NURSING INFORMATICS BULLETIN

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إدارة معلومات التمريض
Nursing Informatics Department

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Featured Article

Patient Safety and Continuity of Care through Appropriate Nursing Care Plan Selection

NIB CONTENTS

Call for Contributions to Nursing Informatics Bulletin (NIB)

The Nursing Informatics Bulletin (NIB) publishes articles written by nurses to support the readers in their clinical areas. The topic should be related to Nursing Informatics and its application. These guidelines offer advice on writing and explain our submission and review process.

1. All articles submitted should adhere to the NI department mission and vision.
2. The editorial team reserves the right to accept or reject any article submitted.
3. Article should be no more than 450 words in length. The editorial team reserves the right to edit articles for length, clarity and complian with NIB standards.
4. The article should have a title and list of the full name and job position or title of the author(s).
5. A photo and brief biography should be submitted with the article.
6. Write short sentences and provide one idea per paragraph.
7. The art should be submitted in Word format and emailed to: nursinginformatics@hamad.qa stating “NIB Contribution” in the subject field.
8. Approval for the article to be included in the bulletin will be given by the Executive Director of the Nursing Informatics Department.

Editorial Board

FOREWORD MESSAGE

Dr. Wasmiya Dalhem
Executive Director,
Nursing Informatics

Through the integration of our efforts together with other spheres in the corporation we were able to accomplish another successful year in the journey of the Nursing Informatics (NI) Department. The year 2016 witnessed many achievements that promote the image of the department; first and foremost is supporting the Clinical Information System (CIS) across Hamad Medical Corporation (HMC) facilities and launching the NI Online Support service , full implementation of the Clairvia project in extra five facilities, participating in national and international events where the department's projects have been recognized, launching new educational courses that improve the skills of the nursing staff with a particular focus on IT to enhance nurses' interaction with the system and ended with the prestigious recognition from H.E the Minister of Public Health and Managing Director of Hamad Medical Corporation Dr. Hanan Al Kuwari to the effort exerted by the department in implementing the CIS. Upon the closure of the year and in order to highlight those achievements and share our success with others, the department conducted its 4th Annual Nursing Informatics Workshop with the theme "Nursing Informatics: Advancing Quality in Healthcare". The event hosted international speakers, number of booths that showcase the international participation of the NI and the different technological innovations in Healthcare and was attended by many nursing leaders across HMC.

In this event the department was officially recognized by Regulatory, Accreditation & Compliance Services (RACS) Department represented by Dr. Badriya Al Ali, Deputy Chief Quality Officer for the effective role in supporting the CIS. Dr. Badriya presented the "Impact of Nursing Informatics on Quality of Patient Care and Nursing Knowledge" which reflected how NI support to the CIS project enhanced the nursing practice and facilitated provision of a good quality of patient care. The results displayed were an outcome of a survey conducted throughout HMC facilities investigating the impact of the NI on nursing practice.

All those accomplishments proved that NI Department is a main contributor in achieving HMC strategic goals of international excellence by improving patient care through technology.

With the beginning of 2017, I would like to thank you all, for participating in having such a successful department. This spectacular outcome will never be possible without having a true professional and inspirational team. Wishing the best for all nursing staff

We look forward in sharing your thoughts, ideas or any suggestion on topics you would like us to address in the future editions of the NIB or any enhancement you would like to reflect in our publications via **nursinginformatics@hamad.qa.**

Rumailah Clairvia Implementation

By: Alexis Ivory Llamas, Informatics Nurse

Clairvia, which is a workforce management solution, holds a lot of promises to enhance staffing decisions and assignment management were successfully implemented in Rumailah Hospital and its satellite facilities: Communicable Disease Center (CDC), Enaya Skilled Care Center (ESCC), and Residential Care Compound (RCC) and Psychiatric Health facilities. Rumailah' s Clairvia journey commenced on 4 February 2016 with Solution Awareness, followed by the kick off in Hajar Auditorium on 17 July 2016 which was spearheaded by Nursing Informatics Department, Cerner Clairvia Team and HICT. Nursing leaders from Rumailah participated and engaged in the interactive discussion about the system implementations plan.

Data collection and training plan commenced after the kick-off event led by the NI Cerner team. Clairvia training was divided in 2 phases: 1st part was the 5-day Employee Info, Schedule Editor and Daily Editor. The 2nd part of training was done after the first phase of the go-live which include for Assignment Manager and Reports Training. Both training phases were provided by MLS Cerner Clairvia training team. Nursing Informatics Clairvia team simultaneously provided short-course to accommodate more charge and shift in charge nurses which are not initial group train by Cerner. In total, 230 nurses including charge nurses, head nurses, supervisors and DONs were trained on the solution. Clairvia staffing solution was implemented in Rumailah Hospital in 2 phases: 1st phase went live on 1st November 2016 with Staff Manager while the 2nd phase went live on 21st November 2016 with Acuity Management, patient Progress Management and Assignment Manager.

Rumailah Hospital is the ٧th HMC facility to implement Clairvia. It was a challenge for the stakeholders as it is distributed in different location and comprises of diverse group of patients. To overcome these challenges the first Clairvia system code upgrade was initiated before the go-live. This upgrade aimed to solve the issue of patient with multiple encounters in Cerner Mellinuem which causes confusion in Clairvia patient census. Nursing Informatics team provided a continuous go-live support during this period by closely monitoring nursing units in their Clairvia utilization and compliance.NI team provide technical support during and after the go-live. This is to prepare the facility to the next phase which is Clairvia integration with HR oracle time and labor (OTL) which is schedule by 2017.

Key Benefits of Cerner Workforce Management

Greater resource alignment of staff with patient, equipment and beds

Improved staff satisfaction and retention through optimized scheduling

Increased delivery of safe, competent bedside care

Reduced labor costs by more effectively managing hours worked by staff

Optimize care quality, increase patient safety and control costs through real-time management of caregiver staff

Increase productivity by eliminating over- and understaffing

Implementation of Infusion Management in Heart Hospital (HH)

"Heart Hospital experienced the world's first integration between Cerner and BBraun"

By: Elizabeth Varughese, Nursing Informatics Coordinator

Heart Hospital experienced the world's first ever integration between Cerner and BBraun on 23 September 2016 with implementation of Infusion Management. The entire project aims on providing interoperability between patient electronic medical record in power chart along with infusion documentation, and integration of Bedside Medical Devices. Enhancing patient safety by improving care decisions through monitoring of real-time patient data, ensuring accuracy and decreasing documentation time were other major goals.

Infusion Management is the association of patient, infusion devices/pumps, and medication orders, the information is then sent to Electronic Medical Record for viewing and interpretation. Smart pump programming improves patient safety by reducing pump programming errors and incorporating infusions into five basic medication rights verification process. Bar code scanner accurately identifies the patient, the medication, the infusion pump and the order pre-populates to the pump.

Heart Hospital Nursing Informatics team was actively involved as stakeholder of this integration project. The roadmap was divided in three phases- testing, training and implementation. Nursing Informatics along with Cerner, BBraun, HICT, Pharmacy and Nursing SMEs rigorously tested various medication orders and patient- drug infusion scenarios many times both in CERT and PROD domain several months prior to actual go-live. Additionally, Heart Hospital Nursing and Nursing Informatics have worked together to ensure patient safety in medication administration through medication management system that integrates automated and intelligent systems to securely close the medication administration workflow: resulting in above 90% of patient wrist band scanning and positive electronic identification prior receiving any medications.

Training materials were developed and customized to workflow of Heart Hospital nursing units. 364 nurses attended classroom trainings session provided by Nursing Informatics and BBraun during the period of August 28 to September 21.

One day prior to go-live, all patient-infusion order outlines were re-tested on a virtual domain in Cerner. Upon confirmation of medication orders flowing to Infusion pumps, the integration was rolled initially to one patient in Cardio-Thoracic Intensive Care Unit (CTICU). All parameters were carefully monitored in two electronic nursing documentation platforms, the i-Aware which is a graphical and relational vital parameter dashboard and iView, the current Powerchart patient flowsheet. Gradually, the roll-out was extended to other patients of CTICU, Coronary Intensive Care Unit (CICU) and Emergency Department (ED). After successful transition in critical care areas, it was rolled further to telemetry units and other nursing areas of the hospital. Nursing Informatics and HICT provided round-the-clock support during the initial days of go-live. Go-live Command Centre managed the log of all issues in the form of issue tracker and followed up its status.

Infusion Management decrease the manual programming error associated with devices and thus is an additional safety net for all medication infusions in the Heart Hospital. Supporting and participating in this implementation project was yet another step of Nursing Informatics department in upholding its vision of advancing the best use of clinical information and technological systems for the improvement of healthcare systems and patient care delivery in Hamad Medical Corporation.

HGH Clairvia Implementation

1st Phase May 1st, 2017
2nd Phase May 28th, 2017

New Glucometer in Hamad Medical Corporation

By: Mohammed Abdelrahim,
Patient Family Educator, Internal Medicine Clinic

Innovation in health care has brought exciting new devices to ease patient suffering of routine needle prick to monitor their blood glucose level. A new wearable device that directly monitors blood glucose levels without the need to penetrate the skin is now available in the market. This novel, non-invasive device could transform the lives of millions of people living with diabetes, ending the need for daily pain and mess from finger-prick testing or the use of monitoring implants – providing a simpler and potentially cheaper alternative for healthcare providers.

Free Style Libre-Abbott, a wearable device develops by Abbott industries which is a needle free glucose monitoring device is now available in HMC. It is intended as a replacement for thee blood glucose meters in following up patients in clinics while giving many of the benefits of continuous glucose monitoring. The no finger prick flash glucose monitoring system provides round the clock monitoring and on - device reports.

The Patients need to stick on a sensor that enables them to scan themselves as many times in a day as they like. The scan takes only one second and show patients their current glucose reading and an eight hour glucose history and a trend arrow that depicts where their blood sugar is heading.

The new flash glucose monitoring system eliminates the discomfort associated with pricks where the sensor is stick on, that needs to be changed every two weeks and designed to be water-resistant and worn while bathing, showering and exercising. The data generated by the system can be transferred to the software installed at HMC clinics.

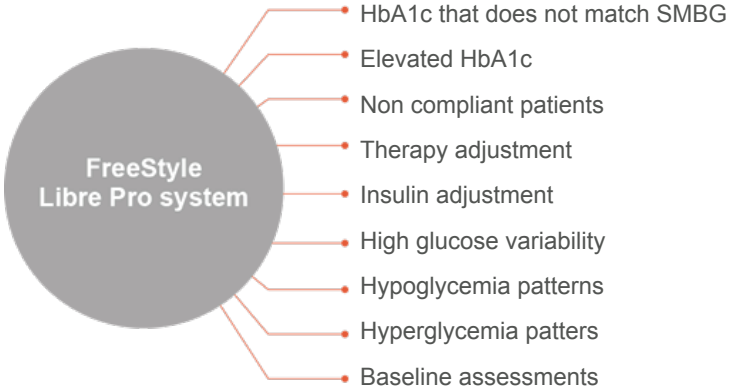
This new device is being currently used in HMC outpatient clinic and inpatient area. The use of this technology improves patient monitoring and provides clinician better historical data of patient blood sugar level taken at home. This device is currently being tested to be integrated to the current CIS platform in HMC.

Benefits for Patients

These are some of the benefits that a patient can have using this new device

1. Patient self-testing considerably improves the patient's quality of life. Allowing them to take a part in their own health care and work with the doctors to ensure that they remain within their therapeutic range.
2. Patients who self-test also want more information about how to help them to live a healthy lifestyle. This can also have benefits for those with co-morbidities.
3. It allows the patient to be independent. Not to have to spend so much time at the doctors or the hospital.
4. Patient self-testing provides the possibility of more frequent checks and adjustment to dosage if necessary, thus improving the amount of time spent with the patient's therapeutic range.

The FreeStyle Libre Pro System provides insights for many patient scenarios



Reference:
https://www.freestylelibre.co.uk/

How Electronic Health Records (EHR) Software Strengthens Your Patient Relationships?

By: Doaa Abdelaal, Informatics Nurse

Making the switch to EHR software might sound like a big investment, and a lot of work, right? So how is that big investment going to pay off and help you increase your profits in the long run?

Believe it or not, there's a good chance that an EHR solution is going to help strengthen your relationships with your patients. There are numerous benefits that come with EHR solutions that are not only good for you and your staff, but also for your patients. A lot of EHRs out there today give your patients access to education materials, provide new avenues of communication with you, allow them to maintain their own health information, and give them more time in your office to spend with you.

Access to Education Materials: EHR systems that utilize a patient portal to give your patients access to education materials, specific for their condition, is good for them. You'll be spending less time on the phone with patients answering questions about prescriptions and treatment instructions. Access to educational material will decrease your time spend to each patient explaining about their disease. This will also give them more information and will improve health care personnel relationship to their patient.

Anywhere, Anytime Communication: with a cloud-based EHR you're going to have access to your system and data from up-to date reliable care and treatment. Having different option of secure communication to answer your patient's questions as quickly as possible is going to help keep everyone happy.

Easier Access to their Own Health Information: EHR software that comes with a patient portal is going to give your patients online access to their own health information, and will make it easier for them to keep all of their information as up to date as possible, without wasting time while they're at their appointment.

If you're using a certified EHR you're able to participate in Meaningful Use, encouraging patient engagement with patient own health information is also a big piece of The Meaningful Use Incentive Program.

More Face-to-Face Time: the right EHR solution is going to give you more face-to-face time in more ways than one. For starters, if your EHR system comes with a patient portal, as we mentioned earlier, your patients will be able to fill out questionnaires and update any personal information before they even step in your office. On top of that, if your EHR software is cloud-based and optimized for tablets you'll be able to easier hold conversations with patients during their appointments instead of having your back turned to them as you work off a desktop the EHR software should make your workflow more efficient, which in turn should result in the ability to get more patients in and out of your office each day.

Health care providers with better access to patient data using EHR make health care treatment more efficient and significantly decrease cost. With this patient and care provider will have better understanding with each other identifying appropriate patient need and care.

Reference

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iPhone Camera Tips and Tricks: How to take better pictures

- Swipe Left for Quick Access to Your iPhone Camera.
- Turn On The Grid.
- Shoot In Burst Mode.
- Set Focus & Exposure.
- Lock Focus & Exposure With AE/AF Lock.
- Take HDR Photos.
- Shoot Live Photos.

Patient Safety and Continuity of Care through Appropriate Nursing Care Plan Selection

By: RNacario: Informatics Nurse

What do we mean by the word "plan" and why is it important?

Searching the word in different online dictionaries, I came up with a very simple meaning - To think about, decide and lay out what you are going to do or how you are going to do something with the intention that an event or result should happen. In various Nursing Care settings, nurses encounter many types of clients with various health problems. These require the nurse to be equipped with theoretical knowledge and critical thinking in order to have remarkable problem-solving skills. These problem-solving skills involve caring for the patient. Caring itself is designed through Nursing Process, which includes a series of organized phases undertaken by nurses to provide excellent care. These phases include Assessment, Diagnosis, Planning, Implementation and Evaluation. Only after assessment of the client's condition and establishing nursing diagnosis can the nurse carefully select the plan of care appropriate for the client.

In HMC, "the care for each patient shall be planned by the responsible physician, nurse, and other healthcare providers within 24 hours of admission as an inpatient." (CL7038 - Interdisciplinary Plan of Care part 3.3) In the past, nurses find formulating care plans as time-consuming activity taking valuable time that could have been spent at bedside with the patient. The nurses' role of rendering nursing care coupled with paper documentation added up in their workload in a naturally stressful clinical environment. HMC strictly enforce compliance and monitoring of documenting individualize patient Nursing Care plan to ensure provision of quality care as per JCI standards.

With the implementation of the Clinical Information System in HMC, we have achieved a streamlined patient documentation and availability of patient information in almost real time paralleled by availability of evidence-based clinical decision support expected to enhance intra- and interdisciplinary communication that facilitate decision-making about the client's plan of care. "The Joint

Commission has identified care plans as a required framework for coordination and communication, contributing to safe and effective patient care"
(Implementing Evidence Based Care Plans by Jenna Chappell MS, RN & April M. Saathoff MS, RN CPHIMS).

Where technology and caring meet patient needs, Nursing Informatics role in this innovative evidence base care plan is to provide efficient teaching and training. This is to ensure that appropriate plans of care are utilized, as they are critical component of the client's electronic health record. These care plans reflect the goal, the real interventions and the desired outcome enabling the care providers attain continuous and shared understanding of the client's care, which is vital to ensure safety, quality and continuity of service provided by interdisciplinary teams involved.

References:

- *Interdisciplinary Plan of Care (CL 7038)*
- *https://www.nursingtimes.net/roles/nurse-managers/care-planning-with-the-electronic-patient-record/203672.article*
- *https://www.ania.org/assets/documents/15posters/24_Saathoff.pdf*
- *http://www.ncbi.nlm.nih.gov/books/NBK2674/*

Visualizing your Data through a Dashboard

By: Senthil Sabapathy, Nursing Informatics Specialist

Understanding your data results are very essential to identify successful strategies and communicate to your nursing leaders effectively. To make your data come alive, a dashboard delivers a unique view into your work. You can acquire a swift, visual update on your current unit condition all in one place.

Microsoft (MS) Excel is a brilliant tool which all professionals are fond to work with. There are a lot of activities at work that can be well accomplished by the use of MS Excel. Because it is such a flexible tool, everybody can learn and understand with proper guidance. Excel Dashboard is a natural extension of excel charts and it is relatively easy to develop and implement. Some of the key benefits are analyzing the data instantly, helping make immediate decisions, understanding important KPIs and keeping everyone up-to-date.

Nursing Informatics Department (NID) currently provides Dashboard and Chart Making in Excel course as a professional development opportunity to a broad audience that includes nursing leaders such as Directors of Nursing, Head Nurses, Charge Nurses and other nursing-related specialties who are all in a good position to start using data for analysis and report making. No matter what the role is, they will discover that it has the essential tool needed to ensure the data results are of high level view yet not complex in nature.

Here are some of the nursing leader's views who attended the course.

"Thank you very much Mr. Kumar, we really enjoyed your class. It's nice to have a class with an expert like you. Thank you for considering our need".

Luciana De Leon, Head Nurse
Women's Hospital, OPD

"The course was very useful including the basics in excel. I got awareness on various chart making and how to display data in dashboard. I recommended it also for Charge Nurses and Staff Nurses as well".

Ms. Ligy Roy, Head Nurse
Rumailah Hospital, FGRU

How can I attend the course?

The assigned Nursing Informatics team in your facility will accommodate your interest in attending the course. We will inform you regarding the available dates of the course to prepare yourself ahead.

Please feel free to contact us. We're happy to help!
Unit Email: nursinginformatics@hamad.qa
Phone: (+974) 4439 5201

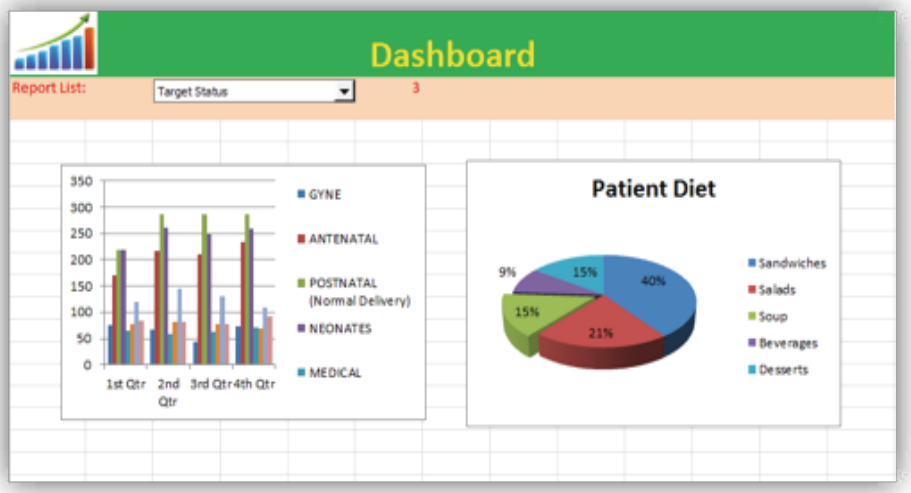

Figure 1: Example of a Dashboard

Tips: 7 Android Apps that Consume the Excessive Battery Power

Nowadays almost every Android user is sustaining with the bad battery life problem and the main reason of this problem is increased number of apps in the smartphone.7 application if you remove it from your smartphone you will improve battery performance.

1. Shopping App
2. Antivirus Apps
3. Cleaning Apps
4. Weather Apps
5. Data Monitoring Apps
6. Facebook App
7. Default Phone Browser

References
:http://allusefulinfo.com/android-apps-that-consume-excessive-battery-power

Internet of Things (IoT) in Health Care

By: Mohamed Elmoghazi, Informatics Nurse

You might have heard before the term Internet of Things, or you might not, but surely Internet of Things holds lots of promises to all industries including health care on top of it.

Internet of Things (IoT) represents a general concept that revolves around network devices which sense and collects data from other tech gadgets and shares that data through the web to be processed and utilized for different purposes. IoT is expected to completely transform how computer networks will be used in coming times. Devices gather and share information directly with each other and the cloud, making it possible to collect record and analyze new data streams faster and more accurately. In other words, machines and objects connected to internet will be able to talk to each other's.

But what actually qualifies a device to be a part of the IoT, according to Verizon, a sensor-equipped "thing" must have three qualities. It must be aware; it should be able to sense and collect data about its surroundings, such as temperature and light or, in the case of health care, blood pressure and heart rate, for example. It must be autonomous. The data collected must be communicated to another device or central location automatically or when certain conditions are met. Lastly, it must be actionable. If an individual's blood pressure or blood sugar levels are at a dangerous level, it must automatically trigger an alert and initiate clinician action.

Here are few examples of how the Internet of Things could change our daily lives:

• You just walked out the door without your keys in your pocket.
Beep Beep. Your smart-door delays locking the door for 60 seconds because you just left without your keys,

giving you the chance to duck back inside if need be.

• Your bed has a built-in sleep cycle monitor. Your new neighbors decided Thursday night was a great time to have a housewarming and play some obnoxious music until 3am. Your sleep was heavily interrupted. Your bed tells your alarm to give you an extra hour of sleep. Your alarm checks your schedule to see if you have any appointments first thing in the morning. You don't, so it lets you sleep.

There are endless possibilities, especially in the field of healthcare. It will be a game changer for the healthcare industry, transforming healthcare industry by increasing efficiency, lowering costs and put the focus back on better patient care.

There are four categories of medical devices that meet the IoT criteria, according to a report by the Atlantic Council. The first is consumer-based; fitness tracking devices are an example. There are also wearable, external devices, such as insulin pumps, and there are internally embedded devices such as pacemakers and implantable cardioverter defibrillator devices and, more frequently, miniaturized (within the body) sensors. Lastly, there are stationary devices, such as home-monitoring devices, IV pumps and fetal monitors.

For example, imagine a patient whose irregular heart rate triggers an alert to the cardiologist, who, in turn, can call the patient to seek care immediately. Or, imagine a miniaturized, implanted device or skin patch that monitors a diabetic's blood sugar, movement, skin temperature and more, and informs an insulin pump to adjust the dosage. Such monitoring, particularly for individuals with chronic diseases, could not only improve health status, but also could lower costs, enabling earlier intervention before a condition becomes more serious.

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http://rapidops.com/blog/internet-of-things-holds-the-potential-to-transform-the-healthcare-industry-heres-how/

http://www.hhnmag.com/articles/-3438how-the-internet-of-things-will-affect-health-care

Hamad Medical Corporate (HMC) Implement Cerner Code Upgrade...

By: Sonny Dela Rosa, Nursing Informatics Coordinator

Innovation and technological leap in healthcare are continuous and it always looks to improve the delivery of patient care. Hamad Medical Corporation (HMC) joins other Cerner clients across the world in quest for innovation as it moves to implement an enterprise Cerner Millennium Code Upgrade 2015.1. HMC just recently completed enterprise wide CIS implementation last May 2016. Just after ٦ month of implementation in its largest facility, HGH. The CIS project management team was eager to implement Cerner code upgrade across all its facilities. The upgrade will make the current CIS platform more stable, improved performance, and applied new functionality and will make Cerner Millennium program stay current and updated. The benefits of the implementing Cerner Upgrade will improved the quality and efficiency of the system with all anticipated defect identified and will be corrected on time.

Nursing Informatics had taken an active role together with HICT counterpart in reviewing and validating the propose changes that includes, innovation that will positively impact all nurse across HMC. The code upgrade implementation across HMC uses a 4 tier approach running from August 22 to November 11, 2016. The upgrade approach includes planning, build and validation, Prod upgrade and finally upgrade go-live support.

In order for the upgrade process to be successful, a copy of PROD domain was replicated in to a mock domain wherein all testing and validation was done by NI, Clinical informatics, HICT and selected end user from different solution workgroup. All facility stakeholders were involved in this process. The selected Subject Matter Experts (SME) from different solution workgroup who conducted the mock testing and validations was very satisfied with the propose changes and innovation.

The testing resulted to identification of issue which was address following the code upgrade identification and prioritization process. Cerner upgrade center identify all issue and was prioritized with each solution counterpart from HICT. All issue was categorized into priority level. HMC together with Cerner upgrade counterpart aim to support, promote, and advance the best utilization of CIS across HMC. Nursing Informatics has taken a proactive role in supporting all nurses across different facility during the implementation. This is to make sure that the upgrade will promote improvement in health care and patient experience while in HMC.

With all the preparation prior to code upgrade go-live HMC experience a very smooth implementation of Code upgrade last November 11, 2016. The upgrade that was implemented contains 2,165 automatics enhancement, 1,014 with visible impact that end user was able to immediately notice. It also contains 79 important clinical innovations within the system that was implemented with the aimed to improve end user experience using the system. Nursing Informatics provided excellence support mechanisms to all the nurses across all facility during the code upgrade making sure all facility are supported.

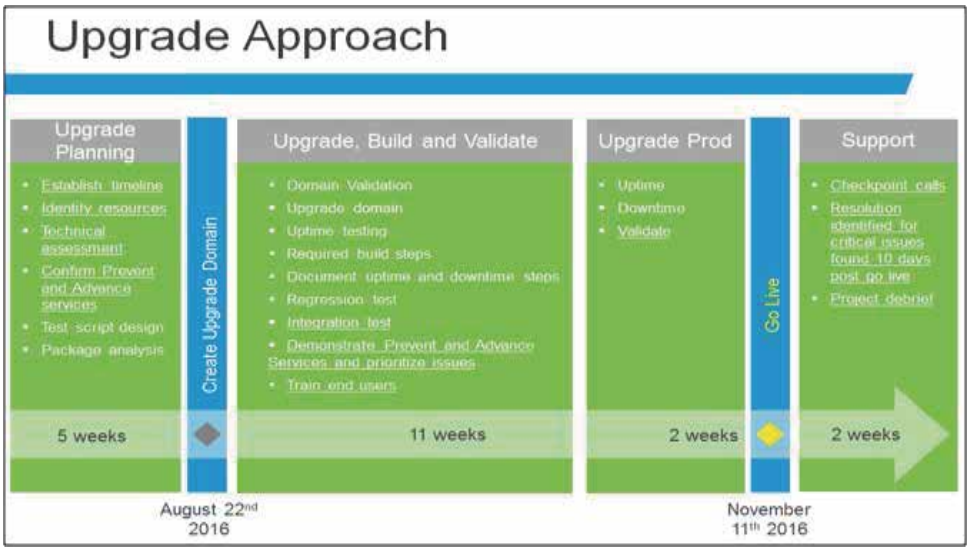


Figure 1: Upgrade Approach

Priority	Definition
Go Live	Issue has dramatic workflow, patient safety, financial, or security implications. Client will not Go Live in Production without this issue resolved or an acceptable alternative in place. An "Impact Statement" is needed from the client for better understanding of issue impact.
High	Issue is important to client workflows but not critical enough to delay the Production Go Live.
Medium	Issue has moderate impact to client workflow
Low	Issue has minor impact to client workflow.
Close SR	Issue is outside of client workflow, is resolved, client does not feel issue is important enough to track, or the issue is already occurring in Production.

Figure 2: Code Upgrade Priority Definitions

References:

HMC Cerner Millennium 2015 Upgrade Kickoff presentation by Clive Gibbons - Asst Chief of HICT – Business Services & CIS and Bradley Craig - Regional Manager, Upgrade Center, Cerner Corporation

Nursing Informatics Impact on Successful Clinical Information System Implementation in Rumailah Hospital

By: Islam Arid, Nursing Informatics Coordinator

Hamad Medical Corporation (HMC) is gearing towards improving patient safety through adoption of Clinical Information Systems (CIS) across its facilities. CIS Cerner Millennium is a computer-based health record that collects, stores, and manages patient clinical information anytime, anywhere. The transition from paper-based to electronic documentation requires adequate preparation and positive attitude of staff to embrace change. The major role played by Nursing Informatics in the success of all go lives was evident in trails of all implementation. Nursing Informatics department (NID) continues the trend in supporting RH nurses' adoption to new electronic health record to improve patient care delivery.

Nursing informatics impact on successful Clinical Information system Implementation in Rumailah Hospital was presented as a poster at the annual Middle East Forum on Quality and Safety in Healthcare, May 292015 ,31-, in Doha, Qatar.

The poster is a collaborative work lead by Dr. Wasmiya Dalhem, Executive Director of Nursing Informatics, Ms. Wahg Al Mashaer El Hag, Nursing Informatics Project Manager, Mr.Khadfy Yahiya, MR. Islam Arid, Mr. Hany Abdelsalam, Ms. Elizabeth Varughese, Nursing Informatics Coordinators and Ms. Jennifer Nepomuceno, Mr. Jimmy Angeles, Mr. Rodson R. Damian, Informatics Nurse.

Nursing Informatics had develop a unique methodology in preparation of CIS implementation in Rhumailah Hospital on 6 November, 2015, through collaboration of Health Information and Communication Technology (HICT) Department, Cerner, Dell and Nursing Administration in all phases of preparation and implementation. (figure1).

Strategies laid by Nursing Informatics to prepare nurses for CIS had following results: conducting CIS Awareness sessions for 317 nurses, recommending 225 Workstation on Wheels, 227 Wall Mounted Computers and 787 new computers to facilitate nursing documentation, supporting End User training as shown in figure 2, 3, 4, providing 24X7 floor support to nurses during go live for two weeks and follow up issues raised during Go Live (as shown in figure 5).

Clinical Information Systems was successfully implemented in Rumailah Hospital on 6th November 2015 with high satisfaction rate as shown in (figure 6).

Figure 1: Nursing Informatics road map

8-7 MONTHS	**Clinical Information System Implementation Plan** Assessment, planning and recommendation
7-6 MONTHS	**Action 1: Multiple approaches CIS Awareness** Orientation sessions, website awareness and brochures
6-5 MONTHS	**Action 2: Data Collection and position Mapping** Workflows staff access and recommended documentation forms
6-5 MONTHS	**Action 3: End-user Devices and Medical Device Integration** Workflows staff access and recommended documentation forms
3-2 MONTHS	**Action 4: Testing and Validation** Validate workflow and test system performance
3-2 MONTHS	**Action 5: CIS User Training** Windows Skill Assessment, WBT and 20/80 training
2-1 WEEKS	**Action 6: N I Practice Labs** Prior go live practice sessions
2 WEEKS	**Action 7: Go Live Support for Nurses** NI Hotline, Round the clock floor support, Remote support

Figure 2: Total number of staff in main RH and satellites assessed for computer skills

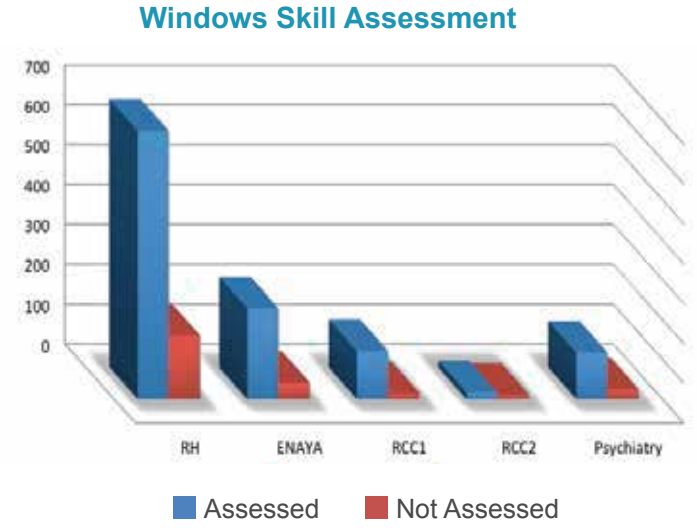


Figure 3: Attendees of CIS solutions ILT

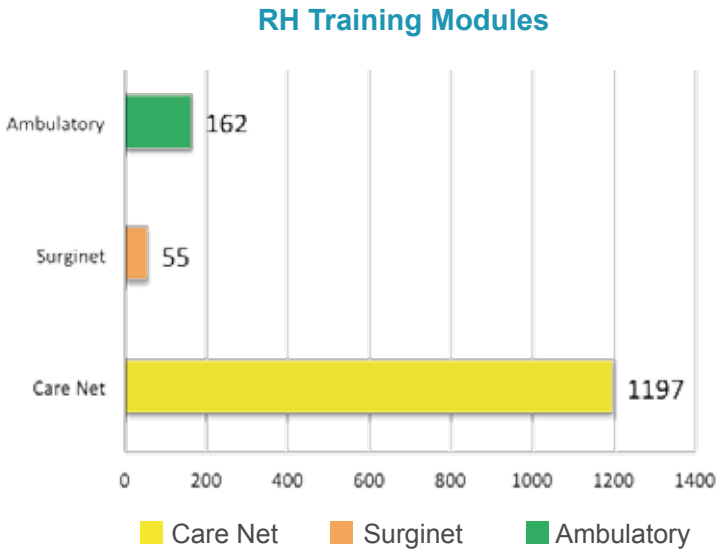


Figure 4: Super user training

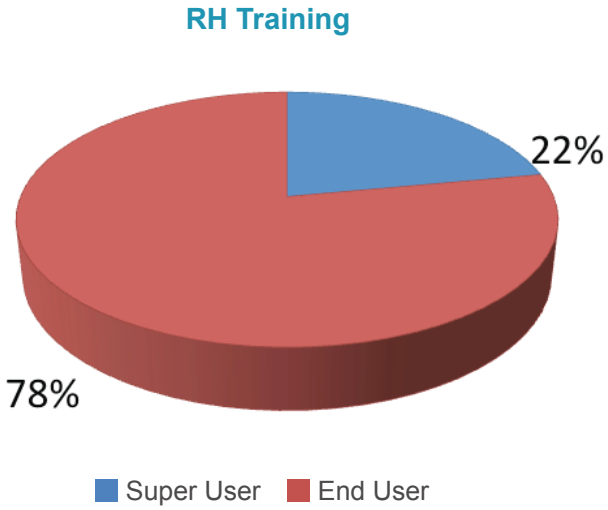


Figure 5: Status of tickets logged during RH goes live

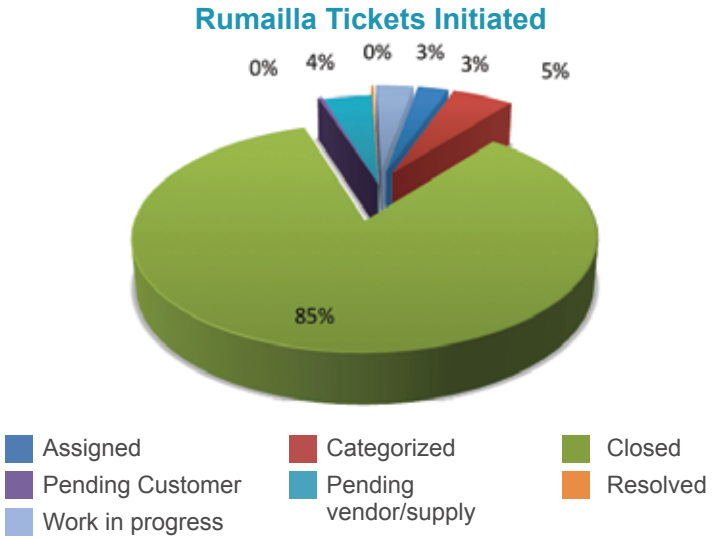
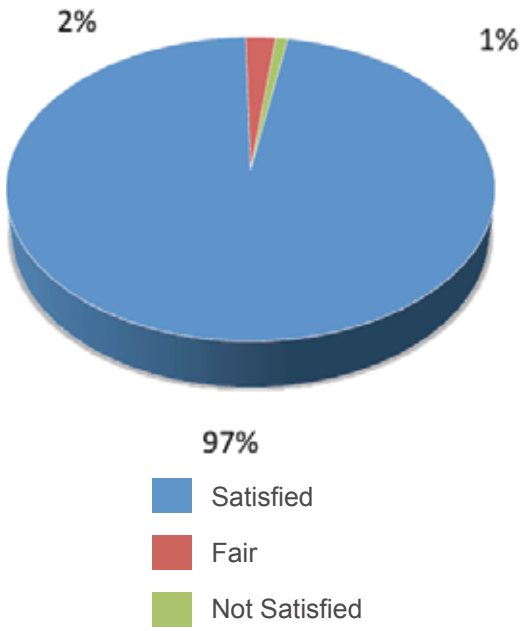


Figure 6: Comparative Staff Satisfaction



How to Secure Facebook Account from Hackers?

As we know that Facebook hasbecome the most important part of our life. We use Facebook wWhen your Chat with Friends, Entertainment, Play Games Online, Interesting Apps Out there and Lot of Features that Attract End Users.

There are Millions of Hackers Out There that can Daily Trying to Gain your Personal Information and Sensitive Data, so it's your Responsibility to protect yourself from These Notorious People.

These Tips to Secure Facebook Account from Hackers
- Activate -۲Step Verification
- Use Strong Password
- Don't Save Password in Browsers
- Verify Phone Number and E-Mail Address
- Don't Tick "Keep Me Logged In"
- Don't Click on Spammy Link
- Use "Private Browsing" In Browsers
- Protect Your Self from Keyloggers
- Don't Add Unwanted People in Your Friends List
- Activate Secure Browsing in Facebook Account

References
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One–on–One

By: DOAA ABDELAAL ALY ABDELAAL; Informatics Nurse

Hamad Medical Corporation (HMC) successfully implemented the new CIS Cerner Millennium platform across all its facilities. In order to obtain staff feedback about the effectivity of the new system, the Nursing Informatics Department has decided to launch the CIS User Corner as a regular feature in the NIB.

In this section of the NIB we will highlight another staff feedback and experience using the new system. In this issue of the CIS User Corner we highlight Maya Benedicta Fernandez TIRI, RN, BSN. Miss Maya complete her degree in nursing in in 1994. She previously worked at United Doctors Medical Center in Philippines (19951998-) and Fujairah Hospital in United Arab Emirates (19982002-) before joining HMC on Aug 2006.

She is working in Hamad general hospital 6south2 unit as super user. During the go-live she provides support to all the nurses in her unit on how to use new technologies during the CIS implementation in HGH. Let hear from her what she can say about the new CIS system.

1. Is this the first time for you to use a Cerner Millennium Clinical Informations System (CIS) in in your nursing practice.

Actually yes it is my first experience with Cerner Millennium.

2. Tell me your experience working with CIS/Cerner application as compare to using paper documentation?

Using CERNER made our work easier; it lets us easily and safely access patient chart, and decreases the time to document patient assessment in compare to paper documentation. I am really comfortable to use Cerner Application and I am happy with this great innovation that helps nurses to make their job easier and provided more time to be engaged with the patient.

3. How did you adapt using the current CIS Cerner Application? Is there any support provided to help you use the system properly?

In the beginning it confusing because it's the first time to use this application but with the guidance and appropriate training and education provided by NI team they made our work easier, NI team had made a big and important support for us before, during and even post CIS Implementation, they are always there to provide support, guiding nurses and regularly conduct follow-up.

4. Do you think that the use of CIS application in your current practice help you improve the quality of care to your patient?

Absolutely yes, it is decreased documentation mistakes, discrepancy and also prevents medication error, which avoids patient harm and improves the quality of care.

application so that we can improve more our system?

As of this time I am satisfied with the current CIS application. I hope there will be more opportunity to enhance the system which will remove the redundancy with patient record.

Nursing Informatics Contribution in Calgary University Open House.

CernerClairvia Hamad General Hospital (HGH) Inpatient Workgroup meeting

4th Annual Nursing Informatics Workshop 2017

New Staff Training Hamad General Hospital (HGH Inpatient

Question 1:

One Version of this rare brain disorder is better known as “Mad Cow” and can be contracted by eating contaminated beef. There is no known cure?

- o Cruetztfeldt-Jacob Diseases
- o Leptospirosis
- o Lyme Disease
- o Prototheсosis

Question 2:

In the world of computers what does “PC” stand for?

- o Private Computer
- o Programmable Computer
- o Privileged Computing
- o Personal Computer

Ready to Win a Prize Try this…….

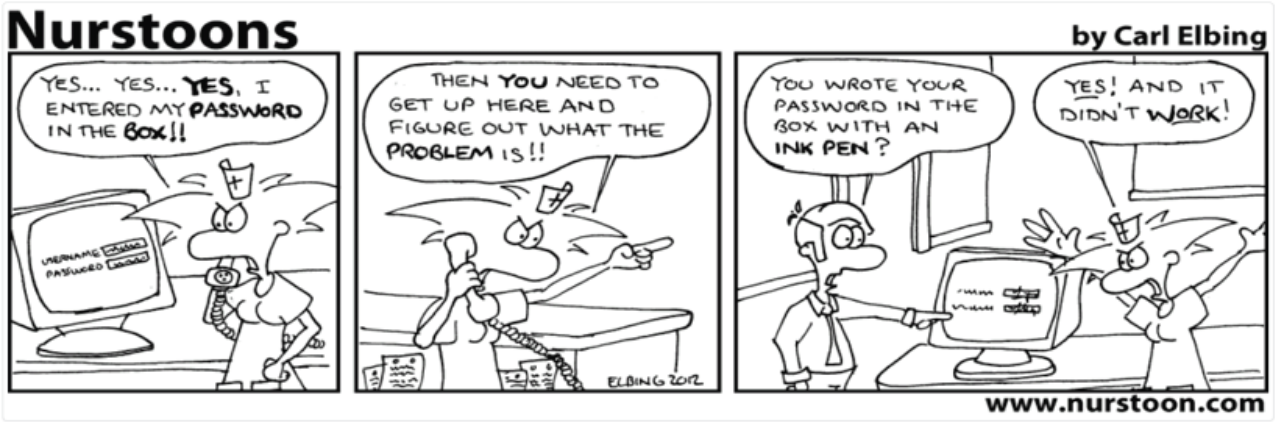
Question 3:

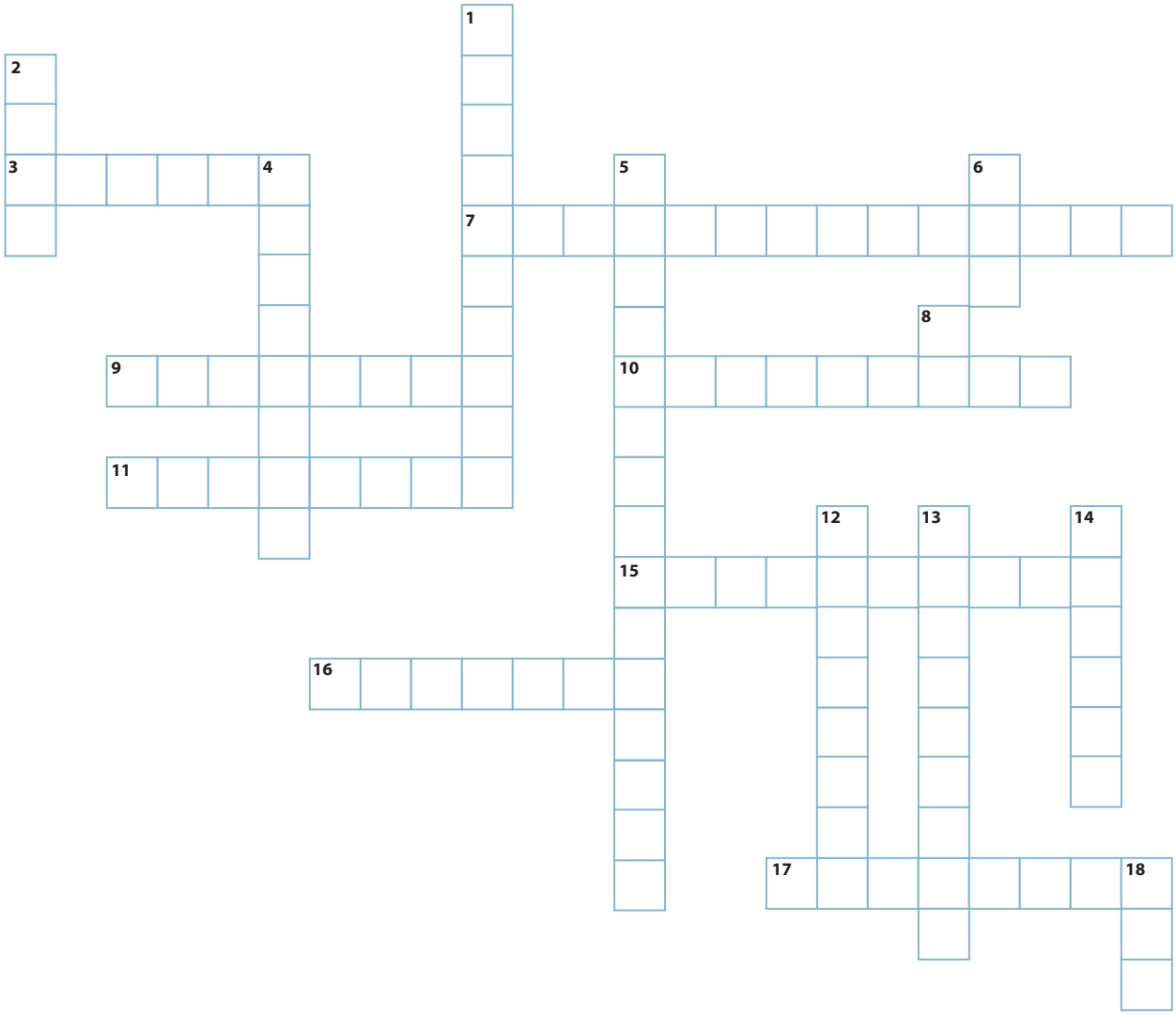
Who is credited with designing the first automatics digital computer?

- o Bill Gates
- o Steve Jobs
- o Charles Babbage
- o Steve Wozniak

Send your answer to nursinginformatics@hamad.qa

PASSWORD





Across

3. HMC CIS platform
7. 2 word use to administer medication using a device
9. Scheduling and staffing solution
10. Apps use to schedule patient in Cerner
11. Ability to hold or to contain
15. Immediately Available
16. To increase system performance or new version
17. Item that can be worn

Down

1. Steady state
2. Health Information Communication Technology
4. First hospital in Qatar
5. 3 word to plan for a patient care
6. Bed management system
8. Internet of things
12. Non-tangible executable component of a computer
13. Contain graph and data
14. A thing made or adapted for a particular purpose
18. Electronic Health Record

CONTACT US

We appreciate and Welcome your comments and feedback, please contact:

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Making a Difference

Hamad Medical Corporation's Qatar early warning system is not only winning numerous accolades across the region's healthcare industry, more importantly, it is saving lives in the country of Qatar

The Challenge

A common challenge faced by many healthcare providers across the globe lies with clinical deterioration. Typically preceded by changes with a patient's vital signs, as well as diminishing results revealed from physiological and laboratory tests, these conditions are sometimes missed by even the most complex health systems employed today. These instances may occur for a variety of reasons, which include lack of regular assessment, incomplete vital sign measurements, availability of staff, long chains of command, as well as variable units of measurement amongst monitoring technology.

The Solution

Inspired by the Between the Flags Program in Australia, the Qatar Early Warning System is a track-and-trigger safety-net system designed to assist in the early detection and response to clinical deterioration in a patient's condition. Deployed across all eight of HMC's tertiary and general hospitals, the implementation saw the establishment of corporate-level and facility governance structures, the creation of standardized observation charts, the development of training and performance evaluation frameworks centered around the new implementation, as well as the formation of a rapid response system across all facilities. The platform takes advantage of Cerner Corporation's electronic medical records to share clinical data across the entirety of HMC's network.

In one particular facility, HMC has experimented with bed-side medical devices, configuring the units to directly integrate with the EMR. These devices, which are produced by Welch Allyn, a long-standing partner of Cerner, are able to stream readouts of vital signs directly into the medical record in real-time. This instant generation of clinical data can also trigger alerts if a discrepancy is detected, helping to improve the reaction time of the hospital staff.

Next Steps

HMC will continue to review the performance of QEWS and identify new ways to introduce operational efficiencies that will in turn support clinical staff. The platform's implementation strategy will also serve as the foundation for future Quality & Patient Safety initiatives. Meanwhile, the Hamad Healthcare Quality Institute has shifted its focus towards identifying solutions centered on sepsis management that can be adopted across the whole enterprise. The continued improvement in the quality of clinical data, alongside further development of IT trends, such as big data and analytics, will lead to the creation of new national health improvement programs.

When it comes to detecting sepsis, time is of the essence …Make a change now to help you better to detect and prevent sepsis

Welch Allyn Connex devices use early warning scores to alert you to changes in patient conditions right at the bedside, including clear instructions on what to do next.

Increasing safety with improved observation

St George's University Hospitals NHS Foundation Trust has optimized the use of Welch Allyn Connex monitoring technology to reduce transcription errors, release nursing time back to care, and help provide an early warning of patient deterioration. The project highlights the importance of collaboration between clinical engineering, procurement, clinicians, IT departments and suppliers in driving improvements in patient care.

Electronic Early warning Scores

Using technology to free time to care has been a key aspect of the Trust's commitment to delivering improved outcomes and efficiency; and, as part of its objective, the Trust has implemented electronic recording of the National Early Warning Score (NEWS) using Welch Allyn's Connex technology.

Speaking at the symposium, Deborah Dawson, consultant nurse for critical care, at St George's, explained that early warning scores were introduced in the 1990s and, although widely used, the recording of observations for adult inpatients required further improvement across the country, prompting the National Institute for Health and Care Excellence (NICE) to issue guidance on recording vital signs, in 2007.

As a minimum, NICE recommended that the following observations should be recorded at the initial assessment and as part of routine observations:

- Heart rate
- Respiratory rate
- Systolic blood pressure
- Level of consciousness
- Oxygen saturation
- Temperature

From paper to electronic scoring

Initially, the St George's University Hospitals NHS Foundation Trust used a paper chart to record observation scores as the parameters became further away from 'normal', the color coding on the paper form alerted staff to the patient's status from white, green, amber, through to red.

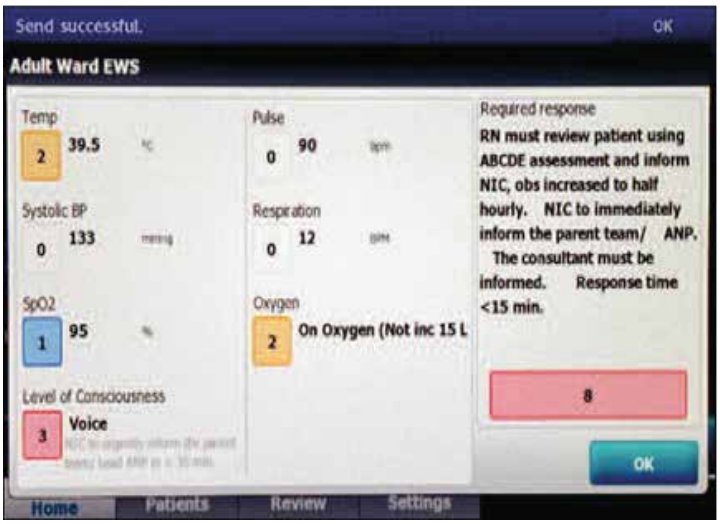
The Trust carries out audits on compliance with these scores, whether complete sets of observations have been provided, and whether the scores are correct. With the paper system, audits showed that only 60%-70% of the scores were correct. The Trust also audited whether the trigger or score resulted in a desired response to the patient.

By 2011, there were approximately 400 different systems across the country, Deborah Dawson explained. This widespread variation prompted the Royal College of Physicians (RCP) to call for a standardized approach, through the adoption of a National Early Warning Scoring system, with the aim of supporting early detection of deteriorating patients. The RCP reported that a study published in BMJ Quality and Safety had estimated that around 1 in 20 deaths in hospital were preventable and 31.3% of these were estimated to be from poor clinical monitoring; 29.7% from diagnostic errors and 21.1% from inadequate drug or fluid monitoring.

Subsequently, the Trust considered how practice and ultimately patient outcomes could be improved through the introduction of electronic observations. Liz Powell, IT project manager, at the St George's University Hospitals NHS Foundation Trust, went on to provide an insight into the next stage of the project.

Following discussion with the three directors of nursing, it was agreed that all parameters must be sent electronically or there would be no point in proceeding it would not make sense to have nurses entering data in two places and there were concerns that access to a PC may be delayed in ward areas, which could result in less timely observations and less complete sets. The team agreed that the electronic Early Warning Score should be implemented using the new features on the CVSM device thereby providing an immediate visual warning for clinicians without the nurse having to leave the patient's bedside to enter the data.

The next step was to try and replicate the paper chart as closely as possible, which provided another opportunity to review the electronic Early Warning Scoring system addressing issues such as missing fields or redundant fields. An evaluation of the various approaches and their impact on: keeping the nurse at the bedside, reducing transcription errors and ensuring timely escalation, can be seen in the chart opposite



An example, Early Warning Score summary screen on the CVSM device.

THE NEW CLINICAL WINDOW

The monitor is connected wirelessly to the network and the nurse/healthcare assistant will:

- Scan their barcode ID.
- Scan the patient's wristband barcode.
- Take blood pressure, temperature, SpO2 and then remove the cuff and probe.
- Enter the remaining observations into the CVSM.
- Validate the results are correct.
- Press 'save' on the monitor screen.
- Review and respond to the Early Warning Score advice displayed on the CVSM.
- Results appear in the electronic patient record.

Around this time, Jonathan Silver received an email from Welch Allyn announcing the addition of Early Warning Scoring to the CVSM at no additional cost.

The Connex Vital Signs Monitor (CVSM) was similar in principle and design, but with the emphasis on being smart, connected and able to send bi-directional data to the electronic patient record.

"The advantage of this feature is that the process can be carried out at the bedside," he commented, adding that the CVSM device with the Early Warning Scoring feature 'ticked all the boxes' by keeping the nurse at the bedside, reducing transcription errors and ensuring timely escalation.

After development work, to ensure the system met the Trust's requirements, a final version was agreed and training provided to ensure staff were competent in the use of the CVSM device. This also provided an opportunity to educate staff on the importance of observations and why they are taken.

Results

Following the initial roll-out on a pilot ward in June 2015, the Trust hopes that it will reduce the potential for transcription errors, as well as achieve savings in time, by eliminating the transcribing of results. There is no need to move computers on wheels around the Trust or for staff to leave the patients, while they access a limited number of computers – this is not only a more efficient use of time, but also keeps the nurse at the bedside, which patients find reassuring.

Results are now immediately available to clinicians across the Trust, which means a wider group can have access to, and provide input on, the patient's status, while the visual reminder on the Early Warning Score and escalation required provides valuable support for healthcare assistants recording the observations at the bedside.

Reflecting on the project, Deborah Dawson highlighted the importance of engaging all the stakeholders – from clinical staff, IT, medical physics and the supplier.

"Working with Welch Allyn, we have been able to develop the device quickly, with few glitches along the way. We also know that the machines are capable of far more, so there will be further opportunities to take advantage of the technology in the future," she concluded.

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