

January 2010—My wife and I have spent the holiday season at home here in Michigan. We had children and grandchildren come to our home Christmas day. We visited friends and called those we had not seen in some time. It was a great time to catch up with friends and family as well as celebrate the season.

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Please pass on this issue of Making Good Healthcare Better to members of your network.

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Executive Summary:

- Overproduction is common in healthcare. Overproduction is doing more work than required to achieve a goal or having too much medical product on hand.
- Excessive paperwork and documentation is one source of documentation.
- Duplicate medical tests are another common source of overproduction.
- Reordering the order of tasks in a process can save a great deal of time and work. For instance, having blood work done before a physical will save time and produce better results.
- Electronic medical records hold much promise in reducing duplication and excess work.
- The use of process maps to eliminate non-value added tasks can provide a great deal of savings.

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One of the seven wastes identified in John Black's book *The Toyota Way to Healthcare Excellence* is overproduction. In manufacturing this type of waste is easily identified as producing too much of an item, more than the customer ordered, or having too large an inventory of materials to be used in a product, inventory that goes unused. In service industries recognizing overproduction is not as easy. I consider overproduction in healthcare to be doing too much work to accomplish a desired health outcome, such as ordering duplicate medical tests, or having unused medication or other medical product. No matter what the setting, overproduction is costly, both to the consumer and to the producer.

In his book John Black gives two examples of overproduction. At Virginia Mason Medical Center before its application of the methodology of the Toyota Production

System (TPS) it was quite common to ask patients the same questions at different points along the "value stream" of medical service. For instance, a nurse might ask a patient after surgery about the patient's pain level and soon thereafter a physician would ask the same thing. This would lead to exasperation on the part of the patient and a waste of time for the caregivers. This is not to say that all duplicate questioning is not useful. For instance, it is a good practice for several different staff to ask a patient his or her name and what medical procedure is to be performed before surgery. This helps avoid wrong site surgery.

In the other example in John Black's book Park Nicollet Health Services used to take many steps to send out test results to an ambulatory care location. Several copies of the test were made at the original site. Then the test being sent to the site went through several stages of being handled. Now, Park Nicollet sends a copy of a test result to the required site electronically as soon as the result is available. This way, the results are not "lost" and delays are eliminated.

A commonly recognized source of overwork or overproduction is production of duplicate medical tests when one would have been sufficient. In 2007 the Commonwealth Fund, a nonprofit agency working towards a highly effective health care system, reported that 14% of patients it researched stated that physicians requested the same medical test within a two year span. Of course, some of these duplicate tests may have been necessary, but many were not. It seems that lack of effective communication is the cause of many of these duplicate tests. For instance, a patient may have blood work done by his or her primary care physician and then this same work is repeated when the primary care physician refers the patient to a specialist for a problem identified in the first blood work. The tests often are reordered because the second physician in the line of treatment does not have access to the first set of results.

Something similar to this happened to me at my last physical. I told my primary care physician that I would like visit my urologist to go over my PSA from the blood tests done for the physical (I have an HMO plan). I do this as I had a high PSA result once. I had the appointment made from my primary care site and then, as usual, I had my blood work done immediately after the physical. When I went to the appointment with my

urologists, I found that he did not have my PSA results. We found out that my primary care physician had failed to order the PSA test as part of the blood work. My urologist performed as much of the exam as he could and had another round of blood work ordered so that my PSA level could be determined. The failure of a PSA being ordered initially resulted in extra time being spent by the urologist and myself in getting the results and discussing them as well as incurring unnecessary costs.

Another source of overproduction in the annual physical is due to the fact that many times blood work or other tests are performed after the physical. Doing the tests after the physical requires that the physician or a staff person contact the patient to discuss any unusual results or may even result in another appointment. If the standard tests are performed in advance of the physical, then the results can be discussed during the physical. Obviously, this way there is better discussion between patient and physician of the results and there is a great savings of time and money.

Dr. Ted Epperly of the American Academy of Family Physicians stated in the February 8, 2009 *Wall Street Journal* that much of duplicate testing could be eliminated with the use of electronic medical records. The effectiveness of electronic medical records to accomplish this requires that most of the providers of medical care—physician offices, hospitals, medical labs, pharmacies, nursing homes, etc.—be connected through their EMR's. In West Michigan, where I live, the initiative to connect EMR's is being led by the local hospitals. This task is far from complete. I believe that few communities are interconnected to this extent. Until most regions are electronically communicating patient test results to one another, I believe that duplicate tests will continue to be common.

Another source of overproduction is the ordering of tests by physicians to avoid lawsuits. Physicians report that they believe that the use of defensive medicine and malpractice insurance raise the costs of medical care 10% or more, depending on the state in which the medical service is being performed. This was reported on MSNBC on November 4, 2009. In this same report Dr. James Wang of Boston reported that after being sued for allegedly failing to diagnose a case of appendicitis, he says he turned to what's known as "defensive medicine," ordering extra tests,

scans, consultations and even hospitalization to protect against malpractice suits.

As you can see, there are many ways that overproduction occurs in healthcare. Some of the ways are unavoidable, such as the excessive amount of paperwork required by insurers to document charges for care provided. Some will continue until technology catches up. Yet, much can be eliminated at healthcare sites by the use of quality improvement tools. For instance, providers can work in teams and use process maps to identify what work in a process is "value added" and eliminate that work which is not as far as possible. The process of eliminating overproduction in this way must be done over and over as it is rare that all overproduction can be eliminated. However, with continual process improvement much can be eliminated. The results will be an improvement of the bottom line, improved patient outcomes and satisfaction, as well as increased satisfaction on the part of the providers.

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Would you like help with identifying and removing waste at your site in order to increase patient time and patient throughput? Bryant's Healthcare Solutions can help with that. Contact me at t.Bryant@alumni.utexas.net or call 616-826-1699. Would love to chat over a cup of coffee or over the phone. Looking forward to hearing from you.

If you need a speaker to present at a meeting or conference, please contact me and I will consider doing so.

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be added to my newsletter list. Then I will follow up with a confirmation.