



مستشفى الملك فيصل التخصصي ومركز الأبحاث
King Faisal Specialist Hospital & Research Centre
مؤسسة عامة Gen. Org.

رؤية VISION
2030
المملكة العربية السعودية
KINGDOM OF SAUDI ARABIA



PERFORMANCE IMPROVEMENT EXECUTIVE REPORT 2018

All Committed to Improve

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

In the name of Allah,
Most Beneficent, the Merciful

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The contents contained within this report are based on activities, organizational structures, strategic objectives, vision and values in effect as of 01 January 2018. The published information in this report is for educational purposes only and should not be considered or used as a medical opinion.

VISION, MISSION AND VALUES



At KFSH&RC, over 13,000 staff at our Riyadh and Jeddah sites provide care to thousands of patients and families each year.

Values

SAFETY

We commit to high quality of care that ensures safety to our patients, families and staff

COMPASSION

We deliver exceptional care by creating a compassionate and respectful environment for our patients, families and staff

PATIENT CENTRIC

We put the needs of our patients and their families first

EXCELLENCE

We deliver the best outcomes and highest quality service through the dedicated effort of every team member

INNOVATION

We welcome change, encourage invention and continually seek better, more efficient ways to achieve our goals

Vision

To be a world leader in healthcare through excellence and innovation.

Mission

King Faisal Specialist Hospital & Research Centre provides the highest level of specialized healthcare in an integrated educational and research setting.

At KFSH&RC, we aim to continuously improve the quality of our patients' lives, to provide our colleagues with an exceptional working environment with prospects for learning and development, and to serve our communities through scientific and applied research, innovative partnerships, and health education programs. In all our efforts, we are guided by a strong set of values that sets us apart as a reputable and well-recognized healthcare institution in the region.

CHIEF EXECUTIVE OFFICER MESSAGE

Since King Faisal Specialist Hospital and Research Centre (KFSH&RC) opened its doors in 1975 to care for those in the greatest need, we have steadily advanced and endeavored to provide services in line with our values: safety, compassion, excellence, patient-centric and innovation. We have been recognized as a global healthcare leader, a success which has stemmed from a passion to embrace and adopt new therapies and pursue research to discover endless possibilities.

Amidst a rapidly changing healthcare system in a country pioneering a trajectory of global excellence, we have a responsibility to fully unlock our strengths and capabilities. *All Committed to Improve* demonstrated what is possible when we harness an innovative spirit and aim higher. As you will read in this report, some of the improvement projects undertaken in 2018 relate to ensuring timely access to care, introducing new best practices, enabling research and stewarding our environment. The common thread running through the 193 projects is the impact that reaches beyond our hospital walls and deep into our communities. Together, these projects contribute to building a stronger hospital, community, and country, demonstrating that the whole is greater than the sum of its parts.

I would like to thank Dr. Saleh Almfada, Assistant Chief Executive Officer-Riyadh, and Dr. Mallawi, Chief Operating Officer-Jeddah, for their leadership and for creating a

culture that fostered and enabled improvements in 2018. I would also like to thank Dr. Mohammed Hijazi, former Chief Quality Officer, Ms. Maya Sinno, Director of Quality Management-Riyadh, Ms. Shorouq Zakariya, Director of Quality Management-Jeddah, and the entire Quality Management Departments for leading the performance improvement initiative and encouraging colleagues to realize their full potential. The success of *All Committed to Improve* was only possible due to the unwavering commitment of all staff across KFSH&RC; their achievements fill the pages of this report and their contributions make a lasting impact on the lives of the patients and families in our care. I am inspired by what has been accomplished and grateful for the talent and dedication bestowed upon KFSH&RC and its staff.

As we look towards the future, King Faisal Specialist Hospital and Research Centre must continue to channel its innovative spirit. The people of this country deserve exceptional and efficient care; thus, we must work together to support a capable and reliable system that delivers. Together, we will continue to build our reputation for excellence and create a legacy that will benefit the nation for generations to come.

Sincerely,

Majid Al Fayyadh, MD, MMM
Chief Executive Officer



*His Excellency, Dr. Majid Al Fayyadh
Chief Executive Officer
King Faisal Specialist Hospital and
Research Centre*

EXECUTIVE LEADERSHIP MESSAGES



Dr. Saleh Almofada
Assistant Chief Executive Officer- Riyadh

King Faisal Specialist Hospital and Research Centre – Riyadh has collaborated for a common purpose, to improve on itself. KFSH&RC is well known around the world for excellence, and through the performance improvement initiative, *All Committed to Improve*, we achieved a new benchmark.

As an academic medical centre, we have a responsibility to relentlessly pursue innovation and support the transformation of care for patients and families at KFSH&RC and beyond. Through the 99 performance improvement projects completed at the Riyadh site, this is just one example of how we fulfill this responsibility and are changing the future of healthcare.

I would like to express my appreciation and congratulations to each of the people who contributed to the *All Committed to Improve* in 2018. You have, without a doubt, made an impact.

To Quality Management, thank you for leading this initiative and helping KFSH&RC - Riyadh be at our best.

Warmest congratulations,

Dr. Saleh Almofada

Assistant Chief Executive Officer Riyadh



Dr. Yaseen Mallawi
Chief Operating Officer-Jeddah

King Faisal Specialist Hospital and Research Centre is home to the brightest minds and biggest hearts in healthcare. In 2018, it was this talent at KFSH&RC – Jeddah that helped inspire to complete 94 performance improvement projects that ensures we provided the best care.

Across the entire Organization, there is an unwavering commitment to quality in support of efficient, effective and safe care. *All Committed to Improve* has further strengthened our resolve. This report highlights some of our performance improvement successes last year and hope it serves as inspiration for the endless opportunities for achieving excellence.

Thank you to all the staff who came together to support *All Committed to Improve*. You have demonstrated the power of team work, inter-professional collaboration and set a new standard for others to reach. Thank you also to the Quality Management, your leadership on this project was invaluable.

