



HealthCare Solutions®

Planning for Success

Advanced clinical implementations deliver innovations in patient safety and quality

Business Background

Children's Hospital of Orange County (CHOC) serves as Orange County's premier resource for pediatric health care. The not-for-profit hospital serves infants, children, and adolescents exclusively throughout south Orange County. Widely recognized for quality, CHOC was named as one of the top 25 children's hospitals by *Child Magazine*. In 2007, it was one of 59 hospitals and only one of nine children's hospitals nationwide named to the first-ever "Leapfrog Top Hospitals" list, based on a survey of 1,200 hospitals. CHOC has a medical staff membership of approximately 500 physicians, 350 of which are very active.

In 2000, CHOC selected the Cerner suite of applications to create a highly integrated, patient-centered clinical information management system that would revolutionize the management of patient information while improving care. It successfully completed phase one of the implementation project, which included Patient Registration, Scheduling, Orders, and Results, followed by Pharmacy and Patient Accounting modules.

In 2004 CHOC engaged CTG HealthCare Solutions (CTGHS) to conduct a planning assessment and provide subsequent project management, leadership and clinical resources for the clinical documentation, meds integration, computerized provider order entry (CPOE), and ambulatory electronic medical record (EMR) implementations.

Business Objectives

CHOC's advanced clinical applications are core to the hospital's information technology (IT) re-engineering initiative and long-range strategy for state-of-the-art IT, with patient safety the first priority. It embarked on a 'best practices' approach designed to embrace and adopt clinical documentation and CPOE. From the earliest planning stages, CPOE was seen as a culture change, not merely as a technology initiative. CHOC decided to take a proactive adoption approach that proved to be critical to the success of its implementation.

The CTGHS Solution

CTGHS conducted an objective assessment that produced recommendations for the advanced clinical implementations. The assessment results identified project parameters such as scope, timeline, approach, governance and project controls which, if not modified and afforded more deliberate and focused project management, could significantly hinder the project's success.

The assessment addressed key critical project components that included:

- Project parameters (scope, timeline, approach, governance, controls)
- Completeness of plans (e.g., communication, integration testing, training, conversion, acceptance)



- Team structure and capabilities
- Governance
- Communications and expectation management
- Clinician and physician adoption strategies (process changes and system design approach and result)
- Gap analysis (process change between current and future state)
- Technology device deployment (process and approach)
- Technology code movement plan and domain strategies
- Technical change management; change readiness
- Go-live readiness (organization and technical)
- Schedule and timeline

CTGHS' planning recommendations were well received by CHOC executive management and applied throughout the advanced clinical implementations. In addition, CTGHS provided expert project management and seasoned clinical consultants experienced in the design, construction, and testing of Cerner advanced clinical applications. CTGHS specialists supported CHOC in refocusing and restructuring its project team. The CTGHS team also facilitated a disciplined approach that substantially mitigated the risk inherent in software implementation projects. Consensus building among physicians, nursing, and ancillary departments resulted in workflow processes that promoted patient safety and physician satisfaction.

CTGHS successfully implemented Clinical Documentation, CPOE, Meds Integration and

Respiratory Therapy's iNET modules. We contributed to CPOE physician adoption efforts by providing a physician advisor, RN clinical application coordinator, and senior pharmacy Informaticist who:

- Developed power plans
- Deployed computer tablets and COWs during rounds (contributing to buy-in and ease of use for full CPOE readiness)
- Facilitated set-up of 200 critical dose range checking alerts to provide an extra safety net for pediatric patients

Business Benefits

CHOC has achieved impressive outcomes in post-clinical documentation, meds integration, and CPOE, including:

- 95% physician utilization of electronic discharge summaries, viewing of lab and radiology results, and ancillary documentation
- 96% of the medical staff adopted CPOE within the first four weeks of go-live
- Of more than 250,000 physician orders entered over the first 90 days, less than one half of one percent were verbal. In addition, there has been a significant increase in verbal orders signed within 48 hours
- 75% to 80% of CHOC'S medical record is now electronic, reducing the possibility of errors, improving adherence to compliance, and reducing paper and retrieval costs
- Improved charge capture has increased annual revenues by \$1.4 million
- CHOC now has the ability to audit 100% of documentation within minutes, with improved ability to track adverse drug events for comparison with earlier data

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CTGHS helps healthcare institutions and related organizations maximize the potential of their information systems to achieve their financial and clinical objectives. Our consulting, clinical, financial, advanced technology, and IT management solutions resolve high-priority IT issues and provide significant return on investment for our clients. CTGHS is recognized for our ability to mobilize healthcare and IT expertise, to deploy our proven Exemplar® methodologies, and to draw upon our corporate knowledge base in a client-responsive and cost-effective manner.



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