD
- Valve Repair
- Other Surgeries
- Closed Heart Surgery
- Additional Procedures



# OUR PEOPLE

The Board, made up of representatives from key stakeholders, establishes the broad policies and objectives of Institut Jantung Negara, and ensures that the highest standards of transparency and governance are met.

## BOARD OF DIRECTORS



**TAN SRI DATU PROF  
DR MOHAMAD TAHA ARIF**  
Chairman



**DATO' DR MOHD  
AZHARI YAKUB**  
Chief Executive Officer



**TAN SRI DATO' SERI  
DR ROBAAYAH  
ZAMBAHARI**  
Director



**TAN SRI FARIDA  
MOHD ALI**  
Secretary General,  
Ministry of Health



**DATUK DR NOOR  
HISHAM ABDULLAH**  
Director General,  
Ministry of Health



**PUAN ZARINA  
ZAKARIA**  
Ministry of  
Finance Representative



**TENGGU DATO'  
SERI HASMUDDIN  
TENGGU OTHMAN**  
Independent Director



**DATO' DR ABDUL  
ROZALI A WATHOOTH**  
Independent Director



**DATO' MOHD  
SALLEH MAHMUD**  
Independent Director



**DATO' DR MOHD AZHARI YAKUB**  
Chairman/Chief Executive Officer

Headed by the CEO and COO, the Management Committee comprises of Clinical Head and General Managers of the various divisions within IJN, which include Nursing, Finance, Hospital Support Services, and Human Capital and Organisational Development among others.

## MANAGEMENT COMMITTEE



**ENCIK AKMAL  
ARIEF FAUZI**  
Chief Operating  
Officer



**DATO' DR ROSLI  
MOHD ALI**  
Head - Cardiology  
Department



**DATO' DR  
JESWANT DILLON**  
Head -  
Department of  
Cardiothoracic  
Surgery



**DATO' DR  
SHARIFAH  
SURAYA SYED  
MOHD TAHIR**  
Head -  
Anaesthesia  
& Intensive Care,  
Director of Quality



**DR HASRI  
SAMION**  
Head -  
Paediatric &  
Congenital Heart  
Centre (PCHC)



**DATO' DR  
MOHAMED EZANI  
MD TAIB**  
Chairman Hospital  
Development  
Committee



**PUAN HAJJAH  
SANIAH  
MOHD PIAH**  
General Manager,  
Human Capital &  
Organisational  
Development  
Division



**PUAN NORUL  
FARIAH MUDA**  
General Manager,  
Financial  
Management  
Division



**MADAM LIM  
YET FOONG**  
General Manager,  
Nursing Division



**ENCIK MOHD  
AMRAN SHAFIE**  
General Manager,  
Hospital Support &  
Services Division



**DATO' DR  
MOHAMED  
HASSAN  
MOHAMED ARIFF**  
Advisor

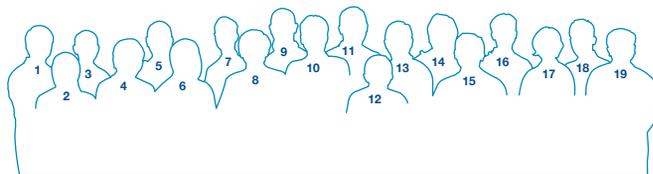


**DATUK DR  
MAZENI ALWI**  
Advisor

# OUR PEOPLE

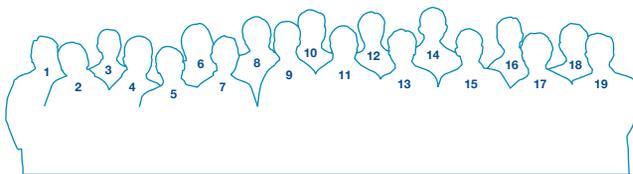
## LEADING THE WAY IN EXPERTISE: CARDIOLOGY TEAM

Cardiology forms the largest department within the hospital, and our team of cardiologists cover every aspect of heart ailments, and ensure that patients are diagnosed correctly to receive the appropriate treatment.



