Exercise 1

Objective: To practice quality improvement tools by applying them to an improvement effort in an ambulatory care setting.

Instructions
1. Read the following case study.
2. Follow the instructions at the end of the case.

Case Study

Background You have just been brought in to manage a portfolio of several specialty clinics in a large multiphysician group practice in an academic medical center. The clinics reside in a multiclinic facility that houses primary care and specialty practices as well as a satellite laboratory and radiology and pharmacy services. The practice provides the following centralized services for each of its clinics: registration, payer interface (e.g., authorization), and billing. The CEO of the practice has asked you to initially devote your attention to Clinic X to improve its efficiency and patient satisfaction.

Access Process A primary care physician (or member of the office staff), patient, or family member calls the receptionist at Clinic X to request an appointment. If the receptionist is in the middle of helping a patient in person, the caller is asked to hold. The receptionist then asks the caller, “How may I help you?” If the caller is requesting an appointment within the next month, the appointment date and time is made and given verbally to the caller. If the caller asks additional questions, the receptionist provides answers. The caller is then given...
the toll-free preregistration phone number and asked to preregister before the date of the scheduled appointment. If the requested appointment is beyond a 30-day period, the caller’s name and address are put in a “future file” because physician availability is given only one month in advance. Every month, the receptionist reviews the future file and schedules an appointment for each person on the list, and a confirmation is automatically mailed to the caller.

When a patient preregisters, the financial office is automatically notified and performs the necessary insurance checks and authorizations for the appropriate insurance plan. If the patient does not preregister, when the patient arrives in the clinic on the day of the appointment and checks in with the specialty clinic receptionist, he or she is asked to first go to the central registration area to register. If there is an obvious problem with authorization, it is corrected before the patient returns to the specialty clinic waiting room.

The receptionist has determined that the best way to not inconvenience the caller is to keep him or her on the phone for as short an amount of time as possible. The receptionist also expresses frustration with the fact that there are too many things to do at once.

The physician thinks too much of his or her time is spent on paperwork and chasing down authorizations. The physician senses that appointments are always running behind and that patients are frustrated, no matter how nice he or she is to them.

Patients are frustrated when asked to wait in a long line to register, which makes them late for their appointment, and when future file appointments are scheduled without their input. As a result of this latter factor, and work or childcare conflicts, patients often do not show up for these scheduled appointments.

The office nurse feels that he or she is playing catch up all day long and explaining delays. The office nurse also wishes there was more time for teaching.

The billing office thinks some care is given that is not reimbursed because of inaccurate or incomplete insurance or demographic information or that care is denied authorization after the fact.

On the NRC+Picker website you find the following patient expectations/dimensions of care for adults and children in their outpatient experiences with a hospital or clinic outpatient appointment:
- Respect for patients’ values, preferences, and expressed needs
- Coordination and integration of care
- Information and education
- Physical comfort
• Emotional support and alleviation of fear and anxiety
• Involvement of family and friends
• Transition and continuity
• Access to care

The clinics have just begun to monitor performance data, and you have one quarter’s worth of data for the clinic:

- Overall satisfaction with visit: 82%
- Staff is courteous and helpful: 90%
- Waiting room time is less than 15 minutes: 64%
- Examination room waiting time is less than 15 minutes: 63%
- Patient no-show rate: 20%
- Patient cancellation rate: 11%
- Provider cancellation rate: 10%
- Preregistration rate: 16%
- Average number of patient visits per day: 16
- Range of patient visits per day: 10–23

Instructions

1. Completely read all of the instructions.
2. Decide which problem you want to focus on as your first priority—the goal for your improvement team.
3. Identify the team members that you would want to participate in this effort and what fundamental knowledge they should bring to the process.
4. Document the current process using a process flowchart.
5. Identify your customers and their expectations.
6. Prioritize opportunities to improve by doing the following:
   a. Complete an RCA using a fishbone diagram with the following categories: people (patients), people (staff/employees), policies and procedures, and plant (facilities/equipment);
   b. Describe how you would collect data about how often the root causes contribute to the problem to determine where your greatest opportunity for improvement would be; and
   c. Design a Pareto chart from the data given in the table above (you may also use hypothetical data to design your Pareto chart).
7. Review the following change concepts (Langley et al. 1996), and identify the ones that may apply to your process:
   • Eliminate waste (e.g., things that are not used, intermediaries, unnecessary duplication)
   • Improve workflow (e.g., minimize handoffs, move steps in the process closer together, find and remove bottlenecks, do tasks in parallel, adjust to high and low volumes)
   • Manage time (e.g., reduce set-up time and waiting time)
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- Manage variation (create standard processes where appropriate)
- Design systems to avoid mistakes (use reminders)

8. Improve the process and document the improved process with a process flowchart or workflow diagram.
9. Decide what you will measure and briefly describe how you would collect the data.
10. You have completed the “Plan” phase of the Shewhart cycle. Describe briefly how you would complete the rest of the PDCA cycle.
11. Save your answers to each part of this exercise. This will become the documentation of your improvement effort.

Exercise 2

Objective:
To practice an RCA.

Instructions
1. Read the following case study.
2. Follow the instructions at the end of the case.

Case Study
The letter in this case study is adapted with permission from Trina Bingham, master’s in nursing student at Duke University School of Nursing.

You are the risk manager of a tertiary-care hospital and have just received the following letter from a patient who was recently discharged from your facility.

Dear Risk Manager,

Last month, I had surgery at your hospital. I was supposed to have a short, laparoscopic surgery with a discharge by lunch, but it turned into an open surgery with complications. This led to a 4-day hospital stay and discharge with a Foley catheter. Overall, my hospital stay was OK, but I had a situation when the call bell was broken. It was during the night, and I was alone. I needed pain meds. I kept ringing the call bell and no one answered. I used my phone to call the switchboard and no one answered. I didn’t want to yell. My IV began beeping (to be honest I kinked the tubing to make it beep), but no one came with that noise either. Eventually the certified nursing assistant (CNA) came to routinely check my vitals and she got a nurse for me. They switched call bells, but apparently there was an electrical problem, and the call bell couldn’t be fixed until the next day when maintenance was working. The CNA told me to “holler if I needed