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The Mobility Economy

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EDITOR'S FOREWORD

Across Asia Pacific, the ability to move — to walk confidently, to work longer, to remain active into older age — is quietly becoming one of the most important determinants of economic resilience.

Orthopaedic health, once seen primarily as a surgical specialty, is now intersecting with broader questions of ageing societies, workforce productivity and long-term healthcare sustainability.

At the centre of this issue is our cover story on **The Mobility Economy**, which explores how musculoskeletal health is evolving into a strategic priority across the region. With an estimated 1.7 billion people globally living with musculoskeletal conditions and Asia Pacific home to some of the fastest ageing populations in the world, mobility is no longer simply a medical concern. It influences workforce participation, healthcare spending and national productivity. Our feature examines how healthcare systems, insurers and even urban planners are beginning to rethink mobility as a long-term economic asset rather than episodic treatment.

Beyond surgery, the promise of regenerative medicine is capturing global attention. Stem cell therapies, biologics and tissue engineering may eventually allow damaged tissues to heal rather than simply be replaced. In our roundtable discussion, Professor Dr Chua Kián Hui and George Morgan examine where the science stands today — separating genuine clinical progress from marketing hype.

Innovation is also transforming recovery. Our feature on Therapeutic Medical Centre highlights how robotics-assisted rehabilitation and structured non-surgical spine care are offering new pathways for patients seeking to restore function without invasive procedures.

Finally, this issue looks beyond orthopaedics to the wider healthcare landscape, including how China is rapidly emerging as a new global hub for advanced oncology therapies and medical travel.

And in the end, mobility is more than movement.

It is the foundation of healthy, productive societies.

Zye Ramli
Editor



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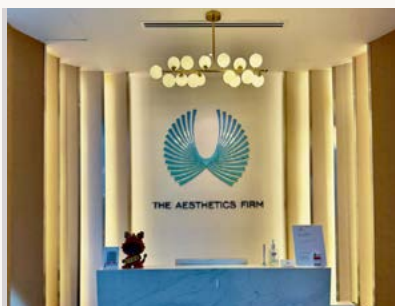
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Bilateral Smart Cochlear Implants: Restoring Hearing in Both Ears with Advanced Smart Implant Technology

Hearing plays a vital role in how we communicate, connect, and experience the world.



A cochlear implant is a specialised medical device designed to help individuals with severe to profound hearing loss hear sounds by directly stimulating the hearing nerve.

Unlike hearing aids, which amplify sound, cochlear implants bypass non-functioning parts of the inner ear and send signals directly to the brain via the electrical signal from the electrode that is inserted into the cochlea.

In many cases today, patients may benefit from bilateral cochlear implants, meaning implants in both ears. This approach can provide a more natural and balanced hearing experience.

Understanding how cochlear implants work, their components, and the benefits of bilateral implantation can help patients and families make informed decisions about hearing restoration.

1. What Is a Cochlear Implant and How Does It Work?

A cochlear implant consists of two main components: external and internal parts, which work together to restore hearing.

External component (worn outside the ear):

- Microphone – picks up sounds from the environment
- Sound processor – converts sound into digital signals
- Transmitter coil – sends signals to the internal implant
- Internal component (surgically implanted):
- Receiver/stimulator – receives signals from the external processor
- Electrode array – placed inside the cochlea to stimulate the hearing nerve

These signals are then sent to the hearing centre in the brain, where they are interpreted as sound.

The initial result may not be identical to natural hearing, but with audiological and speech rehabilitation, many patients can understand speech, recognise voices, and reconnect with everyday life as usual.

2. Why Are Cochlear Implants Done in Both Ears (Bilateral)?

Hearing with two ears provides important advantages that one ear alone cannot fully achieve.

Benefits of bilateral cochlear implants include:

- Improved ability to locate where sounds are coming from
- Better understanding of speech, especially in noisy environments

- More balanced and natural hearing
 - Reduced listening effort and fatigue
 - Improved safety and awareness of surroundings
- With only one implant, patients may still struggle in crowded environments. Bilateral implantation allows the brain to process sound from both sides, similar to natural hearing.

This is especially important for children, whose hearing is critical for speech and language development, as well as for adults who wish to maintain independence and communication ability.

3. The Role of Advanced Technology: Nucleus® Nexa™ Smart Cochlear Implant

Modern cochlear implants continue to evolve, offering smarter and more adaptable hearing solutions.

The Nucleus® Nexa™ Smart Cochlear Implant represents the latest advancement in cochlear implant technology.

Key features include:

- Smart sound processing that adapts automatically to different environments
- Clearer speech understanding, even in noisy settings
- Seamless connectivity with compatible smart devices
- Designed for long-term performance and reliability

This advanced technology helps patients experience sound more clearly and comfortably in daily life, whether during conversations, at work, or in social environments.

4. Who May Benefit from Bilateral Cochlear Implants?

Bilateral cochlear implants may be recommended for:

- Individuals with severe to profound hearing loss in both ears
- Patients who receive limited benefit from hearing aids
- Children born with significant hearing loss in both ears
- Adults who have lost hearing later in life in both ears

Assessment by an ENT specialist, audiologist and speech therapist is essential to determine suitability and expected outcomes.

Early intervention often leads to better hearing and communication results.

Taking the Next Step Towards Better Hearing

Severe hearing loss can affect communication, confidence, and quality of life. Cochlear implants offer a powerful solution, and bilateral implantation provides even greater benefits by restoring more balanced and natural hearing.

With innovations such as the Nucleus® Nexa™ Smart Cochlear Implant, patients today can experience clearer sound, improved speech understanding, and greater connection to the world around them.

If you or your loved one is experiencing significant hearing loss, consult our ENT specialists at Gleneagles Hospital Kuala Lumpur to learn more about cochlear implant options and whether bilateral implantation may be suitable.

Because hearing is not just about sound, it's about reconnecting with life.

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No matter where life takes you, Gleneagles Hospital Kuala Lumpur remains committed to your well-being at every stage. We uphold the highest standards of quality and efficiency, ensuring you and your family receive the best possible care. Because true peace of mind comes from knowing your health is in trusted hands.

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Regenerative Medicine in Orthopaedics:

Transforming the Treatment of Degenerative and Sports-Related Musculoskeletal Disorders



By Professor Dr Chua Kiến Hui, Executive Director (R&D) for Supergenics Berhad, Medical advisor for Wellspring Solution Sdn Bhd, Lecturer of Regenerative Medicine at University Kebangsaan Malaysia

Musculoskeletal disorders are among the leading causes of disability worldwide, affecting hundreds of millions of individuals and imposing significant healthcare and socioeconomic burdens. Conventional treatments for orthopaedic conditions such as osteoarthritis, tendon injuries, muscle damage, and chronic joint pain are largely symptomatic and often fail to address the underlying biological degeneration.

Regenerative medicine has emerged as a promising paradigm shift, aiming not only to relieve symptoms but also to repair, regenerate, and restore damaged tissues. Advances in stem cell technology and exosomes have expanded the therapeutic possibilities for musculoskeletal diseases.

Musculoskeletal diseases represent one of the most prevalent causes of chronic pain, reduced mobility, and disability globally.

According to the World Health Organization, conditions such as osteoarthritis, degenerative joint diseases, and sports-related injuries significantly affect quality of life, particularly among ageing populations and physically active individuals. Traditional orthopaedic management relies primarily on pharmacological therapy, physiotherapy, corticosteroid injections, and surgical interventions such as arthroscopy or joint replacement. While these approaches may alleviate symptoms, they rarely restore damaged tissues or reverse the underlying degenerative process.

Regenerative medicine offers a fundamentally different therapeutic philosophy. Instead of merely managing symptoms, regenerative medicine seeks to repair, replace, or regenerate damaged tissues using biological agents.

Over the past few decades, advances in stem cell biology, tissue engineering, biomaterials, and exosome technology have expanded the potential applications of regenerative medicine in orthopaedics. Among these emerging methods, mesenchymal stem cells (MSCs) and stem cell-derived exosomes have attracted significant attention due to their ability to promote tissue repair, modulate inflammation, and enhance the body's natural healing process.

As clinical evidence accumulates, regenerative medicine is increasingly being explored as an adjunct or alternative to conventional orthopaedic treatments.

Biological Basis of Regenerative Medicine in Orthopaedics

Regenerative medicine aims to restore tissue function by stimulating the body's intrinsic repair mechanisms. MSCs are among the most widely studied cell types in regenerative orthopaedics. These multipotent cells can differentiate into cartilage, bone, tendon, and muscle tissues. Beyond their differentiation potential, MSCs exert powerful paracrine effects

by secreting cytokines, growth factors, and exosomes that regulate inflammation and promote tissue regeneration.

Recent research suggests that much of the therapeutic effect of MSCs is mediated through exosomes—nano-sized vesicles that contain bioactive molecules such as proteins, RNA, and microRNAs.

These exosomes act as biological messengers, influencing cellular communication and promoting regenerative signalling pathways. Through these mechanisms, regenerative therapies can reduce inflammation, promote angiogenesis, enhance tissue repair, stimulate endogenous progenitor cell proliferation, and slow degenerative processes.

These properties make regenerative medicine particularly attractive for treating chronic orthopaedic conditions in which tissue degeneration and inflammation play central roles.

Regenerative Medicine in Osteoarthritis

Osteoarthritis (OA) is one of the most common musculoskeletal disorders. It is characterised by progressive degeneration of articular cartilage, joint inflammation, and structural changes in bone and surrounding joint tissues. Conventional OA treatments include non-steroidal anti-inflammatory drugs (NSAIDs), corticosteroid injections, and joint replacement surgery. These interventions primarily address symptoms rather than the underlying cartilage degeneration.

Regenerative medicine offers new possibilities for modifying disease progression. Numerous studies have investigated the use of MSCs derived from bone marrow, adipose tissue, or umbilical cord for OA treatment. These cells have shown the ability to reduce joint inflammation, promote cartilage repair, improve joint function, and reduce swelling. Clinical studies have reported improvements in patient outcomes, including pain reduction and increased mobility following stem cell injections into affected joints.

In addition, exosome-based therapies are emerging as a promising alternative to cell-based treatments. Exosomes derived from stem cells have demonstrated the ability to promote cartilage regeneration and reduce inflammatory signalling in both preclinical models and early clinical investigations of osteoarthritis. Although long-term clinical evidence on joint improvement is still evolving, regenerative medicine approaches have the potential to delay or reduce the need for total knee replacement surgery in selected patients.

Applications in Tendon and Ligament Injuries

Tendon and ligament injuries are common among athletes and physically active individuals. Conditions such as rotator cuff tears, Achilles tendinopathy, and tennis elbow often involve



slow healing due to limited blood supply and poor regenerative capacity. Traditional treatments include rest, physiotherapy, corticosteroid injections, and surgical repair. However, recovery can be prolonged, and re-injury rates remain relatively high.

Regenerative therapies have shown encouraging results in enhancing tendon healing. MSCs can improve tendon repair by stimulating collagen synthesis and promoting tissue remodelling. These cells also help reduce inflammation at the injury site, creating a more favorable microenvironment for healing.

More recently, exosome-based therapies have gained attention for their ability to promote tendon regeneration without the risks associated with cell transplantation. Preclinical studies have shown that stem cell-derived exosomes can stimulate tendon cell proliferation and improve collagen organisation during healing. These regenerative approaches may shorten recovery time and improve functional outcomes for athletes and patients with chronic tendon injuries.

Muscle Injury and Regeneration

Muscle injuries are among the most common conditions encountered in sports medicine, particularly in high-intensity physical activities. While muscle tissue possesses some regenerative capacity, severe injuries can result in fibrosis and incomplete functional recovery. Regenerative medicine strategies aim to enhance muscle regeneration while minimising scar formation.

MSCs have been shown to support muscle repair through several mechanisms, including:

- Activation of satellite cells (muscle stem cells)
- Reduction of inflammatory cytokines
- Promotion of vascularisation
- Enhancement of muscle tissue remodelling

Emerging research on exosomes has also shown promising results. Exosomes released from stem cells can deliver microRNAs and growth factors that regulate muscle regeneration pathways, potentially enhancing recovery after injury. As research advances, regenerative therapies may become an important component of rehabilitation strategies for athletes and individuals recovering from muscle trauma.

Chronic Inflammation and Joint Pain Associated with Ageing

Ageing is associated with chronic low-grade inflammation,

which contributes to degenerative joint diseases, cartilage degradation, and musculoskeletal pain. Regenerative medicine offers new approaches for addressing this biological process.

Stem cells possess strong immunomodulatory properties, allowing them to regulate inflammation while promoting tissue regeneration.

In ageing-related orthopaedic conditions, regenerative therapies may help restore balance within the joint microenvironment by reducing inflammatory cytokine production, promoting tissue regeneration, and enhancing local repair processes. Patients experiencing chronic joint pain related to ageing or repetitive physical stress may benefit from regenerative interventions that address both tissue degeneration and inflammation.

Emerging Trends and Future Prospects

The field of regenerative orthopaedics is evolving rapidly, with several emerging technologies showing strong potential for future clinical applications.

Advances in tissue engineering and biomaterials are enabling the development of scaffolds that support tissue regeneration. These scaffolds can be combined with stem cells, exosomes, or growth factors to enhance cartilage and bone regeneration.

The concept of personalised regenerative medicine is also gaining momentum. Future orthopaedic treatments may involve regenerative strategies tailored to individual patients. Advances in molecular diagnostics and imaging technologies may enable clinicians to identify the most suitable regenerative therapies for each patient.

In addition, combination therapies—integrating regenerative treatments with rehabilitation, physiotherapy, and lifestyle interventions—may further improve clinical outcomes.

Challenges and Considerations

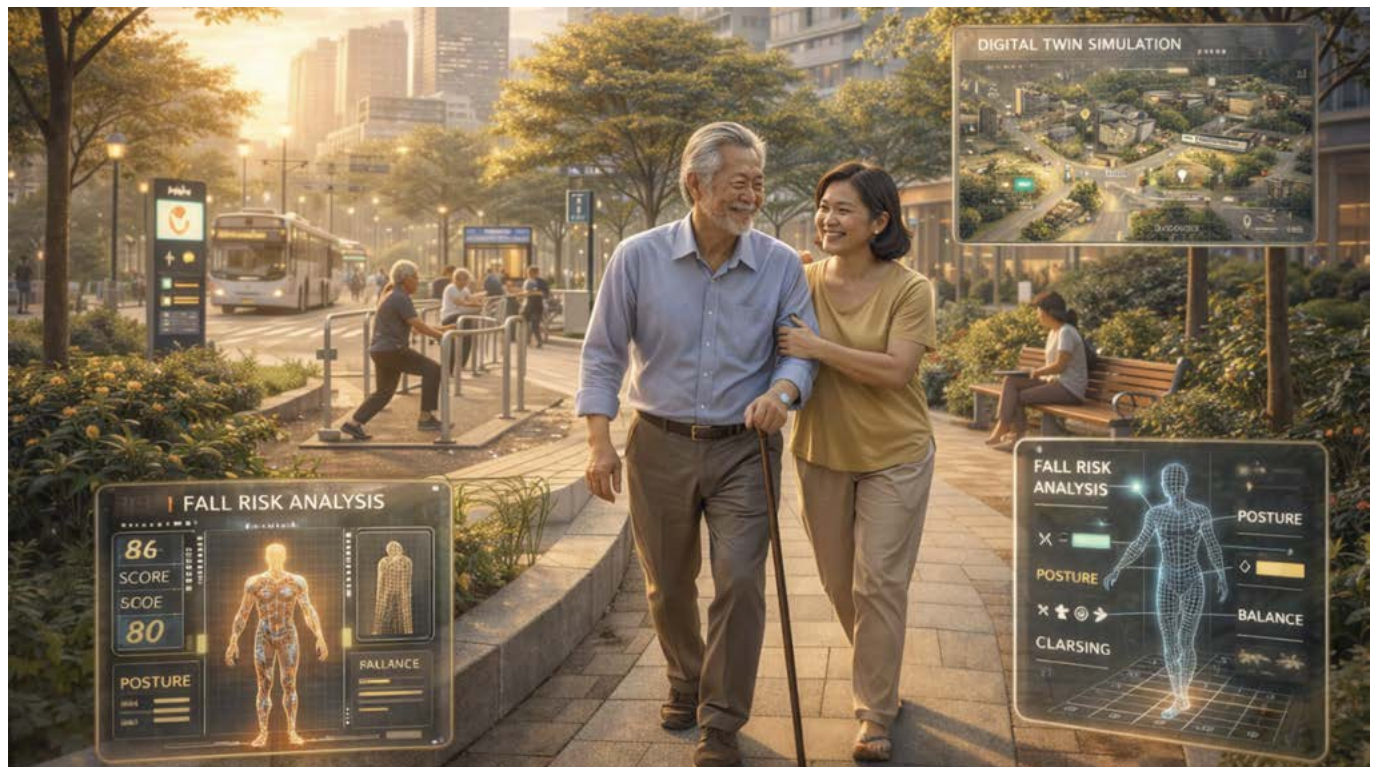
Despite the promising potential of regenerative medicine in orthopaedics, several challenges remain.

Clinical evidence is still evolving, and large-scale randomised controlled trials are required to establish standardised treatment protocols. Regulatory frameworks also vary across countries, making quality assurance, safety standards, and ethical use of regenerative therapies important considerations. Furthermore, the cost and accessibility of these treatments may limit widespread adoption in some healthcare systems.

Regenerative medicine is reshaping the landscape of orthopaedic treatment by shifting the focus from symptom management to tissue regeneration and biological repair. Advances in stem cell therapy and exosome technologies have expanded the possibilities for treating osteoarthritis, tendon injuries, muscle damage, and chronic joint inflammation associated with sports activity and ageing.

Although further clinical research is required to establish standardised treatment guidelines, the growing body of scientific evidence suggests that regenerative medicine holds significant promise for improving musculoskeletal health and enhancing patient outcomes. Continued research, regulatory oversight, and collaboration between clinicians, scientists, and policymakers will be essential to ensure the responsible development of regenerative orthopaedic therapies.

As scientific discoveries continue to translate into clinical practice, regenerative orthopaedics is likely to play an increasingly important role in addressing the global burden of musculoskeletal disorders.



When Cities Learn to Move Again

by Dr. Daniel CF Ng, Managing Partner, Omni-Integra



Orthopaedics is often judged by technical excellence – straighter joints, faster recoveries, shorter hospital stays. Surgical precision matters, and advances in robotics, imaging, and regenerative techniques have transformed what is possible. Yet for many patients, the true outcome of orthopaedic care is determined not in the operating theatre, but in the first weeks after they return to daily life.

A successful surgery does not guarantee restored mobility. Cities do.

A knee replacement means little if pavements are uneven, crossings are rushed, public transport is inaccessible, and neighbourhoods quietly discourage walking. Too often, healthcare systems repair the body only to return it to environments that caused the injury—or actively prevent recovery. In these conditions, fear of falling replaces confidence, isolation replaces activity, and mobility gains slowly erode.

This is where smart healthcare must meet smart cities.

Today, AI-assisted orthopaedics can analyse gait, predict recovery trajectories, and personalise rehabilitation protocols with remarkable accuracy. Robotics enhance surgical precision. Regenerative therapies accelerate healing. But the real opportunity lies in extending this intelligence beyond hospital walls and into the places where people actually live and move.

AI-driven gait analysis can identify fall risks early, enabling intervention before injury occurs. Smart urban design—adaptive pedestrian crossings, non-slip pavements, clearer wayfinding, and age-friendly transport—can reduce reinjury rates more

effectively than additional procedures. Community-based rehabilitation hubs embedded within neighbourhoods transform recovery from an isolated clinical task into a supported social process.

Some cities are already experimenting with digital twins that model how patients move through real environments after surgery. These simulations allow clinicians, planners, and policymakers to see how design choices affect long-term independence. A ramp placed five metres closer. A bench every hundred metres. Lighting that reduces hesitation and fear. These are not aesthetic decisions; they are clinical ones with measurable health outcomes.

Mobility is more than movement. It is dignity. It is autonomy. It is participation in family, work, and community life.

Across Asia, aging populations mean orthopaedic demand will surge. The question is not whether healthcare systems can perform more surgeries, but whether cities can support the lives those surgeries are meant to restore. The most forward-looking systems will not ask only how to operate better, but how to design environments that keep people mobile longer, reduce injury risk, and support recovery naturally.