### LEFT TO RIGHT

- <sup>1</sup> **DR RUBENTHIRAN A/L NAVARATNAM** Clinical Fellow   <sup>2</sup> **DR SYAHIDAH SYED TAMIN** Consultant Cardiologist   <sup>3</sup> **DATO' DR YAP LOK BIN** Cardiologist  
<sup>4</sup> **DATUK DR AIZAI AZAN ABD RAHIM** Senior Consultant Cardiologist & Deputy Head   <sup>5</sup> **DR HAFIDZ ABD HADI** Cardiologist  
<sup>6</sup> **DR BARVEEN AISHA ABU BAKER** Clinical Fellow   <sup>7</sup> **DR DHANAN UMADEVAN** Clinical Fellow  
<sup>8</sup> **DATO' DR DAVID CHEW SOON PING** Senior Consultant Cardiologist   <sup>9</sup> **DR AZLAN HUSSIN** Consultant Cardiologist  
<sup>10</sup> **DR MOHAN A/L RAMACHANDRAN** Clinical Fellow   <sup>11</sup> **DR KUMARA GURUPPARAN A/L GANESAN** Cardiologist  
<sup>12</sup> **TAN SRI DATO SERI DR ROBAAYAH ZAMBAHARI** Senior Consultant Cardiologist   <sup>13</sup> **DR YAP SWEE HIEN** Clinical Fellow  
<sup>14</sup> **DR SHAHROL ANUAR MOHD YASIN** Cardiologist   <sup>15</sup> **DR AZMEE MOHD GHAZI** Consultant Cardiologist  
<sup>16</sup> **DR TEOH CHEE KIANG** Cardiologist   <sup>17</sup> **DR EMILY TAN LAY KOON** Consultant Cardiologist   <sup>18</sup> **DR AKMAL HAKIM ARSHAD** Cardiologist  
<sup>19</sup> **DATO DR AMIN ARIFF NURUDDIN** Consultant Cardiologist



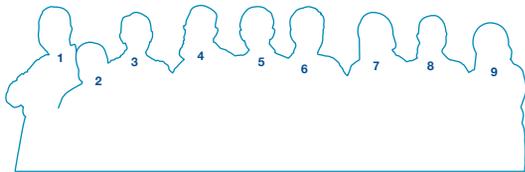
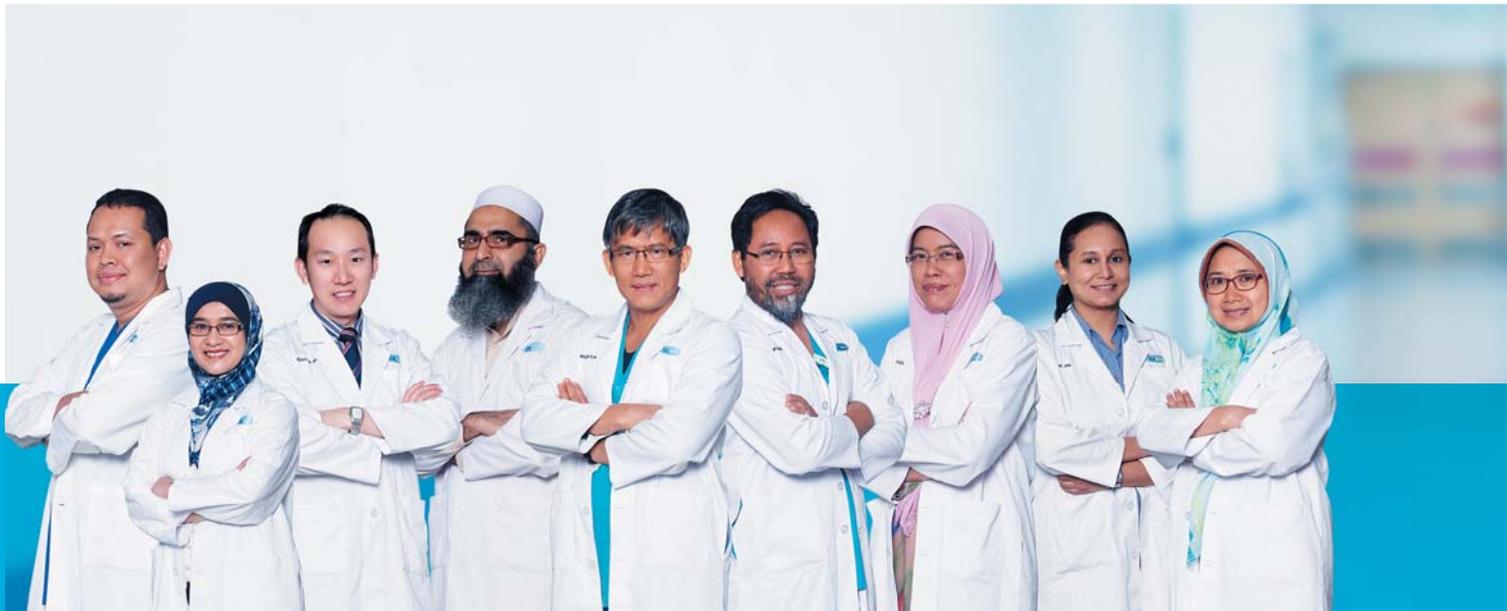
#### LEFT TO RIGHT

