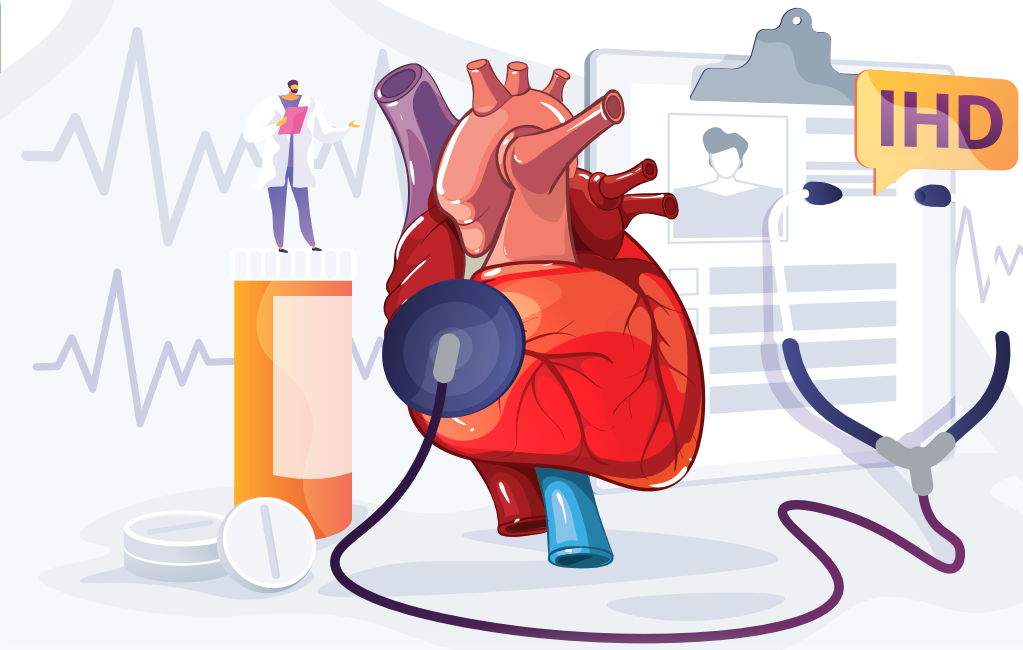


10th Anniversary
BDMS THE BANGKOK MEDICAL JOURNAL
For Better HealthCare

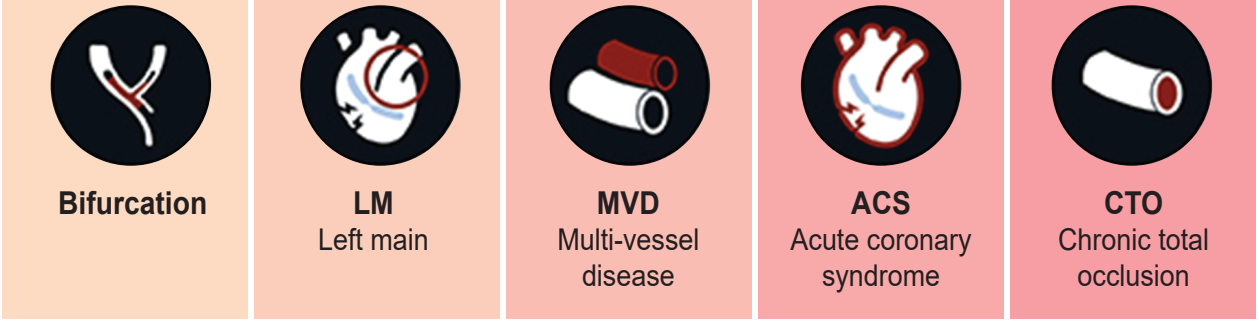
Cardiovascular Center of Excellence (HEART)

Damras Tresukosol, MD, FSCAI, FAPSIC
Chief Faculty of Cardiovascular CoE Institute

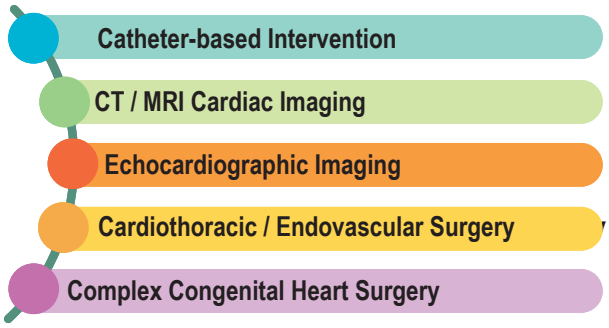
This year is very special for physicians, and all supporting staff from all departments, in all hospitals under Bangkok Dusit Medical Services, PLC (BDMS). BDMS has had a long journey to reach its **"GOLDEN ANNIVERSARY"** or 50th year of delivering cherished medical services. Center of excellence (CoE) Heart is delighted to share issues we consider highlights from our performances.

