



## Clinical Decision Support

### Introduction

Clinical Decision Support (CDS) encompasses a variety of approaches to provide clinicians, staff, patients, and other concerned individuals with timely, relevant information that can improve decision making, prevent errors, and enhance health and health care. CDS tools and interventions include computerized alerts and reminders, clinical guidelines, order sets, patient data reports and dashboards, documentation templates, diagnostic support, and clinical workflow tools. Models show that much of the value of electronic health records comes from clinical decision support; if effective decision support tools are not in place, investment in clinical systems may not yield the benefits that are promised by these systems.

CDS has improved process and outcomes in many organizations by making up-to-date findings readily available to users. Yet at many other sites, CDS implementation has been problematic, stalled in the planning stages, or never even attempted. As a result, medical knowledge is not always available or used for many health care decisions in this country.

### Challenge

The health sector faces an expanding array of clinical information systems for potential use in a broader range of settings. Growing evidence demonstrates that electronic health records (EHRs) can improve the quality and safety of patient care and promote efficiencies in overall care delivery.

Quality and performance measurement, reporting, and improvement require the use of electronic health records integrated with evidence-based clinical decision support systems. This foundation can result in improved care across the continuum of providers and care settings as well as better measurement. There has been limited diffusion of these advanced electronic health record systems with the capacity for widespread performance measurement and improvement. The lack of broader adoption of these systems is due in part to limited incentives to providers.

Achieving health care that is patient-centered and assures patient safety as well as a high level of quality and cost-effectiveness requires consistent, systematic, and comprehensive application of available health-related knowledge using CDS. The challenge is to implement CDS to drive predictable improvement in health outcomes across a broad array of settings. A core of CDS applications should be broadly implemented and would represent a public and social good.

### About AMIA

**AMIA** is the center of action for more than 4,000 health care professionals, informatics researchers and thought leaders in biomedicine, health care and science. AMIA is an unbiased, authoritative source within the informatics community and the health care industry. AMIA and its members are transforming health care through trusted science, education and practice in biomedical and health informatics.

[www.amia.org](http://www.amia.org)

(Rev. April 2011)