Academic Medicine Innovation Institute
SingHealth Duke-NUS

SingHealth DukeNUS ACADEMIC MEDICAL CENTRE

Alice Lee Innovation Centre of Excellence



HOW VALUE-BASED CARE FOSTERS INNOVATION IN HEALTHCARE

EXCLUSIVE INTERVIEWS

The Launch of A.L.I.C.E @ KKH Campus

Revolutionizing Hypertension Management for Better Health by A.L.I.C.E @ CGH Campus

Insight on Value-Based Care Conference

Preface

Introduction

Value-based care (VBC) is a healthcare model in which providers are paid based on patient health outcomes rather than the volume of services provided. This approach emphasizes quality care, patient satisfaction, and cost efficiency, encouraging providers to focus on prevention, chronic disease management, and better health outcomes to reduce costly treatments and hospital readmissions. VBC relies on data-driven decisions, collaborative care teams, and technologies to improve care coordination. By shifting the focus from quantity to quality, VBC can enhance patient outcomes, reduce costs, and improve provider satisfaction.

The model also streamlines healthcare workflows, reduces service duplication, and simplifies billing through structures like bundled payments and accountable care organizations (ACOs). VBC benefits patients by lowering healthcare costs and preventing chronic diseases, while providers experience more efficient care and better outcomes. Payers can control costs by promoting a healthier population, reducing claims and premiums. Suppliers are incentivized to align their products with patient outcomes, further reducing costs. Overall, value-based care aims to create a sustainable, cost-effective healthcare system that improves patient health while reducing spending.



The Launch of A.L.I.C.E @ KKH Campus

The much-anticipated A.L.I.C.E @ KKH Campus is the latest addition to the A.L.I.C.E family. It's a dynamic space designed to bring cutting-edge facilities and resources of KKH Campus under one roof. A.L.I.C.E @ KKH Campus aims to grow organically into an "innovation-central" bringing together clinicians, researchers, and partners across various sectors to learn, create and launch healthcare transformation initiatives.



The Office of Digital Integrated Medical Innovation and Care Transformation (DIMICT) responsible for operating A.L.I.C.E @ KKH Campus is dedicated to reimagining healthcare through innovative technologies and care delivery models.

This space is designed to foster collaboration within the innovation ecosystem, providing opportunities to test new technologies and develop solutions to improve outcomes for maternal and paediatric patients.



A.L.I.C.E @ KKH Campus aims to focus on:

1) As a prototyping resource for innovators by providing both hardware and software development support, sharing of devices such as VR goggles and Hololens.

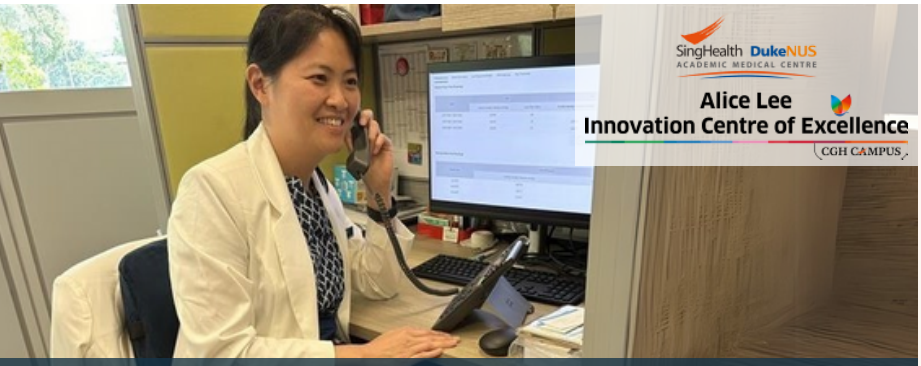
2) A collaborative environment for team innovation and partnerships to co-develop projects.

3) Assist in solution validation for test-bedding and adoption in Paediatric and Women's Health.

4) Grants such as the Innovation Development Grant of $35,000 and the newly launched Care Transformation Fund of $250,000 to cater to different stages of innovation needs.