- <sup>1</sup> DATO' DR BALACHANDRAN A/L KANDASAMY** Consultant Cardiologist   
**<sup>2</sup> DATO' DR ROSLI MOHD ALI** Senior Consultant Cardiologist & Head  
**<sup>3</sup> DR SURINDER KAUR KHELAE** Consultant Cardiologist   
**<sup>4</sup> DATUK DR MOHD NASIR MUDA** Senior Consultant Cardiologist  
**<sup>5</sup> DR RUDY WEE** Senior Medical Officer   
**<sup>6</sup> DR RAFIDAH ABU BAKAR** Cardiologist   
**<sup>7</sup> DR ALAN KOAY CHOON CHERN** Clinical Fellow  
**<sup>8</sup> DATUK DR RAZALI OMAR** Senior Consultant Cardiologist   
**<sup>9</sup> DR NAVIN SUKILAN** Clinical Fellow   
**<sup>10</sup> DR SHAIFUL AZMI YAHAYA** Consultant Cardiologist  
**<sup>11</sup> DR ASLANNIF ROSLAN** Clinical Fellow   
**<sup>12</sup> DATO' SRI DR AZHARI ROSMAN** Senior Consultant Cardiologist   
**<sup>13</sup> DR KOH KOK WEI** Clinical Fellow  
**<sup>14</sup> DR BENI ISMAN RUSANI** Clinical Fellow   
**<sup>15</sup> DR JAYAKHANTHAN A/L KOLANTHAI VELU** Clinical Fellow  
**<sup>16</sup> DR NANDAKUMAR A/L RAMAKRISHNAN** Clinical Fellow   
**<sup>17</sup> DR NG YAU PIOW** Clinical Fellow   
**<sup>18</sup> DR AL FAZIR OMAR** Consultant Cardiologist  
**<sup>19</sup> DATUK DR AHMAD KHAIRUDDIN MOHAMED YUSOF** Consultant Cardiologist

# OUR PEOPLE

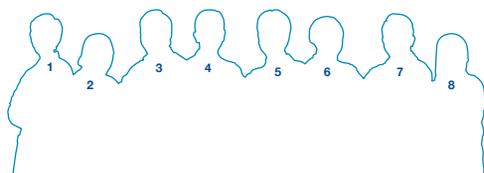
## LEADING THE WAY IN EXPERTISE: PAEDIATRIC AND CONGENITAL CARDIOLOGY TEAM

Children are not just “little adults” and require special attention especially when it comes to congenital treatments. Our paediatric team of specialists is well equipped to handle even the most complex of cases, giving renewed hope to children with congenital defects.



