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# UNIFY

FOR SOMETHING  
GREATER



**UNIVANTS™**  
OF HEALTHCARE EXCELLENCE



CELEBRATING THE 2020 WINNERS

# UNIFY FOR HEALTHCARE EXCELLENCE



Dear Reader,

Healthcare teams across the globe have unified this year more than ever, as we work together to overcome an unprecedented COVID-19 pandemic. Protecting the health and well-being of all individuals is imperative, reinforcing the need for partnerships and best practice sharing of measurably better healthcare.

A vital first step in the quest for healthcare excellence is strategic activation of the clinical laboratory. As stewards of health analytics, clinical laboratories are uniquely positioned to drive novel and predictive risk management, preventative health, and integrated care initiatives for improved morbidity, mortality and healthcare outcomes. The COVID-19 pandemic has propelled the importance of laboratory medicine to the forefront, demonstrating the pivotal role they play in rapid diagnosis and as the foundation for evidence-based insights that drive diagnostic optimization, therapeutic intervention and population health management.

Healthcare teams who empower clinical laboratories with partnerships across disciplines to reshape clinical care pathways can achieve extraordinary outcomes for patients, payors, clinicians and health systems. These leaders on the frontier of care are unifiers and avant-garde thinkers with the best of the best being recognized with the prestigious honor as UNIVANTS of Healthcare Excellence Award Winners.

Founded by Abbott in 2018 and hosted in partnership with seven other leading healthcare organizations, the UNIVANTS of Healthcare Excellence Award Program is proud to announce their 2020 winners. The program reaches millions of healthcare professionals each year with hundreds of initiated applications. Details from the valued winners for 2020 are featured on the following pages.

It is the hope of Abbott and our program partners that these awards and the key learnings from the winning best practices will inspire new innovations and help others across the globe in solving similar challenges facing health systems today and tomorrow.

John Ginascol  
Executive Vice President, Core Diagnostics, Abbott

## RECOGNIZING MEASURABLY GREATER PERFORMANCE

| REGION                          | PERCENT OF APPLICATIONS |
|---------------------------------|-------------------------|
| Europe                          | 41.7%                   |
| APAC (includes China and Japan) | 16.7%                   |
| North America                   | 16.7%                   |
| Latin America                   | 8.3%                    |
| AMT                             | 16.7%                   |

### Disease State

|          |       |
|----------|-------|
| Covid-19 | 29.2% |
| Cardiac  | 16.7% |
| Diabetes | 12.5% |
| Oncology | 8.3%  |
| Other    | 33.3% |

### Top 5 KPIs Most Frequently Used Across Applications

Decreased Costs



79%

Increased Confidence



71%

Increased Satisfaction



71%

Improved Wellness



58%

Enhanced Reputation



50%





From Left to Right:  
Martin Than,  
Sally Aldous,  
Chris Florkowski,  
Jacques Loubser,  
John Pickering

GLOBAL WINNER | AREA WINNER, ASIA PACIFIC  
**CANTERBURY DISTRICT HEALTH BOARD**

## Reducing risk and enhancing care with a new chest pain pathway expedited by and for the COVID-19 era

Christchurch Hospital, a facility within New Zealand's Canterbury District Health Board, is well known for best practice approaches in the assessment of patients with suspected heart attacks. The Emergency Department Assessment of Chest Pain Score Accelerated Diagnostic Protocol (EDACS-ADP) was developed by a multidisciplinary team co-led by Emergency Medicine Specialist Dr. Martin Than. It is widely used across Australasia to quickly and safely assess patients. Dr. Than's team is constantly exploring novel ways to improve upon this protocol.

The advent of the COVID-19 pandemic accelerated their important work to reduce the time at-risk patients spend in the ED, minimizing the risk of cross-infection and freeing up both ED and inpatient bed capacity for an expected influx of COVID-19 patients. Their new pathway involves cardiac troponin results combined with clinical risk and was derived using evidence-based patient outcomes. It aimed to reduce the number of patients who required serial troponin tests in the ED, as repeated testing prolongs length of stay in the ED.

The team devised three decision-making strategies which were dependent upon the predicted rate of a major adverse cardiac event (MACE). Patients with a single troponin result with less than a 1 percent chance of MACE could be discharged home. Patients with a single troponin result suggesting an approximate 1 to 5 percent chance of MACE could be discharged home with a second follow-up test to be done at a community clinic. Finally, patients whose troponin result suggests a higher than 5 percent chance of MACE would receive additional testing in the hospital. A process was also created for high-risk patients

to be immediately assessed by the cardiology team without an extensive ED assessment, reducing duplication of care and expediting referral, which is often required in high-risk cases.

