

The Meril logo is a blue square with the word "Meril" in white, sans-serif font. The background of the entire slide is a silhouette of a family (a man, a woman, and two children) standing in a field of tall grass, with their hands raised to touch at the top, set against a warm, golden sunset sky.

Meril

Contributing to Improve India's Healthcare Landscape

Innovation in Meril

4th Mar 2021, Vapi

Heart Attacks



- 30 Lacs/year
- 3,000 Interventional Cardiologists
- 1,000 Cath-Labs
- 600,000 PCIs
- 30,000 Primary PCIs

Strokes



- >20 Lacs/year
- 1,300 Stroke Specialists
- 1,000 Stroke Centers
- 8,000 Carotid Procedures
- 5,000 Intracranial procedures

Diabetic foot



- 6.5 Crore/yr
- 10% have vascular limb ischemia
- 200 Vascular Surgeons
- 100 Vascular Angiologists
- 10,000 cases of critical limb ischemia

Osteoarthritis



- 1.5 Cr/year
- 1,800 Joint Replacement Surgeons
- 700 Joint Replacement Centers
- 190,000 TKR
- 44,000 THR

Trauma



- 30% Trauma road accidents
- > 5 Lacs/Year
- 25,000 Ortho Surgeons
- 30,000 Trauma Centers
- 500,000 Trauma Cases

General Surgery



- 450 Medical Colleges
- 200,000 Surgeons
- 30,000 Surgical Centers
- 500,000 Surgical Cases

Diagnostics



- 450 Medical Colleges
- 60,000 Path-labs
- 25,000 Pathologists
- Each Path Lab does 10-15/samples per day

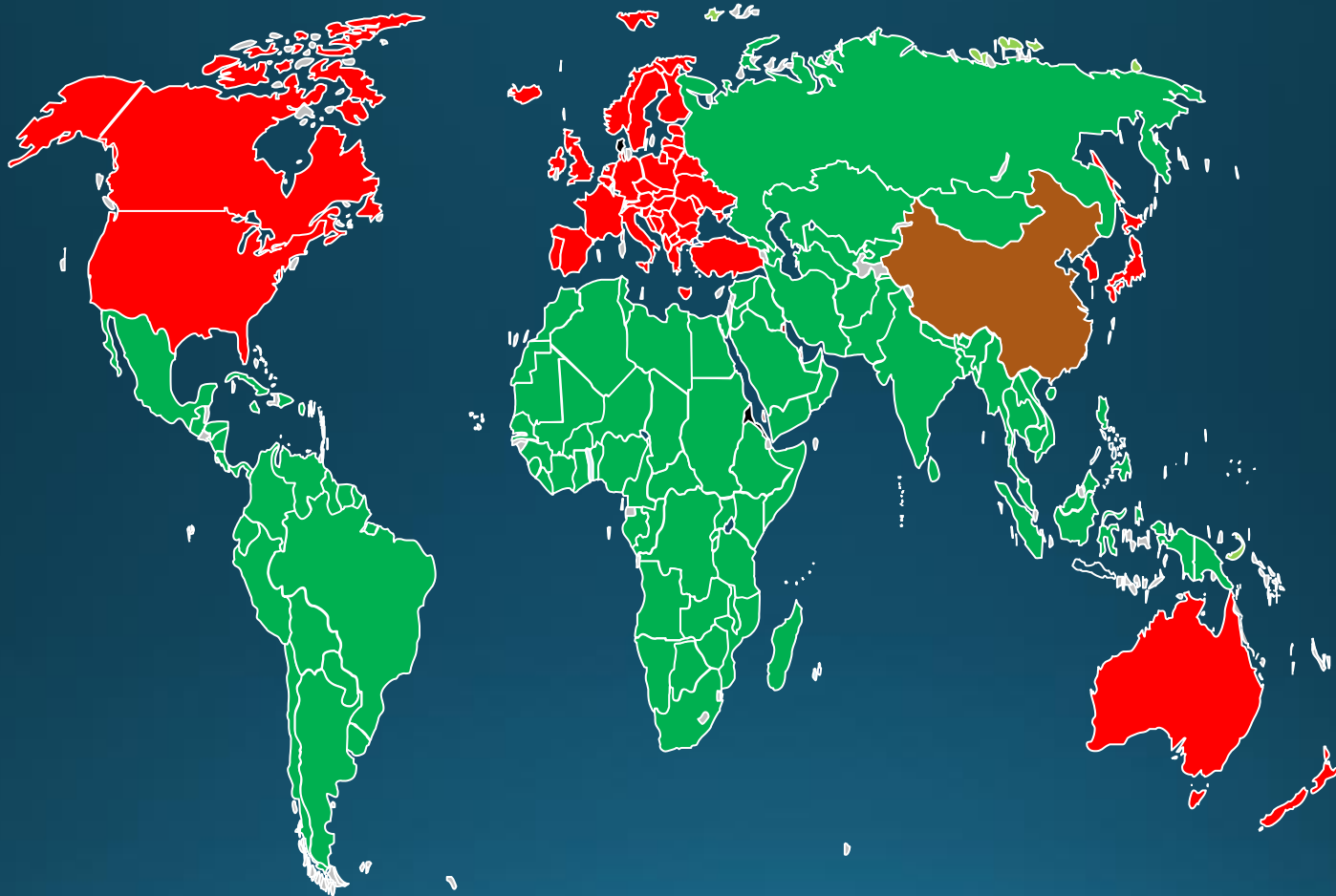
Global MedTech – India Perspective

- Most MedTech R&D either in US & Israel (or EU)



- Externally funded VC/PE/Others - short term exit strategy
 - Patience decides fate of the technology – high failure rates
- Poor links to vertical integration – manufacturing, clinical research & regulatory & eventually commercialization
- The path to commercialization – long drawn, expensive
- No focus for the large population; bottom of the pyramid markets

Consider A Bi-Chromatic View...



20% Population – 0-5% growth

80% Population – 15-25% growth

Indian Healthcare – Critical Success Factors



Response to Health Care Unmet Needs

- **Consolidation in Services**
 - Growth of 3^o Care Hospitals
 - Private public partnership
 - Penetration of Health Insurance
- **Saturation in Pharma**
 - 40,000 pharma bulk drug/formulations mfg. units
 - Dominion of generics
- **Commitment in Medical Devices**
 - Absence of domestic large organized players
 - Lack of long term vision and commitment to the industry
 - High import costs leading to increased treatment costs
 - Absence in high-tech local R&D and manufacturing
 - Lack of commitment to education of care providers



Meril – An Elegant, Inimitable Model

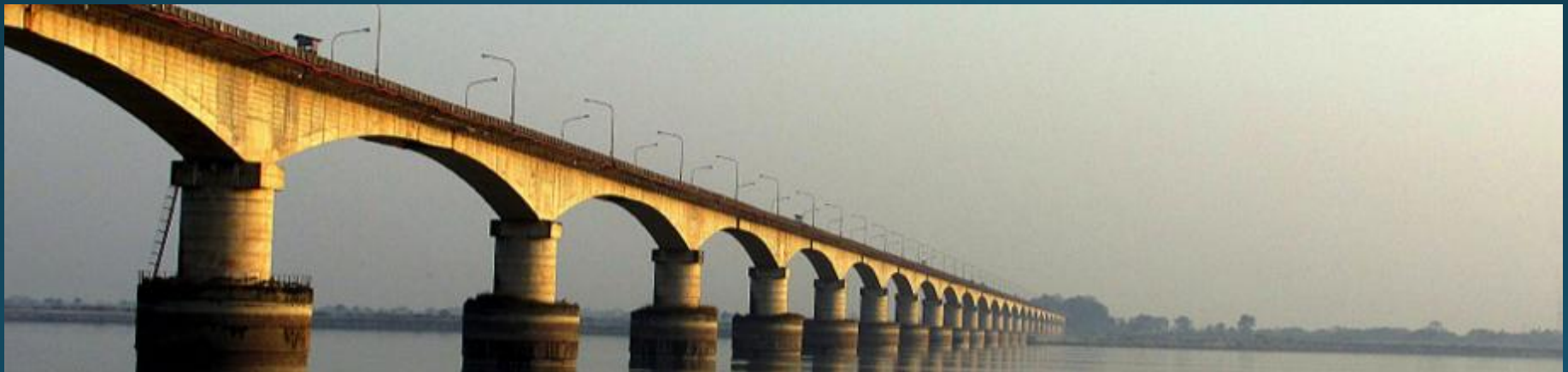
Meril



- Awards by Government of India
 - Medical Device company of year 2016 & 2022
 - Medical Device Export company of year 2016

Meril – Bridging the Healthcare Gaps

- Focus on indigenous R&D and bring novel, latest treatment options to Indian patients first.
- Generate strong intellectual property to bring India on global innovation map.
- Manufacture high quality products by leveraging economies of scale and contribute in bringing down treatment costs.
- Creation of a new employment sector – providing job opportunities and grooming talent for medical device manufacturing and R&D.
- Creation of dedicated training and education forum for Doctors, Paramedics and Healthcare Professionals.
- Build strong export platform there by contributing to country's economic growth and stability.