Ageing is inevitable. Loss of independence is not.

When cities learn to move with their people—slowly, safely, and intentionally—orthopaedic care becomes not just corrective, but truly restorative. In that alignment between medicine and environment, recovery does not end at discharge. It continues every time a person steps outside with confidence, knowing the city is designed to support them. ■

Arthritis Embolisation (Genicular Artery Embolisation)

Dr Suresh B Babu, Senior Consultant Interventional Radiologist, Singapore Pinhole Surgery

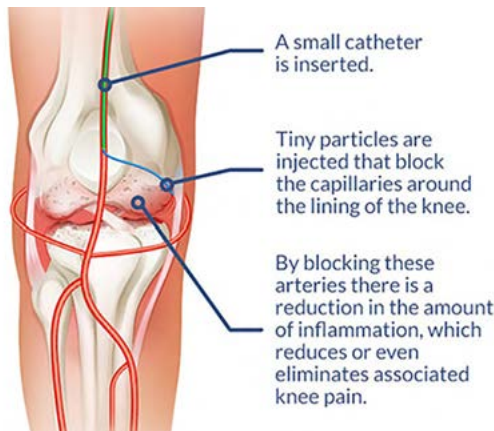


IMAGE: IRSA

Osteoarthritis (OA) is a degenerative joint disease characterised by progressive cartilage loss, subchondral bone remodelling, synovial inflammation and chronic pain. Increasing evidence suggests that pain in osteoarthritis is not solely the result of cartilage degeneration but is strongly associated with synovitis and pathological neovascularisation within the synovial membrane.

This evolving understanding of osteoarthritis has shifted attention toward the vascular and inflammatory mechanisms contributing to persistent joint pain.

Pathophysiological Basis

Inflammatory mediators such as vascular endothelial growth factor (VEGF), interleukins and tumour necrosis factor- α promote angiogenesis within the synovium. This pathological neovascularisation is often accompanied by sensory nerve ingrowth, leading to heightened pain sensitivity.

Magnetic resonance imaging (MRI) studies frequently demonstrate synovial hypertrophy and hypervascularity that correlate closely with symptom severity. Genicular Artery Embolisation (GAE) targets these abnormal hypervascular networks supplying the inflamed synovium, thereby reducing inflammatory signalling and pain transmission.

Mechanism of Action

Selective embolisation reduces pathological microvascular perfusion within the synovial lining. This results in decreased delivery of inflammatory mediators, reduced synovial congestion and gradual modulation of nociceptive signalling. Importantly, embolisation is performed in a highly selective manner to preserve normal joint perfusion and minimise the risk of cartilage compromise.

Indications

- Mild to moderate knee osteoarthritis (Kellgren–Lawrence grade II–III)
- Persistent pain despite conservative therapy (analgesics, physiotherapy, injections)

- Patients unsuitable for or unwilling to undergo joint replacement
- Recurrent synovitis-associated joint pain

Contraindications

- Severe joint deformity (advanced grade IV osteoarthritis)
- Active joint infection
- Severe peripheral vascular disease
- Uncontrolled coagulopathy

Procedure Technique

The procedure is typically performed under local anaesthesia via radial or femoral arterial access.

A microcatheter is advanced selectively into the genicular arterial branches supplying the area of maximal synovial hypervascularity. Digital subtraction angiography (DSA) is then used to identify hyperaemic blush patterns corresponding to zones of active inflammation. Embolic agents commonly include calibrated microspheres (100–300 μ m) or imipenem/cilastatin particles. Embolisation is performed to near stasis while carefully avoiding non-target branches such as cutaneous or periarticular muscular vessels.

Clinical Outcomes

Multiple prospective studies have demonstrated significant reductions in WOMAC and VAS pain scores at three, six and twelve months following embolisation. Improvements in joint function and reductions in analgesic requirements have also been reported. While the durability of effect beyond two to three years remains under investigation, mid-term clinical outcomes have been encouraging.

Complications

Most complications are minor and self-limiting. These may include transient skin erythema, mild access-site bruising and temporary post-procedural discomfort.

Rarely, non-target embolisation may result in focal skin ulceration. Careful angiographic mapping and meticulous technique significantly reduce this risk.

Comparison with Other Treatments

Compared with corticosteroid injections, embolisation may offer longer-lasting anti-inflammatory effects without systemic steroid exposure. Unlike hyaluronic acid injections, the procedure directly targets the pathological vascular component of osteoarthritis. As such, it may serve as an intermediate therapeutic option between conservative management and surgical arthroplasty.

Arthritis Embolisation represents an evolving, evidence-based interventional strategy for managing osteoarthritis-related pain. With appropriate patient selection and technical precision, Genicular Artery Embolisation offers a safe, minimally invasive option that may help bridge the treatment gap between conservative therapies and surgical joint replacement. ■



The Cave of Modern Health Illusions

What Plato Got Right About Your Health

Spend enough time in modern health culture and you start to notice a pattern. Someone you know swears by a supplement stack—creatine, greens powders, maybe a peptide or two—that changes every quarter. A podcast longevity protocol from six months ago has been quietly replaced by a different one. Nobody circles back to mention whether the last one worked.

Cold plunge routines and red light panels circulate on social media detached from any biological context. A friend tracks glucose on a continuous monitor without a clear model of what the numbers should do. Intermittent fasting protocols shift every few months. GLP-1 medications promise thirty-pound transformations. Each one spreads the same way—one visible person adopts it, others copy, and within months it becomes “what works.” Without a reliable way to check whether it worked for them.

There is a reasonably good explanation for why this keeps happening to intelligent, motivated people. It comes from a 2,400-year-old thought experiment that most people encountered in college and promptly forgot.

Plato asked you to imagine prisoners chained inside a cave, facing a blank wall. Behind them burns a fire they have never seen. Objects pass before the fire and cast shadows on the wall. The prisoners name the shadows. They predict their movements. They build entire belief

systems around them. And because shadows are all they have ever known, they mistake them for reality.

The allegory was about structural ignorance—not the personal kind. You can be perfectly intelligent and still not know what you are looking at, because nobody built you a way to turn around.

Strip away the noise and only two things actually change with any health intervention:

- **Structure** — what you are made of at the tissue level: bones, fat, muscle, down to the gram.
- **Function** — how well the body’s systems integrate and perform under demand.

Every tool people reach for—gym memberships, wearables, smart scales, lab panels—is an attempt to answer the same question:

Is what I’m doing actually working?

The tools are not useless. But each has limits. A bathroom scale cannot tell you whether the weight you lost was fat or muscle. A wrist sensor estimates heart-rate zones but cannot measure how much oxygen your body actually extracts. Smart scales estimate tissue composition with error margins that can exceed ten percent. Visceral fat and bone density—the metrics that matter most—sit outside what they can measure at all.

In other words, most people are optimizing shadows.

Two people with the same weight and the same BMI can have radically different visceral fat levels.



The technology to measure it directly already exists.

DEXA scanning—Dual-Energy X-ray

Absorptiometry—is widely regarded as the clinical reference for body composition analysis. An eight-minute scan differentiates fat, lean tissue, and bone at the pixel level, including visceral adipose tissue, the metabolically active fat packed around the organs that consumer tools cannot directly measure.

Two people with the same weight and the same BMI can have radically different visceral fat levels. One is metabolically healthy. The other is carrying an inflammatory load no mirror or blood panel will detect. A 2025 meta-analysis of over 824,000 people found elevated visceral fat associated with 55 percent higher cardiovascular disease risk.

VO₂ Max testing measures the functional layer

directly. It is not a fitness score. It is a direct readout of how efficiently the body inhales oxygen, extracts it into blood, delivers it to tissues, and puts it to work inside the mitochondria.

A Cleveland Clinic study of 122,007 patients found that this capacity predicted survival more powerfully than smoking, diabetes, or hypertension. The least-fit quartile died at nearly four times the rate of the most fit. The pattern held everywhere researchers looked—across age, sex, and existing conditions.

Here is what only direct measurement can reveal.

A GLP-1 user returns after four months. Twenty-two pounds down. The scale says success. A DEXA scan says eight of those pounds were lean mass, the tissue most associated with longevity, metabolic resilience, and functional independence in aging. VO₂ Max unchanged. Visceral fat barely moved.

Without measurement, this looks like progress. With it, it looks like a problem that still has time to be corrected.

Extend that trajectory for a year and you do not get a leaner version of the same person. You get a smaller one with less metabolic reserve. Roughly 30 percent of weight lost on GLP-1 therapy is lean mass. The obesity drug market is projected to exceed \$100 billion within the next ten years. Tens of millions of patients stepping on scales that celebrate every pound lost and have no idea what kind of pound it was.

The scale cannot distinguish between shrinking risk and shrinking reserve.

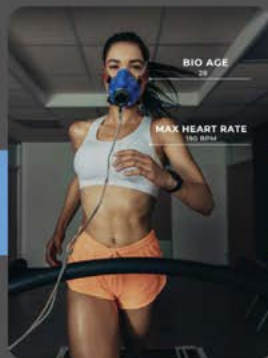
The obesity drug market is projected to exceed \$100 billion within the next ten years.

Our services



DexaFit Body Scan

Unveil the numbers behind your body with an AI-enhanced DEXA scan that precisely measures fat distribution, muscle mass, and bone density.



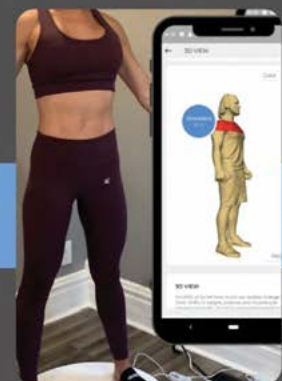
VO₂ Max Fitness Test

Monitor your VO₂ Max, heart rate zones, fat-burning zones, and biological age with DEXAFIT Asia



RMR Metabolic Test

Uncover the secrets of your resting calorie burn and gain insights into how your metabolism shapes your health, right here in Singapore.



3D Body Scan

Discover your body's precise measurements with DEXAFIT's 3D body scan in Singapore. Understand how your body composition impacts your health.



DEXA machines and metabolic carts were already deployed in hospitals and research labs worldwide.

These are what you might call proof-of-work metrics. Consider the difference.

A blood panel shows low vitamin D. You supplement. Within weeks the lab value normalizes. But did bone density improve? Did visceral fat shift? You can normalize a downstream marker and still have the same body you had before you started.

Proof-of-work metrics are hard to move by accident. When they move, you can trust it.

Some markers respond within days. That does not make them meaningless, but it does mean they can change without the underlying structure changing with them. Structural adaptations—bone density, lean mass, oxygen utilization capacity—move slowly. The speed of change often reveals how far downstream a metric sits.

This is not an argument against interventions. It is an argument for verifying what they actually change. If someone starts a peptide protocol, verify the structural outcome. If someone begins TRT, verify lean mass distribution. If someone goes on a GLP-1, verify muscle retention and oxygen capacity. The verification should operate at the same level as the intervention.

There has never been more health information available, and rarely less context for what it means for you.

If you are the kind of person who already suspects that measuring the right thing matters more than optimizing the wrong thing faster—you are not early to

this idea. You are just ahead of the infrastructure.

The technologies people take most for granted followed this exact pattern. GPS was a military satellite constellation for two decades before anyone built the consumer layer. The internet connected research labs for thirty years before browsers made it usable. In both cases, the technology was not new. What was new was the operating system that brought it to ordinary people.

DEXA machines and metabolic carts were already deployed in hospitals and research labs worldwide. But there was no consumer-facing operating system. No analytics engine. No way for an ordinary person to walk in, get scanned, understand the results, and track changes over time.

In 2011, the first DEXaFit opened in Chicago with a simple premise: if the infrastructure already exists, build the access layer around it.

The network now spans North America, South Africa, Singapore, and is growing across Europe, Asia, and South America. But the network is not really the point. DEXaFit built the operating system that allows clinical-grade measurement to function outside institutional walls. Physicians use it as a clinical reference layer. Trainers use it to verify what their programming is actually doing. GLP-1 prescribers use it to monitor what the scale cannot. It sits underneath whatever intervention someone is already running, not instead of it.

Meet DexaFit ai

GPS for your health.
Harnessing the power of machine learning and artificial intelligence, DexaFit ai is your intelligent partner for a healthier, fitter you.

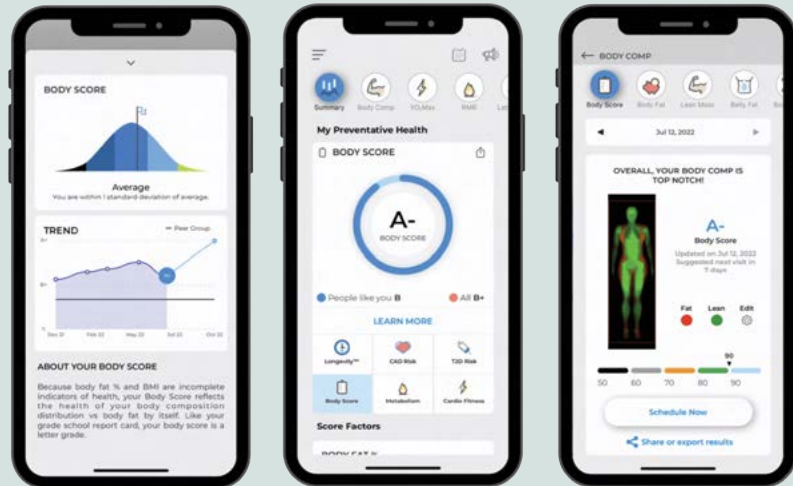
Download the app



App Store



Google Play



Across the DexaFit network in 2025, among clients who returned for follow-up testing: every location showed average body fat reduction. Every location with visceral fat data showed average VAT reduction. 96 percent maintained lean mass. 91 percent maintained or improved bone density. 73 percent of VO₂ Max locations showed improvement.

The national baseline moves in the opposite direction. The DexaFit population reversed every metric. Measurement changes behavior; feedback loops compound.

These are self-selected clients who chose to measure and return, which is precisely the behavior the feedback loop encourages.

On October 26, 2025, 60 Minutes aired a segment on DEXA and VO₂ Max testing as everyday longevity tools. For anyone familiar with adoption curves, that was not the beginning. It was confirmation.

AI will not solve health. It will amplify whatever signal it is given. Get the measurement wrong and acceleration makes it worse. Get it right and every tool downstream—every protocol, every prescription, every algorithm—becomes more useful.

Measure symptoms, and you chase trends. Measure what sits closer to cause, and you change trajectory.

For decades, those measurements were confined to institutions. The access layer now exists. The measurement is no longer the constraint. When the signal is real, the shadows lose their power.

DexaFit is available across North America, South Africa, Singapore, and a growing network across Europe, Asia, and South America. Learn more at dexafit.com and dexafitasia.com. If you are a physician, healthcare system, or entrepreneur interested in bringing DexaFit to your market, contact hello@dexafitasia.com.

About the Authors



Adam Kadela is the cofounder and President of DexaFit. Since 2011, he has worked to bring hospital- and research-grade body composition and performance testing—once limited to elite sport—into everyday use, building infrastructure for stronger health signal in an era of accelerating information and AI-driven advice.



Ian Lim is the cofounder of DexaFit Asia. Based in Singapore, he has led regional expansion across Asia-Pacific, focused on making precise, repeatable measurement accessible in markets facing rapidly rising metabolic disease—building the same access layer for populations where the need for structural health data is accelerating fastest.



Sri Lanka at a Turning Point: A Regional Stage Awaits

For years, Sri Lanka has quietly built the foundations of a resilient healthcare ecosystem.

In May 2026, something more than a conference will unfold in Colombo.

The upcoming Sri Lanka GlobalHealth Asia-Pacific Conference, Summit & Awards is not merely a gathering of hospitals, policymakers and healthcare leaders. It signals a deeper shift — one that speaks to Sri Lanka's evolving role in regional healthcare, medical tourism, and cross-border collaboration across Asia.

For years, Sri Lanka has quietly built the foundations of a resilient healthcare ecosystem. A strong public health legacy, an expanding private healthcare sector, internationally trained specialists, and a hospitality culture long admired by global travellers have created the ingredients for something larger. Today, those ingredients are converging at a moment of renewed economic recalibration and international engagement.

The GlobalHealth Asia-Pacific platform, founded in 2011 and known for convening healthcare leaders across Thailand, Bali, Ho Chi Minh City, Kuala Lumpur and Singapore, now turns its focus to Colombo — not as a symbolic gesture, but as a strategic statement.

Sri Lanka is no longer viewed solely as a destination of scenic beauty or cultural richness. It is increasingly being recognised as a nation preparing to assert its healthcare credentials on a regional stage.

Niiru Baran, Managing Director of OmniHealth, articulates this vision clearly: “The GlobalHealth Awards in Sri Lanka positions the Nation as a rising regional healthcare and wellness hub, accelerates medical tourism growth, strengthens cross-border partnerships, showcases local excellence, stimulates economic activity, and signals global readiness for healthcare investment and innovation.”

That statement encapsulates what this upcoming summit represents — positioning rather than promotion, momentum rather than ceremony. Across South Asia and the wider Asia-Pacific region, healthcare systems are undergoing rapid transformation. Asia-Pacific accounts for nearly 60% of the world's population, and healthcare expenditure across the region continues to rise steadily, driven by ageing demographics, urbanisation, chronic disease prevalence and expanding middle-class demand. In many emerging Asian economies, private healthcare



GlobalHealth Asia-Pacific (GHAPAC) has officially announced the launch of its inaugural Sri Lanka Summit, Conference & Awards 2026.



Sri Lanka is preparing to assert its healthcare credentials on a regional stage

spending is growing at a faster rate than GDP itself.

Medical tourism, too, has re-emerged strongly post-pandemic. Industry analysts estimate that the global medical tourism market is projected to surpass USD 100 billion within the next decade, with Asia representing one of its fastest-growing corridors.

Thailand, India, Singapore and Malaysia have long dominated regional patient flows. Yet secondary markets — particularly those combining competitive pricing with strong clinical talent and hospitality — are increasingly drawing attention.

Sri Lanka stands at a pivotal juncture in that conversation.

The island nation has long demonstrated strong healthcare fundamentals — high literacy rates exceeding 90%, favourable health indicators relative to many peers, and a well-trained medical workforce. Its private hospitals and wellness centres are expanding capabilities in oncology, cardiology, orthopaedics, fertility, aesthetics and preventive medicine.

Competitive treatment costs — often significantly lower than in developed Western markets — combined with a service culture rooted in hospitality offer a compelling proposition for regional patients seeking quality care without prohibitive expense.

Yet what has been missing is scale visibility.

The upcoming two-day summit and awards aim

to provide precisely that: a structured platform for Sri Lanka's healthcare providers to engage directly with regional peers, investors, and policymakers. The programme will recognise excellence across more than 30 specialist categories while fostering dialogue on standards, innovation, patient safety, and future-ready healthcare systems.

More importantly, it brings Sri Lanka into a wider Asia-Pacific conversation.

From India's expanding tertiary hospital networks to Southeast Asia's established medical tourism ecosystems, cross-border healthcare flows are intensifying. Patients increasingly compare destinations not only on price, but on accreditation, digital capability, specialist depth, post-treatment recovery environments and international insurance integration. Partnerships between providers, referral pathways, telemedicine linkages and specialist exchanges are reshaping how care is delivered beyond national borders.

The Sri Lanka edition of the GlobalHealth platform sends a signal to these markets: the island nation is ready to participate actively in this regional ecosystem — not as an observer, but as a collaborator and competitor. The economic implications are equally significant.

Healthcare is not a standalone industry. It is an economic multiplier.

Medical tourism, too, has re-emerged strongly post-pandemic. Industry analysts estimate that the global medical tourism market is projected to surpass USD 100 billion within the next decade, with Asia representing one of its fastest-growing corridors.



Recognition matters. In rapidly evolving healthcare environments, platforms that spotlight excellence help elevate benchmarks internally.

The economic implications are equally significant. Healthcare is not a standalone industry. It is an economic multiplier.

Medical tourism drives foreign exchange earnings, extended hotel stays, wellness retreat partnerships, aviation traffic, pharmaceutical procurement, diagnostic services, rehabilitation centres and local employment. Studies across Asia suggest that each inbound medical traveller generates significantly higher per-capita spending than a conventional leisure tourist.