Significant discussion between clinicians was needed to

agree upon these troponin thresholds and ensure clinician adherence. "Making any change can be difficult, but making change quickly is exceedingly challenging," Than said.

Ultimately, implementation of this expedited pathway enabled a 45 percent increase in the number of patients safely sent home from the ED within two hours, and a 35 percent increase in those sent home within three hours. These phenomenal

### UNIVANTS IN ACTION

**45%** increase in patients safely sent home from ED within 2 hours

**24%** decrease in patient admissions with diagnosis of unspecified chest pain

**\$530,000 NZD** annual cost savings due to lower utilization and resource savings

outcomes resulted in a 24 percent reduction in hospital admissions for patients with a diagnosis of unspecified chest pain. This process improvement allowed 55 percent more suspected heart attack cases to be ruled out with just one troponin result. This reduced the number of cardiac admissions that were ultimately not diagnosed as a MACE by 8 percent optimizing cardiac bed utilization. This reduction in bed and resource utilization enabled annual costs savings of \$530,000 NZD a year.

"I'm very proud of the team for doing what we did, but I'm even prouder still for our history that allowed us to make such an effective, rapid and agile change in a time of necessity," Than said.

**“This team's proactivity and ability to implement a new patient care pathway during COVID-19 with such immediate physician adoption is not only impressive, but commendable.”**

—COMMENTS FROM MODERN HEALTHCARE



From left to right:  
Beatriz Massa,  
Emilio Flores,  
Maite López-Garrigós,  
María Salinas,  
Francisco J. Pomares-Gómez

GLOBAL WINNER | AREA WINNER, EUROPE

## HOSPITAL UNIVERSITARI SANT JOAN D'ALACANT

# Early diagnosis and improved management of diabetes through strategic test algorithms

**D**iabetes affects 422 million people worldwide and is a significant public health concern. The prevalence of diabetes has nearly doubled over the last 30 years from 4.7 percent in 1980 to nearly 8.5 percent.

Early diagnosis and adequate monitoring can make a significant difference in management of the disease. Thus, a team of laboratorians, clinicians and leaders at Hospital Universitari Sant Joan d'Alacant in Spain sought to better integrate detection and monitoring of diabetes and prediabetes into primary care in their region. Their solution was to strategically automate specific biomarkers—most notably Hemoglobin A1c (HbA1c)—to test orders of at-risk or diagnosed patients requiring additional monitoring. The algorithms that they developed enable additional screening for patients with elevated glucose or lipids levels and added a cadre of monitoring tests for known diabetics, if not already ordered. Their effort resulted in 229 patients being newly diagnosed with diabetes, 3,337 patients diagnosed with prediabetes and 30,216 additional monitoring tests for diabetic patients.

Diabetes represented a clear opportunity where laboratory medicine could have a significant, measurable impact on patient outcomes, said Dr. Maria Salinas, the hospital's head of laboratory.

### UNIVANTS IN ACTION

**229** patients newly diagnosed with diabetes

**3,337** patients diagnosed with prediabetes

**14.4%** of diabetes patients were automatically tested, flagging poor disease control

"Diabetes affects such a significant portion of our population—it's amazing to imagine that in this moment, you can make a difference in that number by designing a program, thinking through leadership and using creative imagination," she said.

It also represented an opportunity to have a measurable impact on healthcare costs in Spain, where the annual cost per diabetic patient averaged close to €1,660 for direct costs and €916 for productivity losses, according to a 2013 study. Comparably, the screening program added costs of no more than €15.7 per newly diagnosed patient, depending on age and diagnosis. Monitoring costs for diagnosed patients were only €1.1 per test.

"It was critical for the team to engage general practitioners so that they would be prepared to make necessary interventions based on the results," Salinas said. General practitioners were overwhelmingly supportive because the automation allowed them to focus on more complex issues during the short time they have with patients. While it can be scary for patients to be diagnosed with diabetes, early diagnosis may allow them to make lifestyle changes and delay the need for medication, Salinas noted.

This project is particularly meaningful because it represents a way that clinical laboratories can proactively drive better health outcomes, by providing more than just diagnostic information, but through insights that elevate patient care.