Meril – A Global MedTech Group

Meril



Location

Meril is located 100miles north of Mumbai



Vapi

CORE OBJECTIVE

To develop, manufacture & distribute clinically relevant, state-of-the-art & best-in-the-class products to alleviate human suffering & improve quality of life.

**Global med-tech hub for
high quality,
next generation
technologies**

Meril is founded by the Bilakhia Family.

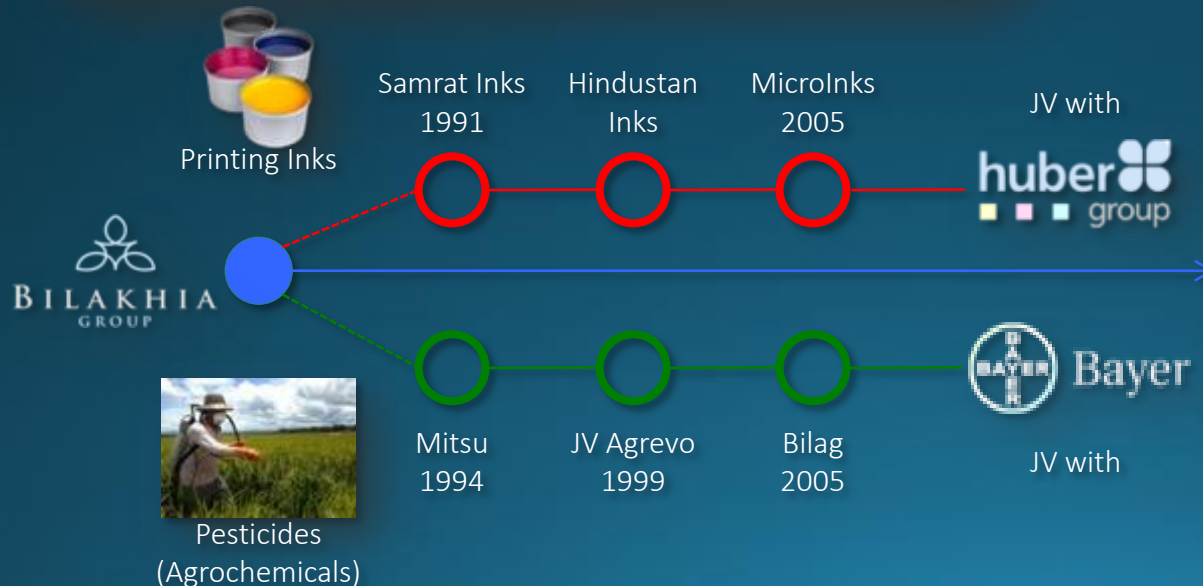
Bilakhia Family – Background & History

Meril

Corporate HQ, Vapi, India



- Meril is founded by a large Indian business family – The Bilakhia Group
- Group has a history of successful partnerships with MNCs
 - Strong R&D base
 - Large scale manufacturing
 - High quality culture
 - Ability to bring down the costs
 - Global market presence
 - Commitment to partners & stake holders



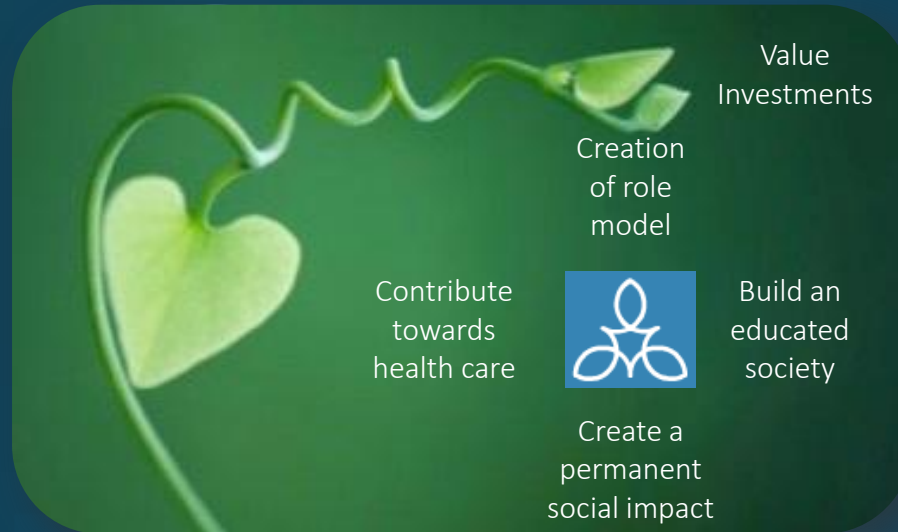
Bilakhia Family – Future Directions

Meril

WEALTH

HEALTH

EDUCATION



M3 Investments

Value Investment Group

- Pharmaceuticals
- Banking & Finance
- FMCG
- Specialty Industries

Meril

- Meril is a global medical device/technology group with > 100 technologies
- Established since 2007, today Meril is in >100 countries, with >4,000 employees

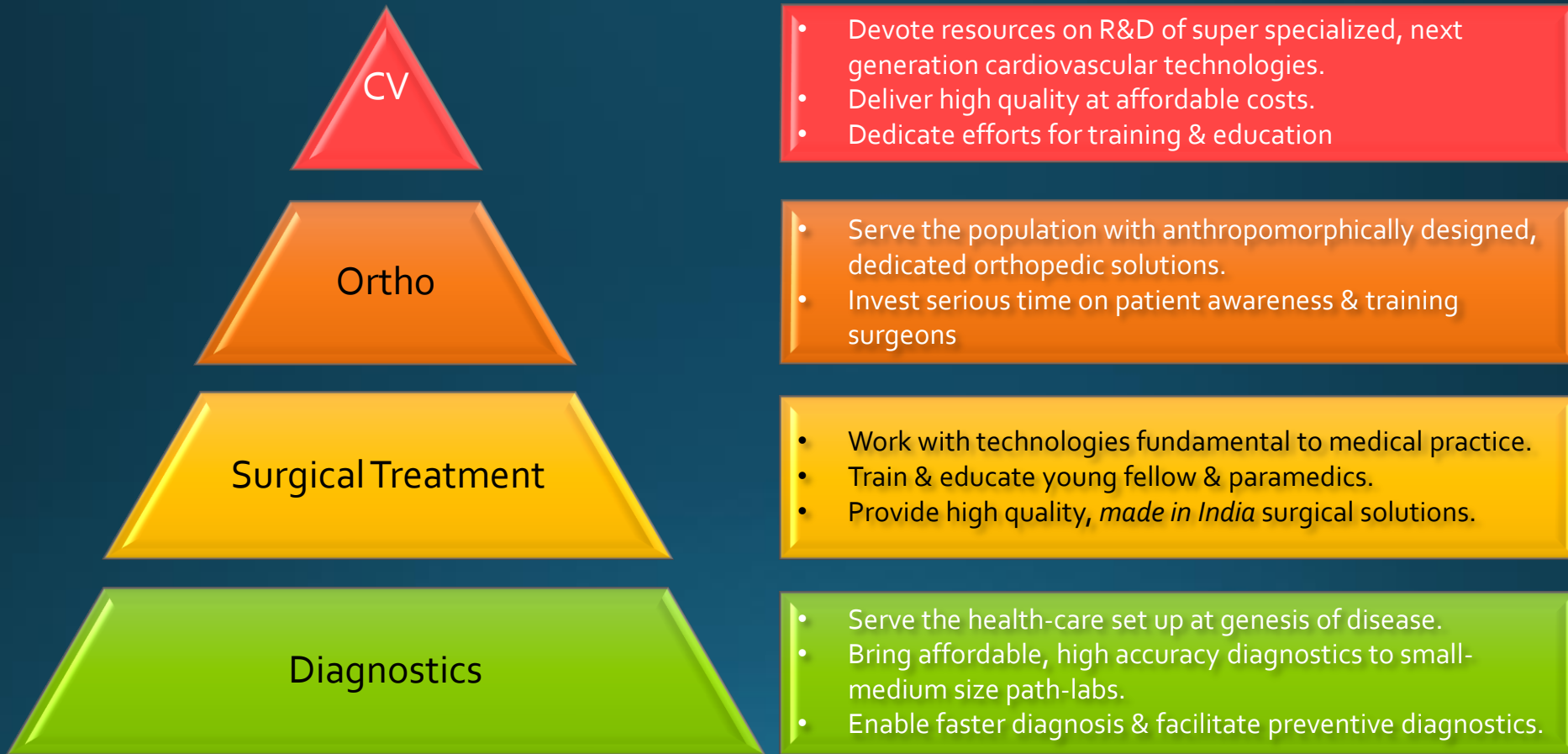


Maa Foundation

Knowledge is growth

- Not for Profit Organization
- Brings schools to villages
- Supports 250 schools, > 10,000 students

Meril – Broad Operational Canvas



Meril's DNA & Business Verticals



Meril's DNA

<p>Strong R&D Focus</p>	<p>Large Scale Manufacturing</p>	<p>Highest Quality Control</p>
<p>Commitment to Training & Education</p>		<p>Strong Organizational Band Width</p>
<p>Creating Long Term Partnership</p>	<p>Global Market Presence</p>	<p>High Cost Competitiveness</p>



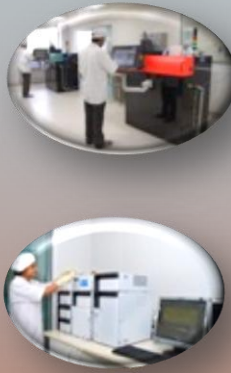
Vascular Interventions 24 Product Families	Orthopedics 10 Product Families	EndoSurgery 30 Product Families	In-Vitro Diagnostics 45 Product Families
Cardio Vascular	Total Knee Replacement	Sutures	Analyzers
Peripheral Vascular	Total Hip Replacement	Staplers	Reagents
Neuro Vascular	Robotic Surgery	Surgical Adhesives	Biochemistry
Structural Heart	Trauma Implants	Hernia Repair	Hematology
Heart Failure	ENT	Women's Health	Immunology
<h1>> 100 Technologies</h1>			Rapid Test & POCT
			Covid-19 Test

Meril – R&D Philosophy

Concept to Prototype



Mfg & QA



Pre-Clin.