I look forward to the continued success.

Sincere congratulations,

Dr. Yaseen Mallawi

Chief Operating Officer Jeddah

QUALITY MANAGEMENT MESSAGE



Ms. Maya Sinno
Director of Quality Management - Riyadh

Quality Management would like to congratulate all the teams and individuals who made the commitment to improve in 2018 and undertook a project to make a meaningful and sustained impact.

I would also like to extend my appreciation to Dr. Saleh Almofada for the continued support in all PI Projects, as well as His Excellency, Dr. Majid Al Fayyadh, Chief Executive Officer, for his continued support on creating an environment that enables us to be better every day.

As an organization, through our quality journey, we have made significant progress in supporting our vision of being a world-leading institution of excellence and innovation in healthcare; all of which are aligned with IOM's 'STEEEP' Domains of Healthcare Quality and our organization's 2022 Strategic Priorities.

I look forward to continue harnessing this momentum and doing more for the patients we care for and the future of healthcare in this great Kingdom.

Thank you

Respectfully,

Ms. Maya Sinno
Director of Quality Management – Riyadh



Ms. Shorouq Zakariya
Director of Quality Management - Jeddah

Quality Management Department (QMD) remains dedicated to its goal of strengthening the principles and practices of continuous quality improvement and organizational learning. QMD works very closely with all departments and personnel at all levels to promote, facilitate and reward an environment that embraces group learning practices. The evolving number and the quality of the Performance Improvement (PI) projects this year is the hallmark of all our accomplishments.

We are honored to share with you 2018's PI Projects, in this report. To enable higher performance, all PI projects were aligned with the Hospital's strategic priorities by optimizing staffs' contributions, processes, and inputs to realization of measurable objectives. We are eager to expand on this year's accomplishments in collaboration with the Research Center by increasing the attention to Patient Safety Research publications.

We look forward to your active membership in future initiatives.

Thank you

Respectfully,

Ms. Shrouq Zakariya
Director of Quality Management - Jeddah

ALL COMMITTED TO IMPROVE

Quality is a value that stretches across King Faisal Specialist Hospital and Research Centre from Jeddah to Riyadh. Each and every day, our unwavering commitment to quality guides our standard of care, our research and our teaching. Quality underpins our mission and is the beacon for our vision.

Our healthcare environment is incredibly complex and is changing rapidly. KFSH&RC has the ability to recognize a problem before it becomes an emergency; the secret is to break the complex overwhelming opportunities for improvement into small manageable leaps to produce the most extraordinary results in healthcare. *All Committed to Improve* is an enterprise-wide initiative to foster a culture of performance through a concentrated focus on improvement. By building a commitment to performance improvement, and implementing innovative health solutions, we are ready to address the changing needs of our patients, our healthcare system, and our nation.

Adopted by the Corporate Performance Improvement Council in October 2016, *All Committed to Improve* is guided by the corporate strategic priorities as well as the domains of quality healthcare. All departments across KFSH&RC were asked to find one project that would have a positive impact on:

- safety
- timeliness
- efficiency
- effectiveness
- equitable
- patient-centered care

In a matter of months, departments across the organization rose up to initiate projects of their own.

Committed to Excellence

This past year has been marked by a palpable energy and renewed passion which propelled KFSH&RC forward along a pathway to excellence. With a united focus on being better every day, across all areas of the organization we made exceptional progress.

The following report highlights the award-winning projects recognized at the 2018 Performance Improvement Awards in Riyadh and Jeddah.

These projects are just a sample of what was accomplished and illustrate what is possible when teams work together, think big, and aim to be the best.

Whether it was through the development of new clinical pathways, implementing international best practices, or simply fine tuning existing processes, teams made meaningful and sustained improvements. The impact of this work has been felt by staff and patients alike, but also extends beyond the borders of KFSH&RC and into communities across KSA.

Meaningful Impact

Over the past year, because of *All Committed to Improve*, access to care has dramatically improved. In some instances, small changes in processes were made to optimize efficient and timely provision of care throughout the kingdom.

Domains of Quality Healthcare



A PATHWAY TO EXCELLENCE

In addition, complex patients were reassessed to enhance discharges in order to improve patient flow, reduce cost of hospitalization and increase bed capacity.

Performance metric were deployed to evaluate the efficient utilization of our capabilities and resources toward eliminating non-value added activities and waste.

Being a patient-centered organization, the aspect of pain has been also addressed via an improvement team tackling patients' needs and expectations towards providing excellent patient experience through KFSH&RC journey.

The prevailing theme across each of the completed projects was team work. Inter-professional teams and inter-departmental collaboration was the driving force behind every single initiative. By working together and building relationships, teams evolved 'care' to prevent infections with our most fragile patients, improved the transition of patients home, and

developed new practices that are now the standard for the entire nation. These themes touched lives and made a difference.

Foundations for the Future
As an academic medical centre, we think about research, discovery and innovation every day. The future of healthcare depends on our ability to harness creative energy and develop new and better ways of doing things. The benchmark for success is not only our capacity to generate knowledge, but to also adopt research and innovation into practice to make a meaningful impact.

Without *All Committed to Improve* and continual growth, words such as improvement, achievement and success have no meaning. Sensitivity to operation, deference to experties, preoccupation with failure, resilience, reluctance to simplify in addition to continuous improvements are ingredients for forming a high reliability organization to persue our Zero Harm journey. As an organization we are committed to performance improvement and sincerely hope our journey inspires others.

STRATEGIC PRIORITIES Vision 2022

KFSH&RC introduced its 2022 Vision and Strategic Plan, with the goal of positioning the hospital as a leading healthcare provider, not only in the Kingdom, but in the region and around the globe.