"All the staff at our lab are very, very happy to work in this active, leading laboratory—we're not a passive, traditional laboratory that just processes what the doctor is ordering," Salinas said. "We not only intervene in clinical decision-making, but we are also really making clinical decisions, and not just in diabetes, but also for other conditions as well."



Great example of proactive use of laboratory testing system to inform providers and patients."

—COMMENTS FROM IHE





From left to right:  
Adeera Levin,  
Paul Komenda,  
AbdulRazaq  
Sokoro,  
Barry Lavallee

Not pictured:  
Binh Nguyen

Group photo was  
digitally composed to  
align with public health  
direction on COVID-19.

GLOBAL WINNER | AREA WINNER, NORTH AMERICA

CHRONIC DISEASE INNOVATION CENTRE, SEVEN OAKS GENERAL HOSPITAL

## Kidney Check: The next generation of surveillance for hypertension, diabetes and chronic kidney disease

Despite Canada's universal healthcare system, many First Nations people face significant obstacles in gaining access to preventative care, due in many cases to geographical challenges associated with remote communities. This has led to an unusually high rate of kidney failure within these communities, with some rural and remote regions recording a 10- to 20-fold increase in recent years.

Hoping to address this major obstacle in care and to emphasize kidney health, a multidisciplinary team of experts in nephrology, biochemistry, Indigenous Health and technology in Winnipeg, Manitoba, have embarked on an effort to increase kidney disease awareness and screen and treat as many Indigenous people for chronic kidney disease (CKD) as possible. In their efforts to screen for CKD, the team discovered that almost a third of Indigenous patients had some degree of kidney disease—significantly more than Canada's overall population, which has an incidence rate of only 10 to 12 percent.

"It's easy to detect, easy to test for and it can be prevented, but these people are often getting suboptimal preventive care," said Dr. Paul Komenda, an academic nephrologist at the University of Manitoba and research director at Seven Oaks General Hospital's Chronic Disease Innovation Centre.

The team's solution, Kidney Check, leverages point-of-care testing and an algorithm-informed tablet app used by nurses that analyzes diagnostic values and advises on necessary follow-up according to individualized risk of CKD progression. Although the leadership team includes First Nations clinicians, not all frontline caregivers were a part of this community, so training for nurses and other team members emphasized cultural safety and a rebuilding of trust.

"Being authentic means you have to respect local protocols while being present and persistent," Komenda said.

While dialysis can't necessarily be avoided, early intervention can delay the need for dialysis by several years in some cases,

especially with the advent of newer therapies. This is significant, as dialysis can have a life-changing impact on any patient, especially First Nations residents and their quality of life. In some cases, the need for dialysis may require patients to relocate away from their traditional communities and support networks.

Dialysis accounts for nearly all healthcare dollars for kidney disease, so prevention is expected to result in significant

downstream cost reduction. The typical cost of dialysis in Manitoba is \$60,000 to \$80,000 CAD per patient per year, but can be as high as \$200,000 CAD per patient in remote northern regions.

The program, which is expanding to other provinces, will ultimately reach thousands of adults and children. The pilot program has already screened 1,700 people across 11 communities, 68 percent of whom were identified as high risk for cardiovascular disease, diabetes or chronic kidney disease. Personalized kidney health plans were provided to all screened patients with those at higher risk referred directly to Seven Oaks Hospital.

### UNIVANTS IN ACTION

**1,700** patients  
screened so far

**68%** of patients  
diagnosed identified as  
high risk for cardiovascular  
disease, diabetes or  
chronic kidney disease

**343** patients provided  
with personalized kidney  
health plans

“This is a standout initiative with compelling and powerful data. The impressive use of point-of-care testing to enable improved screening and treatment of patients in rural communities is commendable.”

—COMMENTS FROM NAHQ

# AREA WINNERS

AREA WINNER, LATIN AMERICA | HOSPITAL ISRAELITA ALBERT EINSTEIN

## Reducing catastrophic adverse events in hemorrhagic shock patients through early recognition and automatic alerts

When a patient is experiencing hemorrhagic shock, every second counts. Clinicians and staff must act quickly to limit blood loss and stabilize the patient. An innovative team at Brazil's Hospital Israelita Albert Einstein used technology to streamline communication and improve responsiveness to critical adverse events.