Clinicals



Regulatory



18-24 persons dedicated team | 3-5 years | 50-60 Shared resources

Start

Year 2

Year 3

Meril – Manufacturing Infrastructure

Meril

- In-house R&D, Large scale, ultra-modern manufacturing dedicated to manufacturing and R&D of Cardio-Vascular, Orthopedics, Endo-Surgery & In-Vitro Diagnostics



Meril – Clinical Research & Regulatory

Clinical Research Bandwidth

Business Unit	Complete+ Ongoing Clinical Trials	# of Subjects	
CardioVascular	30	12,827	<ul style="list-style-type: none">• 140+ Clinical Trials (RCT + Registry) = 23,000 Subjects India + RoW. 100+ Publications• Large team of 80 experts – in-house study design to publication• Strong focus on generating clinical evidence and ensuring proper publication• Engage Physicians in registries and RCTs to establish strong scientific evidence
Orthopedics	15	6909	
EndoSurgery	18	2250	
Diagnostics	10	2000	

Regulatory Bandwidth



100+ Professionals



Deep Understanding



3000+ Approvals



100+ Countries



+ Documentation

Meril – Commitment to Education & Training

Meril

Meril

ACADEMY

- CME accreditation from Medical Council of India (MCI) for all courses
- Dedicated live case transmissions for Ortho, Cardio, Surgery on regular basis
- Targeted 10,000 HCP for educational programs
- Large auditoria >750 seating capacity
- 6,000 doctors participated <15 months
- 1,500 employees trained



Meril – A Decade

Meril

Meril – Progress Report

- >100 product lines
- Business in 100 countries
- 55% revenue exports ↑
- 40% growth YoY
- 4,000 employees ↑
- DCGI, CE, USFDA, CFDA, KFDA, ANVISA, INVIMA, Russia MoH, TGA, Canada, PMDA Japan
- 100% subsidiaries – USA, Germany, Brazil, Turkey, China, Russia, South Africa, Bangladesh, Australia
- Strong distribution system – Lat Am, EU, Russia & CIS, MEA, SEA & APAC



#24



#10



#30



#45

#100 Technologies

Established 2007



Global med-tech hub for high tech, high quality, next generation technologies

Meril – Making India Proud

Meril



- India Medical Devices Company of the Year Award.
- India Medical Devices Export Company of the Year Award.
- Promoting the country's flagship philosophy of "Make in India".

By Speed Post

No. 35022/12/2016-IC
Government of India
Ministry of Chemicals & Fertilizers
Department of Pharmaceuticals

Shastri Bhawan, New Delhi
the 31st January, 2017

To,

Shri Dinesh Jain,
Company Secretary,
M/s Meril Life Sciences Pvt. Ltd.
Bilakhia House, Survey No. 135/139, Muktanand Marg, Chala,
Vapi-39619, Gujarat
Email:- askinfo@merillife.com

Subject:- 2nd India Medical Awards

Sir,

I am glad to inform you that this Department has decided to confer the 2nd India Medical Awards in the following Categories to your company:-

- a) India Medical Devices Company of the Year Award
- b) India Medical Devices Export Company of the Year Award

2. The Awards will be conferred by Shri AnanthKumar, Hon'ble Minister (Chemicals & Fertilizers), Government of India on **11th February 2017 at 6:00 PM** at Bangalore International Exhibition Center, Bengaluru during the currency of India Pharma 2017 and India Medical Device 2017.

3. The Chairman/Managing Director/Chief Executive Officer are requested to receive the Award on 11th February 2017. The details of the recipient(s) may be conveyed (email-uspi3-pharma@nic.in, kamal.bhardwaj@ficci.com) in advance to enable this Department to make suitable seating arrangements.

4. The Chairman/Managing Director/Chief Executive Officer are also invited to attend the Inaugural Session, CEOs' Roundtable, International Regulators Meet etc., scheduled to be held on 11-12, February 2017 during India Pharma 2017 and India Medical Device 2017. A copy of the programme is enclosed.

5. You are also requested to put your pavilion at the India Medical Device 2017.

Yours faithfully,

(Raj Kumar)

Under Secretary to the Govt. of India
Tel: 23071162
Email:- uspi3-pharma@nic.in

Meril – Global Recognition

Meril



2011 – Freedom Knee



Product Differentiation Excellence Award in Knee Joint Replacement Market for "Freedom Knee"

2015 – Meril



2016 – BioMime DES



Poised to Serve Global Med-Tech Needs



#24



#10



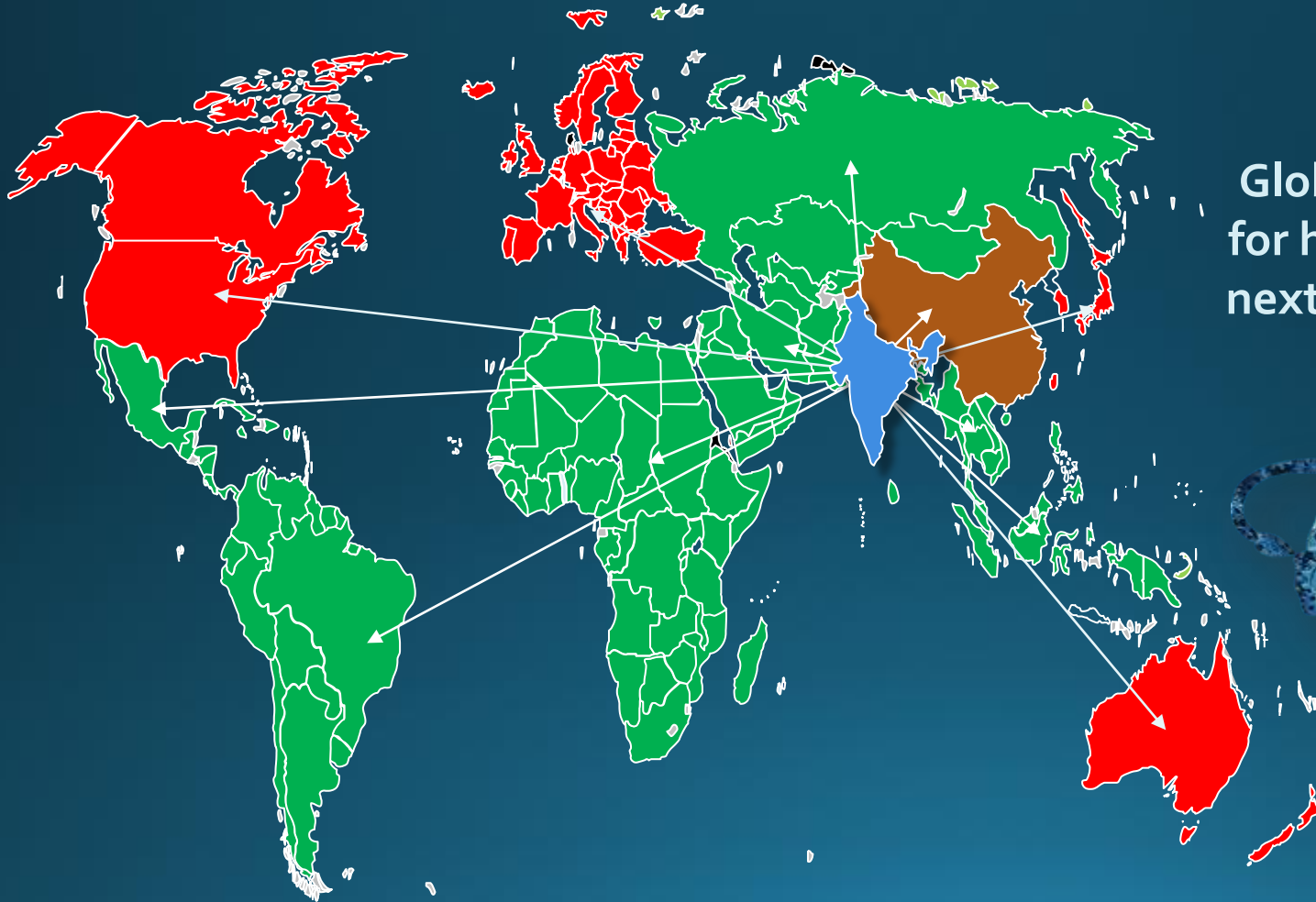
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#100