Strategic Priority 1
Become a world-leading academic Medical Center

Strategic Priority 2
Deliver consistently exceptional experience to our patients, employees and other stakeholders

Strategic Priority 3
Become a highly accountable, and sustainable organization

Strategic Priority 4
Become an integral part of the local and global community



*You will never change your life until you change something you do daily.
The secret of your success is found in your daily routine.*

- John G .Maxwell

CELEBRATING OUR SUCCESSES

PROJECT WINNERS

A NEW LEASE ON LIFE

National Hip Dysplasia Program (NHDP)

Riyadh

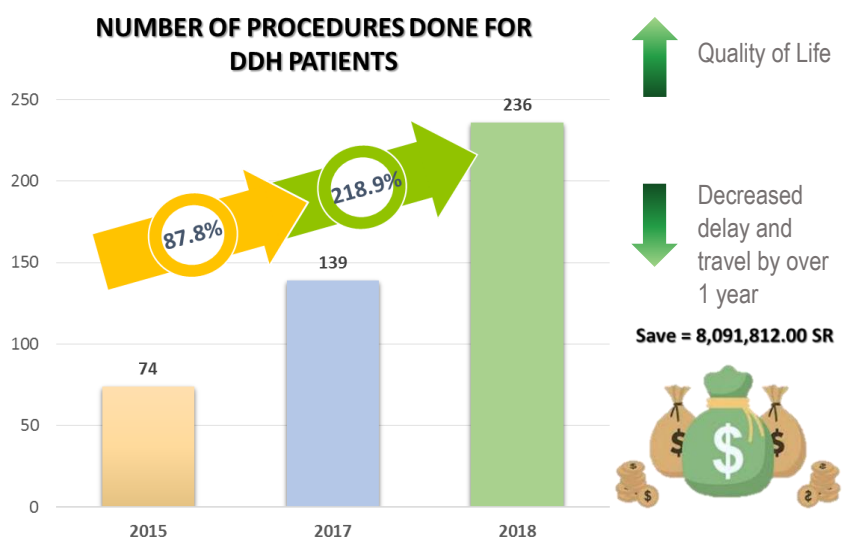
Developmental Dysplasia of the hip (DDH) is a very common congenital/ developmental musculoskeletal problem in Saudi Arabia with an estimate of 1500+ new cases diagnosed yearly.

Many children in the kingdom suffering from DDH cannot get access to tertiary care centers to be treated surgically. Those children usually receive their treatment in general or private hospitals by general orthopedic surgeons which would increase the risk of disastrous complications that cannot be reversed by any surgical treatment and will leave them with permanent physical disability.

A proposal to operate the National hip dysplasia program (NHDP) was introduced to KFSH&RC health outreach services (HOS) in order to expand the tertiary care coverage for DDH children in the kingdom, and it was received with acceptance and unlimited support.

Three medical centers in three different regions shared the operation of NHDP from December 2016 with high commitment and support, namely Al Ras general hospital, Arar Central hospital, and Prince Muteb hospital.

The program has now completed 35 surgical missions that provided specialized



surgical care to more than 280 children suffering from DDH. During those surgical missions the program conducted evening clinics that provided specialized medical opinion to more than 800 patients. NHDP achieved very high safety and surgical success rates (~99%), and with very high patient satisfaction rates, both exceeding the rates achieved in normal tertiary care centers. The estimated treatment cost savings to KFSH and MOH exceeds 12,500,000 SR and 5,500,000 SR respectfully. The number of DDH patients treated under the umbrella of KFSH has increased after NHDP to more than 283 % in 2018 with a dramatic decrease surgical waiting time from an average of 10 months to 2 months.

National Hip Dysplasia Program achieved valuable goals:

- Increased the number of DDH patients receiving specialized surgical care.
- Reduced surgical waiting time for DDH cases.
- Drastically reduced the treatment and family costs on KFSH and Ministry of Health (MOH).
- Provided educational opportunity to local physicians

The National Hip Dysplasia Program will continue to provide its services to the community and through planned expansion target other regions, hoping at some stage that this program will activate a country wide strategy to provide all DDH children reliable and specialized access to care.

CONTINUITY OF CARE

Improving the Safety of Insulin Pens and Reducing the Overutilization for Inpatient

Jeddah

Incidents were reported during year 2016 related to insulin, which identified risks commonly associated with current subcutaneous insulin storage, prescribing, preparing and dispensing, administering and monitoring, especially with the pens.

Overutilization (wastage) of insulin pens identified during quality rounds and inspection in the inpatient units.

Insulin is a high alert medication and it is a requirement from JCIA (MMU & IPSP) and IHI initiative (5 million campaign) and ISMP alerts to improve the safety of high alert medications.

To prevent patient harm related to the use of insulin pens from storage, prescribing, preparing, dispensing, administering and monitoring.

Decrease the overutilization of for the same patient during admission (To Reduce the wastage by 50%).

WHAT HAS BEEN DONE?

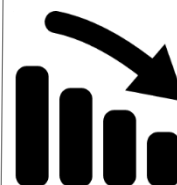
Alerts were added to Pyxis to remind nurses to check if patients had a pen before removing any new pen
All insulin pens were stored outside the fridge in patient specific pens

Safety alert was sent to all staff about different types of insulins and how to handle insulin safely. Educational sessions were conducted for residents, nursing and pharmacists regarding different types of insulins
Reviewed the latest updates from ISMP the “2017 ISMP Guidelines for Optimizing Safe Subcutaneous Insulin Use in Adults”

The process of handling NPO patients taking insulin was finalized and shared with all involved staff.

ilearn educational sessions were reviewed to include insulin education for all healthcare providers.

Sentences in Power order, eMAR, Pharmnet and Pharmacy labels related to insulin were standardized.



Insulin Pens consumptions reduced by 60%



Insulin related Incidents reduced to **Zero**



More than 20,000SR was saved



A NEW PATH FOR EFFECTIVE AND EFFICIENT CARE

Custom Fitted and Custom Made Orthotics

Riyadh

Foot orthotics may assist patients with painful ambulation, with underlying causes including plantar fasciitis, metatarsalgia, diabetes and arthritis. The most common theory is that orthotic devices decrease excessive pronation, off-load the plantar fascia at its origin and recreate the heel pad by optimizing the biomechanical loading of the foot. Custom-fitted orthoses include “off-the-shelf inserts” that can be inserted into a patient's shoe, to provide pain and ambulation support.

