

Chapter 10

Clinical Decision Support: Right Approaches Ensure Improved Clinical, Cost, and Efficiency Gains

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ABSTRACT

The purpose of healthcare information systems should tend toward helping clinicians make best decisions for the clinical benefits of their patients, as well as for the cost-related benefits of organisations, communities and societies. Too many healthcare organisations are opting toward technology-based systems that ensure cost-effectiveness as a priority over clinical quality, limiting clinician decisions toward compliance to established decisions and processes rather than toward innovative and impactful approaches to patient care. Compliance-based solutions assume that all hospitals are identical in populations served, clinician expertise or physical layout, all assumption fallacies. Best healthcare enhancing technology enables local adaptation with analytics for ongoing innovation to best optimise successes in care quality, cost-effectiveness and efficiency. Such systems are available, and best providers will encourage clinicians and operational leaders to ever-improve delivery of innovative, evolving health care. This chapter will discuss the right approaches towards improved clinical, costs, and efficiency gains.

INTRODUCTION

Among the greatest travesties in modern healthcare is the wrongful use and definitions of the term “clinical decision support.” The description is routinely applied to sub-optimal systems that offer clinicians virtually no support in making decisions, having been designed primarily for other purposes. Often computerisation has been implemented principally to gather data for charging and business purposes, and not for helping any clinician make best decisions for clinical or care-related purposes. Yet, apparently in an effort to either appease or entice clinicians to higher adoption, the label of “clinical decision support” is attached (Chaudhry, et.al. 2006)

The summary bottom line is simple: The purpose of healthcare information technology, particularly electronic medical or health records (EMRs/EHRs), remains to enable and empower clinicians to make

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best decisions for care, cost and efficiency actively and in real time. That is best labelled as Clinical Decision Support, or CDS. Any alleged solution that minimises either the “clinical” or “decision” portion of CDS should responsibly re-label their CDS approach as “Compliance Driving System.” EMRs/EHRs should be more than mere storage and retrieval mechanisms, and should leverage the ability of computers to compute, monitor and advise (c.f. Kawamoto et.al. 2005).

The purpose of this chapter is to describe the subtle differences in the contrasting approaches to CDS within healthcare information technology (HIT). HIT solutions, particularly within EMRs/EHRs, and make clear the downsides and benefits to alternative approaches.

BACKGROUND

One Challenge: What Drives Many HIT Selection Processes?

It is worthwhile to be very open, accurate and honest about truthful definitions of clinical decision support, or CDS. The primary purpose of the healthcare industry, and of the settings associated with healthcare, is to provide care for people – generally referred to as patients – needing and/or desiring such. That care is guided and provided by caregivers, clinicians trusted with making best decisions for patients. Because it costs money to provide care, and because healthcare organisations cannot survive without living within financial constraints, cost-effectiveness becomes another concern and goal of the provision of health care.

Because of the ubiquity of technology-based progress throughout society and personal experience, the addition of computers and computerisation within healthcare organisations is both natural and mission-enhancing. The expanded use of healthcare information technology (HIT) has become commonplace. The HIT within healthcare organisations that is focal to this discussion is electronic medical records (EMR), but also electronic health records (EHRs) which is a label generally used for systems with capabilities beyond an acute or hospital setting.

From the business perspective, computerisation can enable or even facilitate capture of crucial information for ensuring appropriate business process success to keep healthcare organisations open and in operation. To be candid, many or even most healthcare organisations actually acquired their EMR/EHR to better achieve business purposes and “keep the doors open.”

Partly because of the need for successful business processes, EMR/EHR have been designed to best meet the needs of those who manage healthcare business and operations, rather than those who provide care. A frequent reminder of “no margin, no mission” is thrown about freely for the obvious purpose of focusing everyone that the driving preoccupation of solid healthcare organisations is financial. To maintain the business success needed for healthcare organisations to continue in the provision of healthcare, it is argued that EMR/EHR must be designed adequately for the capture of key information from which appropriate codes can be captured, which will then assure best business and provide the basis for keeping doors open, lights on, and people employed.

However, one result of this focus on the business has been the diminishing of what many would argue is the true and highest purpose of the industry’s settings and personnel: the provision of best care for those in need. Even the statement already cited – “no margin, no mission” – openly implies that the mission is NOT the margin, and that the success of business is to ensure that the true mission can be achieved. Anyone who has seen a loved one suffer through a clinical challenge understands the importance of

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