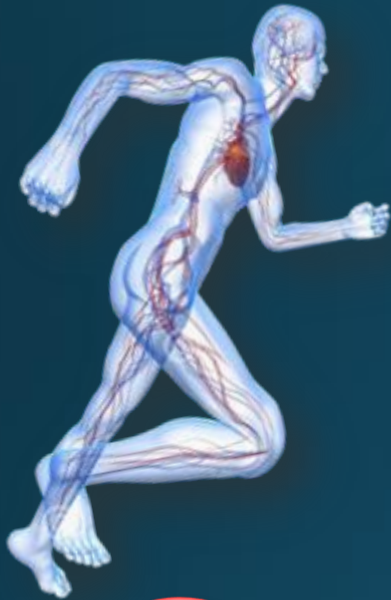


Global med-tech hub for hi-tech, hi-quality, next gen technologies



Meril – Technology Parade

Meril



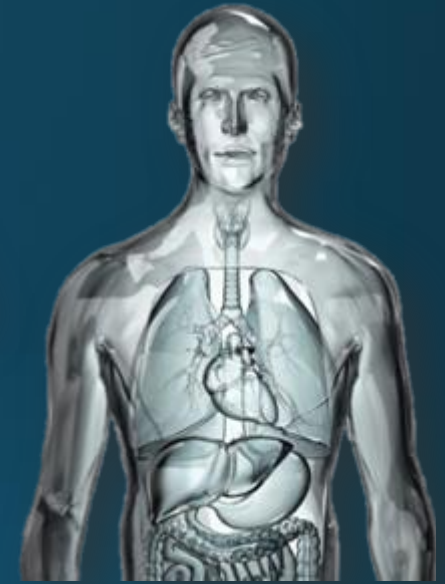
Cardio
Vascular



Ortho-
pedics



Endo-
Surgery



In-Vitro
Diagnostics

Meril – CardioVascular Portfolio



BioMime – SES/PLLA+PLGA



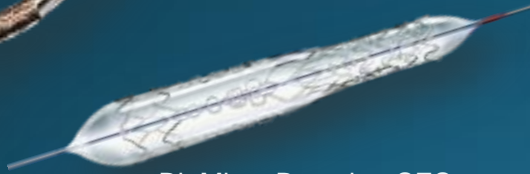
Ultra-low Strut Thickness 65µm – Coronary DES

MeRes100 – Sirolimus Eluting PLLA

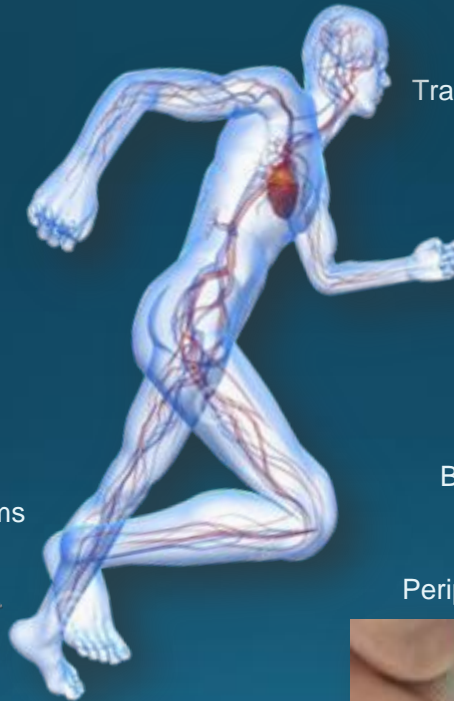


BioResorbable Coronary Scaffold 100µm

EverMine50 – Everolimus Eluting 50µm
Next Generation Drug Eluting Stent Systems
PLLA+PLGA



BioMime Branch – SES
Sirolimus Eluting Dedicated Side Branch DES



Myval - THV



Trans Catheter Aortic Valves

Floret - BRO



Septal Defect
Biodegradable Occluder

Embolization Coils



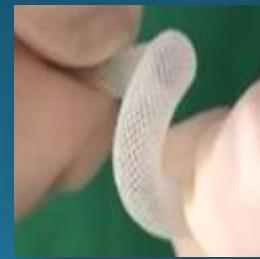
Liquid embolic material

Dafodil - SAVR



Surgical Tissue Valves

Peripheral Stent Systems

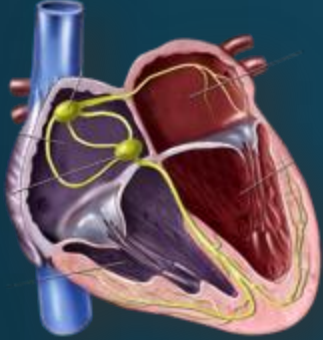


Peripheral DCB

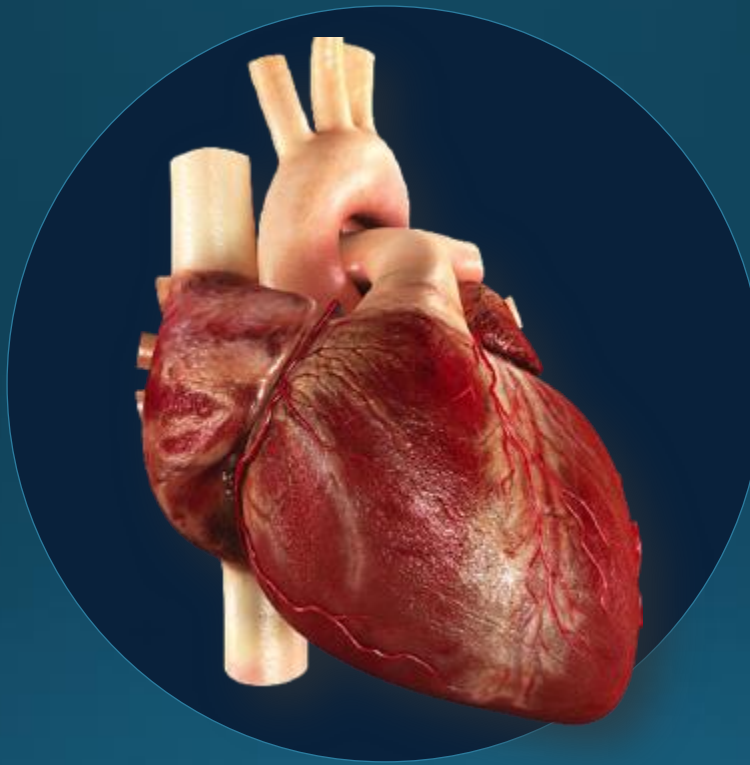
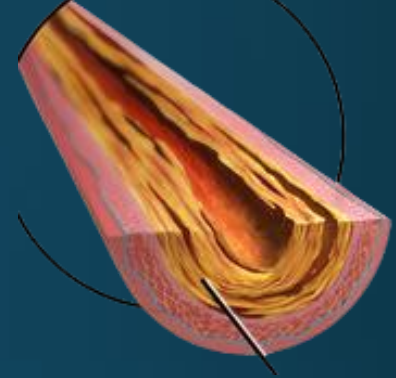


Heart Disease – Major Conditions

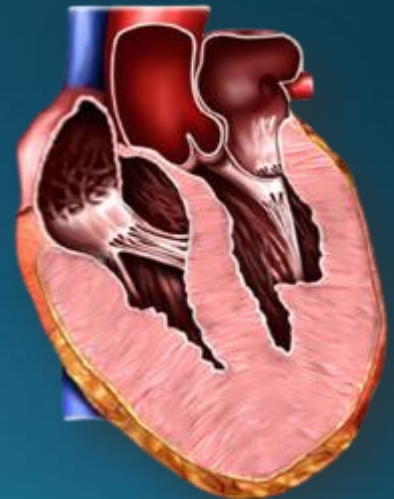
Cardiac Rhythm Management#



Coronary Artery Disease (PCI)



Heart Failure
Ventricular Assist Devices



Heart Valve
Replacement & Repair



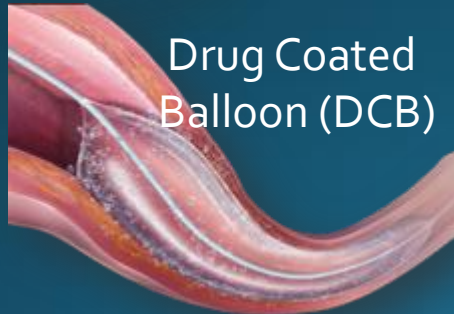
Meril is not present in CRM

Burden of Heart Attacks – 1 of 4 Deaths



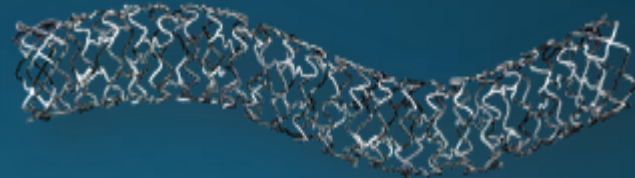
In Addition to Medical Treatment, Options to Open Blocked Blood Vessels Using Angioplasty & Stenting

PTCA
Balloon



Drug Coated
Balloon (DCB)

Drug Eluting Stent (DES)



BioResorbable Vascular Scaffold
(BRS)

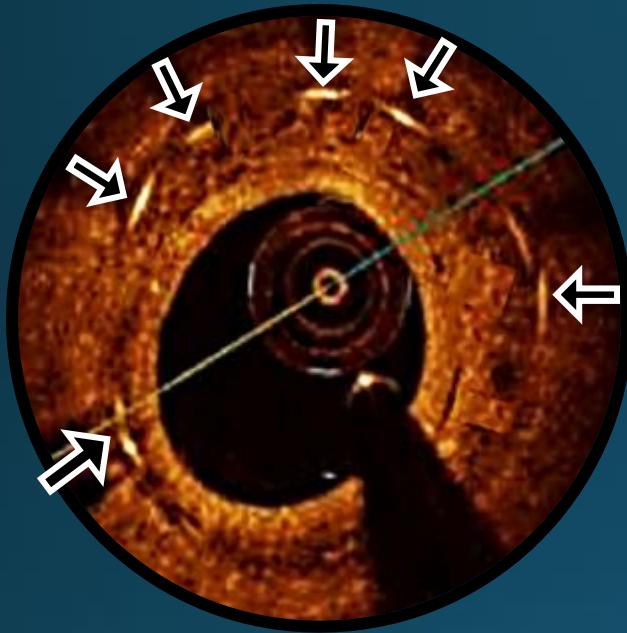


One in 4 deaths in India are now because of CVDs with ischemic heart disease and stroke responsible for >80% of this burden.