In a country focused on economic stabilisation and growth diversification, healthcare and wellness represent strategic sectors aligned with global demand resilience. Even during economic slowdowns, healthcare expenditure tends to remain comparatively stable. The integration of wellness, preventive medicine and elective procedures further broadens revenue streams beyond acute hospital care.

At the same time, the summit serves a domestic purpose.

Recognition matters. In rapidly evolving healthcare environments, platforms that spotlight excellence help elevate benchmarks internally. They encourage investment in quality improvement, digital infrastructure, international accreditation and specialist training. They reinforce a culture of accountability and continuous advancement.

GlobalHealth Asia-Pacific's journey — from its inaugural hospital awards in Thailand in 2016 to subsequent regional expansions — has consistently combined recognition with regional dialogue. The Sri

Lanka edition extends that philosophy. It is designed not as an isolated gala evening, but as a knowledge exchange that bridges Indian subcontinent markets with Southeast Asia and the broader Asia-Pacific region.

For Colombo, hosting the summit is symbolic.

It underscores confidence — confidence in infrastructure, in clinical expertise, and in the nation's readiness to welcome regional healthcare leaders at a moment of renewed forward motion. It also aligns with broader national ambitions to strengthen foreign direct investment, attract international partnerships and position Sri Lanka as a gateway between South Asia and Southeast Asia.

The choice of Sri Lanka as host reflects a belief that the country's healthcare narrative is entering a new chapter — one defined not solely by recovery, but by ambition.

As May 2026 approaches, the focus will naturally turn to award categories, keynote speakers and industry attendance. But the larger story unfolding is about positioning.

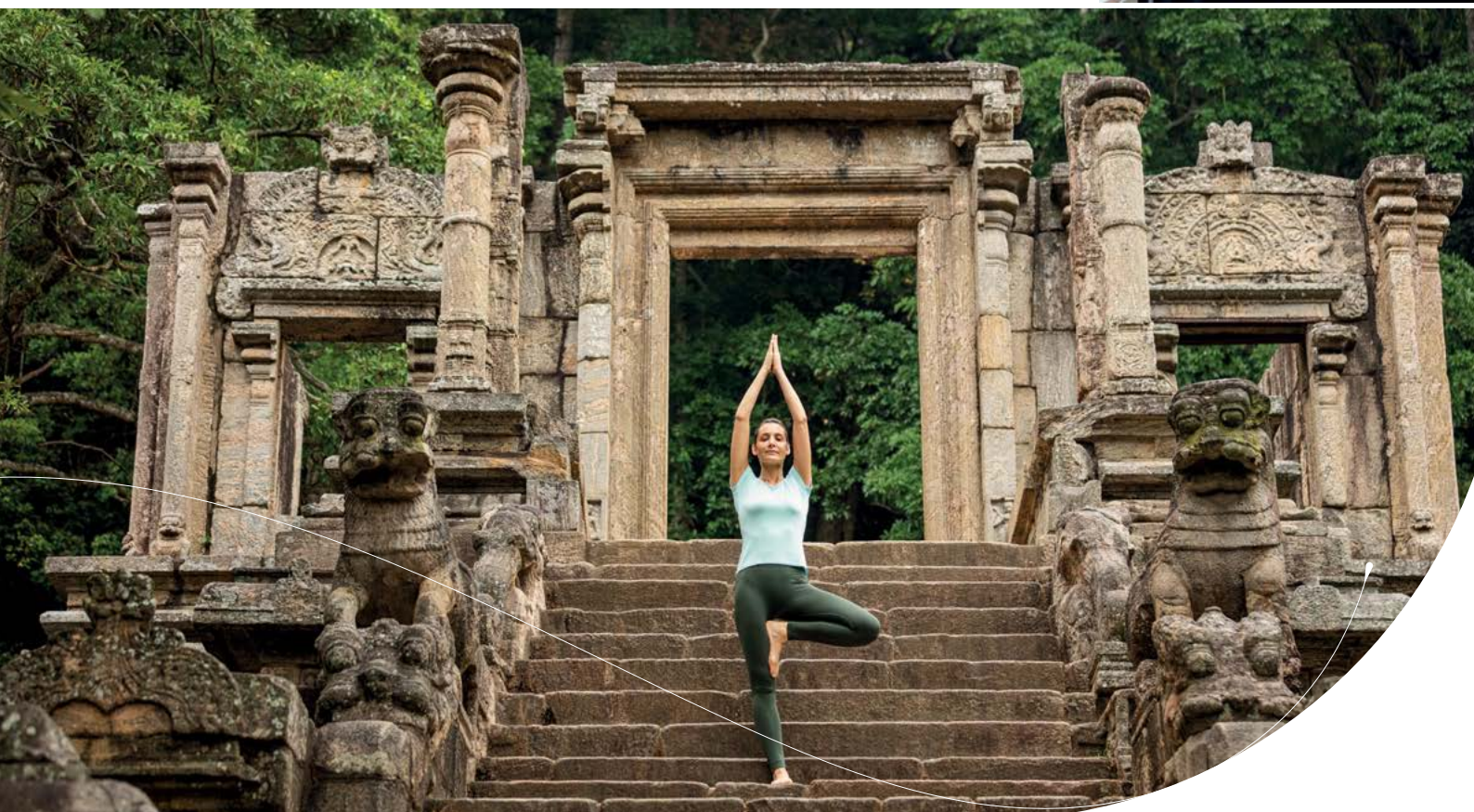
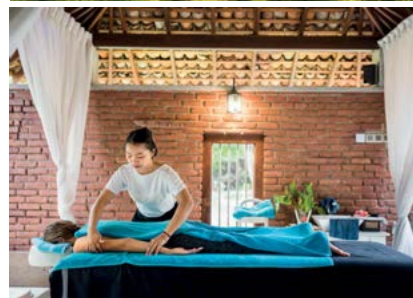
Sri Lanka is preparing to stand not at the periphery of regional healthcare dialogue, but within it — as a partner, a competitor, and a collaborator in one of the world's most dynamic healthcare corridors.

The upcoming GlobalHealth Asia-Pacific Conference, Summit & Awards does not simply announce itself. It heralds a broader message to Asia and beyond: Sri Lanka is ready to be seen, ready to engage, ready to invest, and ready to shape the next chapter of regional healthcare growth. ■

Come home to yourself in Sri Lanka

Discover a land that truly heals you, where ancient wisdom blends seamlessly with the magic of nature, and every breath soothes, comforts, and uplifts your spirit. Let this journey bring rejuvenation, reflection, renewal, and the ultimate transformation. Immerse yourself in timeless Ayurveda rituals and nourish your body with healing foods crafted from herbs and spices passed down through generations, restoring balance from within. Yoga and meditation retreats, nestled in the salubrious mountains, beckon your soul to unwind, while the island's alluring scenic beauty, from golden beaches, misty hills, and sacred temples, spells out tranquility.

Get aboard SriLankan Airlines, now offering nonstop connectivity to Sri Lanka from Europe, the Middle East, the Indian Subcontinent, Asia Pacific, the Far East, and Australia. Sri Lanka: Your Sanctuary Awaits!



Understanding Obesity and Fatty Liver Disease: Where Endoscopic Sleeve Gastroplasty Fits

A clinical perspective from Cengild G.I. Medical Centre

By Dato Dr Tan Huck Joo, Consultant Gastroenterology & Hepatology, Cengild G.I. Medical Centre



Malaysia has one of the highest obesity rates in Asia. National surveys estimate that more than 50 percent of Malaysian adults are either overweight or obese, with obesity prevalence alone exceeding 20 percent.

In Malaysia, a substantial proportion of patients concurrently suffer from non-alcoholic fatty liver disease (NAFLD), type 2 diabetes mellitus, and obesity. These conditions are closely interrelated and represent a classic manifestation of metabolic syndrome. Beyond liver disease, obesity is associated with a wide range of complications, including hypertension, dyslipidaemia, coronary artery disease, stroke, obstructive sleep apnoea, osteoarthritis, infertility, certain malignancies, and reduced overall life expectancy. Approximately 5 to 10 percent of patients with NAFLD progress to cirrhosis, significantly increasing morbidity and mortality.

Malaysia has one of the highest obesity rates in Asia. National surveys estimate that more than 50 percent of Malaysian adults are either overweight or obese, with obesity prevalence alone exceeding 20 percent. This places Malaysia among the most affected countries in the region and on par with several Western nations. Globally, the World Health Organization estimates that over 650 million adults are obese, with prevalence continuing to rise, particularly in middle-income countries undergoing rapid urbanisation and lifestyle changes. Malaysia's obesity burden is therefore not only a national public health issue but also part of a broader global trend.

For selected patients with metabolic syndrome, Endoscopic Sleeve Gastroplasty (ESG) has emerged as a relatively safe and effective weight-loss intervention. ESG is a minimally invasive endoscopic procedure in



which sutures are placed inside the stomach to reduce its volume. By limiting gastric capacity, the procedure promotes early satiety, reduces caloric intake, and facilitates sustained weight loss. These changes often translate into improvements in insulin resistance, blood glucose control, lipid profiles, and blood pressure.

For patients with obesity and hypertension, ESG is generally safe and feasible. When preoperative blood pressure is adequately controlled, high-risk cardiovascular conditions are excluded, and postoperative lifestyle recommendations are followed, ESG can result in dual benefits. Approximately 60 to 70 percent of hypertensive patients experience significant improvements in blood pressure and cardiovascular risk factors.

One of ESG's major advantages is its ability to induce meaningful weight loss without surgical removal of the stomach. It is particularly attractive for patients with mild to moderate obesity, metabolic syndrome, or those who are unsuitable or unwilling to undergo surgery. ESG is also associated with lower procedural risk, shorter recovery time, and preservation of normal gastrointestinal anatomy.

ESG is often discussed alongside other obesity treatment options, each with distinct indications, benefits, and limitations.

Pharmacological therapy is commonly used as first-line or adjunctive treatment. Weight-loss medications, such as appetite suppressants and incretin-based therapies, work by reducing hunger, increasing satiety, or

improving insulin sensitivity. While these medications can lead to clinically meaningful weight loss, they typically require long-term or lifelong use. Discontinuation is frequently associated with weight regain, and some patients experience side effects or diminishing efficacy over time.

Intragastric balloon placement is another minimally invasive option. This involves endoscopic insertion of a saline- or gas-filled balloon into the stomach to occupy space and induce early satiety. Balloons are temporary devices, usually removed after six to twelve months. They can achieve moderate weight loss and are useful as a bridge therapy or for patients who do not qualify for or wish to avoid surgery. However, weight regain after balloon removal is common unless strict lifestyle changes are maintained, and some patients experience nausea, vomiting, or balloon intolerance.

For patients with severe obesity, bariatric surgery remains the most effective treatment. Laparoscopic Sleeve Gastrectomy (LSG) involves surgical removal of approximately 70 to 80 percent of the stomach, resulting in significant restriction of food intake and hormonal changes that reduce appetite. LSG typically produces greater and more rapid weight loss than ESG and is associated with high rates of diabetes remission. However, it is irreversible and carries higher surgical risk compared to endoscopic procedures.

Gastric bypass surgery, such as Roux-en-Y gastric bypass, combines restriction with malabsorption by rerouting the digestive tract. It produces the most profound metabolic effects and is particularly effective for patients with severe diabetes and obesity-related complications. However, it is technically complex, irreversible, and associated with a higher risk of nutritional deficiencies, requiring lifelong supplementation and monitoring.

Compared to surgical options, ESG offers a balance between efficacy and safety. It does not cause malabsorption, preserves normal anatomy, and carries a lower risk of nutritional deficiencies. ESG is sometimes misunderstood as leading to malnutrition; in reality, patients receive structured dietary counselling and long-term support from dietitians.

Postoperative dietary management follows a phased approach. During the first week, patients consume a liquid-based diet, including clear soups, meal replacement drinks, unsweetened soy milk, and



water. From weeks two to four, patients transition to soft, high-protein foods such as thick soups, porridge, and steamed egg custard, with careful portion control. From week five onward, solid foods are gradually reintroduced. A short adaptation period of approximately two weeks is required, during which strenuous exercise is discouraged. Normal physical activity can resume once dietary intake stabilises.

In Malaysia, health insurance does not currently cover weight-loss interventions, as obesity-related procedures are categorised as cosmetic rather than medically necessary. As a result, ESG is self-funded, with costs typically ranging between RM25,000 and RM28,000.

At present, ESG certification requires physicians to undergo training and certification by an experienced proctor, as the procedure relies on specialised equipment and advanced technical expertise. Proper training is essential to minimise complications and optimise outcomes. Before undergoing ESG, patients are evaluated by a multidisciplinary team that includes ESG-trained endoscopists, hepatologists, endocrinologists and dietitians.

Currently, only a handful of hospitals in Malaysia are equipped with both qualified ESG practitioners and the necessary facilities. The number of certified ESG doctors remains limited, partly due to the time-intensive nature of the procedure, which typically takes about one to two hours even for experienced operators.

Although Malaysia-specific data on ESG and fatty liver disease reversal are limited, international studies consistently demonstrate reductions in liver fat content and improvements in liver enzyme levels following ESG, particularly in patients with metabolic syndrome. Nevertheless, sustainable improvement depends on a comprehensive approach. ESG should be viewed not as a standalone solution, but as part of an integrated strategy that includes dietary discipline, regular physical activity, appropriate medical therapy, and long-term follow-up.

One of ESG's major advantages is its ability to induce meaningful weight loss without surgical removal of the stomach. It is particularly attractive for patients with mild to moderate obesity, metabolic syndrome, or those who are unsuitable or unwilling to undergo surgery.



Dato' Dr Tan Huck Joo underwent specialised ESG training in Taiwan.

www.cengild.com

Cancer is now the fastest-growing cost driver for insurers in APAC

Cancer is emerging as the single most rapidly rising condition in both utilisation, and cost across Asia Pacific insurance markets. In WTW's 2026 Global Medical Trends reporting, more than half of insurers in the region flagged cancer as the fastest-growing condition by incidence over the past 18 months, with breast, colorectal, and lung cancer leading the list. The immediate implication for employers and payers is a shift from "treatment coverage" to "workplace cancer strategy"—earlier detection pathways, faster specialist access, and structured return-to-work support.

For health systems, it reinforces the urgency of capacity planning in imaging, pathology, infusion services, and survivorship care.

Reference: WTW



Singapore clears an AI tool for bladder cancer detection for routine use

Singapore's regulator has cleared CystoSmart, an AI software tool designed to assist clinicians during cystoscopy by analysing images to detect and characterise lesions—aimed at reducing variability while keeping the clinician as the final decision-maker.

Beyond the clinical value, this approval is also a signal event for digital health adoption in APAC: it shows how AI tools are moving from pilots into day-to-day workflow. The move also lands amid broader regulatory collaboration—Singapore and Malaysia's reliance pilot seeks to shorten timelines for selected medical devices, which could speed future cross-border adoption of similar oncology-adjacent technologies.

Reference: Healthcare Asia Magazine

APAC's AI oncology wave is broadening—from detection tools to workflow redesign

Across the region, AI in cancer care is increasingly framed less as "future tech" and more as practical workflow: risk stratification, earlier detection, image interpretation support, and triage.

A BioSpectrum Asia analysis in early 2026 highlights the variety of AI approaches being deployed for cancer diagnosis across APAC—signalling accelerating competition among health systems to scale earlier detection and reduce diagnostic delays. For providers, the immediate challenge is implementation: governance, quality assurance, clinical accountability, and integration into existing IT stacks.

Reference: Bio Spectrum Asia





Malaysia's clinical trial ecosystem continues to mature at the hospital level

Malaysia is steadily building its cancer clinical research footprint through hospital-based research centres supporting trials and drug launches—an important lever for access (new therapies), capability building (trial operations), and regional positioning.

While the trial landscape varies by institution, the trendline is clear: more structured trial units, greater patient participation, and stronger collaborations between clinical teams and research operations. In the medium term, this strengthens Malaysia's ability to participate in multi-country APAC studies and improves "time-to-access" for advanced therapies.

Reference: Beacon Hospital

Adjuvant EGFR Therapy Reshapes Post-Surgery Strategy in Lung Cancer

New clinical evidence continues to reshape the treatment landscape for EGFR-mutated non-small cell lung cancer (NSCLC), with adjuvant targeted therapies increasingly moving into the post-surgical setting.

A study highlighted in the February issue of *The Lancet Oncology* examines the role of aumolertinib as adjuvant therapy following surgical resection in patients with EGFR-mutated NSCLC. The findings reflect a broader shift in clinical thinking—particularly across Asia—towards using systemic therapies earlier in the disease pathway to prevent recurrence after apparently curative surgery.

Traditionally, many patients who underwent tumour resection for early-stage lung cancer entered a period of observation, with treatment initiated only if relapse occurred. However, the growing body of evidence around targeted EGFR inhibitors is changing that paradigm. Increasingly, clinicians are asking not whether to intervene after surgery, but how aggressively recurrence should be prevented.

This question carries particular relevance in Asia, where EGFR mutations occur at significantly higher rates among lung cancer patients compared with Western populations. As a result, targeted therapies have become a central pillar of treatment strategies across the region.

As targeted therapies continue to move earlier into treatment pathways, the real transformation may not lie solely in the drugs themselves—but in the clinical ecosystems required to deliver them.



China Expands Visa-Free Entry in Move That Could Support Health Travel



China's decision to expand visa-free entry for additional passport holders is primarily designed to stimulate tourism and business travel, but the move may also carry indirect implications for the country's growing healthcare travel sector.

According to reports highlighted in *The Times of India*, the new policy allows eligible visitors from additional countries to enter China visa-free for stays of up to 30 days, part of a broader strategy to revitalise inbound travel and international engagement.

While the policy is not specifically targeted at medical tourism, easier entry procedures can play an important role in shaping international patient flows. Cities that are developing healthcare travel programmes often rely on simplified visa processes to attract overseas patients seeking specialised treatment, advanced diagnostics, or premium preventive health services.

Several Chinese metropolitan centres have been investing in international hospitals, specialty clinics, and high-end health screening programmes aimed at global patients. As travel barriers decline, these facilities may find it easier to build international patient pipelines.

For healthcare policymakers across Asia-Pacific, the development highlights how travel facilitation policies increasingly intersect with healthcare competitiveness.

Vietnam Strengthens Push Toward Medical Tourism Hub Status

Vietnam is intensifying its ambitions to position itself as an emerging medical tourism destination, with policymakers increasingly focusing on travel facilitation, payment transparency, and cross-border healthcare partnerships.

Recent policy discussions reported in *Vietnam News* point to efforts aimed at improving visa accessibility for international patients, alongside initiatives to support more transparent payment systems and compatible health data management.

Vietnam's healthcare sector has seen steady investment in private hospitals, specialty clinics, and international-standard medical facilities over the past decade. As these capabilities expand, policymakers appear keen to complement infrastructure growth with policies that make the country more accessible and predictable for foreign patients.

Vietnam's strategy appears to focus on positioning itself as the next major growth market in Southeast Asia's medical travel ecosystem, leveraging its expanding healthcare infrastructure, competitive pricing, and broader tourism appeal.





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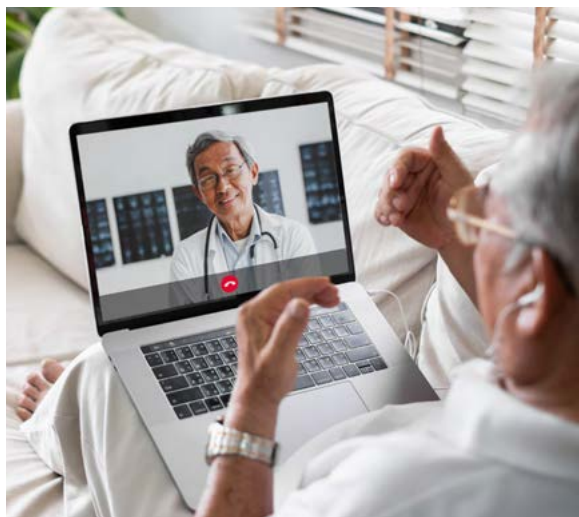


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Cross-Border Telemedicine Emerging as a New Layer in Medical Tourism

Medical tourism is increasingly expanding beyond physical travel, as hospitals across the Asia-Pacific begin integrating cross-border telemedicine services into international patient programmes.