FOR MORE INFORMATION, PLEASE CONTACT THE OFFICE OF DIMICT AT KKHMICT@KKH.COM.SG



DIGITAL ENABLEMENT FOR MEDICATION OPTIMISATION (DEMO) FOR HYPERTENSION MANAGEMENT

Team Members:
Ms Elena Lee, Senior Principal Clinical Pharmacist;
Ms Cheong Kah Mun, Principal Clinical Pharmacist,
Pharmacy Ambulatory Care, CGH

Ms Ow Yong Pu En, Senior Clinical Pharmacist;
Ms Khor Qian Hui, Pharmacist,
Pharm Ward/IPAS, CGH

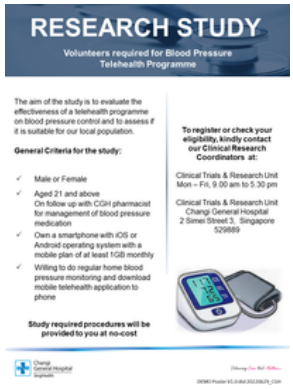
Mr Koh Xuan Han, Senior Analyst (II),
Health Services Research, CGH

Ms Siti Norashikin Binte Fuad, Clinical Research Coordinator,
Clinical Trials & Research Unit, CGH

With advice from A/Prof Chionh Chang Yin, Assistant Chairman, Medical Board (Medical Disciplines)Head and Senior Consultant, General Medicine, CGH and A/Prof Dr Joan Khoo, Senior Consultant, Endocrinology, CGH

By leveraging digital health tools, healthcare providers can enhance medication adherence, improve patient outcomes, and reduce unnecessary costs. This ultimately aligns with the goals of value-based care (VBC). The following research project, which is supported by SingHealth Fund - CGH Institutional Fund, further aligns with the objectives of VBC.

Digital Enablement for Medication Optimisation (DEMO) is an initiative led by Changi General Hospital (CGH) outpatient pharmacists to enhance hypertension management and ensure continuity in providing essential health services. DEMO empowers patients with an option to self-monitor their blood pressure (BP) at home with support from pharmacists through teleconsultation. With DEMO, CGH pharmacists are able to optimise medication dosage and provide medication counselling remotely.





DEMO enrolled 56 participants undergoing follow-up visits for hypertension over three months. The survey showed positive feedback including “easy to use” and “felt very confident using the blood pressure meter & mobile application”. DEMO was shown to be superior to standard clinical consultation in medication optimisation to achieve a blood pressure target of 140/90mmHg within three months from baseline.

Participants in the DEMO group demonstrated a higher probability of achieving their blood pressure target within three months. From this study, DEMO demonstrated the ability of telehealth consultation to enhance patient care and satisfaction.

As we ride on this rapid transition with digital enablement for medication optimisation, we aim to not only empower the pharmacist to deliver high-quality yet affordable care using telehealth and digital interfaces but also to empower our patients to take charge of their health. There is a possibility to scale up these telehealth programmes to other specialities.

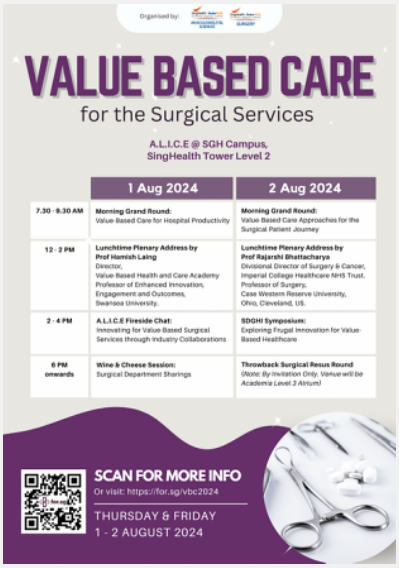
FOR MORE INFORMATION, PLEASE CONTACT CGH OFFICE OF INNOVATION AT INNOVATION@CGH.COM.SG

Value-based Care Fosters Innovation in Healthcare

ON 1ST AUGUST, THE DIVISION OF MUSCULOSKELETAL SCIENCES (MSKSC) ORGANISED A SHARING SESSION ON VALUE-BASED CARE FOR THE SURGICAL SERVICES.

The event explored the impact of value-based care on hospital productivity, surgical practices, and the patient journey. It provided a platform for sharing insights and experiences to understand how value-driven healthcare models could improve outcomes and efficiency in surgery.