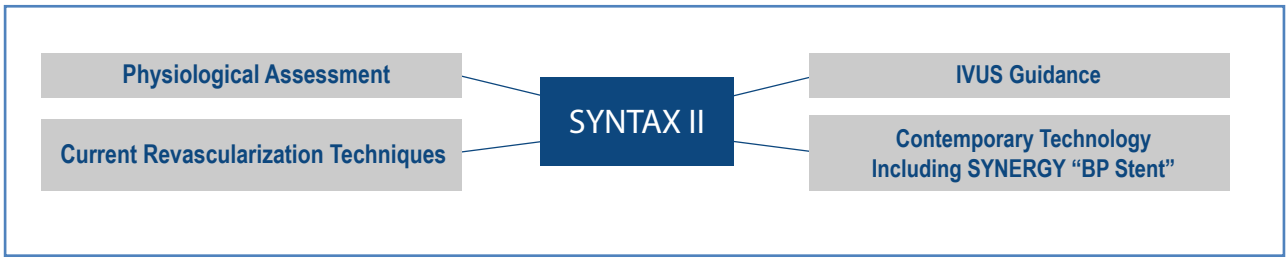
The Golden Milestone

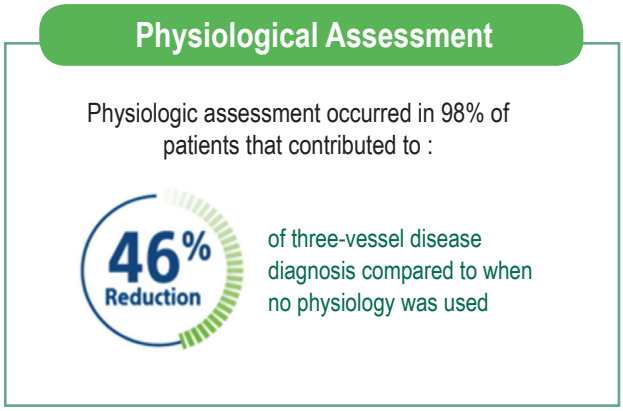
We are proud to be ever more successful in many aspects of cardiovascular investigation and treatment. This year is special, as a new CT scanner has been installed, one of the fastest scanning systems in the country. The renovation of clinics, cardiac intensive wards, rooms, elevators is all complete. After more than a year of experience participating in our own in-house BDMS Cath PCI registry, we have accomplished the process link-share-learn among our CoE. We apply concepts of Quality and Value of Percutaneous Coronary Intervention (PCI). Coronary angiography has been ordered more appropriately. PCI was conducted in a better way, following standard practice guidelines. Monthly cardiac conferences among CoE took part to avoid pitfalls, and to reduce morbidity and mortality. Difficult cases were identified, learning from experts helping interventional cardiologist to obtain higher skill sets. PCI **Quality** simply means "Do the right things" and **Value** means "Do the things right" and could be applied for our loyal customer as "Money well spent". Compared with last year's performance, we move forward with a more complex high risk intervention procedure (CHIP) on diseased coronary artery. All CoEs improve physician and supporting staff's ability to cope with CHIP intervention. This year we focus more on CHIP including chronic total occlusion, heavy calcification of the coronary, and left main intervention. So far, we have implemented the adjunctive use of physiologic assessment in the coronary artery, the so called instantaneous wave free ratio measurement, to identify lesion-related severity prior to PCI. Another new paradigm shift is the application of intracoronary imaging such as intravascular ultrasonography or optical coherence tomography guided PCI. This technique confirms the stent optimization post-PCI aims, to achieve stent

