

Technology and Healthcare

Research Note

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Title: Review - The Checklist Manifesto

This review looks at the strengths of The Checklist Manifesto and discusses how the methods should be extended.

Authors

(Click on the link below to see the author(s) background information on Ashbec.com.)

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Issue Summary

- 1. What are the most effective tools to ensure patient safety in a hospital setting?
- 2. What are the best methods to reduce healthcare costs while improving or maintaining treatment quality?

Keywords

The Checklist Manifesto
Treatment Optimization for Patient Safety
[TOPS]™
preventable medical error
FMR

Predictions

Hospitals that incorporate the use of checklists as recommended by Dr. Gawande will show substantially lower mortality rates and average cost of stay expenses than hospitals that simply implement EMR (certainty level 0.9).

By 2015, a nationwide organization will be established (either public or private) in the United States to continually improve, maintain and disseminate medical checklists and treatment regimens (certainty level 0.8).

Cost of Preventable Medical Error

According to the American Hospital Association, the average cost of a hospital stay in 2007 was approximately \$18,000. Assuming the Institute for Healthcare Improvement's estimate of the number of injuries (15 million per year) is correct and that the cost of treating the injuries averages only half that of the average stay, we spend \$135 billion per year just fixing our mistakes. That does not take into account the economic damage caused by the premature deaths of the 100,000 Americans killed by preventable medical error every year.

A Promising Start

We believe The Checklist Manifesto by Dr. Atul Gawande should and will substantially influence the course of healthcare in the next five years. Dr. Gawande has taken a perspective that has been sorely lacking in our national attempts to reduce healthcare costs and improve patient safety. While most of the efforts nationally have been focused on implementing electronic medical record systems that change what we know, Dr. Gawande has shown how the use of checklists can change what we actually do. The effective use of checklists could have a much more substantial impact on patient safety and healthcare costs than EMR systems ever will. Checklists are a refreshingly simple approach that strikes at the very heart of preventable medical errors. But, while we believe it's necessary, it's insufficient to fully achieve higher quality healthcare and reduce costs. See the discussion of Treatment Optimization for Patient Safety (TOPS)™ below.

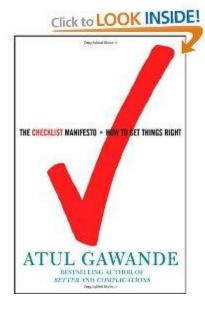
The book provides an eloquent and common sense progression that explains why checklists are both effective and necessary. Dr. Gawande has also taken great care to address many of the pitfalls that will be encountered. For example, there are certain characteristics that separate good checklists from bad often based on the anticipated circumstances under which they will be used. He has also pointed out many key issues that come up during the use of checklists. One in particular addresses how to handle situations where the task in the checklist cannot be accomplished as anticipated. He does an excellent job in describing how to push authority outward while handling complex issues through improved communications.

While Dr. Gawande certainly recognizes the checklists have value beyond the operating room, this book unfortunately focuses primarily on checklists used during surgery. The book also lacks a discussion of how to effectively use technology to improve the use of checklists. In the latter part of the book Dr. Gawande also laments the lack of a method for continually improving the quality of the checklists. $TOPS^{TM}$ addresses those issues and more.

Ashbec LLC

Treatment Optimization for Patient Safety (TOPS)™

TOPS™ (patent pending¹) takes the perspective of the patient rather than the practitioner. The patient wants to be protected from admission to discharge. TOPSTM is designed to meet that need. The system is driven by what the product refers to as treatment regimens. A treatment regimen is a standard approach used to treat a patient with a particular diagnosis. The treatment regimen is used by the attending physician much like a template to develop a patient specific treatment plan that will be used by all of the healthcare providers during the patient's stay in the hospital. The treatment plan is comprised of a number of treatment events. In that sense it is a checklist. However, in addition to just the task, the system also tracks prerequisite events, expected outcomes, actual outcomes and more. Once the physician commits the plan, TOPS will monitor the execution of the plan. Alerts will be issued in the event of deviations from the plan or adverse outcomes. When an alert is issued, the approach requires the healthcare team to determine what happened. The first question is always "was the treatment plan followed using standard procedures?" If not, whatever prevented the team from following the plan must be remediated. If the treatment plan was being followed and an adverse outcome occurred anyway, the team must determine why while paying particular attention for possible defects in the treatment plan and the underlying treatment regimen. In the event that a treatment regimen can be improved, the system will propagate the improvement across all affected patients in multiple hospitals.



Bottom Line

Buy the book. Read the book. Own the concepts described in the book. Tell other people about the book. Convince your hospital administration to begin using checklists and saving lives. When you have experience using checklists, check on the status of TOPSTM. (Ashbec LLC has not yet selected a hospital partner to develop a standardized treatment regimen database that can be used with TOPSTM. Once the hospital partner has been selected, product development will begin.) Experience with checklists and EMR systems will both facilitate the implementation of the more complete solution in TOPS™.

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¹ The US PTO has projected that the patent for TOPS will be issued July 27, 2010 as US Patent No. 7,765,114. For updates and a complete product description of TOPS see the Ashbec website.