A Performance Improvement project was initiated to utilize custom-fitted orthoses in patients with painful ambulation over custom-made orthoses, aiming to decrease the turnaround time for delivery, increase quality consistency, decrease cost of device, and decrease the number of appointments needed to visit the Orthotics Department.

The majority of the patients with foot pain, seen in the orthotic prosthetic clinic at KFSH&RC were suffering from symptomatic plantar fasciitis and almost all would report pain in and around the heel.

Patient sample in 2017 was 375, (all with custom-made orthoses), made up of 45% female adults, 7% female adolescents, 35% male adults and 13 % male adolescents. Sample for 2018 had 490 patients (485 custom-fitted and 5 custom-made.) 47%, 5%, 38% and 10% were female adults, female adolescents,

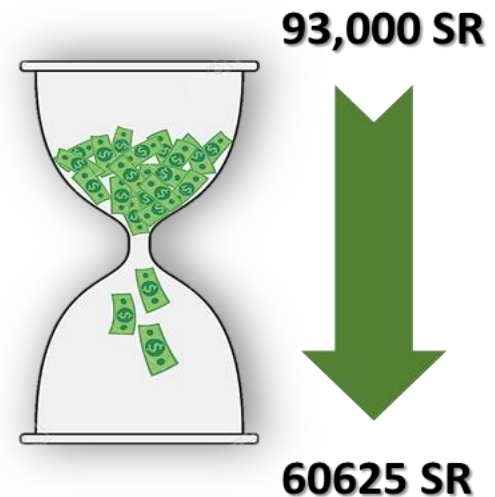
male adults and male adolescents, respectively.

The primary outcome measure was the efficacy of custom-fitted orthoses compared to custom-made, assessed using the time and cost of production of the orthoses. The secondary outcome measure was the patient outcome using this intervention, measured as quality and satisfaction (consistent level of quality, and minimal rework). We targeted that the use of custom-fitted orthoses would cut down the cost of the device by 25% and decrease delivery time.

The number of patients seen in the 2018 increased by 23% over the same period last year. Of the 490 patients in 2018, 485 had a custom fitted orthosis, whereas all 375 patients in 2017 had a custom-made orthosis. This increase is due to the saved cycle time, Custom – made took 3 weeks, and custom fitted 1.5 weeks. This decrease has helped increase the amount of patients we can treat.

The total cost of custom-made orthoses for the 375 patients in 2017 was SR 93,000; however, for the consistent quality level of custom fitted orthoses and the increase in amount of patients, 485 patients in 2018, the total cost was at SR 60,625, a 48% decrease in cost.

This improvement has saved KFSH cost, increased patient access, and all with a more reliable level of quality.





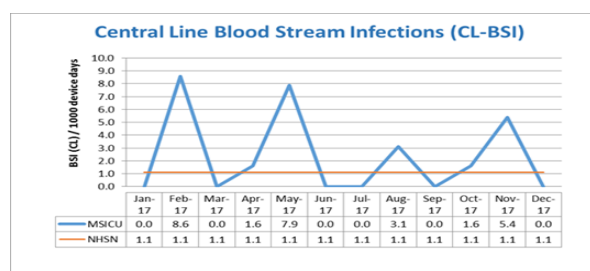
In 2018, more collaborative projects were conducted than ever before.

Toward Achieving Zero Harm

Maintain the Central Line Associated Blood Stream Infection (CLABSI) Rate in MSICU

Jeddah

The National Healthcare Safety Network (NHSN) January to December 2017 CLABSI Benchmark was 1.10 and MSICU was at 2.2 with a total of 10 reported cases of Central Line Associated Blood Stream Infections. This high number of CLABSI cases does not go with the organizational strategic goal for ZERO harm and it is not equivalent to best practice.



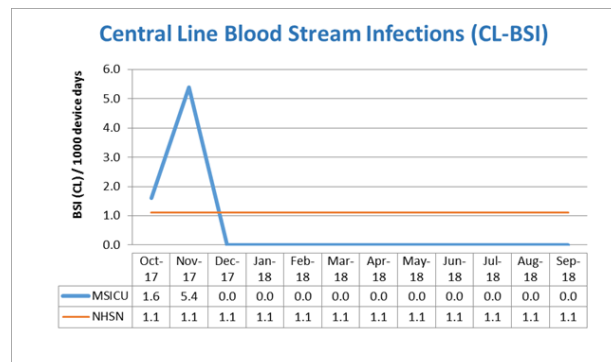
The selected goal was to reduce CLABSI rate from 2.0 to ZERO in MSICU by the end of year 2018.

Ten articles were critiqued to find the best evidence based practice related to prevention of CLABSI, accordingly the following actions were implemented in MSICU to reduce the CLABSI rate:

CVC Insertion & Maintenance Bundle was created and implemented, the team documented it in the patient medical record utilizing paper format. Central line /Arterial line insertion trollies were created and used for all central line insertions in MSICU. Item Checklist was created for the central line insertion trollies to make sure they are ready for use. Created a CLABSI PI Project board displayed in the unit emphasizing the up-to-date number of ZERO CLABSI days.

Femoral line insertions were restricted to absolute emergencies, and when subclavian and intra-jugular sites were not accessible. Femoral central lines were removed within 24 hours of insertion if not contraindicated.

All Central lines inserted outside of MSICU/OR were replaced within 24-48 hours of insertion. Ultrasound guidance was used with every central lines insertion.