### LEFT TO RIGHT

**<sup>1</sup>DR JOHAN AREF JAMALUDDIN** Fellowship Trainee   **<sup>2</sup>DR HAIFA ABDUL LATIFF** Senior Consultant Paediatric Cardiologist, Clinical Director of Congenital & Structural Imaging   **<sup>3</sup>DR SOO KOK WAI** Clinical Fellow   **<sup>4</sup>DR SALEEM AKHTAR** Fellowship Trainee  
**<sup>5</sup>DATUK DR MAZENI ALWI** Senior Consultant Paediatric Cardiologist, Clinical Director of Congenital & Structural Intervention  
**<sup>6</sup>DR HASRI SAMION** Head of Department & Senior Consultant Paediatric Cardiologist, Clinical Director of Paediatric Electrophysiology & Pacing  
**<sup>7</sup>DR KHAIRUL FAIZAH MOHD KHALID** Consultant Paediatric Cardiologist (Intensive Care), Clinical Director of Paediatric Intensive Care Services  
**<sup>8</sup>DR ANU RATHA GOPAL** Clinical Fellow   **<sup>9</sup>DR SUPROHAITA RUSDI TAIB** Fellowship Trainee



#### LEFT TO RIGHT

**<sup>1</sup> DR GEETHA KANDAVELLO** Deputy Head & Consultant Paediatric Cardiologist, Clinical Director of ACHD

**<sup>2</sup> DR ROZAINA HJ MD SAID** Senior Medical Officer    **<sup>3</sup> DR ABDUL SATTAR SHAIKH** Fellowship Trainee

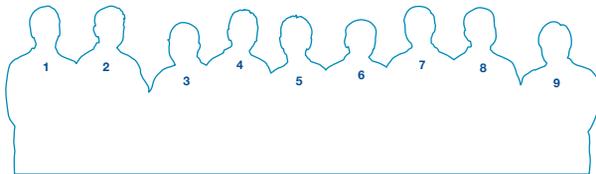
**<sup>4</sup> DR MARHISHAM CHE MOOD** Paediatric Cardiologist    **<sup>5</sup> DR LEONG MING CHERN** Paediatric Cardiologist

**<sup>6</sup> DR ADURA ABD RAUF** Senior Medical Officer    **<sup>7</sup> DR DEDI WILSON MCH PUAR** Fellowship Trainee    **<sup>8</sup> DR NUR HAYAATI AHMAD** Senior Medical Officer

# OUR PEOPLE

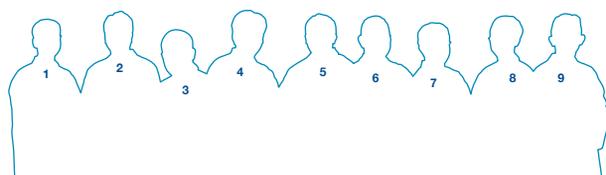
## LEADING THE WAY IN EXPERTISE: CARDIOTHORACIC SURGERY TEAM

The hospital's cardiothoracic surgeons take pride in the rich tradition of excellence and pioneering firsts that have made the department the top cardiac and thoracic program in the nation.



### LEFT TO RIGHT

- <sup>1</sup> **DR RAMIN MOHEBI** Senior Medical Officer    <sup>2</sup> **DR SIVAKUMAR SIVALINGAM** Consultant Cardiothoracic Surgeon & Clinical Director Congenital Heart Surgery  
<sup>3</sup> **DR HARIADI HATTA** Senior Medical Officer    <sup>4</sup> **DATO' DR MOHAMED EZANI MD TAIB** Senior Consultant Cardiothoracic Surgeon, Clinical Director Heart and Lung Transplantation & Mechanical Heart Program    <sup>5</sup> **DATO' DR JESWANT DILLON** Chief Cardiothoracic Surgeon & Clinical Director Adult Surgery  
<sup>6</sup> **DATO' DR MOHD AZHARI YAKUB** Chief Executive Officer, Senior Consultant Cardiac Surgeon  
<sup>7</sup> **DR PAU KIEW KONG** Senior Consultant Cardiothoracic Surgeon    <sup>8</sup> **DR ALWI MOHAMED YUNUS** Deputy Head & Consultant Cardiothoracic Surgeon  
<sup>9</sup> **DR AKM RUHUL AMIN** Senior Medical Officer



