

Process Analysis and Redesign:

Critical preparation for a Cerner Millennium Clinical implementation

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Introduction

The implementation of Cerner Millennium Clinicals, including CareNet, FirstNet, and PowerChartOffice applications, represents a critical stage in a healthcare organization's clinical system evolution. Key clinical initiatives such as Computerized Provider Order Entry (CPOE), which encompasses these clinical applications, are a highly effective way to improve quality and reduce costs. CPOE affects all aspects of a hospital's business: clinical quality, regulatory compliance, and financial management.

A critical success factor in implementing CPOE is the incorporation of the system change into physician and clinician processes. This ensures the seamless integration that delivers the full value of clinical system automation to providers without adversely impacting patient care, clinical practice, or workflow throughput times. The process of implementing a provider-driven integrated clinical system is extremely complex, since it affects workflow for every clinical caregiver in the organization. This includes physicians, nurses, and other clinical departments, as well as IT and other support services. The involvement and collaboration of users from each of these areas in assessment and process redesign activities is integral to the success of the redesign efforts. The selected users must be knowledgeable about their current workflows and capable of assessing the impact of workflow changes on their practice and processes.

The Cerner Millennium Clinical applications provide the framework for the redesign of complex clinical processes and the integration of technology to improve care delivery processes and patient outcomes. More than ever before, the departments and disciplines responsible for patient care will need to be involved and aware of the interrelationships among their daily practice workflows and system processes across disciplines.

A SPECIAL REPORT

ABOUT CERNER

With more than 1,500 clients worldwide, Cerner is the leading supplier of healthcare information technology. By building applications on a single, consolidated database and unified data model, Cerner Millennium® ensures scalability and communication across all care settings to healthcare organizations worldwide.

A SPECIAL REPORT

Practice and process redesign in the introductory phase establishes a solid foundation for understanding the current state, gaps, and opportunities for improvement prior to finalizing the specifications of the implementation. It defines the opportunity for quality, process, and cost improvement and a future-state strategy to truly optimize the implementation of Cerner Millennium applications.

Planning, Assessment, and Redesign Tasks

CPOE and Cerner Millennium implementations are large, complex projects that directly impact the way that patient care is delivered. Thus, they require a well-defined approach for identifying and incorporating process change, strong management commitment and support, significant multi-disciplinary clinical involvement, strong project management and IT functions, and skilled implementation resources. Support for such initiatives requires a structured approach with strong methodology to bring together all participants and efficiently and effectively define the practice and process changes needed. The redesign plan must clearly define the implementation activities needed to realize these changes, translating future state models into direct system design and implementation requirements. Such an approach includes, but is not limited to, the following activities:

- **Collection of existing relevant documentation:** for example, governance model, physician champion and advisory groups, organizational objectives, patient safety initiatives related to clinical applications, current practices, and process workflows
- **Observation and documentation** of clinical workflow in targeted departments
- **Readiness assessments:** evaluation of organizational, culture change, practice, project, technology, IT and site readiness, and physician and clinician involvement sufficient to support the challenges of a Cerner Millennium initiative
- **Practice and process redesign** current state activities, including:
 - Analysis of project governance and the executive and clinical leadership needed to support the challenges of clinical implementations
 - Review of the implementation's vision and objectives to ensure clarity and synergy within the organization and alignment with the project capabilities
 - Assessment of the current state: review, observation, and documentation of current state processes and workflows in targeted departments
- **Development of future state flows and models,** comprising:
 - Creation of a high-level future state model and plan, including return on value and project success criteria
 - Identification of best practices, patient safety improvements, cost management opportunities, throughput improvements, and regulatory compliance improvements

ABOUT CTG HEALTHCARE SOLUTIONS

CTGHS is a leading information technology consulting firm dedicated solely to helping healthcare institutions, physician practices, and related organizations achieve financial, growth, and clinical goals through effective technology and business solutions. Using proven methodologies, CTGHS employs practice visioning, process redesign, and benchmarking to achieve successful clinical implementations tailored to the specific needs of healthcare organizations.

- Identification of benchmarking targets and clinical, financial, administrative, and qualitative measurement criteria
- Development of a gap analysis: a comparison of current state practice and process workflows with best practice models and the high-level future state
- Development of future-state deliverables in formats that are concise and clearly translate to implementation requirements; for example, issues list, areas for future research, and workflows for future state and possibly for an interim state
- Formulation of physician and clinical adoption strategies
- Creation of a high-level communication plan
- ***Creation of follow-up assessment and validation processes***
 - Validation of findings, recommendations, and future-state documentation
 - Development of a report of findings and recommendations, including review and validation with physician champion and project advisory group(s)
 - Presentation to stakeholders

Advanced clinical applications are an integral tool for improving healthcare organizations from a patient safety, quality, and cost management perspective. However, this value can be realized only if the CPOE planning and implementation process is done well.

It's the *optimization and utilization* of these clinical systems that provides the value—and strong planning and redesign are the first critical steps toward achieving that value.