CLABSI rate reduced from above the NHS benchmark (1.1 per 1000 patient days) to Zero and sustained during year 2018



ZERO HARM

Zero Central Line Associated Blood Stream Infection

Riyadh

The life of every patient, family, staff and volunteer at King Faisal Specialist Hospital and Research Centre is precious and there is no greater responsibility than keeping them safe from harm. The hospital believes the only acceptable standard for harm is zero. On November 2017, KFSH&RC committed to a goal of zero harm, not only to strengthen our leadership role and reputation, but set a new standard of excellence. As part of this initiative, the hospital aimed to reach zero CLABSI with a journey of three years.

The broad acceptance that zero CLABSI rates are an achievable goal has motivated and stimulated the hospital leadership and stakeholders to develop policies and tools to mobilize their efforts toward achieving this goal. Nevertheless, attributing reductions in CLABSI rates achieved by multifaceted quality improvement efforts, mainly the use of care bundle, ensured adherence with appropriate infection control practices.

Our objective in the first year of our journey was to decrease the number of Central Line Associated Blood Stream Infection (CLABSI) Events in all inpatient units from 144, in 2017, to less than 115 (20%) by 31st of December 2018.

A multidisciplinary team was formed from different stakeholders. Then a gap analysis was conducted to identify the area of improvement. A driver diagram was used for our roadmap and categorization. The team cascaded down the aim into logical set of underpinning goals and interventions. Each one of these interventions was assigned to a task force to work on.

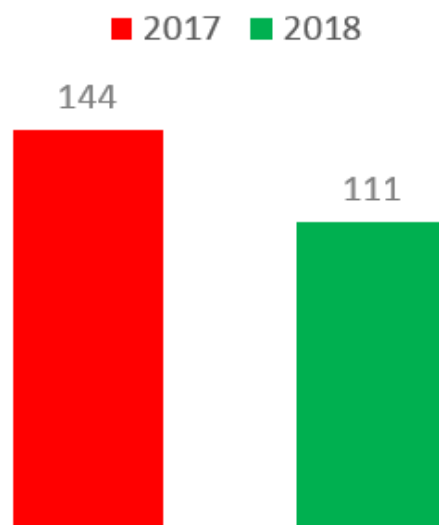
The interventions implemented includes physician training through simulation, standardized hospital policy for vascular line insertion, maintenance and removal, two care bundles for insertion and maintenance, hand hygiene awareness campaign, engaging patient and families in CLABSI prevention using speak up method, and finally conducting a root cause analysis for every single CLABSI event.

After a year of dedicated effort, the hospital was able to reduce the CLABSI rate by 22.93%. We managed to save 33 lives and made these patients go back to their families safely. According to a meta-analysis study, a single case of CLABSI costs approximately \$50,000. This means the impact saved around \$1,650,000 which equal SR 6,187,500 in the first year. Moreover, we reduced the average length of stay to improve our productivity and quality.



This early success—expressed in lives saved and economic impact—strengthens our resolve to focus on safety, raise the bar of expectations, and challenge our hospitals to pursue zero harm.

NUMBER OF CLABSI INFECTION



Discharge Patients Back to Referral Centers with Comprehensive Management Plan

Riyadh

Pediatric Non-Malignant Blood Disorders (NMBDs) section of King Faisal Specialist Hospital & Research Centre, Riyadh is a tertiary care referral center for patients ≤14 years of age with hemostatic disorders, hemoglobinopathies & bone marrow failures for diagnostic confirmation, disease management and stem cell transplantation. Sub-specialized transfers to other treating institutions or departments could be challenging but is known to have impact on operational metrics: acceptance rate of new cases, transplantation number etc.

A Performance Improvement (PI) project was initiated as part of the institutional “All Committed to Improve-2018” with an MCA aim of increasing discharge / transfer of patients from the service by 60% (120 in 2017 to 192 patients in 2018).

Discharge and Transfer criteria was developed and included patients with unmatched donors, >14 years of age; supportive services available at referral center were catalogued into “>14 years of age” or “Tertiary care services – Not required”.

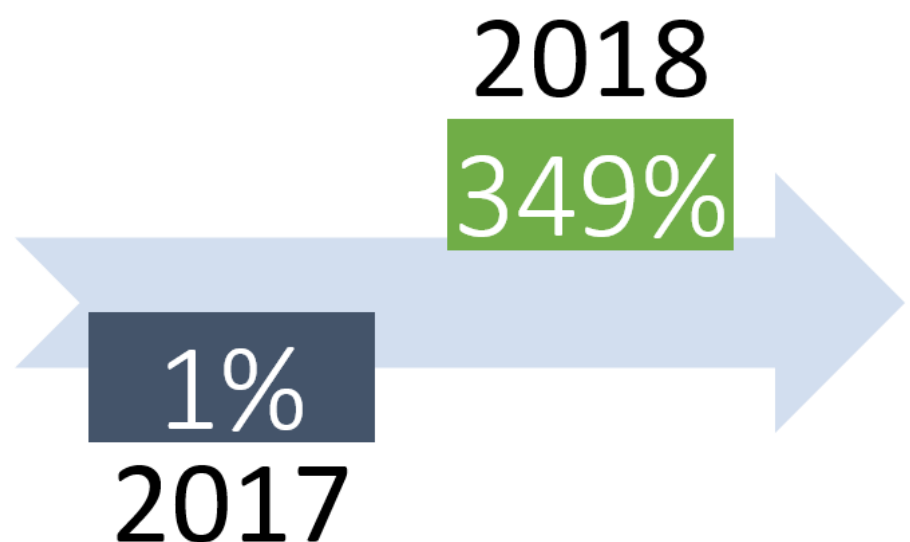
In 2017, only 1 % of patients were discharged from the system, which has led to the development of an automated web-based dashboard utilizing REDCap software (Vanderbilt University) enabled weekly real-time tracking by the Clinical Nurse coordinator for transition of care arrangements with disease specific comprehensive management plans.

The software helped uncover the causes of the transfer, and several interventions were initiated throughout 2018 to transfer patients out of the KFSH&RC system safely.

In 2018, there was a 349% increase (120 to 539) in transfer / discharge of patients from the clinical service; an unforeseen positive impact was the increase in new cases by 4% and transplants for NMBDs by 8% respectively were observed during the year 2018.