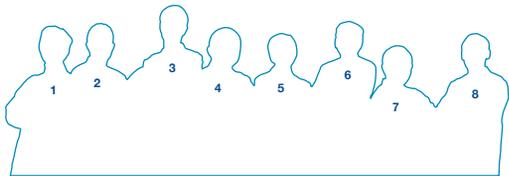
#### LEFT TO RIGHT

- <sup>1</sup> DR SOTHEENATHAN A/L KRISHINAN** Fellowship Trainee   **<sup>2</sup> DR PANEER SELVAM KRISHNA MOORTHY** Consultant Cardiothoracic Surgeon  
**<sup>3</sup> DR ABDUL RAIS SANUSI** Consultant Cardiothoracic Surgeon   **<sup>4</sup> DR ALI SYAHPUTRA** Fellowship Trainee  
**<sup>5</sup> DR TAUFIQ ABDULLAH** Cardiothoracic Clinical Fellow   **<sup>6</sup> DATO' DR MOHD NAZERI NORDIN** Consultant Cardiothoracic Surgeon  
**<sup>7</sup> DR NORITAKA OTA** Fellowship Trainee   **<sup>8</sup> DR SITI LAURA MAZALAN** Cardiothoracic Surgeon   **<sup>9</sup> DR SHAHRUL AKMAL SAAT** Cardiothoracic Surgeon

# OUR PEOPLE

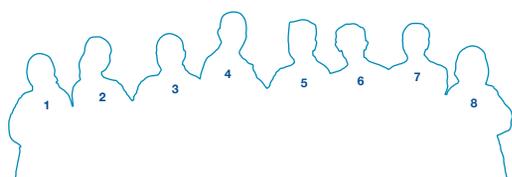
## LEADING THE WAY IN EXPERTISE: ANAESTHESIOLOGY & INTENSIVE CARE TEAM

The unit specialises in pain relieving solutions and inducing anaesthesia during surgery and other medical procedures, as well as during the post-surgery recovery period. The unit is in high demand across all departments and its scope also includes non-surgery-related pain management; management of painful syndromes; and monitoring, restoring and maintaining haemostasis.



### LEFT TO RIGHT

**<sup>1</sup> DR NOR AZLINA ABD JALIL** Locum Senior Consultant Anaesthesiologist **<sup>2</sup> DATO' DR MOHAMED HASSAN MOHAMED ARIFF** Senior Consultant Anaesthesiologist & Clinical Director of Paediatric Anaesthetic Services **<sup>3</sup> DATO' DR SHARIL AZLAN ARIFFIN** Consultant Anaesthesiologist & Clinical Director of Intensive Care **<sup>4</sup> DR SUHAINI KADIMAN** Deputy Head of Department Anaesthesia & Intensive Care, Director of Clinical Research **<sup>5</sup> DATO' DR SHARIFAH SURAYA SYED MOHD TAHIR** Senior Consultant Anaesthesiologist & Head Department of Anaesthesia & Intensive Care, Director of Quality **<sup>6</sup> DATO' DR THIRU KUMAR NAMASIWAYAM** Senior Consultant Anaesthesiologist & Clinical Director of Anaesthetic Services in OT/ICL **<sup>7</sup> DR ARIFFIN MARZUKI MOKHTAR** Consultant Anaesthesiologist & Director of Health Informatics **<sup>8</sup> DR MOHD SHARIF MOHD SHAFFIE** Clinical Director of Perfusion Service Unit