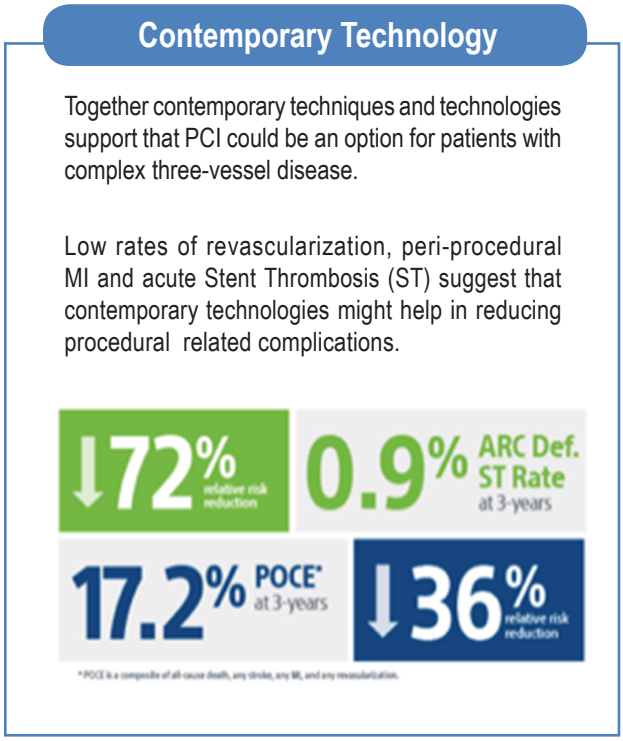


full expansion to the vessel wall, well opposed stent strut to the vessel wall, and to inspect the edge of stents without any vessel tear or dissection. These findings will guide to a higher procedure success rate of up to 87% and reduce the patient-oriented cardiac event to 17.2% (a 36% risk reduction) and stent thrombosis to 0.9% (a 72% risk reduction). With this in mind, our patients can expect a better outcome with less need driven coronary artery bypass surgery. We will bring the newer device to fight those with severe calcified vessel that impede the stent expansion in rigid vessels such as orbital atherectomy and intravascular lithotripsy. The new era of CHIP would then come true for this so called **"Golden anniversary".**









From Cardiovascular Surgery Excellence

The Next Step Forward

Year 2020 we focused on the prominent service provided through our expertise. Extracorporeal Membrane Oxygenation (ECMO) is one of the most important recent advances in cardiovascular technology. If heart muscles are progressively damaged and pneumonia develops causing lung tissue damage and oxygen insufficiency, oxygen supplement might be required in order to maintain adequate oxygen levels in the blood to supply vital organs in the body. In case cardiac and respiratory conditions become fatal, mechanical ventilators might not be able to manage these conditions. ECMO can be used to provide prolonged support to cardiovascular and respiratory systems. This device can be used to treat heart failure, heart attack, or acute respiratory failure, often as a temporary therapy before long-term treatment such as a ventricular assist device, heart transplantation, or lung transplantation.

Bangkok hospital has over 10 years' experience in delivering ECMO treatment. We regularly offer training in BDMS sim center to help critical care medical professionals nationwide and to learn the latest techniques and technology in the use of ECMO.According to data from the Extracorporeal Life Support Organization (ELSO), our ECMO team's survival rates remain within average as compared to other world leading heart centers. The patient supported with ECMO have a rate of survival three times higher for respiratory indications and four times higher for cardiac indications.

ECMO treatment at Bangkok Heart Hospital is conducted by well-certified and experienced specialists. In addition to COVID-19 patients, our ECMO with medical evacuation services are ready around-the-clock for patients facing critical conditions, e.g., cardiac, and respiratory failure in which lifesaving interventions are necessary.

ISSN 2287-0237 (online)/ 2228-9674 (print)

We also offer another modality of investigation and medical service considered to be world class including all emergency aortic aneurysmal ruptures or dissection aneurysms. We are the only private hospital in Thailand that not only performs this type of highly complex surgery in comparison to that offered at medical schools, to relieve the burden for all Thai and foreign patients, with outstanding outcomes.

Finally, in short, we have more to inform, hence we could not cover here to give a complete account of all our works. We finish with our core values: **B**eyond excellence, **D**eep empathy, **M**oral commitment and **S**ervice with Thai hospitality to you all.





ECMO Survival rate (1 Jan 2011-15 July 2021)

ECMO TYPE	Survival to discharge
VA-ECMO	35 %
VV-ECMO	52 %