Clearing our patients that have been in the system for years helped increase new admitted cases to our specialized care hospital.



ENSURING THE BEST USE OF RESOURCES

Reduce percentage of vitamin D re-testing

Jeddah

Vitamin D tests and re-test were high in Family Medicine during 2017.

3.15% of vitamin D orders were not needed as per up-to-date recommendations which led to waste in money and resources. Unnecessary re-test (when vitamin d above 50 mmol/dl) Normal Range for vitamin d (75-250 mmol/dl).

Goal to reduce vitamin D re-testing when already above 50 mmol/dl from 3.15% by 25% was selected.

WHAT HAS BEEN DONE?

The Up-to-date recommendations related to vitamin D testing indicate that re-testing of vitamin D when already above 50 mmol is unnecessary.

Recommendations were applied in family medicine during year 2018

Ordering vitamin D was selected as indicator to measure the compliance with the new process.

Unneeded Vitamin D re-test reduced by 25%

Retesting of vitamin D when already above 50 mmol was reduced from 3.15% (54 re-test /1712 tests) to 0.19% (1 re-test/502 tests)



More than
17,000 SR
saved



“It’s not enough to be up to date, you have to be up to tomorrow”

The Environment

Reducing the Number of Environmental Pollution Incidents

Jeddah

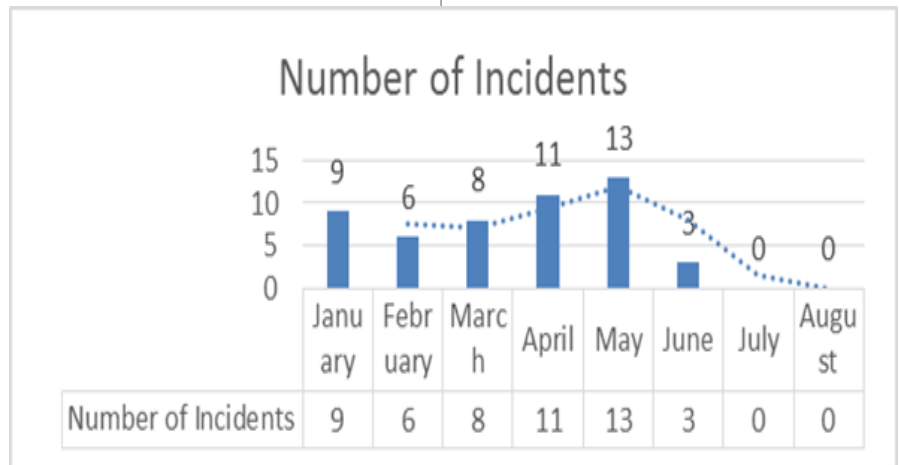
A full protecting system of pest control is applied to prevent any pollution incidents that might affect patients and staff's safety. 50 incidents were reported regarding the environmental pollution (flies and insects) from January 2018 until June 2018. The food process was monitored for two weeks to find the source of these insects. The huge amount of food waste garbage was the main source of pollution, which was thrown in the kitchen garbage during the preparation process of the patients and cafeterias' meals. The total amount of garbage was around 7,811.00 Kg/Week.

The aim was to reduce the number of environmental pollution incidents from (50) to (0) by July 2018.

The following actions were implemented:

After finding the source of the environmental pollution incidents and reviewing related best practices, the best practice was to recycle the leftover food to organic compost with a special recycling machine.

A recycle machine was installed, the machine transformed wet wastes into organic compost within 4 to 24 hours (depending on the quantity of the leftover materials) through a special process including microorganisms. The food wastes were effectively broken down, resulting in compost without bad odor.



The environment is one of the most important factors for a better quality of life. Being able to reach zero is a significant milestone in ensuring we are going in the right direction.



The food wastes broken down, resulting compost without bad odor

TELEMEDICINE FOR BETTER CARE

Decrease Number of Complex Patients to Increase Patient Flow & \$ave.

Riyadh

Patient flow is the movement of patients through a healthcare facility which involves medical care, physical resources and internal systems that are required for the patient’s journey from admission to the day of discharge, yet maintaining quality of care and safety at all times.

However, patient flow may be interrupted when inpatients who are candidates for discharge become what we have referred to in this project as “Complex Patients” who are patients with multiple needs such as physical, personal or financial.

Physical needs might include arranging the necessary equipment needed at home prior to discharge.

Personal needs might be family dynamics and their indecisive decision whether they will take the patient home or to another facility.

Financial needs might be patient who requires a staff nurse/nurse aid at home.

Also, we had cases in which either the patient or family prefer the care in KFSHRC so much that they do not want to be discharged.

Our focus was mainly on discharging patients safely, providing both patient and family with needed support.

In 2016, the total number of Complex Patient was 46, in which 34 patients were discharged. The 34 patient’s total length of stay equaled 2890 days. In 2017, the total number of Complex Patients was 32, in which 26 patients were discharged and their total length of stay equaled 2756 days.