#### LEFT TO RIGHT

- <sup>1</sup> DR SUNETA SULAIMAN** Consultant Intensivist/Anaesthesiologist   
**<sup>2</sup> DR NADIA MOHD ARIFIN** Clinical Fellow  
**<sup>3</sup> DR MOHAMMAD AZLEE ABD MUTALIB** Senior Medical Officer   
**<sup>4</sup> DR AHMED F ABDUL HADI** Clinical Fellow  
**<sup>5</sup> DR NATESAN RAJA** Consultant Anaesthesiologist   
**<sup>6</sup> DR AZHARI HAMID** Consultant Anaesthesiologist  
**<sup>7</sup> DR ROHIT VIJAY JAIN** Anaesthesiologist   
**<sup>8</sup> DR ROZAINI HASSAN** Anaesthesiologist

# THE IJN EDGE

## EXCELLENCE IN RESEARCH



Research is an integral part of IJN's operations and global standing as a leading CVT medical facility. The research agenda within IJN is facilitated by the Directorate of Clinical Research to advance cardiovascular research and evidence-based practice, as well as to serve in an advisory capacity to the Management of the Institute. The Directorate carries out its functions through the IJN Research Committee, while its Ethics Committee (IJNEC) provides independent review of research programs on human subjects in accordance to the ICH-GCP (International Conference on Harmonisation-Good Clinical Practice).

The emphasis in 2014 was to improve research governance and enhance research facilities in order to further embed the research culture within IJN. A number of initiatives were introduced to facilitate these improvements with the full commitment of all faculty members and management.

The Directorate exceeded its KPI's in 2014 for both research projects, and published research papers in international medical journals. A total of 43 new research projects were approved during the year, while a further 27 new research projects under the IJN-UTM Cardiovascular Engineering Centre (IJN-UTM CEC) were initiated and submitted for funding approval.

Our experiences and accomplishments have been expanded into full scientific papers that were published in a number of regional and international medical journals. In 2014, a total of 21 papers were published, and since inception, a total of 560 citations were reported with H-index of 13 (source by Web of Science)



Our clinicians also continued to be involved in international conferences and scientific meetings, which served as a platform to present their research work and encourage the sharing of knowledge among peers and colleagues.



WALK BRISKLY FOR  
**30**  
**MINUTES**  
 A DAY AND  
 REDUCE YOUR RISK  
 OF HEART ATTACK  
 BY ONE THIRD

Technology in the area of healthcare has advanced by leaps and bounds over the past two decades, and it is vital that IJN invests in the latest equipment to support the dedicated professionals in delivering world class healthcare and ensuring IJN maintains its position as one of the leading CVT hospitals in the world.

We are fortunate to also have the support of government agencies, such as Agensi Inovasi Malaysia. As a result of their investment in an investigational device developed in the United States, we were able to perform a first-in-man (FIM) procedure to treat a mitral valve regurgitation through an incision in the ribcage.

Our investments in technology is not limited to surgical equipment but also for all departments be it a small scale diagnostic equipment or for the well-being of our patients in intensive care. The criteria we apply is that every piece of technology we invest in must help to save lives and aid our doctors, surgeons and staff to carry out their tasks effectively.

## EXCELLENCE IN TECHNOLOGY



# THE IJN EDGE



The heart is one of the most important organs in the body, and the health of the heart is tantamount to life itself. This is why IJN was set-up in 1992, to function as a National Referral Centre for cardiovascular and thoracic (CVT) ailments. Since then, we have gained a formidable reputation globally, and has grown to be the leading training and education center in the country for CVT care and treatment.



A DAILY  
BREAKFAST MAY  
**REDUCE  
THE RISK**  
OF OBESITY AND  
DIABETES BY  
**50%**

## EXCELLENCE IN CARDIOVASCULAR AND THORACIC CARE

Our commitment towards excellence is reflected in our team of medical specialists. As at the end of 2014, we have close to 90 clinicians, which include 15 Consultant Cardiologists, 5 Consultant Paediatric Cardiologists, 9 Consultant Cardiothoracic Surgeons and 10 Consultant Anaesthesiologists.

