USC Pediatric Residency Program  
Quality Improvement Pre-Program Self Assessment

1. Have you had previous experience in quality improvement (QI)?  □ Yes  □ No

2. How many formal quality improvement projects have you participated in?
   □ Zero  □ One  □ Two  □ Three  □ Four or More

3. In general, on a scale of 0 to 10, how comfortable are you in your ability to design and implement a QI project?  (Circle one number) (0 is not at all comfortable and 10 is very comfortable)

   0 1 2 3 4 5 6 7 8 9 10

4. A PDSA cycle is a structured trial of a process change used in quality improvement projects. The term “PDSA” stands for the following:
   P = ___________________________________________________________________________
   D= _____________________________________________________________________________
   S= _____________________________________________________________________________
   A= _____________________________________________________________________________

5. Use the following scenario to answer questions A-C:

   As a nurse manager of a medicine unit in an academic hospital, you’re aware that your unit has a high rate of patient readmissions. In fact, 36 percent of the patients discharged from your unit are readmitted to the hospital within 30 days. After reviewing the literature, you become aware that this rate is quite high compared to national standards. Working with other members of your unit, you develop a plan to call patients on the phone within 48 hours of discharge, with the aim of cutting readmission rates to 18 percent.

   A. What would you identify as the outcome measure for the project? (Choose only one)
      □ Average length of stay
      □ The cost of labor associated with the calls
      □ Rate of job satisfaction of those on the unit making the calls
      □ Percent of patients that are readmitted to the hospital

   B. Which of the following is an example of a process measure that you may collect as part of this improvement effort?
      □ The rate of patients being readmitted within 30 days
      □ The reasons for readmission to the hospital
      □ The percent of patients receiving a call within 48 hours of discharge
      □ The cost of the labor associated with the calls
C. Why might you consider collecting balancing measures?
   - To show that you met your aim
   - To make sure you are able to publish your study
   - To demonstrate to your hospital board that you were justified in using resources for this project
   - To make sure you did not unintentionally damage other aspects of the unit’s work

6. On a scale of 0 to 10, how comfortable are you in your ability to implement a structured plan to test a change? (Circle one number) (0 is not at all comfortable and 10 is very comfortable)

7. On a scale of 0 to 10, how comfortable are you in your ability to write a clear AIM statement? (Circle one number) (0 is not at all comfortable and 10 is very comfortable)

8. On a scale of 0 to 10, how comfortable are you in your ability to formulate an “outcome measure” for a QI project? (Circle one number) (0 is not at all comfortable and 10 is very comfortable)

9. On a scale of 0 to 10, how comfortable are you in your ability to formulate a “process measure” for a QI project? (Circle one number) (0 is not at all comfortable and 10 is very comfortable)

10. On a scale of 0 to 10, how comfortable are you in your ability to formulate a “balancing measure” for a QI project? (Circle one number) (0 is not at all comfortable and 10 is very comfortable)
Quality Improvement Scenarios

Instructions: Please read each of the following scenarios and then answer the questions that follow. We recognize that there may be many areas to improve. Be brief and complete. We request that you attempt each question, even if you are unsure.

Scenario #1
You are a pediatric endocrinologist in a three-person practice and have just finished a busy morning clinic session. Your last patient was a 17 year-old male with type 1 diabetes with whom you have been working very hard to improve glycemic control. You are frustrated because he continues to be in poor control based on his most recent hemoglobin A1C of 10%. You have been successful in getting him to obtain and record some of his finger sticks. However, he is not interested in exercise and his diet is suspect as to whether it is reasonable or not. He says he is taking his insulin as prescribed (at appropriate doses for his body weight). You are particularly concerned because he also has an elevated cholesterol and is beginning to note some nocturnal tingling in his feet.

As you sit down to ponder his case, you open a letter from one of the insurance plans that covers many of your patients. Enclosed is a summary of their review of a random number of diabetics in your practice; this was done as part of their annual review for National Committee on Quality Assurance certification of their plan. The data shows that on several measures (hemoglobin A1c, annual retinal exams, podiatry evaluations and urine for microalbumin testing) more than 65% of your patients do not meet the target goals. This further adds to your level of frustration and ruins your appetite for lunch.

Questions for Scenario #1
Please answer each of the following questions as if you were developing a program to investigate and improve the problem presented above.