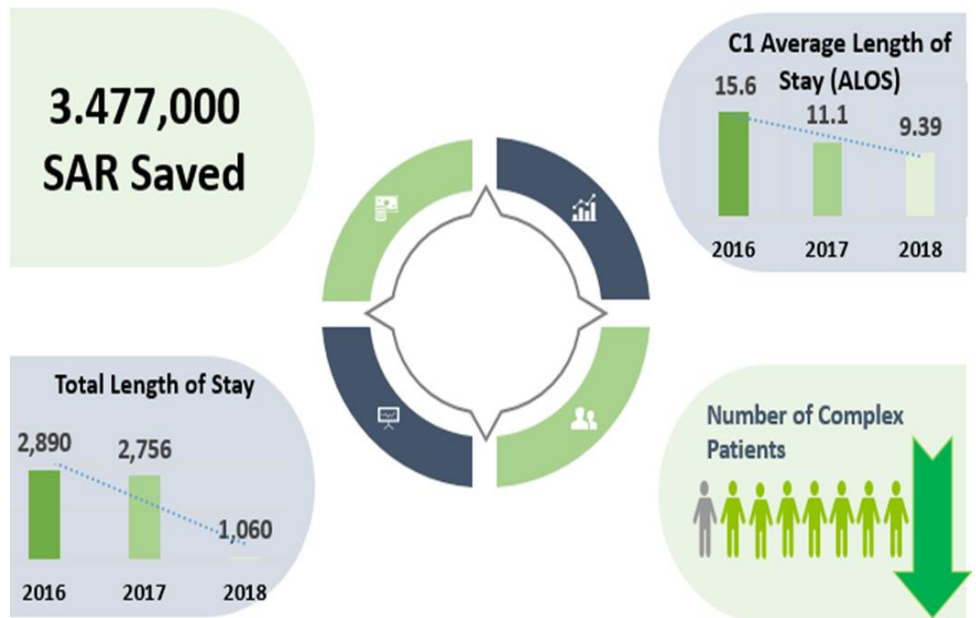
Both 2016 and 2017 data showed that it took almost 5 days between the discharge order date entered in the system (ICIS) to the actual date in which the patient physically left the unit. A simple discharge will be on the same day or the following, this is another indication of the complexity of such cases.

Interventions included weekly meetings to discuss cases in the unit where tasks were assigned to stakeholder with due time actions. Family meetings were also held if needed, to provide clarification and reassurance to patients /families.”

Utilizing the available hospital resources, such as Home Healthcare and Paramedics has greatly impacted the outcome of this project. The thought process of team members is “Discharge plan starts on admission”.



Decreased Average Length of Stay



IMPROVING ACCESS TO CARE

Improve Appointment Turnaround Time for (SDE) Patients

Jeddah

Healthcare is a finite resource that must be used wisely. To provide world-class care within an efficient healthcare system, patients must receive the right care, in the right place, at the right time. This ensures access to tertiary care when patients need it.

SDE is a very sensitive test for the early diagnosis of Temporal Lobe Epilepsy (TLE) and Juvenile Myoclonic Epilepsy (JME). Long waiting time for an appointment of this test leads to a delay in diagnosis and surgical treatment, if required. Average waiting time for SDE was around 12 weeks.

The goal was to reduce turnaround time for the appointment of SDE procedure from 12 weeks to less than 2 weeks by August 2018.

The team implemented the following changes:

Appointment schedule was revised to increase slots from 2 per week to 6 per week.

Initiation of dedicated SDE clinics to accommodate more patients
 Revised SDE recording protocol by engaging consultants to streamlining the process and improved communication between physician and patient for test preparations.

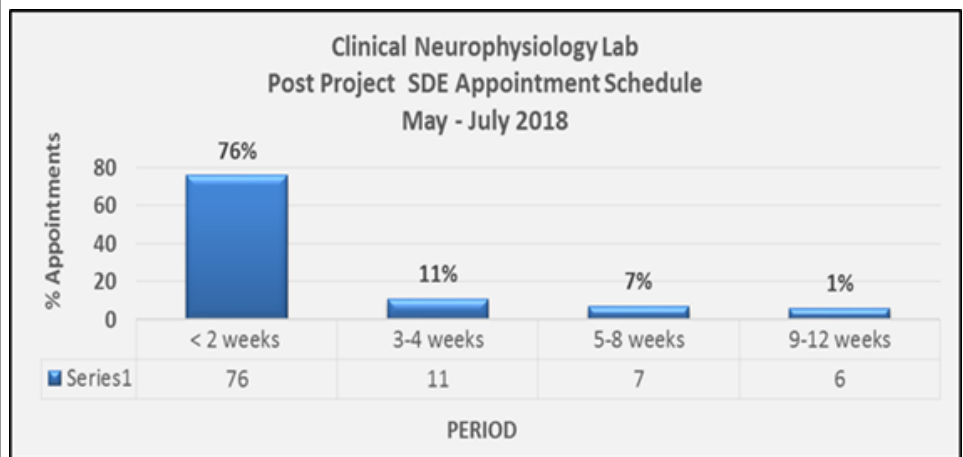
Patients with long waiting periods were called in new clinics to bring the waiting period down.

Reminding the patient for appointment and test preparation was manually controlled in this period to reduce NO SHOW and re-scheduling patients.

Senior technologist was assigned to liaison with the neurosciences clinics to accommodate walk-in patients and out-station patients on the same day.



A culture of best practice and exemplary outcomes became our standard of care...and it is a never-ending journey. When practice is transformed at the bedside and through teamwork within the multi-disciplinary team, excellent patient outcomes are possible.



Staggering hours' service was introduced to accommodate inpatients during late hours and accommodate SDE patients in the morning shift.
 Cross training of staff was introduced to allow them support to each other



Waiting time reduced from 12 weeks to 2 weeks.



360.000 SR additional revenue generated



96% Patient Satisfaction

COLLABORATING FOR THE BEST CARE

Enhance Mean Time to Repair Medical Equipment (MTTR)

Riyadh

Clinical Engineering Department shares a strong interest in achieving quality and sustainable healthcare outcomes through the effective management of medical equipment. Over the last year, Clinical Engineering Department has introduced a performance improvement project to enhance Mean Time to Repair (MTTR) for medical equipment. MTTR is the average time required to fix a defective medical device and return it to normal working operation.

Generally, MTTR indicates the efficiency in correcting processes aiming for “high availability” (HA) of medical equipment including spare parts, man power provisioning, and rapid checks for fault detection and availability to normal use.

Once the mean time to repair is known, it can be used to modify and improve the repair processes to reduce that figure and eliminate no added value activities.

Value stream mapping has been used to get visualization of the process and uncover needed enhancement. The Clinical Engineering Department (CED) ultimate goal is in:

- Reviewing and analyzing system of corrective maintenance in O.Rs.
- Defining non added-value and external influences.
- Eliminating unnecessary activities.