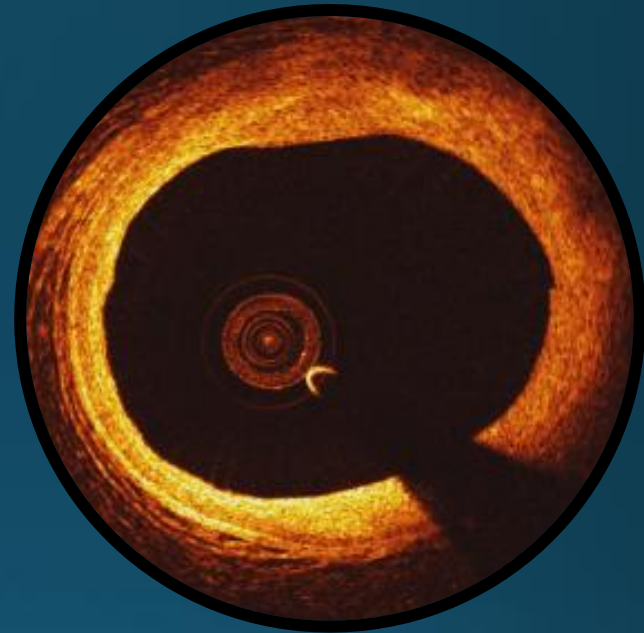
<https://www.ahajournals.org/doi/epub/10.1161/CIRCOUTCOMES.118.005195>

Need for A BioResorbable Scaffold

Permanent Metallic Stent



Uncaged Vessel with BRS



- Globally > 6mio patients receive a metal alloy based Drug Eluting Stents (DES) per year
- 6-10% patients may have re-narrowing of stented segment and need to undergo repeat angioplasty after 1 year
- Blood clot formation is also likely in the stented zone over a period of 3-5 years in 3-5% patients
- **It is desirable to have the stent fully degrade once its primary role in angioplasty is complete**
- **Polymeric stents hold the promise of treating blocked blood vessels and completely degrading in 2-3 years leaving the blood vessel free of any foreign implant & thus any possible side effects**

MeRes100 – Sirolimus Eluting BRS

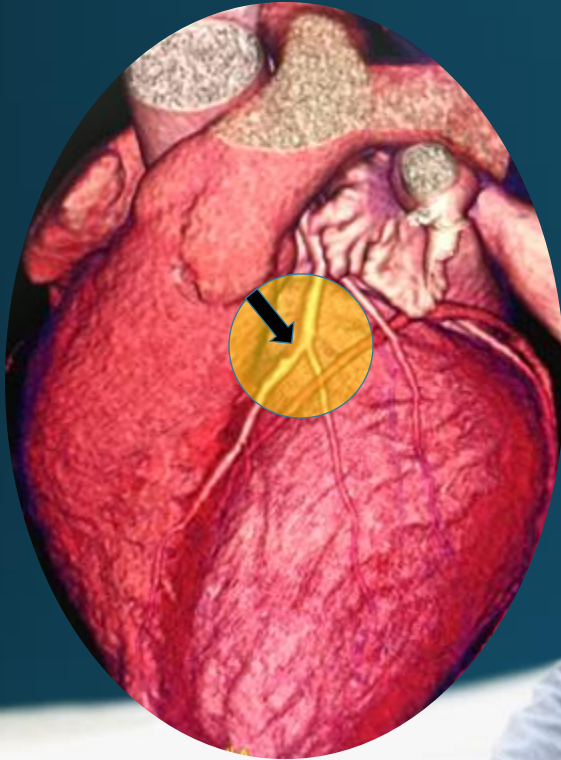
- Meril has indigenously developed a next generation fully biodegradable scaffold (stent)
- MeRes100 – is made of biodegradable polymer – PLLA (Poly Lactic Acid)
- After implantation in blocked blood vessel, MeRes100 – BRS degrades in 2-3 years



- MeRes100 – BRS has been well studied in two clinical trials across India and Globally
- MeRes100 – BRS had high degree of success with < 2% patients requiring repeat angioplasty over 3 years and none of the patients (0%) had a blood clot over 3 years.
- MeRes100 – BRS is approved by CDSCO, India and is also CE marked in Europe

Who May Benefit from MeRes100 – BRS?

Meril



- Young patients
- Patients with simple, single blood vessel blocks
- Non-complicated blocks without calcium



- Keep the blood vessel free of a metal cage after 3 years (in case the patient needs future treatment)