A.L.I.C.E. @ SGH Campus Co-Director, Dr Cheong May Anne, chaired a Fireside Chat focusing on innovating value-based surgical services through industry partnerships. The team invited industry leaders (i.e. Osteopore and Qiming Venture) and technical experts (i.e. Ms. Preeti Mohan) to discuss strategic collaborations in advancing value-based surgical services within the healthcare ecosystem.





> Value in healthcare is all about delivering top-notch care that improves patient outcomes while being mindful of costs and using resources wisely.
>
> DR CHEONG MAY ANNE
> CO-DIRECTOR, A.L.I.C.E @ SGH CAMPUS
> CONSULTANT, HAEMATOLOGY, SGH

In this session, it was highlighted that:

Value in healthcare refers to achieving the best possible health outcomes at the lowest cost while ensuring a positive patient experience. It involved:

1. High-quality care with minimal complications
2. Efficient use of resources
3. Personalized treatment, and timely access to care

Innovations in technology and evidence-based practices further enhanced value by improving precision and outcomes. Ultimately, it was about optimizing the balance between quality, cost, and patient satisfaction.



Unlocking the Future of Healthcare: How Industry Leaders are Innovating Through Strategic Collaborations and Advancing Value-Based Surgical Services

HOW DOES QIMING VENTURE PARTNERS ASSESS WHETHER AN INNOVATION WOULD GENERATE POSITIVE VALUE RIGHT FROM THE INVESTMENT PHASE?

We generally look for companies that have a clear understanding of the true unmet need(s) and seek to develop innovations to directly address this need in a thoughtful and sustainable way. We look for driven partners who deeply understand the uncertainties inherent in a start-up and are willing to adapt and strategize to build great companies.

GHEE CHUAN LAI
ASSOCIATE AT QIMING VENTURE PARTNERS

HOW HAS A.L.I.C.E @ SGH CAMPUS ASSISTED QIMING VENTURE PARTNERS IN THE INNOVATION JOURNEY?

"Through A.L.I.C.E @ SGH Campus, I've been introduced to several Key Opinion Leaders (KOLs) who have kindly shared their experiences and time. I look forward to furthering this wonderful collaboration with A.L.I.C.E @ SGH Campus." - Ghee Chuan Lai

MORE ABOUT QIMING VENTURE PARTNERS

Founded in 2006, Qiming Venture Partners is a leading global venture capital firm. Qiming Venture Partners manages eleven US Dollar funds and seven RMB funds with $9.5 billion in capital raised. Since their establishment, they have backed over 530 fast-growing and innovative companies in Technology and Consumer, and Healthcare industries at early and growth stages. Over 200 of their portfolio companies have achieved exits through IPOs, or through M&A or other means. Over 70 portfolio companies have achieved unicorn or super unicorn status. Many of Qiming Venture's portfolio companies are influential firms in their respective sectors today, including Gan & Lee Pharmaceuticals (SHSE:603087), Tigermed (SZSE:300347, SEHK:3347), Zai Lab (NASDAQ:ZLAB, SEHK:9688), Schrödinger (NASDAQ:SDGR), APT Medical (SHSE:688617), among many others.



Osteopore is a global leader in regenerative medicine with its innovative implants. Using cutting-edge 3D printing technology, they create scaffolds that mimic natural bone structure, allowing the body to regenerate tissue and bone naturally. Osteopore's patent-protected scaffolds are manufactured using a proprietary manufacturing technique with a polymer that naturally dissolves over time to allow natural and healthy bone tissue regeneration, significantly reducing the post-surgery complications commonly associated with permanent bone implants.



Osteopore combines 3D printing with a harmless, dissolvable biomaterial to facilitate natural tissue regeneration. Complications due to implants placed permanently in the body often lead to rejection or infection. For Osteopore's device, because of its unique ability to empower natural tissue regrowth, it reduces the likelihood of such complications.