After the VSM, Interventions were identified and implemented:

- Standardize equipment submission method.
- Establish one-point of contact for receiving and returning equipment.
- Prioritize job orders based on the need of spare part.
- Forecast commonly needed spare parts. (Limited quantity based on time of use and manufacturer recommendation).

The intervention had a tremendous impact:

- Enhancement of the Pull System which has improved the inventory demand.
- Saving approximately 781,200 SAR, by minimizing down time and maximizing up time.
- Increased customer satisfaction, with the reduction of MTTR by 37%.

CED will continue the following sustainment points:

- Flag work orders without actions after 24 hours.
- Implement corrective maintenance consistency in case if the primary engineer is not available.

16:28 Hrs.



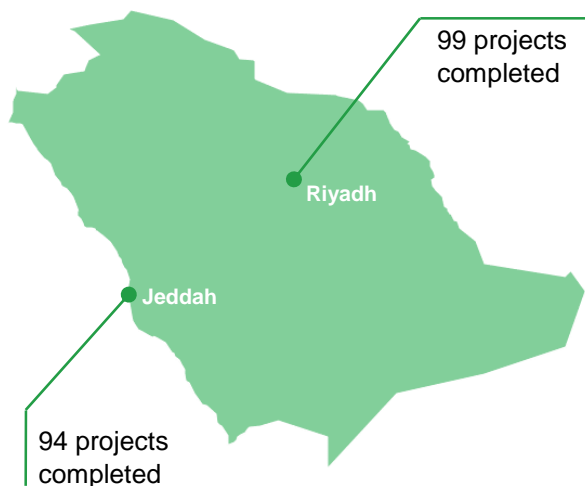
10:24 Hrs.



Inter-professional collaboration was cornerstone to success and ensured measurable and sustained improvements.

ALL COMMITTED TO IMPROVE 2018 AT-A-GLANCE

Number of Performance Improvement Projects Completed in 2018



1000+

Staff across KFSH&RC supported performance improvement projects

116

KFSH&RC Departments led performance improvement projects

Supporting our Domains of Care

Safe 36	Timely 22
Effective 8	Efficient 82
Equitable 1	Patient-Centred 44

Benefits of Improvement Projects



Productivity

59 projects contributed to improved productivity



Patient Satisfaction

79 projects increased patient satisfaction



Work Processes

78 projects helped to improve how we work



Reduced Costs

33 projects helped to contain or reduce costs



Cycle Time

39 projects helped to improve cycle time

WITH GRATITUDE

Success is only possible because of King Faisal Specialist Hospital and Research Centre passion for innovation and commitment to improve. Thank you.

Riyadh Site



Award Winners – Riyadh Site



Award Winners – Riyadh Site



Award Winners – Riyadh Site



Award Winners – Riyadh Site

- Academic & Training Affairs Department
- Ambulatory Care Nursing
- Audiology Clinic
- Cardiac Catheterization Laboratory
- Cardiovascular Nursing
- Clinical Engineering Department
- Contract Management
- Critical Care Nursing
- Department of Emergency
- Education & Allied Health Services
- Environmental Services
- Food Services
- Health Outreach Services
- Hematology Adult Oncology Department
- Hematology Pediatric Oncology Department
- Healthcare Information Technology Affairs
- Human Resources Services
- Infection Control & Hospital Epidemiology
- Medical & Clinical Affairs
- Medical Records
- Medical / Surgical Nursing
- Medical Genetics
- Non-Invasive Cardiology Laboratory, Heart Center
- Nutrition Services
- Obstetrics & Gynecology Department
- Office Services
- Oncology / Liver Nursing
- Orthopedics Department
- Orthotics / Prosthetic Services
- Pathology & Laboratory Medicine
- Pediatric Department
- Performance & Management Development
- Peri-operation Services
- Pharmaceutical Care Division
- Physical Therapy
- Policy & Management Development Department
- Protocol Services
- Public & Media Affairs
- Quality Management Department
- Radiology Department
- Reproductive Medicine-IVF
- Research Center-Genetics
- Respiratory Care Services
- Surgery Department
- Training & Development Department
- Transportation Services
- Urology Department
- Utilities & Maintenance Department
- Women & Infant Nursing



Award Winners – Riyadh Site



Award Winners – Riyadh Site



Everyone in healthcare really has two jobs when they come to work every day: to do their work and to improve it.

- Paul B Batalden and Frank Davidoff

What is “quality improvement” and how can it transform healthcare?
BMJ Quality and Patient Safety

WITH GRATITUDE

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Jeddah Site

1 North	Human Resources
24 hr Admission Unit	L&D
3 N/S	Laboratory and Pathology
5 North	Laundry
5 South	Medicine
Anesthesia Auxiliary	MSICU
Appointment & Admission Services	Neurophysiology lab
ART	Neuroscience
ATA	NICU
Cardiac Cath lab	Nursing Practice & Research
Cardiac lab (Non-invasive)	Nutrition
Clinical Engineering	OB/GYN
Contract Services	Office Services
CSICU	Oncology
CSSD	OR
CVT 2 North & South	Pediatrics
DEM	Pharmacy
Dental Lab	Physiotherapy
Dental Clinic	PICU
DPU	Protocol
Endoscopy	Psychiatry
Environmental Services	Radiology
Engineering and maintenance	RDU
Family Medicine	Renal Transplant Unit
Finance Department	Respiratory Care
Food Services	Safety and Security
Home Healthcare	SCIU
Housing Services	Surgery
	Transportation Services

A special thank you

To all the individuals and departments who helped make the Performance Improvement Executive Report 2018, *All Commit to Improvement* possible, thank you. We would particularly like to acknowledge the work of the Quality Management Department Riyadh and Quality Management Department Jeddah. Your year-round commitment and support is deeply appreciated and critical in supporting KFSH&RC along our pathway to excellence.

Award Winners- Jeddah site





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