Valvular Heart Disease – Conditions

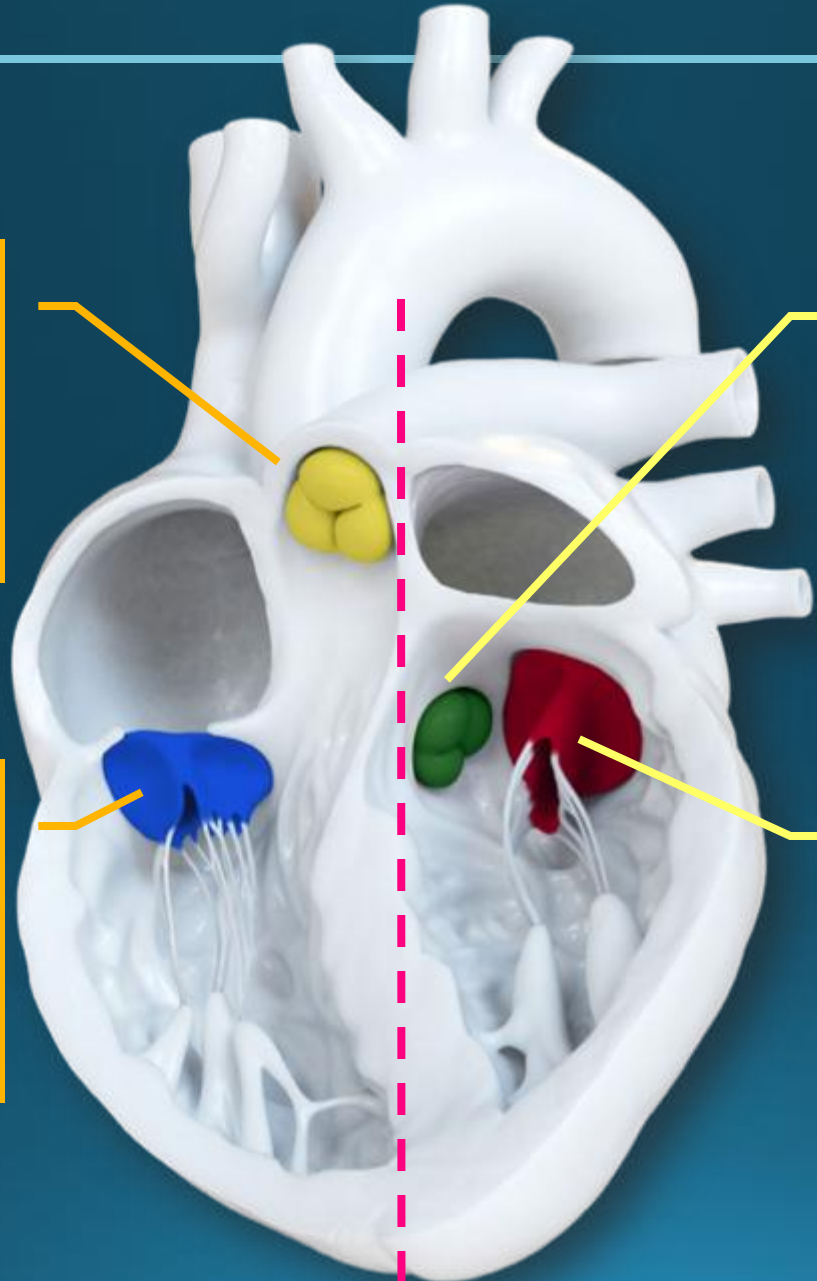
Right Heart Valves

Pulmonary Valve Disease

- 8-12% of general population
- Commonly seen in young kids

Tricuspid Valve Disease

- 10% of general population
- Progressive heart failure



Left Heart Valves

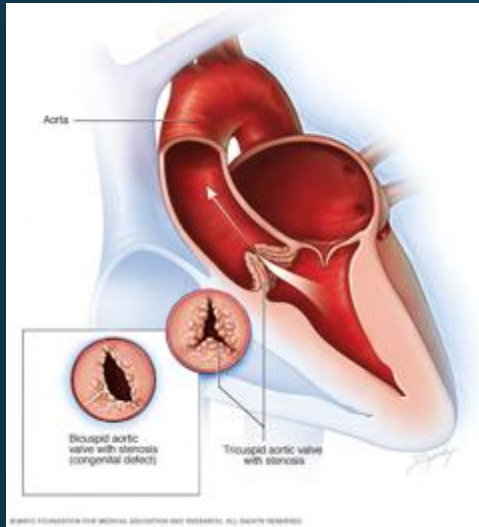
Aortic Valve Disease

- 5% of elderly population
- 50% patients die in 3-5 year

Mitral Valve Disease

- 10% of general population
- Progressive heart failure

Aortic Valve Disease – Symptoms



Fainting

Murmur



Chest Pain

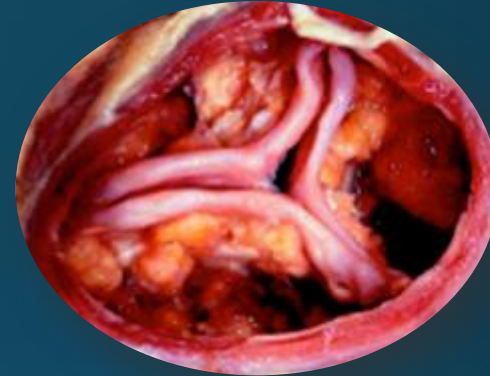
Breathlessness

Severe Aortic Valve Stenosis (AS)

5% of Elderly Population >70 years

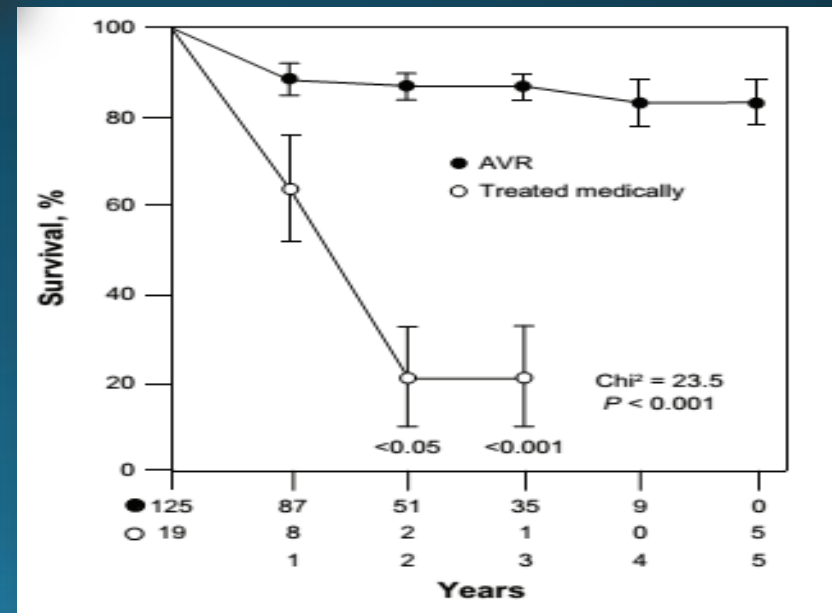


Poor Prognosis



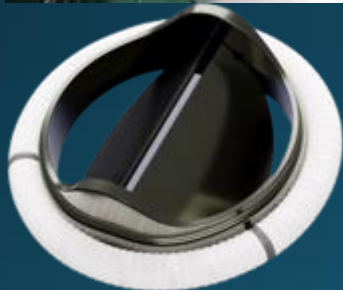
High Mortality

Demographics	Numbers
Indian population	1.35 bio
Potential population with AS	300,000 patients



Aortic Valve Replacement – Treatment

Surgical Aortic Valve Replacement (SAVR)



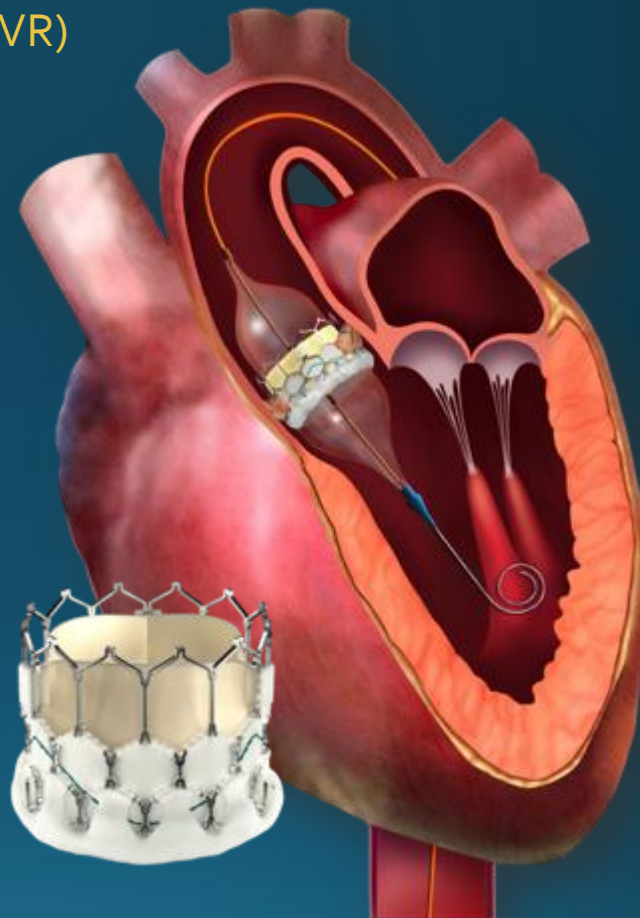
Mechanical
Bi-Leaflet



Surgical Tissue

- Open heart surgery
- 5-7 days for patient to get discharged

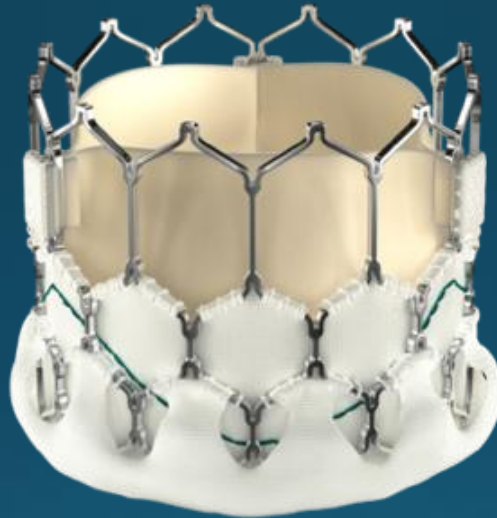
Transcatheter Aortic Valve Replacement (TAVR)



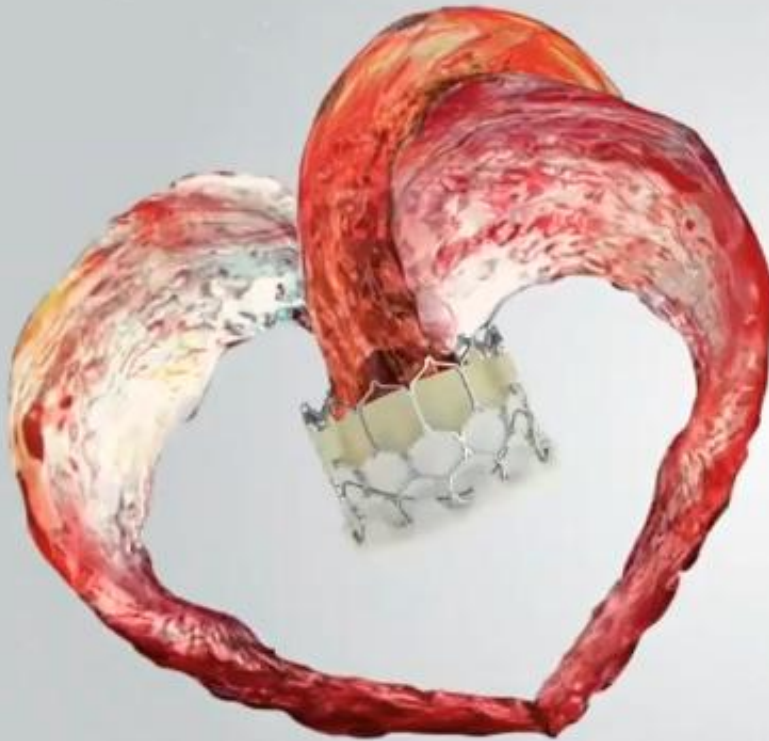
- Heart Valve replaced like angioplasty
- 2 days for patient to get discharged

