Synchronization with Room as the Constraint

On the Operations Research Unit (ORU) we have begun testing 'simplified patient flow.' Over the past several weeks the Medical Office Assistants have started updating med lists, allergies, social histories and family histories in our EMR as they check patients in. They have both completed training in the registration and scheduling software system currently in use. In the coming weeks, we will be testing having patients come directly to the exam room, bypassing the front desk and the waiting room for check-in. Eventually, we will also be doing check-out and collecting money in the exam rooms. At our affiliated residency site, this model of patient flow has reduced patient waiting times by over 50%. This is a great strategy and bypasses a major step at the front desk.

Response #1:

One key for the success of this strategy is "signalling"- how does the MOA know that the patient has arrived?

The caution would be that if the exam room is the constraint, that is, if the relative lack of exam rooms slows down the flow, then doing more work in the exam room (as this strategy requires), will add "room non value time" and keep the providers from using the room for seeing the patient. The room creates value when occupied by a provider and patient together. If other activities are done in the room that prevent this occurrence or slows it down, this is not a good strategy. Let me exaggerate. If you have one room and two providers, you would move all non-value activities out of the room. So look at this change in light of the constraint (is the room the constraint) and flow map with cycle time measurement. Look, in particular, at minutes behind for providers and observe whether providers are waiting for rooms in order to see their patients.

I think this whole discussion points out two things:

1. We really have to be cautious of "solutions"- solutions are applications of a principle. This example is part of the synchronization principle, and an attempt to reduce steps and synchronize the work by eliminating handoffs and compressing the supply components (making the MOA into the receptionist). Solutions don't spread and solutions must always be evaluated in terms of the goal (reduction of wait time). The same solution does not always work in every setting but the principles always apply. Most groups focus on solutions.

2. We must look at the constraint issue. If the room is not the constraint, then this solution is a good one and will work. However, if room availability governs the rate of flow (how fast you can go) then this solution will not work. We simply have to be aware of that. Otherwise we get into a "that may work for you, but not for us" scenario, but without any fundamental understanding. And the relative slowness of the MOA can make the room into a constraint. If, for example, the signal of arrival is poor or you have a slow response to the signal, or if the MOA is slow at completing his/her tasks, then you have caused the room to be a constraint.

Response #2:

I think this test is a great idea if there is no pressure on room space - and I think the patients would love it.

One strategy we are trying in peds specialty is "doc-in-the-box." Our issue clearly is that we don't have enough rooms. So we are testing the idea of putting a doctor in an exam room all session and bringing the patients to the doctor. If the patient needs a test (e.g. allergy skin testing), he/she is taken to another room for the test. Typically we assign two rooms to each doctor. Now we can cut that to one room plus a couple of hours in another room for ancillary testing/teaching etc. This frees up about 40% room capacity. We communicate with the nurse by text paging "show me the next patient," "patient needs allergy testing," etc. Because there is such a premium on rooms, the idea is that the room is a high value space which should be 100% used for doctor activities (preparing, seeing patient and dictating). In our previous process, the exam rooms were used 40% of the time as waiting rooms

Response #3:

The above comments illustrate the same point: that the principle of reducing the non-value parts of cycle time require the synchronization strategy (get all the needed supply components together at the same time and place in order to eliminate delays). The application of this principle (the solution) is accomplished in two ways:

a. Synchronization is accomplished in the first group by compressing the reception and MOA functions into the room. But this will not be successful if the room is the constraint. It does, however, minimize the delay in getting the patient and information (done previously by the receptionist and handed off to the MOA).

b. The second approach noted above recognizes that the room is the constraint and does all the same work outside the room but compresses room and provider. This eliminates the delay in getting the provider to the room. There actually may be value in looking at both strategies together: the "receptionist" as MOA and the provider in the room.