Dedicated response teams receive automated mobile alerts and an extension call in accordance with "Code H" protocols for hemorrhagic shock. The initiation of Code H sends a cadre of orders to a variety of departments and staff, including rapid delivery of massive transfusion protocol blood components and a request for a Code H laboratory testing. Prompt turnaround allows clinicians to activate imaging teams, if necessary, within an hour and initiate vascular intervention within 30 minutes with an ICU bed and/or operating room on standby. This process is overseen by a Code H team that works 24/7.

Previously, between 2013 and 2015, 23 percent of

catastrophic adverse events at the hospital were related to bleeding management failure or hemorrhagic shock. "We recognized that changes needed to be made, and patients are receiving better and safer care because of those changes," said Dr. João Carlos de Campos Guerra, a medical coordinator for Hematology and Coagulation Section at the laboratory at the hospital.

Code H initially presented significant care coordination challenges, as the response requires a broad multidisciplinary team with the potential to mobilize several hospital departments. More than 150 ED doctors, 400 lead nurses and 50 clinical pharmacists were trained as part of this initiative. As a result of Code H, the survival rate of patients with hemorrhagic shock has significantly improved. Catastrophic adverse events have been mitigated in 88.5 percent of patients with hemorrhagic shock.

"In a highly complex situation, you need to have the right communication, not just communication itself," Dr. Guerra noted.

AREA WINNER, MIDDLE EAST AND AFRICA | DUBAI HEALTH AUTHORITY

## A collaborative public-private approach to streamline SARS-CoV-2 testing and optimize patient outcomes

The COVID-19 pandemic has prompted healthcare organizations across sectors to work together to contain the virus and provide efficient care.

Knowing that they would need to supplement their mass testing capabilities, improve resource utilization, unify logistics and supply chain between private and public laboratories, a multidisciplinary team at the Dubai Health Authority sought to bridge the technology and talent of laboratories in the public and private sectors, unifying for greater outcomes than what could be achieved in a siloed approach.

While it was clear that combining resources could enable improved outcomes, the challenge was in quickly implementing the program and enabling interoperability of lab data. Dr. Rana Nabulsi, a healthcare quality consultant within the system's pathology and genetics department, led the charge on DHA's side to contract with private sector labs, negotiating fair pricing for the government and coordinating the integration of lab systems.

Upon activation of the collaboration, processes and technology were quickly integrated between the two systems, linking instruments for Polymerase chain reaction (PCR) to the laboratory information systems. This required dedicated communication between private and public labs on a single, efficient platform that would enable rapid response. This team approach leverages the private sector labs' ability to return results within a 24-hour period, enabling the DHA to more quickly trace COVID-19 patients' contacts to quickly engage them with direction to isolate and limit transmission.

"We had access to more capacity, timely reporting and accurate testing, and we relieved pressure on our supply chain," Nabulsi said. "We engaged in this partnership because the COVID-19 pandemic is a war, and we have to step up and be the warriors to fight it."

The partnership is highly scalable and could be implemented for other testing modules like newborn screening, occupational health programs and other laboratory testing.

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# CONGRATULATIONS TO ALL APPLICANTS

## CONGRATULATIONS WINNING TEAMS OF DISTINCTION

| COUNTRY       | INSTITUTION NAME                                        | PROJECT NAME                                                                                                                                                |
|---------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Kenya         | Aga Khan University Hospital, Nairobi                   | Reducing Medical Errors and Enhancing Patient Care through Pathology-Led Strategic Activation of Point-of-Care Testing in an Emerging Market                |
| Spain         | Hospital Clínico San Carlos                             | Early Detection and Management of Gestational Diabetes Mellitus for Improved Outcomes of Mothers and their Babies                                           |
| Brazil        | Hospital Israelita Albert Einstein                      | Reducing Catastrophic Adverse Events in Patients with Hemorrhagic Shock through Early Recognition of Risk and System-Wide Automatic Alerts                  |
| Canada        | St. Paul's Hospital                                     | Reduction of Inpatient Daily Blood Draws with Data Science and Clinical Collaboration                                                                       |
| Spain         | Hospital Virgen Macarena                                | Reducing Post-Operative Complications in Cardiac Surgery Patients                                                                                           |
| UK            | NHS Tayside                                             | Use of FaecalImmunochemical Tests (FIT) Unlocks the Door to Efficient and Effective Investigation of Patients with New Bowel Symptoms                       |
| Dubai         | Dubai Health Authority                                  | Novel Collaborative Approach among Public and Private Sectors for Streamlined SARS-CoV-2 Testing towards Optimized Patient Outcome during COVID-19 Pandemic |
| China         | The First Affiliated Hospital of Sun Yat-sen University | Improved Safety for Patients with Indeterminant Pulmonary Nodules through Optimized Diagnostic Pathways for Lung Cancer                                     |
| United States | University Birmingham Alabama Hospital                  | Enhanced Identification and Care for Patients with Undetected HCV and/or HIV via Opt-Out ED Screening with Active Education and Linkage to Care             |