> Being located in A.L.I.C.E @ SGH Campus provides our engineers and staff with a convenient locale to hold meaningful discussion with surgeons, especially when it comes to implants designed specific to a patient's needs. This partnership has strengthened our network in the industry and helped refined our process flow to enhance the clinician experience. Additionally, A.L.I.C.E @ SGH Campus has provided Osteopore with an opportunity to showcase its technology to a wide network of clinicians in SingHealth, creating opportunities for collaborations and expanding clinical adoption. A.L.I.C.E @ SGH Campus has also facilitated connections with key clinicians interested in using Osteopore's implants in their practice, strengthening the company's visibility and impact within the medical community.
>
> LIM YUJING (PHD)
> CHIEF EXECUTIVE OFFICER &
> CHIEF TECHNOLOGY OFFICER
> OSTEOPORE INTERNATIONAL PTE LTD

Osteopore's technology aligns with the principles of value-based care by improving outcomes for patients while controlling healthcare costs. By mitigating the risks and costs associated with permanent implants—such as infections, rejection, or corrective surgeries — Osteopore supports better patient outcomes while reducing the overall burden on healthcare systems. They have made it a point to ensure that such innovation is available to the general public through scalable manufacturing technology. The focus on value-based care dovetails well with our mission, and Osteopore is glad to be an early mover in this area.

A.L.I.C.E @ SGH Campus Partner Networking Engagement

The A.L.I.C.E @ SGH Campus recently hosted its biannual Partners Networking Event to strengthen collaborations between external partners and SingHealth stakeholders. This event served as a platform to explore innovative solutions to healthcare challenges. The event fostered the exchange of ideas among experts and decision-makers, paving the way for future collaborations to advance patient care, research, and healthcare delivery.



ZEDA SG PTE. LTD.
BECTON DICKINSON MEDICAL PRODUCTS

ENTERPRISE SINGAPORE





BM HEALTHCARE PTE. LTD.
MEDTECH ACTUATOR PTE. LTD.



INZIGN PTE LTD

NATIONAL HEALTH INNOVATION CENTRE SINGAPORE





BIORITHM PTE. LTD.



IOTA MEDTECH PTE LTD
LEEDON TECHNOLOGY PTE LTD



ELH Tech PTE. LTD.



BECTON DICKINSON MEDICAL PRODUCTS

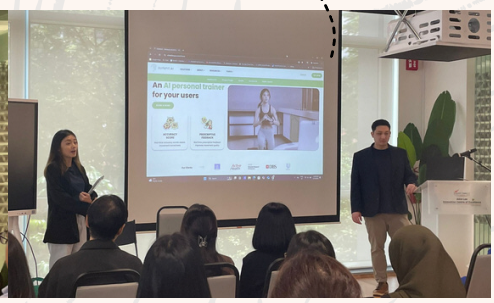
Events at A.L.I.C.E @ SGH Campus

A.L.I.C.E @ SGH Campus is designed to foster forward-thinking solutions and drive the continuous growth of innovation. Events held here aim to spark creativity and collaboration, keeping us at the forefront of innovation.

A.L.I.C.E @ SGH Campus Technology Sharing Workshop









1 Day Singapore Biodesign Workshop with KKH



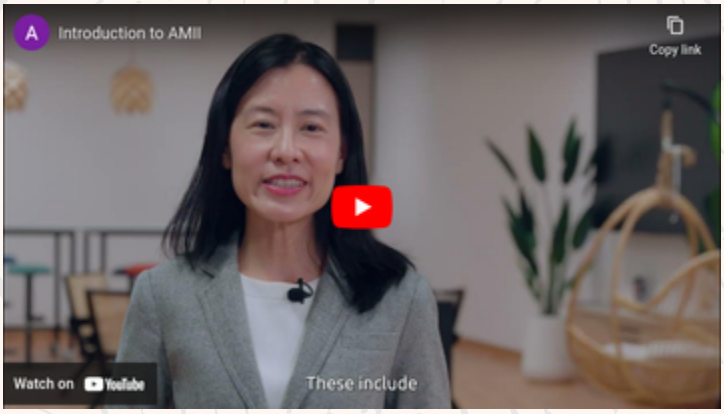
A.L.I.C.E @ SGH Campus 3D Printing Workshop



SGH Urology Robotic Surgery Masterclass



Value-based Care for the Surgical Services (Co-Organised with Division of Musculoskeletal Sciences)



Explore how AMII is driving innovation and transforming healthcare innovation in this inspiring video – watch now! (https://www.youtube.com/watch?v=85-t3N1r3lM&t=2s)

OUR PARTNERS