As a specialist heart centre, we are able to perform a range of procedures. Our cardiologists carry out heart catheterisations, angiograms, electrophysiology studies, percutaneous coronary intervention, valvuloplasty, peripheral angioplasty and pacemaker implantation, while our surgeons have the necessary expertise and skills to carry out open and closed heart surgeries, heart and lung transplants, LVAD implantations, thoracic and vascular surgery.

Throughout the years, the IJN CVT team has carried out several breakthrough

procedures - these include a historic milestone in 2014 when they pioneered the Mardil VenTouch system with the world's first-in-man (FIM) procedure to treat mitral valve regurgitation.

### PAEDIATRIC AND CONGENITAL HEART CENTER (PCHC)

The Paediatric and Congenital Heart Centre (PCHC) is an integral part of IJN's commitment to be a global center of excellence in cardiovascular and thoracic care.

At PCHC, we aim to improve the care of children with heart disease by providing services of the highest quality to all patients. PCHC operates 7 sub specialized clinics, with the main one being the Paediatric Cardiology Clinic; supported with state-of-the-art facilities that include three dedicated operating theatres, a dedicated paediatric and congenital general ward and intensive care unit.

PCHC's strategic transformation plan to achieve excellent clinical services with a patient-centric culture incorporates a strong focus on human capital development, which includes conducting workshops on topics relating to paediatric cardiology and congenital disorders. PCHC was also an active participant at several congresses and conferences locally, as well as those in Indonesia, South Korea, India and Hong Kong.

In addition to these activities, PCHC also conducts a Fellowship Programme to train candidates on paediatric cardiology. Apart from our local doctors, Fellowship candidates also come from various countries which include Libya, Vietnam, Pakistan, Nepal, Indonesia, Thailand and the Philippines.

IJN College was set up in 2007 as the education arm of the hospital to offer training in CVT care. As one of the premier providers of cardiac care within the region, IJN is an ideal training ground for professionals wishing to hone their skills in the fields of cardiology, cardiothoracic surgery and cardiac anaesthesia as well as in the related allied health disciplines of Perfusion Technology, Cardiovascular Imaging, Cardiovascular Technology and Peri-operative Nursing.

**IJN College offers an extensive range of programmes. Those offered in 2014 were...**

#### AWARDED PROGRAMMES

- Graduate Certificate in Cardiovascular and Thoracic Sciences
- Professional Certificate in Coronary Critical Care Nursing

#### SHORT COURSES BASIC

- Arts & Sciences of Mentoring for Healthcare Professionals
- English for Healthcare Professionals
- Intermediate English for Healthcare Professional
- Conversational English
- Introduction to Cardiac Care Services

#### WORKSHOPS

- Intermediate Echocardiology
- Good Clinical Practice
- Medical Equipment User Training
- Cardiology Critical Care Competency Recertification
- Demystifying Scientific Writing in Medical Literature
- Finance for Non Finance Managers
- Anticoagulation Workshop
- Basic Cath Lab (New Hire Coronary Training)
- Body Mechanic and Ergonomic
- Chest Drain Management
- Clinical Workshop
- MS ISO 15189:2012 Standards
- Phlebotomy
- MS Access 2013

#### SYMPOSIA/CONFERENCES

- Cardiovascular Updates
- 2<sup>nd</sup> IJN End of Life Symposium
- 2<sup>nd</sup> ICU Seminar
- Advance Cath Lab Symposium
- 1<sup>st</sup> IJN Foot Care Symposium

**...as well as Executive Development Programmes, Supervisory Development Programmes, Senior Managers Training, and Middle Managers Training**

## EXCELLENCE IN CARDIOVASCULAR AND THORACIC EDUCATION



#### PROGRAMMES AND PARTNERSHIPS

The college offers various programmes which include certification courses, short term courses and workshops. The programmes are geared towards healthcare professionals who are already working in the cardiac care setting or who wish to pursue a career in the above fields, as well as for non-clinical staff as part of the development of existing IJN employees.