Traditionally, medical travel has been defined by patients flying abroad for surgery, complex procedures, or specialist consultations. However, healthcare providers are now using digital platforms to create a hybrid care pathway—allowing international patients to begin consultations remotely before traveling and to continue follow-up care after returning home.

Several hospitals in Thailand, Singapore, and Malaysia have begun formalising teleconsultation services for international patients, particularly in areas such as oncology, cardiology and elective surgery planning. These platforms allow physicians to review medical records, provide second opinions, and coordinate treatment plans prior to patient travel.

The shift reflects broader changes in healthcare delivery following the COVID-19 pandemic, which accelerated both telemedicine adoption and patient comfort with remote consultations.

For international patients, the model offers greater convenience and clarity before committing to treatment abroad. For hospitals, it provides an opportunity to build patient relationships earlier and extend care continuity beyond the surgical episode.

Industry observers say the integration of telemedicine into international patient programmes could become a defining feature of the next phase of medical tourism—transforming what was once a single medical journey into a longer-term cross-border care relationship.

International Insurance Partnerships Are Reshaping Medical Travel

International insurance partnerships are increasingly becoming a key driver of medical tourism flows across Asia-Pacific, as hospitals work to integrate cross-border healthcare into formal reimbursement frameworks.

Historically, many international patients paid out-of-pocket for treatment abroad. Today, however, hospitals and healthcare groups are actively forming partnerships with global insurers, corporate health plans, and international assistance companies to expand coverage for overseas medical care.

Such collaborations allow policyholders to access treatment in accredited hospitals outside their home country while maintaining insurance reimbursement eligibility. For insurers, directing patients to selected regional centres can also help manage treatment costs while maintaining clinical quality.

Hospitals in Thailand, Singapore, and Malaysia have been particularly active in expanding insurance-linked international patient programmes, offering dedicated support teams to coordinate documentation, treatment approvals, and claims processing.

The development reflects a broader shift in medical tourism from an ad-hoc travel market into a structured cross-border healthcare ecosystem. As insurance participation grows, patient flows are likely to become more predictable and institutionalised, potentially reshaping how healthcare providers across Asia-Pacific design their international patient strategies.



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ORBITA-2 Age Analysis: PCI Shows Symptom Relief Across Age Groups

New insights from the ORBITA-2 trial are shedding light on how percutaneous coronary intervention (PCI) may benefit patients with stable coronary artery disease across different age groups—particularly when outcomes are measured beyond traditional exercise-based endpoints.

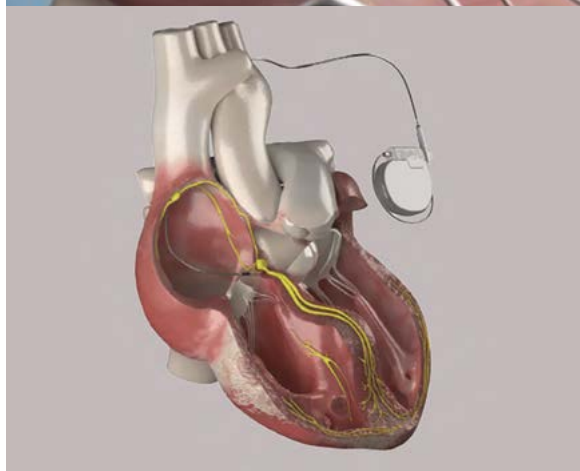
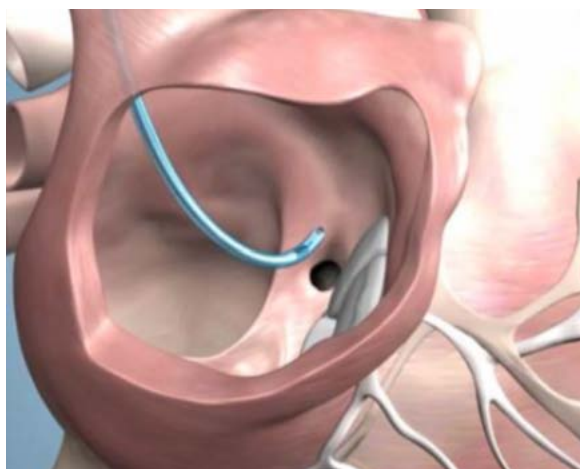
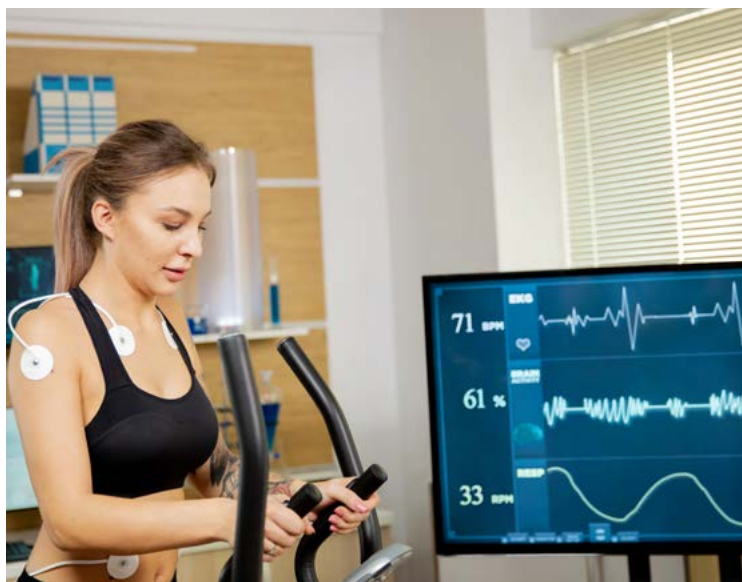
A secondary analysis published in the Journal of the American College of Cardiology (JACC) and highlighted by the American College of Cardiology found that PCI significantly reduced angina frequency among patients receiving the intervention compared with medical therapy alone. Importantly, the benefits were observed across age groups, including older adults.

The analysis revealed an interesting nuance: while younger patients tended to show larger improvements in treadmill exercise time, older adults appeared to experience more meaningful reductions in angina symptoms and daily discomfort. This suggests that the perceived clinical value of PCI may differ depending on how outcomes are measured and what matters most to patients.

For cardiologists across Asia-Pacific, the findings reinforce a broader shift toward patient-centred outcome design in cardiovascular care. As the region's population continues to age rapidly, symptom relief, quality of life and functional independence may become more relevant clinical endpoints than traditional exercise performance metrics alone.

The ORBITA-2 age analysis therefore adds an important dimension to the evolving conversation around PCI—reminding clinicians that the success of cardiovascular interventions may ultimately be best measured through the lived experience of patients.

Reference : American College of Cardiology



Conduction system pacing is gaining momentum as a “next chapter” in heart failure device therapy

A 2026 European Heart Journal piece argues that conduction system pacing (CSP) is increasingly viewed as a promising alternative to conventional biventricular pacing for CRT in select heart failure patients—addressing limitations that remain unresolved in standard approaches.

Asia Pacific centres with advanced electrophysiology programs are already tracking CSP learning curves, training needs, and long-term outcomes as adoption spreads. The headline here is not just a new technique, but a rethinking of how electrical synchrony is restored in failing hearts.

Reference : OUP Academic

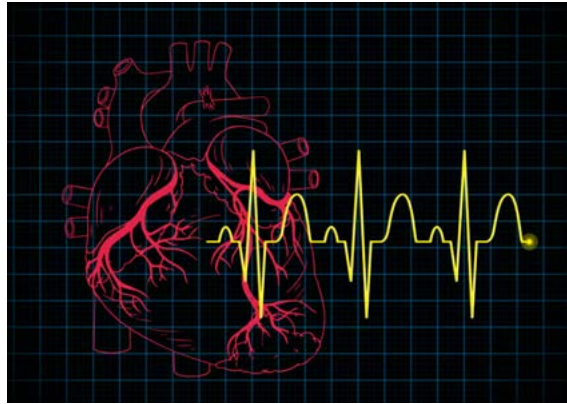
New Clinical Evidence Strengthens Case for Conduction System Pacing in Heart Failure

New clinical evidence is continuing to build around conduction system pacing (CSP) upgrades, with emerging data pointing to encouraging longer-term outcomes in selected heart failure patients.

A 2026 publication indexed on PubMed, currently available online ahead of print, reports on longer-term clinical outcomes following conduction system pacing upgrades in patients with heart failure who previously received conventional pacing therapy. The findings add to a growing body of international research exploring whether CSP—which directly stimulates the heart’s native conduction pathways—may offer a more physiologically aligned alternative to traditional right ventricular pacing.

Interest in conduction system pacing has been growing steadily across electrophysiology centres worldwide, particularly in cases where long-term right ventricular pacing can contribute to ventricular dyssynchrony and progressive cardiac dysfunction. By targeting the His bundle or left bundle branch conduction pathways, CSP aims to restore a more natural pattern of electrical activation within the heart.

While individual studies vary in methodology, patient selection, and scale, a broader trend is beginning to emerge: longer follow-up data is gradually accumulating. Early evidence suggests that CSP upgrades may lead to improvements in cardiac function, symptom burden and, in some cases, reduced



hospitalisation rates among certain heart failure populations.

For hospitals and device programmes across Asia-Pacific, however, the critical question will be durability. Payers and regulatory bodies in the region are increasingly looking for longer-term clinical evidence before expanding reimbursement frameworks or integrating new pacing strategies into standard practice guidelines.

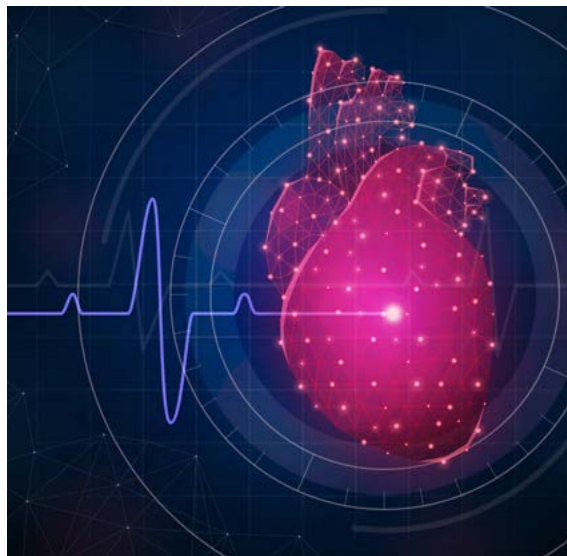
As multicentre registries and prospective trials continue to mature, the coming years are expected to provide clearer answers on where conduction system pacing ultimately fits within the evolving landscape of heart failure management.

HFpEF: Medtronic’s global ELEVATE-HFpEF study signals a device-based push into a hard-to-treat population

HFpEF remains one of cardiology’s toughest clinical categories, with limited proven therapies for many patients. Medtronic’s ELEVATE-HFpEF pivotal study explores whether conduction system pacing can improve outcomes and symptoms in HFpEF patients—enrolling across multiple regions including Asia Pacific.

For APAC clinicians, the significance is twofold: it reflects growing industry investment in HFpEF solutions, and it may broaden future device indications if evidence supports benefit.

Reference: Cardiac Intervention Today



Japan's PMDA Moves to Streamline Regulatory Pathways for Global Biotech

Japan's pharmaceutical regulator is taking new steps to make the country more accessible to international life sciences companies, signalling a broader strategy to strengthen Japan's role in global drug development and innovation.

A February 2026 Asia-Pacific regulatory roundup by the Regulatory Affairs Professionals Society (RAPS) highlighted new guidance from Japan's Pharmaceuticals and Medical Devices Agency (PMDA) aimed at smoothing regulatory engagement for overseas biotechnology and pharmaceutical companies. Among the initiatives are expanded options for English-language documentation and consultation processes, as well as clearer pathways for companies seeking priority consultation with regulators.

The move reflects a growing recognition that regulatory capacity has become a key element of national competitiveness in the global life sciences sector. For emerging biotechs and multinational pharmaceutical companies alike, the speed, transparency and accessibility of regulatory systems often influence where clinical trials are conducted and where companies choose to anchor their regional regulatory strategies.

By encouraging earlier engagement and facilitating English-language processes, the PMDA appears to be signalling a more globally integrated approach—one designed to attract earlier submissions and accelerate access to innovative therapies within Japan.

For Asia-Pacific innovators, the implications could extend beyond Japan itself. More streamlined regulatory pathways may shape where companies base regional regulatory hubs, conduct clinical development and plan initial market launches.



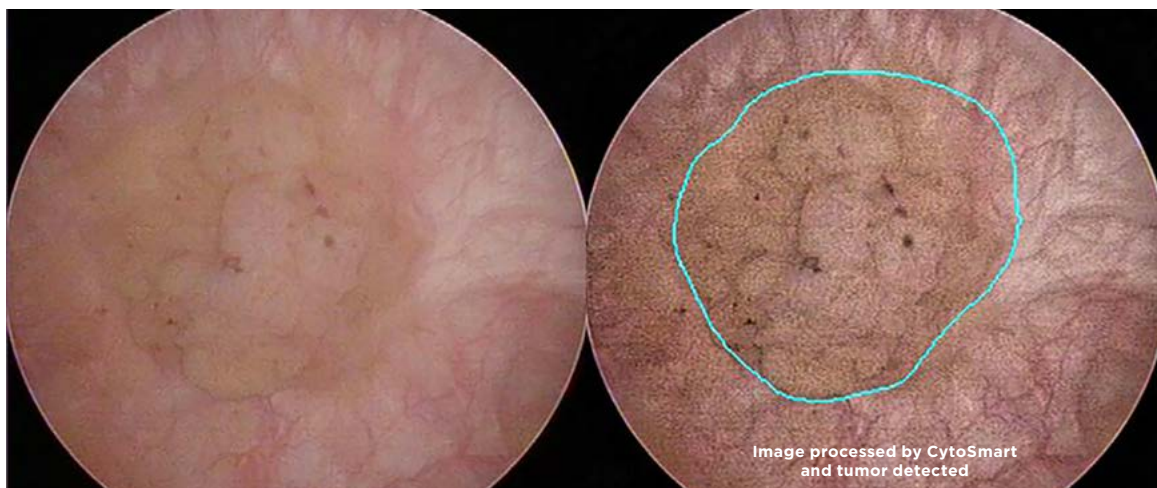
India Seeks Industry Feedback on IVD Import Application Pathways

India's drug regulator is inviting industry feedback on the country's in vitro diagnostics (IVD) import application process, signalling an ongoing effort to refine regulatory pathways for diagnostic technologies entering the market.

A February 2026 Asia-Pacific regulatory update by the Regulatory Affairs Professionals Society (RAPS) notes that India's Central Drugs Standard Control Organisation (CDSCO) is seeking stakeholder input on procedures related to the import of IVD products. The consultation focuses on operational aspects of the regulatory pathway, including application requirements, documentation processes and administrative timelines.

While the topic may appear procedural, the implications for healthcare delivery are significant. Diagnostics and IVD technologies underpin much of modern medicine—from early cancer detection and infectious disease monitoring to cardiometabolic risk assessment and precision oncology.

India's move to solicit industry feedback suggests an effort to improve transparency and efficiency within the regulatory framework. By refining submission requirements and operational workflows, regulators aim to create a more predictable environment for diagnostic developers seeking to introduce new technologies into the Indian healthcare system.



AI Tools Are Clearing Regulators— But Implementation Will Determine Impact

Artificial intelligence is steadily moving from pilot programmes into routine clinical use across healthcare systems worldwide. Yet as regulatory approvals increase, attention is shifting from whether AI tools can clear regulatory hurdles to whether hospitals can implement them safely and effectively at scale.

Recent developments involving clinical AI platforms such as CystoSmart, designed to support diagnostic decision-making, illustrate how regulatory acceptance is gradually becoming less of a bottleneck. Across several jurisdictions, health regulators have begun approving AI-driven medical tools for specific clinical applications, reflecting growing confidence in their safety and performance.

However, experts note that the real challenge now lies in implementation quality rather than regulatory

clearance. Deploying AI in real-world clinical environments requires robust governance structures, continuous performance monitoring, and clear accountability frameworks.

Hospitals must ensure clinicians receive appropriate training, algorithms are integrated seamlessly into existing clinical workflows and outcomes are tracked over time to confirm that AI systems continue to perform as expected. Questions around liability, clinical responsibility, and data governance also remain central as AI tools begin influencing real-time clinical decisions.

Ultimately, the success of healthcare AI may depend less on technological breakthroughs and more on how effectively institutions translate innovation into consistent, well-governed clinical practice.

Reference: BioSpectrum Asia

Singapore–Malaysia medtech regulatory reliance pilot aims to cut approval timelines

A notable APAC policy development: Singapore's HSA and Malaysia's MDA launched a pilot allowing reliance on each other's assessments for moderate- to high-risk devices (Classes B–D), running through 28 February 2026.

The initiative targets faster reviews—particularly for devices already cleared in one jurisdiction—potentially improving speed-to-market for clinically relevant technologies. If outcomes are strong, this model could become a template for other cross-border regulatory partnerships in the region.

Reference: Healthcare Asia Magazine



Pinched Nerve Should Not Be Underestimated: National Spine Center Indonesia Introduces Minimally Invasive Endoscopic Spine Surgery



L-R: dr. Primadenny Ariesa Airlangga, M.Si., SpOT., SubSp O.T.B (K), dr Larona Hydravianto, SpOT(K) Spine MKes., and dr T. Arief Dian, SpOT CF-Spine

A pinched nerve, or Herniated Nucleus Pulposus (HNP), is often perceived as ordinary back pain. However, if not treated properly, this condition can significantly reduce quality of life, ranging from chronic pain and sensory disturbances such as numbness and tingling, to muscle weakness.

Symptoms most commonly occur in the lower back (lumbar) and neck (cervical) regions, with pain that may radiate to the arms or legs. In more severe stages, nerve dysfunction may even affect walking ability and bladder or bowel control.

Recognizing the importance of proper management, National Spine Center at National Hospital Surabaya, Indonesia provides comprehensive spine care services, including treatment for pinched nerves. Diagnosis is established accurately through modern radiological examinations, including advanced MRI technology without radiation — the first of its kind in Southeast Asia, available in Indonesia. MRI evaluation ensures precise identification of the location and severity of nerve compression.

For patients requiring surgical intervention, endoscopic spine surgery is available as a minimally invasive treatment option. This procedure requires only a very small incision, approximately 7–8 millimeters, utilizing a small endoscopic camera with 4K high-resolution visualization. The enhanced clarity allows surgeons to operate with greater precision.

The advantages of this technique include smaller surgical wounds, minimal postoperative pain, nearly invisible scars, and shorter hospital stays. Patients are often able to resume daily activities more quickly compared to conventional open surgery.

Supported by an experienced team of spine specialists and continuous technological advancements, National Spine Center is committed to delivering safer, more comfortable, and more effective spine care services to the community.

The National Spine Center team consists of dr. Larona Hydravianto, SpOT(K) Spine, M.Kes as Coordinator; dr. T. Arief Dian, SpOT, CF-Spine; and dr. Primadenny Ariesa Airlangga, M.Si, SpOT, SubSpOTB(K). In addition, National Spine Center Surabaya also performs kyphoplasty, a procedure to strengthen spinal

fractures using bone cement through a needle-based technique. Other minimally invasive procedures include percutaneous screw fixation (minimally invasive spinal instrumentation).

National Spine Center is a center of excellence providing comprehensive management for various spinal disorders and deformities in Surabaya, Indonesia. Supported by experienced spine specialists and modern medical technology, we deliver accurate diagnosis and precise treatment while prioritizing patient safety and comfort.

Spinal Deformity Correction

This service covers the management of various spinal deformities, including:

- Scoliosis and kyphosis
- Spondylolisthesis (vertebral slippage)

A comprehensive approach is applied through clinical evaluation, advanced radiological examinations, and corrective procedures based on medical indications.

Spinal Trauma and Tumors

National Spine Center manages cases of spinal trauma and tumors, including:

- Spinal fractures, including kyphoplasty and vertebroplasty procedures
- Spinal tumors, both benign and malignant

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We provide minimally invasive surgical techniques characterized by smaller incisions, minimal postoperative pain, and faster recovery. Services include:

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- PSLD (Percutaneous Stenoscopic Lumbar Decompression) for more complex stenosis cases
- Microdiscectomy for microscopic removal of nerve compression
- PLDD (Percutaneous Laser Disc Decompression) using laser technology

The advantages of minimally invasive techniques include smaller incisions, minimal scarring, lower risk of complications, and shorter hospital stays.

Pain Management

As a non-surgical alternative, we provide pain management services, including:

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Unequal by Design

Not All Bodies Age — or Break — the Same

As Asia Pacific's populations expand and age, patterns of musculoskeletal health — and immobility — are diverging along lines of gender and age. The implications are not only clinical but economic, shaping workforce participation, healthcare utilisation and long-term disability trends across the region.

Mobility risk is not evenly distributed. And as the region ages while urbanising at speed, those differences are becoming more pronounced.

Why Gender Matters in Musculoskeletal Disorders

Orthopaedic conditions do not affect men and women equally.

Globally, musculoskeletal disorders are the leading cause of disability, affecting an estimated 1.7 billion people worldwide, according to the World Health Organization. Within that burden, women consistently show higher prevalence and severity in several major conditions.

Osteoarthritis — one of the most common causes of chronic joint pain and reduced mobility — disproportionately affects women, particularly after midlife. Hormonal shifts following menopause accelerate cartilage degeneration and bone density loss, increasing long-term vulnerability.

The International Osteoporosis Foundation estimates that one in three women over 50 will experience osteoporotic fractures in their lifetime, compared to one in five men. Across ageing societies such as Japan, South Korea, and Singapore, fragility fractures are becoming a significant driver of hospital admissions and rehabilitation demand.

Beyond bone density, biomechanics also play a role. Female athletes face a higher risk of anterior cruciate ligament (ACL) injuries, attributed to anatomical alignment and neuromuscular control differences. In sports-active regions such as Australia and Singapore, orthopaedic surgeons report sustained increases in ligament reconstruction among young female athletes.

For women, mobility risk often spans decades — from sports-related ligament injuries in youth, to degenerative joint disease in midlife, and fragility fractures in later years.

Longevity extends opportunity — but also exposure to orthopaedic decline.

Men and the Culture of Delay

If women carry a longevity burden, men often carry a behavioural one.

Across Asia Pacific, men are statistically more likely to delay medical consultation for chronic musculoskeletal pain. Cultural perceptions of endurance, work-driven identity and reluctance

to seek early care contribute to later-stage presentation.

By the time intervention occurs, degeneration may be advanced — severe lumbar disc herniation, chronic rotator cuff tears or end-stage knee osteoarthritis requiring more complex surgical correction.

Occupational exposure compounds this risk. In rapidly industrialising and urban economies such as Indonesia, Vietnam and parts of Malaysia, male-dominated industries — construction, logistics, heavy manufacturing — involve repetitive lifting, vibration stress and prolonged physical strain.

The economic impact is significant. Late-stage surgical interventions typically require longer recovery, extended rehabilitation and greater indirect productivity loss.

In the mobility economy, delayed care translates into higher long-term cost.

The Young Adult Spine Shift

Perhaps the most striking change in Asia Pacific's orthopaedic landscape is occurring not among retirees — but among working professionals.

Lower back pain is now recognised as the single leading cause of years lived with disability globally, affecting adults across age groups. In Asia's financial and technology hubs — Singapore, Hong Kong, Kuala Lumpur, Seoul — sedentary desk culture has created a new spine vulnerability.

Prolonged sitting, screen dependency, limited core strength, and long commuting hours are contributing to early disc degeneration and chronic postural syndromes in adults in their 30s and 40s.

Unlike age-related joint degeneration, these conditions strike during peak earning years. They rarely present as dramatic injuries, but rather as persistent discomfort, reduced mobility, and cumulative strain — gradually eroding productivity.

Corporate health strategies are evolving in response. Sit-stand workstations, ergonomic redesign, movement reminders, and digital posture tracking are increasingly viewed as risk mitigation tools rather than lifestyle enhancements.

The spine has become an economic indicator.

Adolescents and Early Specialisation

Orthopaedic risk now begins even earlier.

Across South Korea, Japan and Australia, youth participation in competitive sport has intensified. Early specialisation in football, gymnastics, badminton and racket sports increases the risk of stress fractures, ligament injuries and long-term joint instability.



At the same time, adolescent screen time has surged across Asia Pacific. Prolonged device use contributes to poor posture, cervical strain, and reduced physical conditioning.

This dual exposure — high-intensity sport combined with prolonged sedentary behaviour — may shape the next generation's orthopaedic profile.

Mobility vulnerability is emerging younger.

Ageing Populations, Diverging Risk Patterns

As Asia Pacific transitions toward super-aged status, orthopaedic demand will surge — but not uniformly.

Older adults face increased fall risk, sarcopenia, and osteoporosis-related fractures. According to regional ageing projections, by 2050 nearly one in four people in Asia Pacific will be over 60, dramatically expanding the population at risk of degenerative joint disease and fragility fractures.

Meanwhile, younger urban professionals struggle with chronic pain conditions linked to lifestyle and occupational exposure.

These parallel trends require differentiated strategies.

A single orthopaedic response cannot address both osteoporosis in a 70-year-old woman and disc degeneration in a 35-year-old executive.

Designing for Demographic Reality

The mobility economy demands demographic intelligence.

For women, earlier bone density screening, strength training, and fall-prevention programmes may reduce long-term fracture burden. For men, public health messaging that encourages early consultation and occupational safety reform may prevent advanced-stage degeneration.

For young professionals, workplace ergonomics and structured movement integration can reduce spine vulnerability. For adolescents, balanced sports participation and posture education are essential.

Healthcare systems across Asia Pacific increasingly recognise that preserving mobility reduces downstream surgical demand, insurance expenditure, and long-term disability.

Orthopaedics is no longer just about repairing joints. It is about preserving function across a lifespan.

A Demographically Aware Future

Mobility in Asia Pacific will not decline uniformly — and it will not be preserved uniformly either.

Gender influences biomechanics and disease prevalence. Age determines exposure duration and economic impact. Lifestyle reshapes risk profiles across generations.

The mobility divide is not merely clinical — it is structural.

For policymakers, insurers, and clinicians, the challenge is clear: orthopaedic strategy must evolve beyond procedure volume to demographic foresight.

Because the future of movement in Asia Pacific will depend not only on surgical precision, but on how intelligently systems respond to who is most at risk — and when. ■

The Mobility Economy

Why Orthopaedic Health Is Becoming Asia Pacific's Next Economic Imperative

At 6:45 a.m., Mr Tan stands at the edge of a crowded MRT platform in Singapore. He is 62, still employed as a senior operations manager, and recently underwent knee replacement surgery. The operation was successful. The X-rays are pristine. The implant alignment is perfect.

Yet as the train doors open and commuters surge forward, he hesitates.

Mobility, he realises, is not restored in the operating theatre. It is tested in the real world.

Across Asia Pacific, stories like Mr Tan's are becoming increasingly common. Orthopaedic care has advanced at extraordinary speed — robotics-assisted joint replacements, AI-guided rehabilitation, regenerative biologics and 3D-printed implants are redefining surgical precision. But the region now faces a deeper challenge.

Mobility is no longer merely a medical issue. It is an economic one.

The Silent Driver of Disability

Musculoskeletal (MSK) disorders are the leading cause of disability worldwide. According to the World Health Organization, an estimated 1.7 billion people globally live with musculoskeletal conditions, including osteoarthritis, lower back pain and fractures. In Asia Pacific — home to some of the world's fastest ageing populations — the burden is accelerating.

Japan already counts nearly 30 percent of its population aged 65 and above. South Korea is projected to become a "super-aged" society by 2025. Singapore and China are rapidly approaching similar demographic thresholds. By 2050, one in four people in Asia Pacific will be over 60.

Ageing is not the crisis. Immobility is.

Lower back pain remains the single largest cause of years lived with disability globally. Osteoarthritis prevalence continues to climb alongside sedentary lifestyles and obesity. Falls are now among the leading causes of injury-related hospitalisation in older adults across the region.

When mobility declines, productivity declines with it.

The Economic Cost of Standing Still

The economic implications are profound.

In developed Asian economies, labour force participation among adults aged 60–69 is rising as governments encourage extended working lives. Yet mobility-related health conditions

remain a major cause of early retirement, reduced hours and workplace absenteeism.

In Japan, falls among the elderly account for significant long-term care expenditures. In Australia, musculoskeletal disorders are among the costliest disease groups in terms of health system spending and productivity losses. In Singapore, demand for total knee replacements has steadily increased, reflecting both longevity and lifestyle shifts.

The "mobility economy" describes this intersection between physical function and economic vitality. It recognises that joint health, spine health and injury prevention are not peripheral healthcare concerns — they are central to workforce sustainability and fiscal resilience.

Every delayed surgery, untreated degeneration or poorly managed rehabilitation carries downstream costs: insurance claims, dependency ratios, lost productivity and increased caregiver burden.

Orthopaedics is becoming infrastructure.

Beyond Surgery: Systems Thinking

Asia Pacific's healthcare systems have traditionally measured orthopaedic success by surgical outcomes — alignment accuracy, complication rates, length of stay.

Those metrics remain vital. But the region's next challenge lies outside hospital walls.

AI-assisted gait analysis systems can now detect asymmetry and fall risk before catastrophic injury occurs. Wearable devices track rehabilitation compliance and recovery trajectories. Robotics enable minimally invasive joint replacements with greater precision and faster discharge.

Yet even the most advanced procedure cannot compensate for an environment that discourages safe movement.

Uneven pavements, poorly timed pedestrian crossings, inaccessible public transport and limited community rehabilitation hubs undermine recovery. Urban design directly influences reinjury rates and confidence in mobility.

Some cities are beginning to respond. Japan's age-friendly urban policies prioritise barrier-free infrastructure. Singapore integrates senior mobility considerations into transport planning. In South Korea, digital health platforms increasingly monitor elderly patients at home.

The most forward-looking systems understand that orthopaedics must shift from episodic repair to integrated mobility management.



Case Example: Corporate Risk and the Sedentary Spine

In Kuala Lumpur, a 45-year-old finance executive developed chronic lumbar disc degeneration after years of prolonged sitting. His condition progressed slowly — back stiffness, intermittent pain, then nerve compression severe enough to require surgical intervention.

He returned to work within weeks. But without ergonomic reform and movement redesign, recurrence risk remained high.

Across Asia's urban centres, sedentary occupations are fuelling a spine crisis among younger professionals. Lower back pain affects individuals in their 30s and 40s at increasing rates. While not traditionally framed as an orthopaedic epidemic, its cumulative economic impact is substantial.

Corporate wellness strategies are evolving in response. Ergonomic redesign, sit-stand workstations, mandatory movement breaks and digital posture monitoring tools are emerging as cost-saving investments rather than employee perks.

Mobility preservation is becoming corporate strategy.

The Insurance Equation

Health insurers across Asia Pacific are quietly recalibrating risk models. Joint replacements, spine surgeries and fracture management represent significant claims categories. As populations age, actuarial forecasts show sustained growth in musculoskeletal-related expenditures.

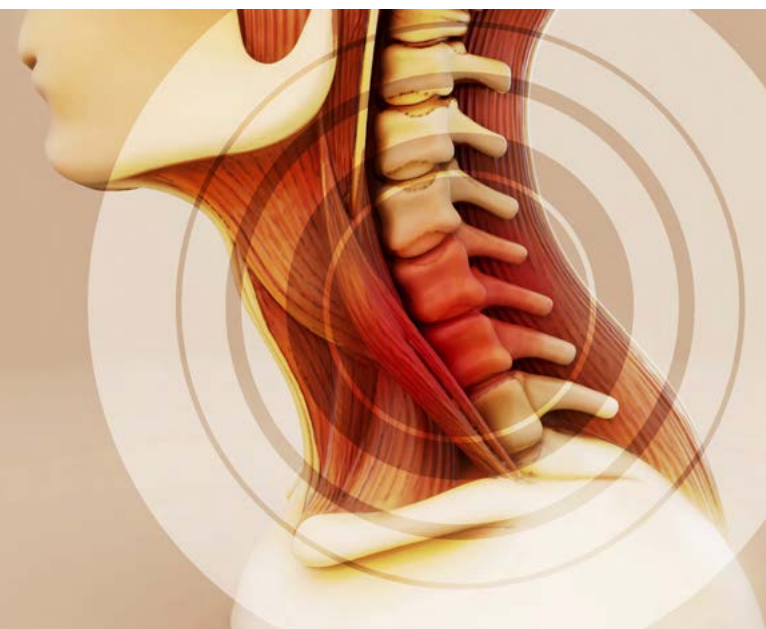
The question insurers increasingly ask is not whether to cover procedures — but how to incentivise prevention.

Some insurers now integrate physiotherapy compliance tracking into policy benefits. Others explore reimbursement models for digital rehabilitation tools. In Japan and Australia, preventive programs aimed at fall reduction and bone health receive growing policy attention.

When immobility drives costs, prevention becomes financial logic.

Smart Cities and Clinical Outcomes

The concept of the “smart city” often focuses on energy efficiency, digital connectivity and transport optimisation. Rarely is orthopaedic health positioned as a smart-city priority.



It should be.

Adaptive pedestrian crossings that allow longer crossing times for seniors reduce fall risk. Non-slip pavements lower fracture incidence during monsoon seasons. Public benches placed at regular intervals enable older adults to walk safely for longer distances.

These are not aesthetic enhancements. They are clinical interventions with measurable impact on hospital admissions and rehabilitation demand.

In parts of East Asia, urban planners are experimenting with digital twins — virtual simulations that model pedestrian movement patterns. Integrating orthopaedic recovery data into such simulations offers an opportunity to design cities that support post-surgical mobility and reduce reinjury.

The line between healthcare planning and urban design is blurring.

Regenerative Innovation and Delayed Degeneration

Parallel to systems-level thinking is the rise of regenerative orthopaedics. Biologics, platelet-rich plasma, cartilage repair techniques and emerging stem-cell-based interventions aim to delay or reduce the need for full joint replacement.

In Asia Pacific, regulatory landscapes vary widely. Japan has accelerated pathways for regenerative medicine. South Korea has invested heavily in biotech innovation. Singapore maintains cautious but progressive oversight frameworks.

The promise is compelling: extending joint function by even five to ten years could significantly alter demand curves for surgical intervention.

From an economic standpoint, delaying degeneration reduces cumulative lifetime costs — fewer revision surgeries, shorter hospital stays, prolonged workforce participation.

The mobility economy rewards innovation that keeps people moving longer.

Workforce Participation and Productive Ageing

Governments across Asia Pacific increasingly promote “productive ageing.” Retirement ages are rising. Policy rhetoric emphasises independence and community participation among older adults.

Yet policy ambition must align with physical capacity.

A 67-year-old consultant who can walk confidently to meetings remains economically engaged. A peer restricted by chronic knee pain withdraws earlier than planned.

Mobility determines participation.

In this context, orthopaedic care shifts from restorative medicine to economic enabler. Surgical precision, effective rehabilitation and supportive urban design collectively determine whether ageing populations remain contributors or become dependents.

A Regional Crossroads

Asia Pacific stands at a crossroads.

On one path, healthcare systems continue to scale surgical capacity, investing in robotics and expanding orthopaedic departments to meet rising demand. On the other, governments, insurers and city planners collaborate to reduce demand growth by preserving mobility upstream.

The most resilient economies will pursue both.

They will integrate AI-driven risk screening in primary care. They will invest in community rehabilitation hubs. They will design age-friendly infrastructure. They will incentivise preventive orthopaedics within corporate environments.

Mobility will be treated not as episodic crisis management, but as long-term economic policy.

The Measure of Success

Back on the MRT platform, Mr Tan eventually boards the train. Weeks later, his confidence improves. His physiotherapist has integrated balance training. His neighbourhood recently upgraded pedestrian crossings with longer signals. A bench near his apartment block provides a resting point on evening walks.

The surgery was successful. But so was the environment.

The true measure of orthopaedic progress in Asia Pacific will not be the number of implants inserted or robots installed. It will be the number of people who step outside each day without hesitation — contributing to their communities, workplaces and families.

Mobility is more than movement. It is economic continuity.

In the decades ahead, as ageing reshapes the region’s demographic profile, the countries that design for movement will outpace those that merely treat immobility.

The mobility economy has already begun. ■



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Rewriting the Rules of Spine Recovery

How Therapedic® Is Building a Non-Surgical Centre of Excellence in Asia



James Tan

In orthopaedics, few diagnoses trigger as much fear as a “slipped disc.” For many patients, it signals months of pain, invasive surgery, or prolonged disability. But at Therapedic Medical Centre, that narrative is being rewritten.

“Over 85 to 90 percent of slipped disc cases do not require surgery,” says James, founder of Therapedic®. “The problem is not the condition — it’s the myths surrounding it.”

Across Asia, back pain remains one of the most common musculoskeletal complaints. Globally, up to 80 percent of adults will experience significant back pain at least once in their lifetime. Yet awareness remains low. Many still believe that a herniated disc means something has “slipped out of place,” or that surgery is inevitable.

“In reality,” James explains while speaking to GlobalHealth recently, “a slipped disc is usually a disc bulge or herniation pressing on a nerve. Most cases can be managed effectively with structured, stage-based rehabilitation.”

A Gold Standard Without the Scalpel

At the heart of Therapedic®’s model is its signature Laser COX® Decompression Protocol, a non-surgical spine treatment designed to relieve pressure along the vertebral column — from the occipital base down to the sacrum.

The protocol combines spinal decompression, laser therapy, guided physiotherapy, and precise mobilisation into a single continuum of care. “It’s not about one machine,” James stresses. “It’s about how we integrate everything into one measurable pathway.”

According to the centre, more than 900 slipped disc cases have been managed under this structured approach, with a reported success rate of approximately 90 percent — without surgical intervention.

But what differentiates Therapedic is not simply decompression therapy. It is the integration of multidisciplinary rehabilitation, robotics, and data-driven protocols under one roof.

Robotics and the New Era of Rehabilitation

In 2021, Therapedic launched robotic and AI-assisted rehabilitation systems — technology more commonly associated with tertiary hospitals.

For patients recovering from spinal injury, fixation surgery, or neurological impairment, the centre employs Robotic Lokomat Rehabilitation, a system that supports gait training

and neuromuscular re-education.

“Imagine a patient who has lost mobility after spinal surgery,” James says. “The robot helps initiate walking patterns while we retrain the nervous system. It accelerates recovery significantly.”

For post-surgical cases or severe mobility loss, the centre reports that robotic rehabilitation can deliver up to twice the functional outcome compared to conventional physiotherapy alone.

The implications extend beyond musculoskeletal care. Patients with stroke, peripheral nerve damage, and severe neuropathic pain are also increasingly being managed within this framework.

“Complex cases are where technology truly matters,” James adds. “You need the right equipment, but more importantly, you need the expertise to combine it properly.”

When Surgery Isn’t the Only Answer

One of the defining case stories involves a 35-year-old man who slipped at a waterfall, sustaining severe spinal injury and arriving at the centre wheelchair-bound. He had been evaluated by a neurosurgeon and was placed on medication, with no immediate surgery performed.

Through Laser COX® Decompression and structured physiotherapy, he regained mobility within five months. He later sent a video of himself scuba diving in Perhentian Island — swimming alongside a whale shark.

Another patient, aged 60, developed a surgical site infection





following spinal fixation surgery. The infection led to peripheral nerve damage and ICU admission. When discharged, he had virtually zero mobility.

Therapedic® activated a combination of post-surgical laser wound therapy, decompression, and robotic rehabilitation. Within six months, he regained full mobility and later shared photos from a trip to Italy. “These are cases many consider untreatable,” James says. “But with structured, integrated rehabilitation, recovery is possible.”

A Changing Regulatory Landscape

Therapedic’s evolution also comes amid shifting regulatory reforms in Malaysia.

Recent Ministry of Health restructuring has reclassified chiropractic and osteopathy under Traditional & Complementary Medicine, while physiotherapy and rehabilitation medicine fall under Allied Health regulation — requiring annual practising licences and stricter facility compliance.

“The government is tightening standards, especially for physiotherapy,” James explains. “Facilities must meet hygiene protocols, data management systems, equipment registration, and professional licensing.”

For patients, the changes improve transparency and safety. For providers, compliance requires significant investment.

“We support regulation,” James says. “Proper licensing protects patients. But it also means centres must commit to infrastructure, medical-grade equipment, and accountability.”

Importantly, physiotherapy and rehabilitation services remain insurance-claimable, reinforcing accessibility to structured non-surgical care.

The Rise of Medical Mobility

Beyond local patients, Therapedic also treats a significant

number of international medical travellers — including patients from Indonesia, Singapore, Australia, the United Kingdom, and the United States.

Malaysia’s competitive pricing and shorter waiting times have made it increasingly attractive. In the UK, elective orthopaedic procedures can involve waiting periods exceeding 30 months. In contrast, diagnostic imaging, consultation, and intervention in Malaysia can often be arranged within days.

“An MRI in Singapore might cost RM2,500,” James notes. “In Malaysia, it can be around RM1,500 — with comparable quality.”

For Australians with private insurance coverage, robotic-assisted knee replacement in Malaysia can cost significantly less than domestic procedures, even with titanium implants.

The centre is also expanding regionally. Plans are underway for new outlets in Malaysia, Singapore, and Cambodia, alongside sports-focused rehabilitation initiatives.

A Centre of Excellence — But Defined by Integration

Therapedic has positioned itself as a Slip Disc Treatments & Robotic Rehabilitation Centre of Excellence. Yet James is cautious about titles.

“It’s not about being flashy,” he says. “It’s about predictability.”

What sets the centre apart is the consolidation of services: decompression, robotics, laser systems, EMG biofeedback, electromagnetic pelvic floor therapy, and structured physiotherapy — all coordinated under one multidisciplinary team of approximately 70 practitioners.

“In fragmented systems, patients are sent from one centre to another,” James explains. “We built a model where everything is integrated.”

This integration allows for stage-based treatment planning, from mild disc prolapse (Stage 1) to more severe cases (Stage 3), where surgery may be required.

Even then, Therapedic frequently manages post-surgical rehabilitation — often reducing recovery timelines by up to 50 percent compared to conventional pathways.

Looking Ahead: 2025 and Beyond

Innovation remains central to the centre’s growth strategy. Upcoming developments include next-generation hyperpulsed laser systems, expanded AI-guided rehabilitation protocols, and onsite laser physiotherapy for post-discharge patients.

“Our vision is simple,” James concludes. “Reduce unnecessary surgery. Restore function. Make recovery measurable.”

In an orthopaedic landscape often dominated by surgical intervention, Therapedic is championing a different philosophy — one that prioritises structured rehabilitation, technological precision, and evidence-based integration.

For patients fearful of the operating theatre, that shift may represent not just innovation — but hope. ■

Precision Through a Portal

Why Arthroscopy Is Redefining Orthopaedic Recovery in Asia Pacific

Over the past three decades, arthroscopy has transformed orthopaedic surgery across Asia Pacific. Once requiring large incisions and prolonged hospital stays, many joint procedures today are performed through portals no larger than a centimetre — guided by fibre-optic cameras and high-definition imaging systems.

But while the incisions may be smaller, the implications are far larger.

From ACL reconstruction in young athletes to meniscus repair in working professionals and rotator cuff management in ageing populations, arthroscopy has become one of the most commonly performed orthopaedic interventions in the region. In high-income Asian economies such as Japan, South Korea, and Singapore, minimally invasive joint procedures now dominate elective orthopaedic case lists. Emerging markets across Southeast Asia are rapidly adopting similar capabilities.

The shift reflects more than surgical innovation. It reflects changing expectations.

Patients today demand faster recovery, shorter hospital stays, and quicker returns to work or sport. Arthroscopy promises precisely that: reduced tissue trauma, less postoperative pain, and accelerated rehabilitation timelines.

Yet the evolution of arthroscopy is not merely about speed. It is about precision.

The Technical Leap

Arthroscopy allows surgeons to visualise the interior of joints in real time, enabling targeted intervention with minimal disruption to surrounding structures. High-definition cameras, fluid management systems, and increasingly sophisticated instrumentation have improved both accuracy and outcomes.

In knee surgery alone, arthroscopy is routinely used for:

- Anterior cruciate ligament (ACL) reconstruction
- Meniscus repair and preservation
- Cartilage restoration procedures
- Synovial and loose body removal

Shoulder arthroscopy has similarly evolved, addressing rotator cuff tears, labral injuries and instability with improved biomechanical repair techniques.

In the Asia Pacific, the rise of sports participation, active ageing and workplace wellness has further driven demand. Younger patients seek joint preservation rather than replacement. Older adults expect to maintain mobility well into their 60s and 70s.

Arthroscopy fits this new functional ambition.

The Return-to-Function Question

However, minimally invasive does not mean minimally consequential. One of the defining tensions surrounding arthroscopy is the perception of “quick fixes.” Smaller incisions can create the illusion of minor intervention. In reality, ligament reconstruction and cartilage repair remain biologically complex processes requiring structured rehabilitation.

“Patients sometimes underestimate recovery because the surgery looks small,” said James R. Andrews, founder of the Andrews Institute for Orthopaedics & Sports Medicine, in discussions on sports injury rehabilitation published in *Arthroscopy: The Journal of Arthroscopic and Related Surgery*. “The incision may be minimal, but the biological healing of ligaments and cartilage still takes time.”

Across the region, orthopaedic surgeons and rehabilitation specialists are increasingly aligned in emphasising post-operative compliance. Early weight-bearing protocols, neuromuscular retraining, and progressive strengthening are critical to long-term outcomes.

Rehabilitation specialists frequently point out that the most common post-arthroscopy mistake is returning to activity before neuromuscular control is fully restored. Muscle strength, coordination, and joint stability must be rebuilt methodically if the surgical repair is to succeed.

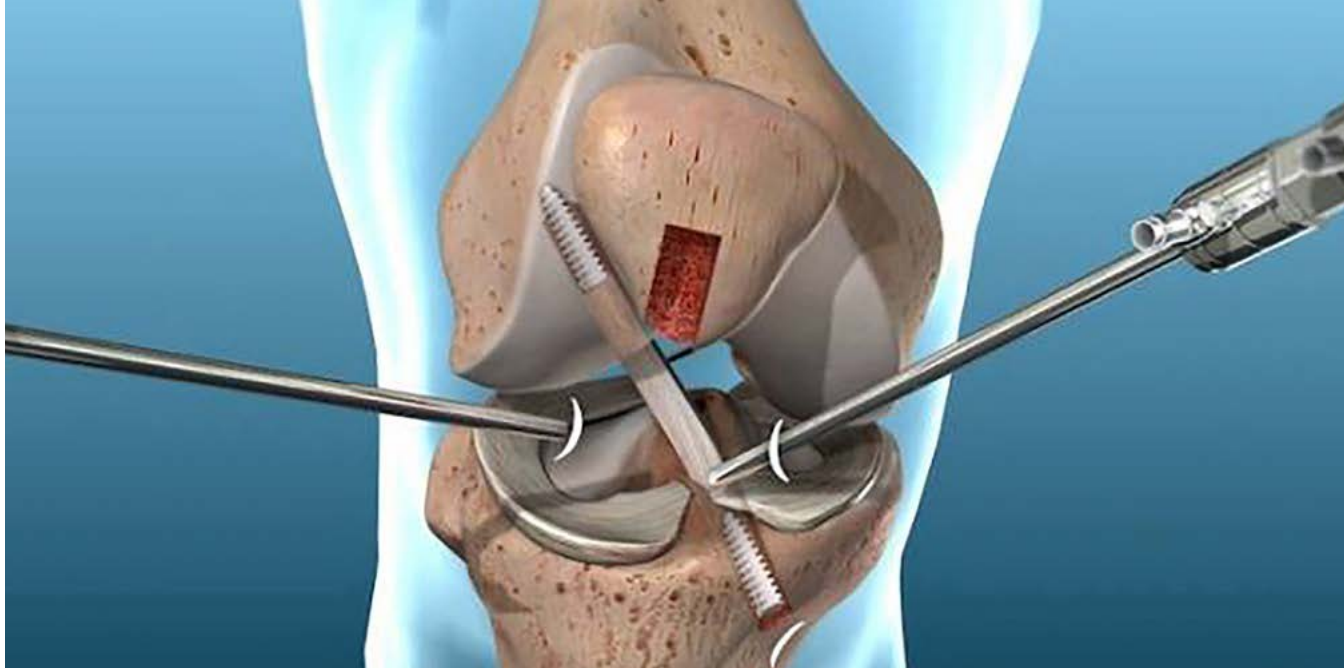
The Pressure to Return

In working-age adults, the economic pressure to return quickly to employment may conflict with biological healing timelines. Athletes face similar psychological pressures.

“Younger athletes are often eager to return to competition, sometimes sooner than the biology allows,” explained Lars Engebretsen, orthopaedic surgeon and former chair of the International Olympic Committee Medical and Scientific Commission, in commentary on return-to-play protocols presented at international sports medicine congresses and published in the *British Journal of Sports Medicine*. “Successful outcomes depend not only on surgical technique but on respecting the rehabilitation timeline.”

Recovery dynamics can also differ between individuals. Research increasingly suggests that biomechanical factors — including muscle strength patterns and movement mechanics — may influence injury risk and rehabilitation progress, particularly in ligament injuries such as ACL tears.

Regardless of demographic differences, experts emphasise a common principle: the surgery is only the beginning of recovery.



Where Rehabilitation Makes or Breaks the Result

Orthopaedic specialists widely agree that rehabilitation is the defining determinant of long-term outcomes after arthroscopy.

“Surgery restores the structure, but rehabilitation restores function,” wrote Freddie H. Fu, former chair of orthopaedic surgery at the University of Pittsburgh Medical Center, in his research and editorial work on ACL reconstruction and rehabilitation outcomes published in *The American Journal of Sports Medicine*.

Structured physiotherapy programmes focusing on strength, proprioception and progressive return to activity are now considered essential components of joint preservation strategies.

Across Asia Pacific, this is driving greater collaboration between surgeons, physiotherapists, and sports medicine specialists. Multidisciplinary rehabilitation pathways are increasingly recognised as critical to ensuring that minimally invasive surgery translates into meaningful functional recovery.

Arthroscopy and the Mobility Economy

Within the broader context of Asia Pacific’s ageing demographics and workforce evolution, arthroscopy plays a strategic role.

Degenerative joint disease remains one of the leading contributors to reduced physical function among adults. Early arthroscopic intervention — particularly meniscus preservation and cartilage repair — may delay progression to total joint replacement.

From a health economics perspective, preserving joint integrity in a 40-year-old professional could extend productive years and reduce long-term surgical burden.

Similarly, minimally invasive repair of rotator cuff injuries among manual labourers or service workers can shorten downtime and restore functional capacity more efficiently than open procedures.

In this sense, arthroscopy is not merely a surgical technique; it is a functional investment.

Technology, Robotics and the Next Frontier

The next evolution of arthroscopy in Asia Pacific is being shaped by integration with advanced technologies.

Robotic assistance, AI-guided imaging, and augmented reality visualisation systems are increasingly being explored in high-resource centres. Enhanced navigation may improve graft placement accuracy in ACL reconstruction or optimise cartilage repair alignment.

At the same time, biologic augmentation — including platelet-rich plasma and scaffold-supported cartilage regeneration — is being combined with arthroscopic techniques to enhance healing.

Despite these technological advances, experts caution that surgical innovation cannot replace patient discipline.

As sports medicine researchers have repeatedly highlighted in journals such as *Arthroscopy* and *The American Journal of Sports Medicine*, long-term outcomes depend as much on adherence to rehabilitation protocols as on the precision of the surgical repair itself.

Beyond the Incision

Arthroscopy’s greatest strength may lie in what it represents: a philosophy of preserving anatomy whenever possible.

In an era where orthopaedics once gravitated toward replacement, arthroscopy embodies restraint — repair over removal, preservation over prosthesis.

But its success depends on realistic expectations.

Smaller scars do not eliminate the need for structured rehabilitation. Faster discharge does not negate biological healing time.

As Asia Pacific navigates rising orthopaedic demand, arthroscopy will remain central to joint preservation strategies. Yet its long-term impact will depend not only on surgical innovation but also on coordinated post-operative care, patient education, and system-level support. Because in the mobility economy, function is the true outcome — and recovery does not end when the portals close. ■

Medical Tourism Powerhouse at a Strategic Crossroads

Unlike emerging markets that are still building specialist depth, Thailand already operates at scale.

For more than two decades, Thailand has been Southeast Asia's most recognisable medical tourism brand. From cardiac surgery and orthopaedics to fertility treatment and aesthetic procedures, Bangkok has long functioned as a regional magnet for patients from the Middle East, South Asia and neighbouring ASEAN countries.

But in 2026, Thailand's healthcare narrative is evolving.

The country remains a dominant force in medical tourism — yet it now faces rising competition from Malaysia, strengthening domestic systems in Indonesia and Vietnam, and Singapore's continued high-acuity positioning. The question is no longer whether Thailand leads, but how it adapts to preserve that leadership.

A Mature Private Healthcare Engine

Thailand's strength lies in its deeply established private hospital ecosystem.

Bangkok, in particular, hosts internationally accredited hospitals equipped with advanced cardiac centres, comprehensive oncology institutes, hybrid operating theatres and robotic-assisted surgical platforms. Many of these institutions have decades of experience managing international patients, supported by multilingual coordinators, concierge services and structured pre- and post-operative pathways.

Unlike emerging markets that are still building specialist depth, Thailand already operates at scale. The private sector has refined not only clinical capability, but patient logistics — visa facilitation, airport transfers, hotel partnerships and bundled pricing models.

This ecosystem advantage remains difficult to replicate.

The Competitive Pressure Is Rising. Yet regional competition is intensifying.

Malaysia is strengthening outreach in Indonesia and Cambodia. Singapore maintains its dominance in highly complex tertiary care. Vietnam is scaling rapidly in oncology and orthopaedics.

Thailand's challenge is to move beyond being perceived as a "value" destination and reinforce its position as a quality leader.

To that end, hospitals are investing heavily in subspecialisation — advanced spine surgery, interventional cardiology, regenerative orthopaedics and minimally invasive oncology techniques. Robotic-assisted surgery adoption continues to expand, particularly in urology, colorectal surgery and gynaecology.

The narrative is shifting from affordability to sophistication.

Orthopaedics and Sports Medicine: A Regional Draw

Orthopaedic surgery remains one of Thailand's strongest medical tourism pillars.

Sports injuries, joint replacements, and complex spine procedures attract patients from Australia, Myanmar, Cambodia and the Middle East. Advanced arthroscopic surgery and rapid-rehabilitation programmes are key selling points.

The country's experience in serving active, international patients has helped refine post-operative recovery models that combine rehabilitation with hospitality — a unique blend that few competitors match at scale.

However, as neighbouring countries build orthopaedic capacity, Thailand must sustain its edge through innovation and reputation.

Oncology and the Move Toward Comprehensive Care

Cancer care has emerged as another strategic frontier.

Thailand's leading private hospitals have expanded radiotherapy suites, genomic testing capabilities, and targeted therapy programmes. Multidisciplinary tumour boards and patient navigation services are increasingly structured to meet international standards.

This move toward comprehensive cancer centres signals a broader ambition: to compete not only in



elective procedures but also in complex, long-term disease management.

Such positioning enhances resilience, as oncology demand is less seasonal and less price-sensitive than cosmetic or elective surgical flows.

Digital Transformation and Operational Efficiency

Thailand's private sector is also integrating digital health tools to improve operational efficiency and patient experience.

Electronic medical records, AI-assisted diagnostics, and teleconsultation services are increasingly embedded in patient pathways. International follow-up consultations are being conducted virtually, reducing the need for repeat travel.

Digital tools also strengthen continuity of care — an important differentiator as patient expectations evolve.

Public Health and Domestic Demand

Thailand's universal coverage scheme continues to underpin broad access domestically. While the public and private sectors operate with different incentives, both face the same macro trends: rising non-communicable disease burden and an ageing population.

Domestic demand for cardiology, oncology, and orthopaedics is growing steadily. For private hospitals, balancing international and domestic patient flows will become increasingly important,

particularly if global travel fluctuates.

Thailand's healthcare system must therefore serve two markets simultaneously: local citizens and international visitors.

Workforce and Sustainability Challenges

Like many regional systems, Thailand faces workforce pressures.

Nursing shortages and specialist retention challenges require strategic planning. As neighbouring countries expand their own private sectors, regional competition for experienced clinicians may intensify.

Sustainability will depend on continued investment in training pipelines and clinical research collaboration.

Thailand remains Southeast Asia's most recognisable medical tourism brand — but brand alone is no longer sufficient.

The country's next phase will depend on:

- Maintaining clinical depth
- Strengthening subspecialty excellence
- Enhancing digital integration
- Expanding comprehensive disease management
- Protecting workforce stability

If Thailand successfully evolves from a volume-based medical tourism leader to a high-value, subspecialty-driven healthcare exporter, it will retain its dominance. If not, it risks gradual erosion as regional competitors narrow the gap.

For now, Thailand stands not weakened — but challenged to innovate again. ■

Thailand's universal coverage scheme continues to underpin broad access domestically.

Innovation, Investment and the Quiet Rise of a Healthcare Corridor

The Indochine region — comprising Vietnam, Cambodia and Laos — is entering a new phase in healthcare development. Once viewed primarily through the lens of emerging public health systems, the region is now drawing attention for its accelerating investment in private hospitals, digital health integration, and cross-border patient movement.

While Singapore, Thailand and Malaysia dominate Southeast Asia's premium medical tourism narrative, Indochine is steadily positioning itself as a complementary healthcare corridor — particularly for regional patients seeking affordability, specialist access, and expanding tertiary capabilities.

Vietnam: Scaling Tertiary Care and Digital Health
Vietnam is leading the region's healthcare transformation.

In recent years, the country has seen a surge in private hospital expansion, international partnerships, and digital health adoption. Major urban centres such as Ho Chi Minh City and Hanoi are investing heavily in advanced imaging, minimally invasive surgery, and oncology capabilities.

Telemedicine adoption has accelerated, particularly following the pandemic, with platforms connecting provincial patients to urban specialists. Digital hospital systems, AI-assisted diagnostics, and hospital management software upgrades are increasingly common in large tertiary institutions.

At the same time, Vietnam continues to confront capacity gaps in specialised oncology and cardiovascular care — areas that represent both clinical challenges and commercial opportunities.

Medical tourism remains a developing but growing segment. While outbound Vietnamese patients still travel to Thailand and Singapore for complex procedures, inbound flows from neighbouring Cambodia and Laos are increasing, especially for orthopaedics, fertility services, and cosmetic surgery.

Vietnam's strength lies in scale. With a population exceeding 100 million, internal demand alone is reshaping its private hospital landscape.

Cambodia: Partnership-Driven Growth

Cambodia's healthcare sector is more fragmented, but international collaboration is accelerating progress.

Private hospitals in Phnom Penh are investing in modern diagnostic equipment, laparoscopic surgery, and maternal-fetal medicine. Strategic partnerships with foreign institutions are helping transfer clinical expertise and management systems.

For Cambodian patients, medical tourism remains significant. Thailand and Vietnam are common outbound destinations for advanced cardiac or oncology care. However, domestic capacity is improving gradually, reducing the need for cross-border travel in select specialties.

The country's health market is particularly attractive for regional investors due to its young demographic and growing middle class. As insurance penetration increases, demand for structured, private healthcare services is expected to rise.

Cambodia may not yet be a regional healthcare hub, but it is becoming a key referral node within Indochine's evolving network.

Laos: Digital Leapfrogging

Laos faces infrastructure limitations, but innovation is emerging in unexpected ways.

With a smaller population base, Laos is exploring digital health platforms to extend specialist access. AI-supported diagnostic tools and teleconsultation systems are being introduced in select hospitals, often in collaboration with regional partners.

Outbound medical travel remains common for complex procedures, particularly to Thailand and Vietnam. However, domestic investment in private clinics and imaging facilities is increasing, aimed at capturing mid-tier demand.

Laos' healthcare strategy appears to focus less on competing as a regional hub and more on improving internal capacity while leveraging cross-border partnerships for advanced care.

A Regional Healthcare Corridor

Taken together, Indochine's healthcare landscape

Telemedicine adoption has accelerated, particularly following the pandemic, with platforms connecting provincial patients to urban specialists.



reflects asymmetry — but also momentum.

Vietnam is emerging as the region's clinical anchor, Cambodia as an investment growth market, and Laos as a digital adopter with cross-border reliance.

What unites them is rising private sector participation.

Private hospitals across Indochine are investing in:

- Robotic-assisted surgery
- Advanced orthopaedics and sports medicine
- Oncology infusion centres
- Fertility services
- Cosmetic and reconstructive procedures

These service lines are not accidental. They reflect regional demand patterns, particularly among middle-income patients seeking improved outcomes without Singapore-level pricing.

Indochine does not yet rival Thailand's scale or Singapore's reputation for complex care. But it plays a strategic complementary role.

Cambodian and Laotian patients often travel to Vietnam. Vietnamese patients travel to Thailand or Singapore for niche treatments. Meanwhile, lower-cost elective procedures in Vietnam are beginning to attract regional patients seeking affordability.

The future may lie not in direct competition, but

in tiered collaboration — where Indochine countries serve as secondary hubs feeding into higher-acuity centres in Thailand or Singapore.

Investment and Future Direction

International investors are closely watching Indochine.

Healthcare demand is rising alongside GDP growth. Insurance penetration is increasing. Urbanisation is concentrating patient volume in major cities.

Yet challenges remain:

- Workforce shortages in specialised fields
- Uneven rural-urban access
- Regulatory variability
- Infrastructure constraints

Still, the direction is clear. Indochine's healthcare sector is moving from basic service expansion to strategic capability building.

The next five years will determine whether the region solidifies into a recognised healthcare corridor or remains a transitional market feeding larger hubs.

One thing is certain: Indochine is no longer peripheral to Southeast Asia's healthcare narrative. It is part of it. ■

Vietnam is emerging as the region's clinical anchor, Cambodia as an investment growth market, and Laos as a digital adopter with cross-border reliance.

Scale, Reform and the Battle to Keep Patients at Home

Indonesia's Jaminan Kesehatan Nasional (JKN) programme, one of the world's largest single-payer systems, covers the vast majority of the population.

With a population of more than 270 million, Indonesia represents Southeast Asia's largest healthcare market — and one of its most complex. Long defined by outbound medical travel and uneven specialist distribution, the country is now undergoing a quiet but determined transformation.

The ambition is clear: reduce outbound medical tourism, upgrade domestic tertiary capacity, and position Indonesia as both a self-sustaining health system and, eventually, a selective regional player.

The journey is far from complete. But momentum is undeniable.

A Universal System Under Pressure — and Opportunity

Indonesia's Jaminan Kesehatan Nasional (JKN) programme, one of the world's largest single-payer systems, covers the vast majority of the population. The scheme has dramatically expanded access — but it has also intensified pressure on hospitals, reimbursement models and specialist services.

While JKN strengthened primary and secondary care access, tertiary and subspecialty demand continues to outpace supply, particularly in oncology, cardiology and advanced orthopaedics.

For the private sector, this gap represents opportunity.

Private hospital groups across Jakarta, Surabaya and Medan are investing heavily in:

- Advanced imaging platforms
- Hybrid operating rooms
- Interventional cardiology labs
- Comprehensive cancer centres
- Robotic-assisted surgery

These investments are not simply aspirational. They are competitive responses to a long-standing leakage problem: Indonesian patients travelling abroad.

The Outbound Challenge

For years, Indonesia has been one of the largest outbound medical tourism markets in Southeast Asia. Malaysia and Singapore, in particular, have benefited from Indonesian patients seeking complex cardiac,

oncology and neurosurgical care.

Estimates prior to the pandemic suggested hundreds of thousands of Indonesians travelled annually for treatment, representing billions in potential outflow.

That reality has catalysed domestic reform.

Government-linked initiatives and public-private partnerships are now focused on strengthening local capacity in high-complexity specialties. The message is clear: world-class care must increasingly be available at home.

Digital Health and the Super-App Advantage

Indonesia's digital health ecosystem is one of the region's most dynamic.

Telemedicine platforms surged during the pandemic, and integration with Indonesia's broader digital economy — including super-app ecosystems — has extended virtual consultations, e-pharmacy and appointment scheduling to millions.

For a geographically dispersed archipelago, digital infrastructure is not optional — it is essential.

Digital referral systems are helping bridge rural-urban gaps. Electronic medical record adoption is expanding in urban private hospitals. AI-assisted diagnostics and cloud-based hospital management systems are being piloted.

However, digital acceleration must still contend with workforce shortages and physical infrastructure limitations outside major cities.

Oncology and Cardiac Care: Strategic Priorities

Cancer and cardiovascular disease are emerging as dominant clinical priorities.

Non-communicable diseases now account for the majority of morbidity in Indonesia. Rising urbanisation, lifestyle changes, and ageing demographics are driving demand for oncology infusion services, radiotherapy centres and catheterisation labs.

Several major hospital networks have announced expansions of comprehensive cancer centres, while cardiac institutes are increasing interventional capacity and minimally invasive procedures.

The commercial rationale is straightforward: these



are precisely the specialties that historically drove outbound travel.

Retaining these cases domestically strengthens both revenue and national healthcare sovereignty.

Bali and the Inbound Question

While Indonesia's immediate focus remains on reducing outbound patient flows, Bali has emerged as a strategic test case for inbound medical tourism.

With established hospitality infrastructure, international connectivity, and a global brand, Bali is uniquely positioned to attract elective and wellness-driven procedures — particularly in aesthetics, orthopaedics, and preventive health.

Government-backed plans to establish special health economic zones in Bali aim to create internationally competitive medical clusters. If successful, Indonesia could evolve from a net exporter of patients to a selective importer in specific service lines.

However, achieving this will require regulatory clarity, international accreditation, specialist recruitment and consistent quality assurance.

Workforce and Distribution Realities

Despite investment and ambition, structural challenges remain.

Indonesia faces uneven specialist distribution across its islands. Advanced care remains concentrated in Jakarta and other major urban centres. Rural and remote populations continue to rely on referral systems that can be logistically and financially burdensome.

Training pipelines are expanding, but subspecialty capacity takes time to build.

Private sector growth cannot fully compensate for geographic disparities without systemic coordination.

Investment and the Competitive Horizon

Indonesia's healthcare market is increasingly attractive to investors.

Urban middle-class growth, rising insurance penetration, and increasing health awareness are driving demand for premium services. International partnerships are bringing clinical expertise, equipment suppliers, and hospital management collaboration into the market.

Yet Indonesia's competition is not static.

Malaysia is strengthening regional outreach. Thailand continues to dominate medical tourism branding. Singapore remains the benchmark for complex tertiary care.

Indonesia's strategic advantage lies in scale. Internal demand alone can sustain sophisticated tertiary ecosystems if infrastructure and quality align.

A Turning Point

Indonesia stands at a healthcare inflection point.

The narrative is shifting from dependency to development — from exporting patients to building domestic capability.

The question is no longer whether Indonesia can improve access. That foundation has been laid. The question now is whether it can close the quality perception gap that has historically driven patients abroad.

If it succeeds, Indonesia will not merely reduce medical tourism outflows. It may redefine its position in Southeast Asia's healthcare hierarchy.

The next five years will be decisive. ■

Indonesia's strategic advantage lies in scale. Internal demand alone can sustain sophisticated tertiary ecosystems if infrastructure and quality align.

Precision, Policy and the Pursuit of High-Value Healthcare

Singapore is one of Asia's fastest-ageing societies. By 2030, one in four citizens will be aged 65 or older. This demographic shift is reshaping healthcare delivery models.

In Southeast Asia's competitive healthcare landscape, Singapore remains the region's reference point for complexity, quality, and systems integration.

While neighbouring countries scale infrastructure and court medical tourism flows, Singapore's strategy is less about volume — and more about value. It continues to refine a healthcare model built on advanced tertiary care, digital integration, ageing preparedness and tightly regulated standards.

In 2026, Singapore's health narrative is not one of rapid expansion but of strategic recalibration.

The High-Acuity Benchmark

Singapore's strength lies in high-complexity care.

Cardiac surgery, oncology, transplant medicine, advanced orthopaedics, and neurology remain core pillars of its clinical reputation. Its public hospitals operate under an integrated cluster system, balancing teaching, research and patient care with efficiency metrics that are closely monitored.

Private institutions complement the system, often attracting international patients seeking complex, time-sensitive interventions.

Unlike some regional competitors, Singapore has not pursued aggressive medical tourism growth at scale. Instead, it has maintained selective positioning — targeting high-acuity cases where clinical outcomes and specialist expertise justify premium pricing. That positioning has protected its brand.

Integrated Care and the Ageing Imperative

Singapore is one of Asia's fastest-ageing societies. By 2030, one in four citizens will be aged 65 or older. This demographic shift is reshaping healthcare delivery models.

The country is accelerating integration between acute hospitals, community care facilities and primary care providers. "Healthier SG," a national preventive strategy, aims to shift focus upstream — strengthening chronic disease management and preventive screening. The strategy reflects a recognition that tertiary excellence alone cannot offset demographic pressure.

Community hospitals are being enhanced.

Digital patient records are integrated across care settings. Transitional care programmes aim to reduce readmissions and improve functional recovery after hospital discharge.

Ageing is being treated not as a crisis — but as a systems design challenge.

Digital Infrastructure as Backbone

Singapore's digital health maturity remains one of the highest in the region.

Electronic medical records are deeply embedded across public clusters. Data analytics support resource planning and clinical optimisation. AI tools are increasingly integrated into diagnostics, from radiology workflows to pathology triage.

The city-state's relatively compact geography gives it a structural advantage: digital integration can be implemented nationwide more rapidly than in larger countries.

Telehealth, once an emergency solution during the pandemic, has evolved into a complementary care pathway — particularly for chronic disease management and follow-up consultations.

For regional observers, Singapore functions as a testbed: technologies piloted here often influence broader Southeast Asian adoption.

Oncology and Precision Medicine

Singapore continues to position itself at the forefront of precision oncology.

Comprehensive cancer centres are integrating genomic profiling, targeted therapy, and immunotherapy protocols. Clinical trial participation remains strong, supported by regulatory clarity and research infrastructure.

The focus is not only treatment innovation, but workflow efficiency — reducing diagnostic turnaround times, streamlining multidisciplinary tumour boards and integrating survivorship planning.

In a region where cancer incidence is rising sharply, Singapore remains a referral centre for complex oncology cases from Indonesia, Vietnam, and beyond.



Medical Tourism: Selective and Strategic

Singapore's medical tourism model is deliberate rather than expansive.

While patient flows from Indonesia and other ASEAN countries remain significant, the country is not competing on price. It competes on perceived certainty — specialist depth, transparent standards, and regulatory rigour.

Premium positioning does, however, expose it to competitive shifts. Malaysia and Thailand are investing heavily in cardiac and oncology capabilities at lower price points. As regional capacity rises, Singapore must continuously justify its value proposition through complexity and outcomes.

The response has been clear: double down on subspecialisation. Ongoing hospital redevelopment projects reflect a forward-looking mindset. Facilities are being redesigned to integrate smart bed systems, AI-enabled monitoring, and modular care environments that can adapt to demographic shifts.

Green hospital design, digital twin modeling, and

operational automation are part of the conversation.

Singapore's healthcare ambition is not to grow bigger — but smarter.

Competitive Pressures

No system operates in isolation.

Rising medical inflation, workforce shortages across nursing and allied health, and increasing expectations from a digitally savvy population all create pressure points.

Singapore also faces regional talent competition. As neighbouring countries strengthen their private sectors, specialist mobility may increase.

Maintaining excellence will require continued investment in training, research, and retention.

As Southeast Asia's healthcare markets evolve, Singapore's role remains that of a precision hub — high-acuity, research-driven, and systems-integrated.

It may not chase volume growth, but it continues to set the benchmark others measure against. ■

High-Tech Healthcare in the World's Fastest-Ageing Societies

Rather than reacting to ageing, Japan and Korea are designing healthcare systems around it — integrating robotics, AI, precision medicine and smart hospital infrastructure to maintain quality, efficiency and sustainability.

Japan and South Korea stand at the forefront of Asia's most advanced healthcare systems — not simply because of technology adoption, but because of necessity.

Both nations are ageing faster than nearly any other in the world. Japan is already a “super-aged” society, with nearly 30% of its population over 65. South Korea is projected to follow closely behind within the decade.

Demographic pressure has become an innovation engine.

Rather than reacting to ageing, Japan and Korea are designing healthcare systems around it — integrating robotics, AI, precision medicine and smart hospital infrastructure to maintain quality, efficiency and sustainability.

Japan: Precision, Robotics and the Longevity Economy

Japan's healthcare system has long been recognised for universal coverage, high life expectancy and clinical discipline.

But the defining trend in 2026 is integration between technology and longevity.

Robotic-assisted surgery is widely adopted across urology, gastrointestinal surgery and orthopaedics. Japan has also been a leader in minimally invasive procedures and advanced imaging systems, supported by strong domestic medtech manufacturers.

Beyond surgery, Japan is investing in:

- AI-assisted diagnostic imaging
- Remote patient monitoring for chronic disease
- Smart hospital automation
- Geriatric rehabilitation technologies

The concept of the “longevity economy” is gaining policy traction — recognising that older adults remain active contributors to society and require functional preservation, not merely disease management.

Japan's healthcare infrastructure reflects this shift. Community hospitals and rehabilitation centres are being modernised to support post-acute recovery

and fall prevention.

For international patients, Japan is not positioned as a volume-based medical tourism destination. Instead, it attracts select cases seeking precision subspecialty care — particularly in oncology, orthopaedics and regenerative medicine research.

Quality, rather than scale, defines Japan's medical reputation.

South Korea: Digital Velocity and Specialist Depth

If Japan represents structured longevity planning, South Korea embodies digital acceleration.

Korea's healthcare system combines universal coverage with a dynamic private hospital sector. Seoul's tertiary centres are internationally competitive in oncology, transplant medicine, cosmetic surgery and advanced spine procedures.

What distinguishes Korea in 2026 is the speed of technology integration.

AI-assisted radiology and pathology systems are increasingly embedded in routine workflow. Electronic medical records are widely adopted, and data analytics support hospital efficiency and patient tracking.

Korea is also investing heavily in biotechnology and precision medicine. Genomic research, cell therapy development and immuno-oncology trials are expanding, supported by strong government backing.

Medical tourism remains an important pillar, particularly in cosmetic surgery and dermatology. However, Korea is increasingly promoting high-complexity tertiary care as part of its global positioning.

Ageing as a Catalyst

Both Japan and Korea face similar structural pressures:

- Shrinking working-age populations
- Rising chronic disease burden
- Increasing demand for geriatric and rehabilitative care



These pressures have forced innovation in care models. Home-based monitoring systems, telehealth integration and community rehabilitation programmes are being scaled to reduce hospital dependency.

In Japan, fall prevention and mobility preservation initiatives are deeply embedded in public health strategy. In Korea, smart hospital infrastructure and digital workflow optimisation aim to reduce operational strain.

Ageing is no longer viewed solely as a fiscal burden — but as a design parameter for healthcare reform.

Japan and Korea both hold strong positions in robotics and advanced manufacturing — strengths that translate directly into healthcare.

Robotic surgical systems, precision imaging equipment and rehabilitation robotics are part of domestic innovation ecosystems.

AI-supported diagnostics are being integrated cautiously but consistently. Regulatory frameworks remain structured, ensuring clinical oversight while enabling innovation.

Compared to Southeast Asia, both countries operate at a higher baseline of technological maturity.

The challenge is not adoption — but sustainability.

Medical Tourism: Selective but Influential

Neither Japan nor Korea competes on price. Instead, they compete on sophistication.

Korea has established a strong global brand in aesthetic surgery, dermatology and complex spine surgery. Japan appeals to patients seeking highly specialised oncology and regenerative research trials.

However, workforce shortages and demographic strain limit aggressive medical tourism expansion.

Both systems must balance domestic demand with international ambition.

Japan and Korea represent Asia's high-tech healthcare frontier.

Their systems are not without pressure — ageing, workforce constraints, and rising costs remain structural realities. Yet they offer a glimpse of how advanced economies may manage demographic transformation without sacrificing clinical quality.

As Southeast Asia scales capacity and India expands global reach, Japan and Korea continue refining the upper tier of precision healthcare.

They may not dominate regional patient volume.

But they continue to define the technological ceiling. ■

Scale, Specialisation and the Global Ambition of a Healthcare Giant

The scale of India's digital ecosystem gives it a structural advantage few countries can replicate.

Few regions match the scale and ambition of the Indian subcontinent's healthcare ecosystem.

With India at its centre — supported by growing capability in Sri Lanka, Bangladesh and Nepal — the region is reshaping not only domestic access but also its role in global healthcare delivery.

India alone serves more than 1.4 billion people. It produces one of the largest pools of physicians in the world. It hosts internationally accredited tertiary hospitals performing high-complexity cardiac surgery, transplant medicine, oncology, and advanced orthopaedics at cost points significantly lower than Western markets.

In 2026, the story is no longer about potential. It is about positioning.

India: From Volume to Value

India's private hospital sector has matured rapidly over the past decade.

Major hospital chains have expanded across tier-1 and tier-2 cities, bringing advanced infrastructure — robotic surgical platforms, hybrid operating rooms, high-end imaging suites, and comprehensive cancer institutes — beyond metropolitan strongholds.

Cardiology, oncology, organ transplantation, and orthopaedics remain flagship specialties. India performs some of the highest volumes of cardiac bypass surgeries globally, and its transplant ecosystem continues to strengthen through regulatory reform and improved organ-sharing networks.

Yet the narrative is evolving from sheer volume to perceived value.

Indian hospital groups are investing in outcomes reporting, international accreditation, and global partnerships. Precision oncology, minimally invasive spine surgery, and robotic joint replacement are increasingly marketed to both domestic and international patients.

India's ambition is clear: not just affordable care — but globally credible care.

Digital Health and the National Infrastructure Layer

One of India's most consequential developments has been the expansion of digital health infrastructure.

The Ayushman Bharat Digital Mission is laying the groundwork for interoperable health records and digital identity integration. Telemedicine platforms are scaling rapidly, connecting rural populations to urban specialists.

For a country with vast geographic and socioeconomic diversity, digital infrastructure is becoming a critical equaliser.

Private providers are integrating AI-supported diagnostics, electronic health records, and predictive analytics into workflow management. Meanwhile, health-tech startups continue to attract investor attention, particularly in remote diagnostics, pharmacy delivery, and chronic disease management.

The scale of India's digital ecosystem gives it a structural advantage few countries can replicate.

India remains one of the world's largest medical tourism destinations.

Patients from Africa, the Middle East, Central Asia and Southeast Asia travel to India for complex cardiac procedures, oncology treatment, organ transplantation, and orthopaedic reconstruction.

The cost differential remains compelling. Procedures that may cost multiples elsewhere are delivered at competitive pricing with experienced surgical teams.

Medical visa facilitation has improved, and many hospitals now operate dedicated international patient departments with multilingual support.

The subcontinent's competitive advantage lies in its ability to combine specialist depth with affordability — particularly in tertiary and quaternary care.

However, the competitive landscape is tightening. Thailand and Malaysia are investing aggressively. Turkey and the UAE are targeting similar patient



pools. Maintaining global positioning will require consistent quality assurance and transparent outcomes.

Sri Lanka: Rebuilding and Repositioning

Sri Lanka's healthcare system, historically strong in public health indicators, is recalibrating amid economic recovery. Private hospitals in Colombo are investing in cardiology, nephrology, and minimally invasive surgery. There is growing interest in positioning Sri Lanka as a wellness and recovery destination— combining clinical care with hospitality infrastructure.

While Sri Lanka cannot compete with India's scale, it offers niche appeal in integrated wellness and elective procedures within a high-end hospitality setting. For medical travellers from South Asia and the Middle East, this hybrid positioning may become increasingly attractive.

Bangladesh and Nepal: Expanding Capacity

Bangladesh is experiencing steady private sector growth, particularly in Dhaka, where tertiary hospitals are expanding advanced imaging and surgical services.

Outbound medical tourism remains significant, particularly toward India and Thailand. However, domestic investment is increasing in cardiology and oncology.

Nepal faces geographic constraints, yet private healthcare expansion is visible in Kathmandu. Cross-border referrals to India remain common, reflecting strong regional integration.

Together, these markets reinforce India's role as the subcontinent's referral anchor.

Workforce and Talent Dynamics

The Indian subcontinent's most powerful asset

remains its human capital.

India produces tens of thousands of medical graduates annually and remains a key exporter of healthcare professionals globally. Reverse migration and international training partnerships are strengthening domestic specialist depth.

However, distribution challenges persist. Urban centres attract the majority of advanced specialists, while rural regions face persistent gaps.

Balancing internal equity with global ambition will remain a structural challenge.

Investment and the Competitive Horizon

Healthcare investment across the subcontinent is accelerating.

Private equity participation in hospital chains, diagnostic networks, and health-tech startups reflects confidence in sustained demand growth. Rising middle-class expectations are pushing hospitals to upgrade facilities and service experiences.

India's pharmaceutical and biotech sectors further strengthen its healthcare ecosystem, supporting both domestic supply chains and export capabilities.

The subcontinent's healthcare story is increasingly interconnected — clinical care, pharmaceuticals, digital infrastructure, and medical tourism reinforcing one another. The Indian subcontinent is no longer emerging. It is asserting itself.

India, in particular, is transitioning from a cost-driven alternative to a credible global contender in high-complexity care. Surrounding nations are strengthening niche capabilities and cross-border integration.

If quality governance and transparency keep pace with expansion, the region could solidify its position as one of the world's most significant healthcare corridors. ■

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Regenerative Medicine in Asia

Regulation, Responsibility & Real Science

Regenerative medicine has captured the imagination of both clinicians and patients across Asia. From stem cell therapies and biologics to tissue engineering and exosome-based interventions, the field promises to repair damaged tissues and potentially redefine how chronic diseases are treated. Yet alongside this scientific excitement lies a growing debate: is the clinical adoption of regenerative medicine moving faster than the science itself?

To explore where regenerative medicine truly stands today, GlobalHealth Asia-Pacific convened a discussion with two experts approaching the field from different perspectives: Professor Dr Chua Kiến Hui (PDC), an academic and a laboratory and translational science specialist deeply involved in regenerative medicine research, and George Morgan (GM), founder of Revival Clinic, Bangkok, who works directly at the clinical frontlines of biologics-based therapies.

Together, they examine the realities behind the hype, the maturity of current applications, and what regulators, clinicians and researchers must prioritise to ensure the field evolves responsibly.

Regenerative medicine is often used as an umbrella term. From your perspective, how should it be defined in today's clinical context — and are we using the term too loosely?

PDC : In a strict clinical sense, regenerative medicine refers to medical interventions designed to restore, replace or regenerate damaged tissues through biological mechanisms. This includes cell-based therapies, tissue engineering technologies and newer biologics such as exosome-based therapies.

However, the term is increasingly being used loosely. Procedures such as platelet-rich plasma (PRP) or certain cosmetic material injections are sometimes marketed as regenerative therapies even though their mechanisms may simply modify symptoms rather than regenerate tissue.

GM : I agree that it has become an umbrella term. In many cases it masks the difference between well-established cellular therapies and experimental interventions that have not yet been properly validated.

That distinction is extremely important, because patients often assume that anything labelled “regenerative medicine” is scientifically proven, when in reality the evidence varies widely across applications.

Where does the strongest clinical evidence currently sit — orthopaedics, wound care, cardiology, aesthetics? And where is the science still immature?

GM: The strongest clinical evidence currently sits in orthopaedics and wound care. Bone marrow concentrate therapies for joint conditions and specialised skin substitutes for wound healing are supported by a growing body of peer-reviewed research and clinical data.

In contrast, areas such as cardiology and aesthetic medicine are still largely in exploratory phases. These fields show promise, but they often lack the long-term, large-scale studies required before therapies become recognised as standard of care.

PDC : The evidence base is strongest in orthopaedics — particularly cartilage repair and bone regeneration — as well as in skin wound care and certain hematology applications such as bone marrow transplantation.

However, emerging applications such as cardiology, neurodegenerative diseases, ageing-related conditions and aesthetic interventions remain under active investigation. These areas are scientifically promising, but the data is still developing.

Asia has seen rapid growth in stem cell clinics and biologics-based therapies. Is clinical adoption outpacing scientific validation?

PDC : In some situations, yes. Asia's strong entrepreneurial culture, rapid private healthcare expansion and the economic incentives of medical tourism can accelerate clinical availability before large-scale validation studies are completed.

However, faster adoption is not necessarily negative — provided that safety data exists, transparency is maintained and clinical claims remain aligned with the available evidence.

GM : It can be a double-edged sword. Rapid adoption can accelerate access to promising technologies and potentially life-changing treatments. But it becomes dangerous when aggressive marketing begins to overshadow responsible innovation.

In medical tourism-heavy markets, this risk is particularly real. Patients travelling internationally may struggle to differentiate between therapies that are clinically validated and those that remain experimental.



George Morgan



Professor Dr Chua Kiên Hui

How do we distinguish responsible innovation from aggressive marketing — particularly in medical tourism-driven markets?

GM : Responsible innovation requires transparency. Clinics must clearly disclose risks, define whether a treatment is experimental or established, and separate clinical practice from research trials.

Another useful benchmark is the insurance industry. When insurers begin considering reimbursement, it usually means the therapy has reached a significant threshold of evidence — often supported by Phase III clinical data and cost-benefit analysis.

PDC : Not yet. There are significant variations in how cell therapies are classified and regulated across countries. Some permit certain autologous therapies, while others have stricter controls over allogeneic products.

This lack of harmonisation creates uneven enforcement across the region. Greater coordination at the ASEAN level could strengthen patient protection while also supporting responsible innovation.

GM : Exactly. The regulatory landscape across Southeast Asia is still evolving, and the absence of fully harmonised frameworks can leave gaps in oversight.

That is why patients should always seek clinics with a strong track record and transparent clinical protocols.

Should insurers begin reimbursing certain regenerative treatments — and if so, based on what evidence threshold?

PDC : Potentially yes, but only when treatments meet clearly defined evidence thresholds. Ideally this would include at least Phase II clinical data, a strong safety profile, cost-effectiveness and a standardised manufacturing process.

Insurance participation should be data-driven, not ideology-driven. In fact, reimbursement frameworks could help strengthen documentation standards across the field.

From both your perspectives — are we entering a breakthrough phase, or is regenerative medicine still in controlled development?

PDC : Scientifically, we are well beyond theoretical promise. Advances in cell manufacturing, differentiation pathways and GMP standardisation have made therapies increasingly reproducible.

However, the field is still progressing through controlled development rather than universal breakthrough. Some applications are mature while others remain experimental.

GM : That's a fair assessment. Breakthroughs are happening, but we must keep patient safety and real science at the centre of the conversation.

The term “stem cells” is often widely used in marketing. Has regenerative medicine become vulnerable to over-commercialisation?

PDC : Three priorities stand out.

First, stronger evidence generation through multi-centre clinical trials, registries and long-term patient follow-up.

Second, clearer regulatory frameworks with strong GMP enforcement and transparent licensing.

Third, professional responsibility — clinicians must communicate honestly with patients and avoid overstating results.

GM : Ultimately, regenerative medicine is not hype — it is a powerful scientific evolution. But its credibility will depend on discipline from everyone involved. Innovation must move forward, but responsibility must move with it. ■

The Eastward Shift

How China Is Rewriting the Rules of Oncology Medical Tourism

Dr. Vincent Chia, Managing Partner, Asian Healthcare Solutions



For decades, the global flow of medical travel followed a predictable route. Patients from developing economies travelled westward in search of cutting-edge therapies and breakthrough drugs, while those from developed nations headed south and east for cost savings, elective procedures and wellness experiences.

China, despite its enormous healthcare infrastructure, historically sat in an ambiguous position. It was more often a source of outbound patients seeking advanced care abroad than a destination for international medical travellers.

That map is now being redrawn.

Since 2022, China has emerged as one of the most consequential new players in inbound medical tourism — not because of low-cost surgery or Traditional Chinese Medicine alone, but because of something far more strategic: world-class bio-pharmaceutical innovation, particularly in oncology.

The shift is structural, scientific and policy-driven. And it is changing the direction of global healthcare flows.

The Policy Engine: Lecheng and Controlled Openness

Any discussion of China's rise as an oncology destination begins with Hainan's Boao Lecheng International Medical Tourism Pilot Zone.

Established in 2013 but fully empowered in recent years, Lecheng operates under a unique regulatory framework that allows the controlled importation and clinical use of innovative drugs and medical devices approved overseas but not yet available on mainland China.

In effect, it functions as a regulatory bridge between China and global pharmaceutical innovation.

The numbers illustrate its momentum. In 2024, Lecheng recorded over 413,000 medical tourist visits — a 37 percent year-on-year increase. In 2025, that number surged past 860,000, marking triple-digit growth. More notably, more than 9,000 overseas patients from 14 countries travelled specifically for access to treatments unavailable in their home markets.

These are not wellness tourists. They include oncology patients seeking advanced therapies, next-generation inhibitors, and novel biologics.

As of 2025, Lecheng had introduced more than 470 innovative medicines and devices not yet approved on the mainland, working with over 180 pharmaceutical and med-tech partners from 20 countries.

What distinguishes this Pilot Zone and increasingly so in many cities across the country, is not volume, but “China speed” — the ability to shorten the time between global drug approval and patient access.

For international patients, time is often the most precious variable.

From “China Last” to Parallel Innovation

Historically, innovative oncology drugs developed in Boston or Basel could take five to seven years to reach Chinese patients — a phenomenon often described as “China Last.”

That era has ended. Over the past decade, China has deliberately overhauled its regulatory system. In 2024 alone, the National Medical Products Administration (NMPA) approved 83 new drugs (excluding traditional Chinese medicine), exceeding the number cleared by the US FDA during the same period. Forty-six of these were Class 1 innovative drugs — molecules not previously marketed anywhere in the world.

Equally striking is the speed. Average review timelines have fallen from over 660 days in 2017 to approximately 105 days in 2024 — an 84 percent reduction.

For oncology patients, this acceleration matters. It means therapies targeting specific genetic mutations or resistance mechanisms may become accessible in China as quickly as — and sometimes earlier than — in Western markets.

Targeting the “Undruggable”: KRAS G12

One of the clearest examples of this new positioning is the approval of Fulzerasib, China's first domestically developed KRAS G12C inhibitor.

KRAS mutations, long considered “undruggable,” are common drivers of non-small cell lung cancer (NSCLC). In 2024, China approved Fulzerasib for advanced NSCLC patients harbouring this mutation.

Clinical data showed a confirmed objective response rate approaching 50 percent and disease control rates exceeding 90 percent. Combination studies have demonstrated even higher response rates.

In March 2025, The Lancet published a paper by Prof. Anwen Xiong et al, sent shock waves through the oncology world. HARMONi-2, a randomized, double-blind phase 3 study in China which compared Ivonescimab, a first-in-class PD-1/VGEF bispecific antibody against Merck's blockbuster drug, Pembrolizumab (Keytruda) reported that Ivonescimab significantly improved progression free survival (PFS) compared with Pembrolizumab in previously untreated patients with advanced PD-L1 positive NSCLC, from 5.8 months with Pembrolizumab to 11.1 months with Ivonescimab 8.

For patients in countries where such therapies remain unavailable or delayed by regulatory review, China now represents a viable alternative pathway.

The symbolism is important. China is no longer merely importing Western oncology science. It is generating its own.

The CAR-T Inflection Point

Nowhere is this transformation more visible than in CAR-T



Hainan Boao Lecheng International Medical Tourism Pilot Zone

cell therapy. Since 2021, eight CAR-T therapies have been approved in China, covering major hematologic malignancies. While still expensive by domestic standards — ranging from approximately 999,000 to 1.2 million yuan — they remain significantly lower than US prices, which often exceed US\$500,000 per dose.

The next phase, however, may be even more disruptive.

A new generation of domestically developed CAR-T products is targeting price points of 230,000 to 250,000 yuan per treatment — achieved through vertically integrated production models and automated manufacturing facilities.

For patients from markets where CAR-T access is limited or financially prohibitive, the implications are substantial.

The case of a New Zealand multiple myeloma patient travelling to Shanghai after exhausting domestic options underscores the emerging pattern. International patients are no longer passively referred — they are actively comparing global alternatives and choosing China based on access, timing and cost sustainability.

More recently, developments in CAR-T targeting solid tumours — including CLDN18.2 positive cancers — signal China's ambition to expand beyond hematologic indications into more complex oncology frontiers.

Dominance In The Global ADC Space

If CAR-T demonstrates capability, Antibody-Drug Conjugates (ADCs) reveal scale.

China currently leads the world in ADC clinical trial activity. Estimates suggest over 40 percent of the global ADC development pipeline now originates from Chinese biotechnology firms.

More than 500 ADC candidates are in development, with over 150 already in clinical stages. What makes this significant is not only the quantity, but also technological differentiation. Chinese developers are advancing bispecific ADCs, highly stable linker technologies, and novel targets such as CLDN18.2 and CD73 — areas where global competition remains open.

In 2024 alone, dozens of outbound licensing deals were signed between Chinese biotech firms and multinational pharmaceutical companies, reinforcing a new division of labour: China increasingly drives innovation supply, while global pharmaceutical giants scale commercialisation.

For oncology medical tourists, this translates into early access to experimental or breakthrough compounds that may take years to reach other jurisdictions.

Financing the Frontier

Cutting-edge oncology therapies are only meaningful if financially accessible.

Recognising this, China introduced its first Commercial Health Insurance Innovative Drug Catalogue in late 2025, incorporating 19 innovative therapies, including multiple CAR-T treatments.

This framework allows commercial insurance mechanisms to reimburse high-cost oncology drugs, reducing out-of-pocket burden.

Simultaneously, major hospitals and medical zones have developed cross-border insurance collaborations and payment facilitation partnerships, supporting inbound patients from Southeast Asia, Central Asia, the Middle East and beyond.

While not yet seamless, the financial infrastructure underpinning advanced oncology care is evolving rapidly.



Boao Super Hospital

China's rise is unfolding within a competitive Asian medical tourism landscape.

Singapore remains synonymous with regulatory familiarity and service excellence. Thailand continues to dominate elective and cosmetic procedures through hospitality integration. Malaysia competes effectively in health screenings and cost-efficient surgeries.

China's value proposition is distinct.

It competes at the innovation frontier.

Rather than positioning itself as a low-cost alternative, it is emerging as a high-tech oncology access hub — particularly for therapies in cell treatment, bispecific antibodies and next-generation target and immune agents.

The patient demographic shift reflects this repositioning. International oncology patients from Southeast Asia, the Middle East, Europe and Oceania are increasingly seeking structured treatment pathways in Chinese institutions.

The narrative is no longer about affordability alone. It is about access.

Despite impressive progress, structural challenges remain.

International interpreter capacity lags behind patient growth. Cultural competency training requires further institutionalisation. Regulatory harmonisation with Western authorities remains incomplete, complicating cross-border treatment continuity.

Moreover, the integration of tourism services with complex oncology care is still maturing outside the flagship zones of Hainan, Beijing, Shanghai and Guangzhou.

These are not minor considerations. Oncology patients require coordinated logistics, continuity of care, and transparent effective communication.

Yet the direction of travel remains clear.

A Structural Shift, Not a Cycle

The rise of China as an inbound oncology destination is not cyclical opportunism. It reflects a deliberate strategy combining regulatory reform, domestic pharmaceutical innovation, manufacturing scale and financial ecosystem development.

For patients facing limited domestic access to CAR-T therapy, delayed approval of targeted inhibitors, or prohibitive cost barriers, China now represents a rational, data-driven option.

The transformation is visible in Hainan's "Hope City," in Shanghai's expanding oncology centres, and in the growing pipeline of next-generation biologics.

For the international medical traveller of the twenty-first century, the direction of travel is no longer predetermined.

Increasingly, it points east.

Dr. Vincent Chia is the founder and managing partner of Asian Healthcare Solutions (Singapore) Pte Ltd.

Dr. Chia and Asian Healthcare Solutions provide comprehensive end to end healthcare solutions and medical advisory work for advanced cancer patients from Russia, Central and South East Asia, to seek treatment in Mainland China. Presently, Asian Healthcare Solutions work with more than a dozen integrated cancer treatment centers and general hospitals across 8 major cities in Mainland China.

Dr. Chia graduated from Medical School in the United Kingdom in 1995 and worked as a family physician for more than 10 years before moving to head senior management roles in Singapore and China from 2007 to 2024. Dr. Chia was the CEO for Gleneagles Hospital Singapore, IHH from 2014 to 2016 and the Managing Director of Raffles Medical China from 2020 to 2024.

Patching Up Wellness: Riding the Wave of Light

By Dr Timothy Low, MD



In a world where healthcare has long been centred on treating disease, *Patching Up Wellness: Riding the Wave of Light* invites a necessary shift, from sick-care to well-care, from intervention to regeneration.

Written by physician, former hospital CEO, and healthcare innovator Dr Timothy Low, this book explores the emerging frontier of phototherapy and light-based regenerative wellness, not as alternative medicine, but as a science-informed complement to modern healthcare.

Rather than focusing on how to patch a phototherapy patch, Dr Low asks a more profound question: Why patch?

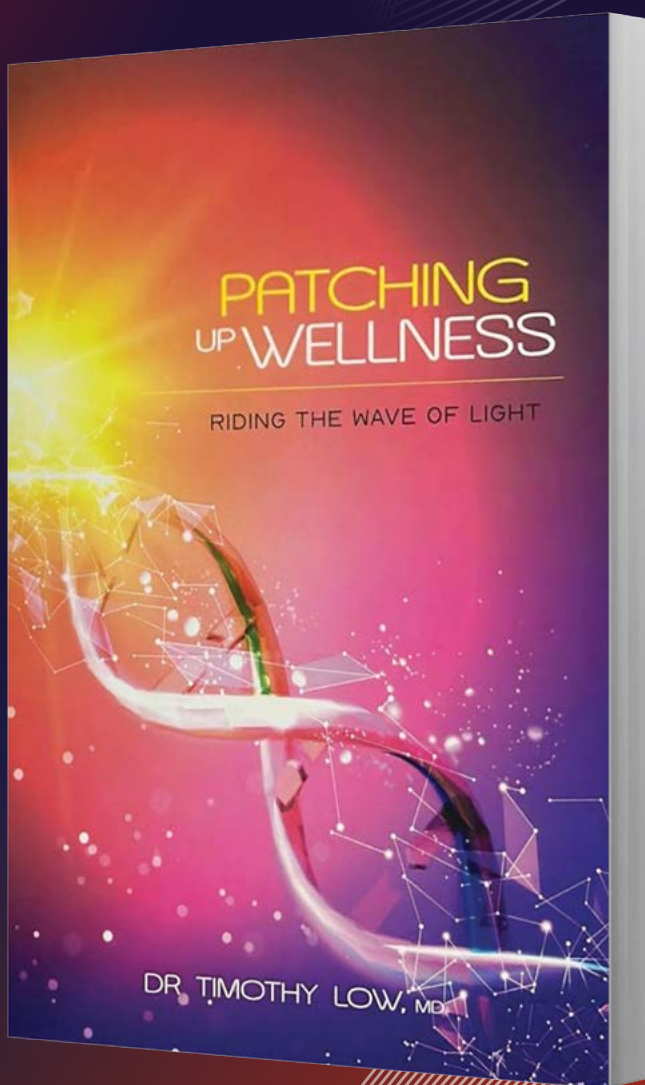
Drawing from clinical experience, leadership in complex healthcare systems, and a deep exploration of photobiomodulation, the book examines how light which is one of nature's most fundamental forces, can influence cellular signalling, energy balance, and the body's innate repair mechanisms.

Blending medical science, systems thinking, and human stories, *Patching Up Wellness* bridges East and West, tradition and innovation, prevention and performance.

It challenges healthcare leaders, clinicians, and wellness advocates to rethink how we approach longevity, vitality, and proactive health in an increasingly stressed and aging world.

This is not a book about quick fixes.

It is a book about understanding the biology of healing and riding the next wave of healthcare transformation.



“Health isn’t the absence of disease.

It’s the presence of energy, clarity, and resilience.”

— Dr Timothy Low

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