1) What would be the aim?

2) What would you measure to assess the situation?

3) Identify one change that might be worth testing:
Scenario #2

You are an intern in the Pediatric Emergency Department on a busy Saturday morning in July. You have just finished working-up and admitting your third patient of the day, a 7 year-old girl with an asthma exacerbation. You are pleased that you made the diagnosis quickly based on her history and exam. You promptly administered an albuterol nebulizer, but her oxygen saturation remains 88% on room air and her work of breathing is increased mildly. In addition to placing her on oxygen, you asked that she be admitted to a pediatric floor bed to receive further treatment. You even called your colleagues who will be caring for the patient in the hospital to let them know about her history and what you have done for her. As you are finishing your note, the charge nurse tells you it will be another 2-3 hours before a floor bed will be available. You are frustrated that she will have to wait so long in the Emergency Department (ED).

As you are heading out to the waiting room to grab a cup of coffee, you notice that your first 2 patients of the morning are also still in the ED. The second patient was a 12 year-old male with recurrent left leg cellulitis who you admitted for intravenous antibiotics. He is waiting for a bed, too. The first patient was a 7 year-old boy whom you evaluated with your attending. He was intubated due to respiratory failure from complicated pneumonia. You find that your attending is still on the phone trying to find a staff physician who will accept the patient for admission to the intensive care unit. You are shocked at the delays that are occurring in getting patients transferred for admission to the hospital.

Finally, while standing at the coffee machine, a patient’s parent approaches you and asks what is going on in the ED today. He explains that he and many other patients have been waiting more than 2 hours to be seen. You are embarrassed and admit that it has been very busy, but that you are not sure why there is so much of a delay to be seen. You head back in to see your next patient and wonder what is going on.

Questions for Scenario #2

Please answer each of the following questions as if you were developing a program to investigate and improve the problem presented above.

1) What would be the aim?

2) What would you measure to assess the situation?

3) Identify one change that might be worth testing:
Scenario #3

You are an intern doing your Pediatric Nephrology elective. You have just finished three months of inpatient medicine and are glad for some elective time. Your first morning on the elective you are called by your attending to go see a new inpatient consult. You go to see the patient. She is a 14 yo female transferred the previous night for somnolence and confusion. She has a history of systemic lupus erythematosus. Her exam is remarkable for a BP of 160/90, HR of 88, RR of 20, O2 saturation of 92% on 50% face mask. Her JVP is elevated at 10 cm, lungs have crackles 1/3 of the way up bilaterally and dullness to percussion at both bases. Cardiac and abdominal exams are unremarkable. Her legs have 3+ edema bilaterally to the knees. Lab work is significant for a potassium of 5.0, BUN of 110, creatinine of 7.2; CBC, LFT’s and cardiac enzymes are negative. A CXR shows bilateral pleural effusions and an EKG shows no ischemic changes.

Your assessment of the patient is that she is in renal failure and is fluid overloaded with a modest oxygen requirement. You feel she needs dialysis to improve her clinical condition. You review this with your attending who agrees. Together you go to the dialysis unit to make arrangements for an acute dialysis treatment. You discuss this with the dialysis staff just before rounding on the patients in the unit. The news of needing to add a patient on to the schedule is met with frustration, as the schedule is already full and staffing is short. Arrangements are made for that patient to be dialyzed acutely that evening.

Next, you round with your attending on the patients receiving dialysis. Each patient is reviewed at the bedside with the nurse overseeing the dialysis treatment. Data are reviewed on a flowsheet, but many of the values are missing. In many cases, the nurse caring for the patient doesn’t know specifics about the patient’s current condition or pertinent data about the medical history. This information is not readily available in the paper chart or on the computerized record. Time is required to update the sheets and to decide on any changes that need to be made to the plan of care. There is an opportunity to answer patients’ questions and discuss any concerns. As you finish rounds and head to lunch, you ask your attending if that was a typical morning on the rotation. You are excited about all of the things you have been included in, but also wonder if there might be a different way to approach caring for this population of patients.

Questions for Scenario #3

Please answer each of the following questions as if you were developing a program to investigate and improve the problem presented above.

1) What would be the aim?

2) What would you measure to assess the situation?

3) Identify one change that might be worth testing: