Overview

Children’s Cancer Hospital (CCHE) is a 200-bed facility that was built and is maintained entirely by donations. Its main vision is to serve children with cancer free of charge, regardless of their race, creed or ability to pay. Since November, 2009, CCHE has had one primary platform, with the goal of becoming a fully digitized hospital.

CCHE had its own standard clinical pathways which included standard plans of care for each clinical scenario provided by all members of the health care delivery team such as physicians, nurses, social workers, psychologists, ancillary clinic physicians, word clerks and nutrition specialists. These included standard chemotherapy protocols and supportive care.

Challenges

- CCHE’s standard clinical pathways for pediatric oncology were not integrated in the health information system (HIS).
- Another boundary was physician resistance to use the new electronic system to enter patient information.
- The adoption rate for electronic documentation by physicians was less than 30%.

After being fully automated with Cerner’s solutions, CCHE managers and the IT department realized the importance of forming a medical informatics team. HIS needed to be used as a tool for clinical decision support and serve as a liaison between the hospital’s clinicians and the IT department to tackle new system resistances. The team was made up of clinicians, clinical researchers and nurses chosen from super users and trainers.

At a Glance

Name: Children’s Cancer Hospital Egypt
Location: 1 Seket Al-Emam Street, El-Madbah El-Kadeem Yard, El-Saida Zenab, Cairo Egypt
Beds: 200
Admissions: 8,000
Outpatient admissions: 101,600

“Using the pre-completed notes in Cerner Millennium helped the end users overcome the language barrier and saved the documentation time for physicians by 8 minutes per patient. This led to increased electronic documentation adoption to over 85%.”

Mohamed Arafat
- Chief Information Officer, CCHE
Overcoming the Challenges

Working with Cerner, the medical informatics team added several modifications into the HIS. These changes integrated CCHE’s standard clinical pathways for the purpose of improving the physician’s adoption rate and enhancing the quality of clinical care.

In addition, the team created a large number of shared pre-completed notes as templates for physicians to fill out. These documentation notes were designed according to common clinical scenarios in the pediatric oncology field. The notes provided clinical decision support to physicians by providing suggested history items to be considered, examination required, relevant results to be reviewed, suitable patient education and, most importantly, the suggested plan of care.

Outcomes Achieved

The adoption rate of physicians using electronic documentation grew significantly over a period of 8 months. It increased from around 30% to 80% for senior physicians, while it increased from 50% to 92% for junior physicians. The use of pre-completed notes increased from 20% to 90% over the same time.

In addition to increased physician adoption, there were added benefits such as improving quality of care for patients, which was clearly demonstrated when checking the random sample for the clinical contents of documentations.

The physicians’ compliance to CCHE’s standard clinical pathways and chemotherapy protocols resulted in fewer missed investigations in the evaluation processes recorded by the research department.

Other achievements included easier training processes for new physicians on the use of the already set standard orders and pre-completed documents.

Benefits Realized

- By integrating the clinical scenarios in physicians’ documentations, the training and auditing processes became easier; it reflected and improved the level of clinical care especially by newly graduated physicians.
- The use of these pre-completed notes saved the physicians 8 minutes per patient per documentation process. This saved valuable time for physicians.
- The use of these templates helped overcome the language barrier by some users who only had to complete the required fields.
- The clinical informatics team provided a number of useful alerts, reminders and order sets.
  - All alerts were customized according to clinical pathways of pediatric oncology, such as specific genetic mutation while using certain chemotherapy agents.
  - The reminders reflected expected clinical scenarios
  - Order sets were created according to CCHE’s standard protocols of clinical care.
- CCHE provided easy access to knowledge resources like chemotherapy protocols background available on www.uptodate.com and the hospital’s intranet site, which contains the protocols of time lines for chemotherapy.

Solutions at a Glance

- ERM® - Registration
- ESM® - Scheduling
- HIM - Medical Records
- PowerForms® - Nurse Documentation
- PowerNotes® - Physician Documentation
- PowerOrders® - CPOE
- PowerChart® - Electronic Medical Records
- PathNet® - Laboratory
- PharmNet® - Inpatient and Retail Pharmacy
- SurgiNet® - Surgery
- Anesthesia
- iView®
- PowerInsight® - Data Warehouse
- Clinical Reporting
- Charge Services
- Patient Accounting
- Interfaces

For more information, please visit www.57357.com and www.cerner-me.com