Apart from offering its own programmes, IJN College also coordinates programmes in partnership with local and international Institutions of Higher Learning such as the University of South Australia.

Additionally, as part of its efforts to share knowledge with healthcare professionals, the College regularly organises symposiums and conferences. In 2014, five conferences were organised, of which three were in collaboration with IJN and IJN Foundation.

Looking ahead IJN College will continue to improve its programmes and explore new partnerships with both local and international institutions.

# THE HOSPITAL WITH A HEART



## CORPORATE RESPONSIBILITY

IJN is a responsible and caring organisation, and we strive to extend our services and knowledge to all segments of the population. We understand the hardships that certain communities face in terms of having access to us, and as such we regularly conduct outreach programmes to raise awareness on heart and health issues, as well as to provide basic services.

Our Outreach Programmes play an important role in this area, and we have carried out on-ground activities at various locations in the country. These include programmes at mosques, high traffic areas such as supermarkets, residential areas, government and corporate offices, and orang asli communities.

In 2014, we initiated several campaigns to educate the public on heart disease awareness such as for World No Tobacco Day, Nutrition Month, International Women's Day and World Heart Day. The response was outstanding compared to previous years especially for World Heart Day where the campaign ran for one whole month at the IJN premises.

We will continue with these activities in 2015 as we look to reach out to more communities. We will also look at creating awareness on the dangers of obesity and its relation to heart diseases as this has become a major concern at the national level, especially among school children.



**HEART DISEASE  
KILL WOMEN  
3 TIMES  
MORE THAN  
BREAST CANCER**

IJN IS A RESPONSIBLE AND CARING ORGANISATION, AND WE STRIVE TO EXTEND OUR SERVICES AND KNOWLEDGE TO ALL SEGMENTS OF POPULATION.



# QUALITY ASSURANCE AND ACCREDITATION



CERTIFIED TO ISO 9001 : 2008  
CERT NO : AR 3295



CERTIFIED TO ISO 9001 : 2008  
CERT NO : AR 3295



CERTIFIED TO ISO 9001 : 2008  
CERT. NO. : AR 3295



Throughout the years, IJN has earned itself a reputation for excellence in heart care services, both locally and internationally. This is largely attributed to the successful procedures our specialist consultants and surgeons have carried out, as well as the expert care given by the nursing staff and the various support units.

Apart from the hospital's success and experience, the hospital pays much importance on quality of care and patient safety. The high level of quality of care can be seen through the local and international accreditations achieved by the hospital, consumer feedback and the high level of care that are benchmarked against international standard.

## HOSPITAL ACCREDITATION

IJN is accredited internationally by The Joint Commission International (JCI) and at the local level by The Malaysian Society for Quality in Health (MSQH).

JCI is an independent, non-profit organization that evaluates and accredits nearly 700 healthcare organizations across Asia Pacific, Middle East, Europe and South America on quality care and patient safety. IJN has received JCI accreditation since 2009.

MSQH, on the other hand, provides standards and assessments for the Malaysian Healthcare Industry, with the aim of stimulating continuous, systematic improvement in an organization's performance and the outcomes of care.

## CONSUMER RATING AND FEEDBACK

Ratings and feedback from patients provide strong testimony to the high standards of IJN. These records are diligently reviewed to identify areas of improvements, and kept for the reference of future patients. The knowledge and review of clinical outcomes not only provide assurance to patients but is also an endorsement to the quality and experience of the hospital.

## QUALITY IMPROVEMENTS

As part of our standard operating procedures, we have documented diligent performance standards and measures to ensure continuous improvements and that there is accountability in the delivery of health care and excellence in customer service. This includes reports on how the hospital ensures that it delivers quality and reliable services and that specific standards are met.

[www.ijn.com.my](http://www.ijn.com.my)

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