## CONGRATULATIONS WINNING TEAMS OF ACHIEVEMENT

| COUNTRY      | INSTITUTION NAME                                                                  | PROJECT NAME                                                                                                                                                                              |
|--------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Russia       | St. Petersburg Hospital Number Two                                                | Improving Patient Experiences via Reliable Pre-Surgical Biomarker Risk Assessments in Patients Undergoing Eye Surgery                                                                     |
| Mexico       | Biomédica de Referencia                                                           | Improving Population Health through Screening for Hepatitis C to Enable Treatment for Undetected Viral Infections                                                                         |
| Tanzania     | Faith Medical Tanzania Clinics                                                    | Improving Care and Overall Experience for Patients who Present to a Tanzania Clinic with Suspected Cardiovascular Diseases                                                                |
| Spain        | Hospital Virgen de la Luz                                                         | Optimized Detection and Management of Thyroid Dysfunction During Pregnancy for Improving Maternal and Offspring Outcomes                                                                  |
| UK           | The Princess Alexandra Hospital NHS Trust                                         | Procalcitonin: A Successful Clinical Formula for the Early Recognition and Management of Sepsis in the Emergency Department                                                               |
| Austria      | Institut für Medizinische und Chemische Labordiagnostik, Mein Hanusch Krankenhaus | Maintain High Quality Patient Care During the COVID-19 Pandemic                                                                                                                           |
| Nova Scotia  | Nova Scotia Health                                                                | Maximizing Delivery Method and Clinical Resources for Timely Patient Communication of COVID-19 Status                                                                                     |
| Saudi Arabia | Dr. Suliman Al Habib Medical Group                                                | Laboratory-Led Company-Wide Screening Programs for Safe, Back to Work Strategies during COVID-19 Pandemic in Saudi Arabia                                                                 |
| UK           | North West London Pathology                                                       | COVID-19: Using Data, Innovation and Collaboration to Support Better Patient Outcomes                                                                                                     |
| India        | Kokilaben Dhirubhai Ambani Hospital & Medical Research Institute                  | Increased Detection of Acute Myocardial Infarction in Women Using Sex-Specific Upper Reference Limits in Clinical Pathways for Patients Presenting with Suspected Acute Coronary Syndrome |
| Germany      | Marienhospital                                                                    | Strategic SARS-CoV-2 Testing for Risk Mitigation and Optimal Health of Healthcare Workers and Patients                                                                                    |
| Japan        | Seirei Hamamatsu HP                                                               | Enhanced Discovery of Unidentified Comorbidities and Diagnosis Through the use of Diagnostic Logics Empowered by Laboratory Medicine and Informatics                                      |

## The Next Generation of Kidney Surveillance for Improved Population Wellness

CHRONIC DISEASE INNOVATION CENTRE,  
SEVEN OAKS GENERAL HOSPITAL

## Automated Test Algorithms for Early Diagnosis of Diabetes

HOSPITAL UNIVERSITARI SANT JOAN D'ALACANT

## New Chest Pain Pathway Reducing Patient Risk and Enhancing Care

CHRISTCHURCH



# TOP TEAMS AROUND THE WORLD ARE ACHIEVING HEALTHCARE EXCELLENCE

Learn about these success stories at [UnivantsHCE.com](https://UnivantsHCE.com)



### AREA AWARD WINNING BEST PRACTICES



Chronic Disease Innovation Centre,  
Seven Oaks General Hospital

NORTH AMERICA



Hospital Israelita Albert Einstein

LATIN AMERICA



Dubai Health Authority

MIDDLE EAST



Canterbury District Health Board

ASIA PACIFIC



Hospital Universitari  
Sant Joan d'Alacant

EUROPE



IN PARTNERSHIP WITH



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