Myval – Transcatheter Heart Valve

- Meril has indigenously developed Myval – Transcatheter Heart Valve (THV) technology
- TAVR /TAVI procedure is simple and effective way to replace diseased aortic valve using the techniques similar to Angioplasty & Stenting
- Procedure can be done under local anesthesia and without invasive surgery



- Myval – THV has been successfully studied in clinical trial. Patients receiving Myval THV had low complications and side effects. 4800 Myval THV implanted globally.
- Meril has strong commitment towards technology education for doctors and for patients
- **Myval – THV has been approved by CDSCO, India and is also CE marked for Europe**



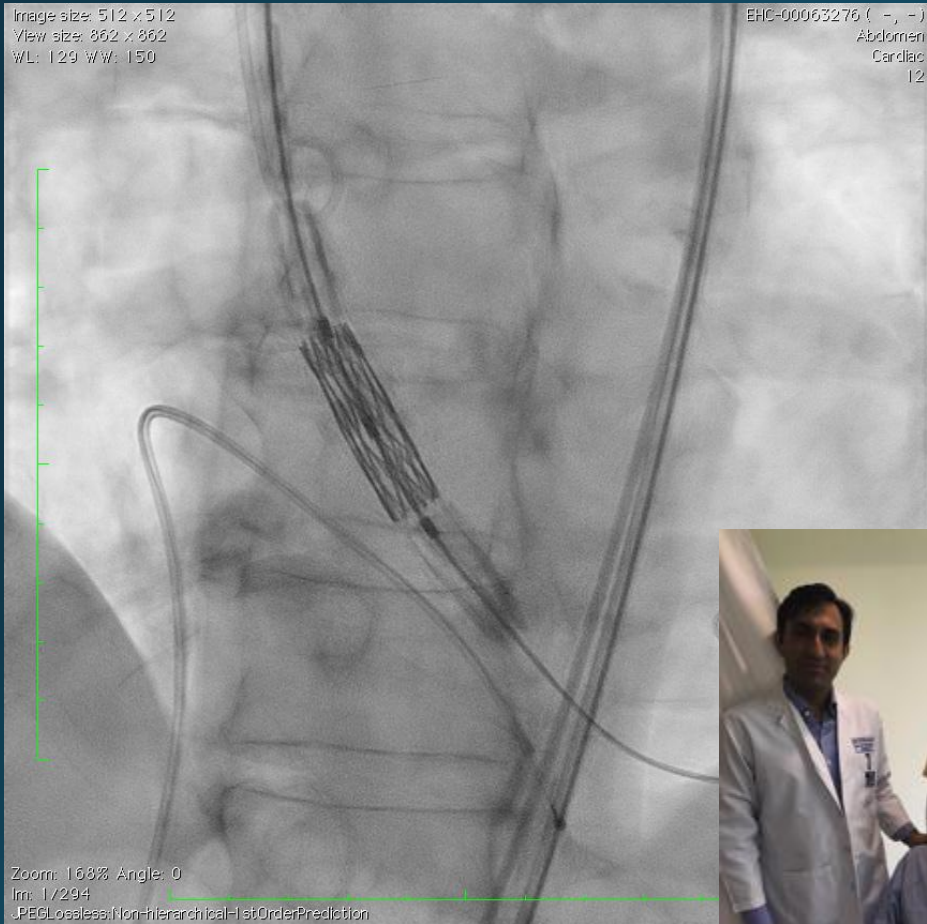
TAVR

- Non – Surgical
- Latest technology
- No general anaesthesia required
- No heart-lung bypass machine required

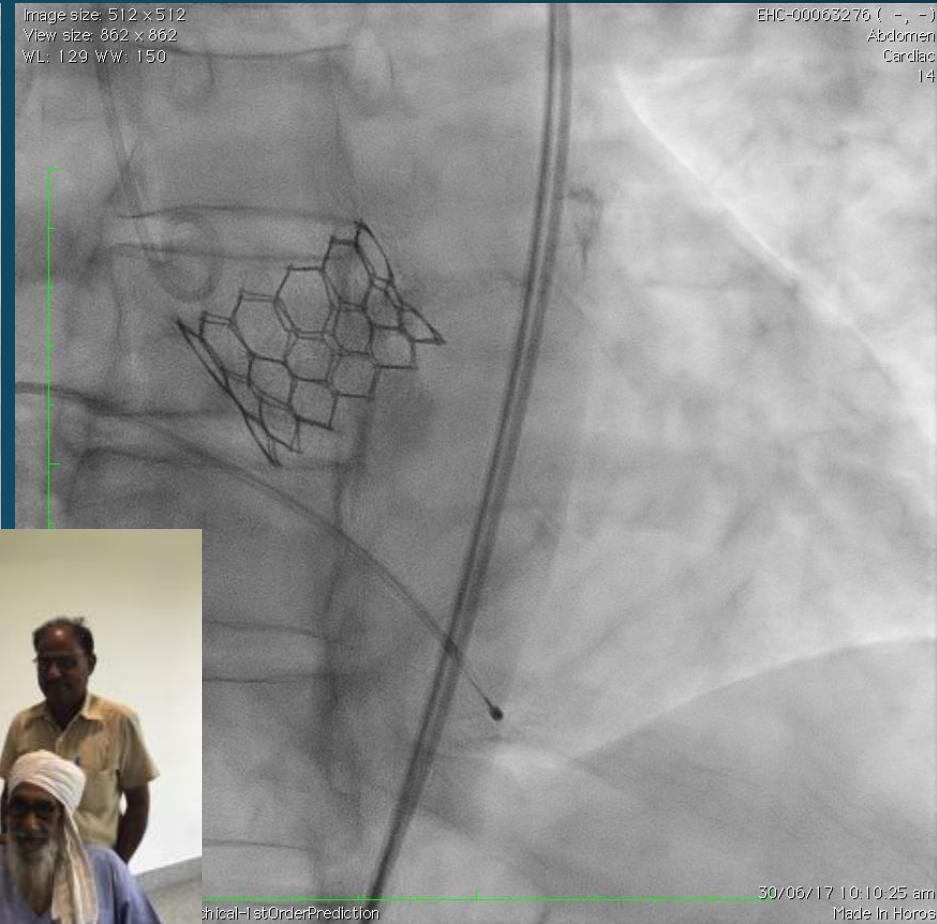
TAVR an alternative to surgery, TAVR is the latest technology in which the patient may be placed under anesthesia or just sedated.

MyVal THV Deployment

Precise placement & deployment



Final – Deployment



Picture and videos courtesy – Dr. Ravinder Singh Rao, Jaipur, India

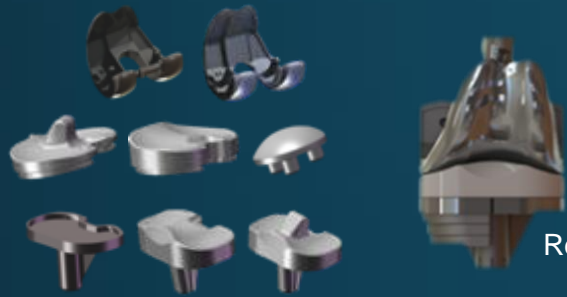
Mr. MS, Sriganaganagar.
Celebrating life >4 years post Tx

Myval Patient Testimonial



- Click on the picture to view video

Meril – Orthopedic Portfolio



Revision Knee

FREEDOM – Total Knee Replacement System



Next Generation TKR – TiNbNi OPULENT Knee

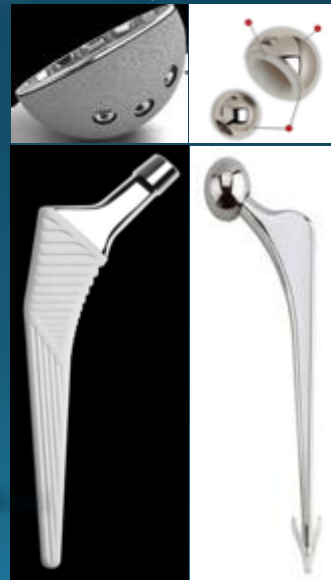
Diamond Coated Knee and PEEK Knee Systems



Trauma Implants



LATITUD - Total Hip Replacement System



World's first fully automated joint surgery robot



Knee Osteoarthritis



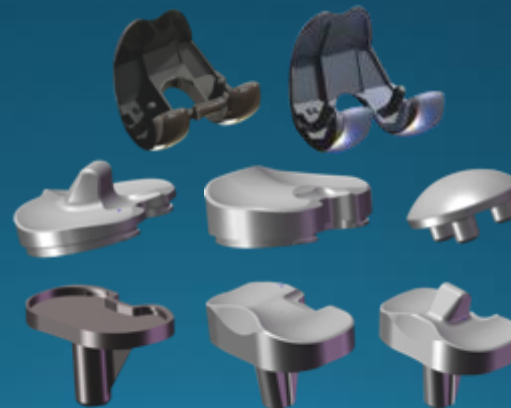
Overall prevalence of knee OA was found to be 28.7% in general population. Increases with age & body weight.



Freedom Knee / DestiKnee



- Freedom Knee is indigenously developed by Meril
- Specially designed for conservation of bone
- Provides high flexion which allows maximum range of motion
- High procedural success rate
- US FDA approved, European CE marked, CDSCO, India approved
- > 200,000 Freedom Knee implanted globally



Opulent Knee
TiNbN Coating

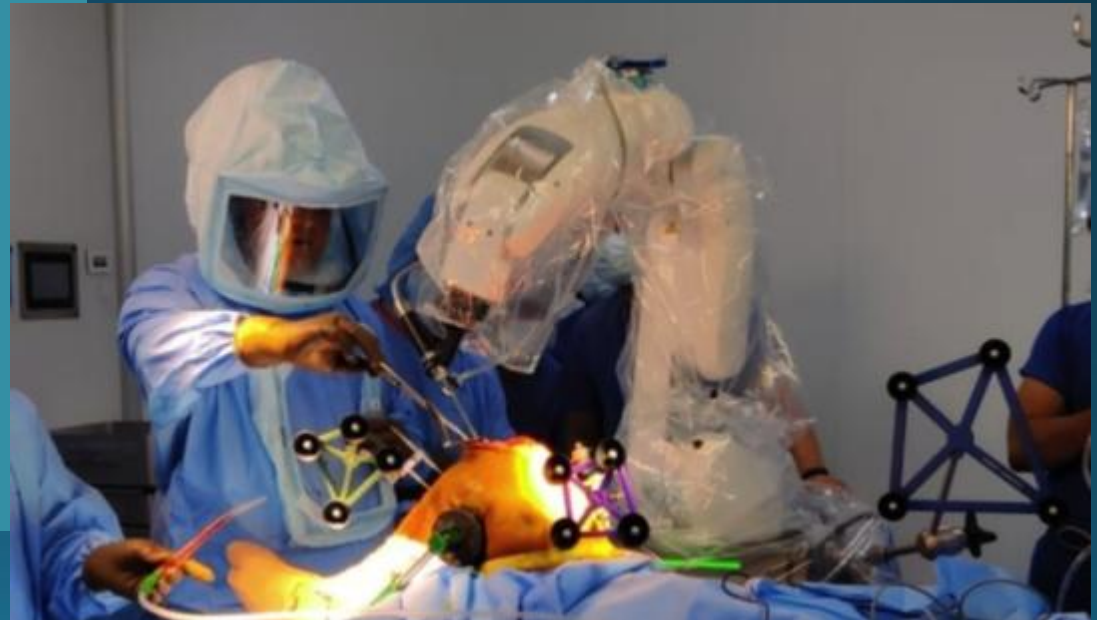
Meril – Cuviz Robotic Surgery

Meril



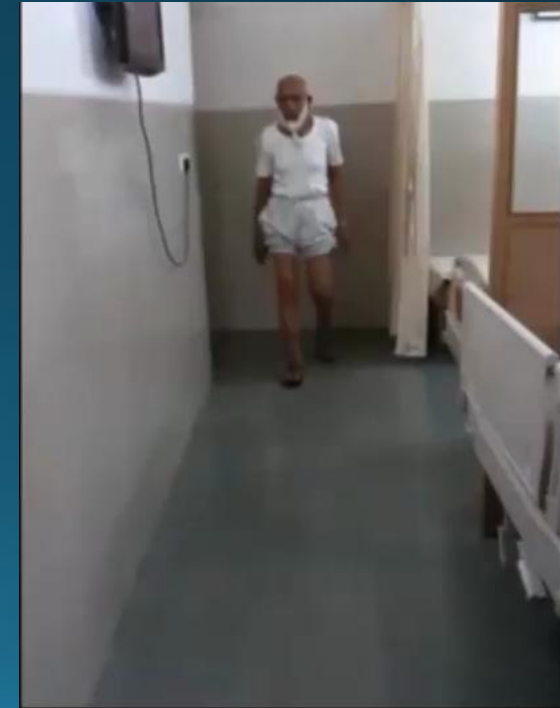
Meril-CUVIS Joint® robot system for artificial joint surgery is the most advanced surgical equipment capable of 3D pre-planning, virtual surgery and precise cutting to provide accurate surgical outcomes.

It is a user-friendly surgical robot equipped with state-of-the-art features ensuring precision and safety during TKR procedures.



Freedom Knee Clinical Impact

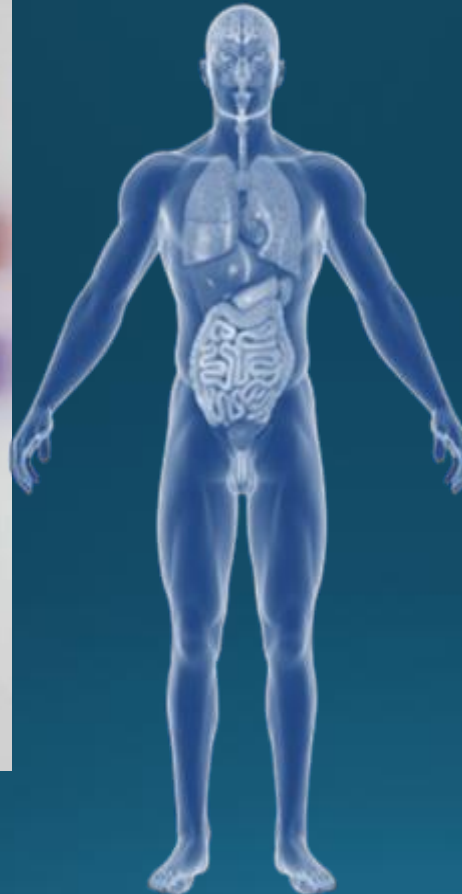
- Many activities of daily living require flexion beyond 120 degrees and up to 150 degrees in Asians.
- The typical pattern of femoral rollback is increased in deep flexion, as the lateral femoral condyle moves even further posteriorly, increasing the amount of rotation.
- Also the patella clears the femoral groove completely contacting only the femoral condyles.



Meril EndoSurgery Portfolio

Meril

Natural and Synthetic, Absorbable to Non-absorbable



Wide Range of EndoStaplers



Wound Closure

Hernia Repair Solutions

Meril – In-Vitro Diagnostics Portfolio



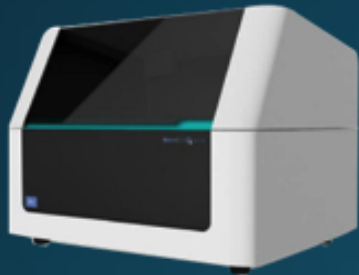
Semi-Auto Biochemistry Analyzer



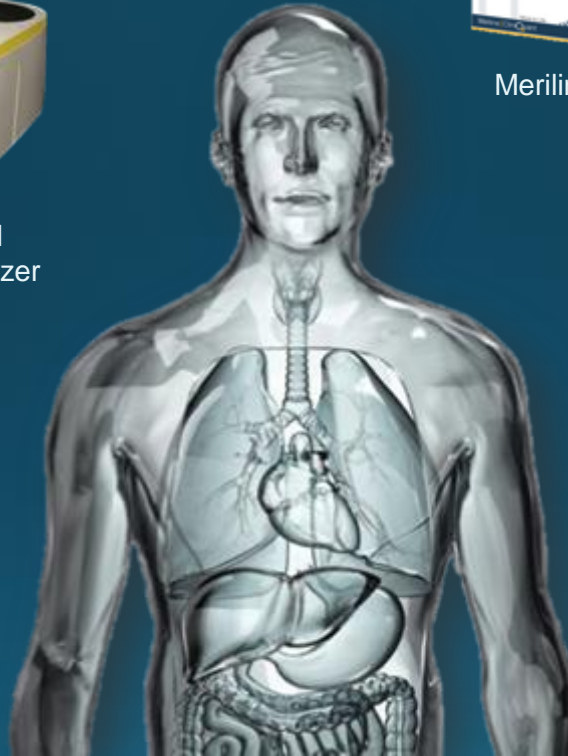
Fully-Automated Biochemistry Analyzer 400 Throughput



Meriline Reagents



Fully-Automated Biochemistry Analyzer 200 Throughput



COVID-19 One-Step RT-PCR Kit



COVID-19 IgG/IgM



HCV – Hepatitis C



hCG – Pregnancy



HIV



Syphilis



Malaria PAN Ag



HBsAg – Hepatitis B

Supporting Nation's Fight Against Covid



Increased Covid-19 Testing

Meril

A vital step in the fight against the pandemic, ensuring early detection, isolation, treatment and tracing, and can accordingly limit the spread of infections.

A heightened demand for more frequent testing across different regions of the country.



An effective solution, which is affordable and delivers results swiftly in 15 minutes, can scale testing.

No specific storage or refrigeration requirements, nor any additional instrumentation, ensuring accessibility to regions all across the country

CoviFind – Rapid Antigen Home Test

Meril



- COVIFIND COVID-19 Antigen Self-Test is an In-Vitro diagnostics immuno-chromatographic rapid assay kit for the qualitative detection of SARS-CoV-2 specific antigen in nasal swab specimens from symptomatic & asymptomatic individuals.

CoviFind – Covid-19 Antigen Self Test

Meril



Approved for HOME TEST

COVIFIND™

By Meril

COVID-19
ANTIGEN SELF TEST



INFORMATION FOR USE



CoviFind – Rapid Antigen Home Test

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Rs. 250/Test

1s | 3s | 5s | 25s



Welcome to Vapi

Meril

