**Southern Care Hospital (Chapter 2 Text Case)**

Southern Care Hospital (SCH) is a large, nonprofit regional hospital located in the southeast. Several years ago, it contracted with the healthcare division of a major medical equipment supplier to provide Six Sigma training to a group of its hospital employees. Since that time, numerous waves of Green Belts and Black Belts have been trained including people across all job ranks and representing most departments. Green Belt training entails two weeks of formal in-class training while Black Belt training entails the two weeks of Green Belt training plus an additional four weeks of training. Both Green Belt and Black Belt training require the completion of a Six Sigma project in addition to the in-class training.

One challenge currently facing SCH is significant levels of dissatisfaction from the medical staff regarding the three-day lead time it currently averages the nuclear medicine department to turn around the results of stress tests. In this case, “Lead time” is defined as the elapsed time from when the stress test is ordered by a physician until the time when radiologist from the nuclear medicine department signs off on the test results. Stress tests are used to determine the amount of stress the heart can endure before either an abnormal rhythm or insufficient flow of blood to the heart develops. Typically, the stress test is administered by increasing the level of difficulty as a patient walks on a treadmill or rides a stationary bike. During the stress test, vital statistics are collected and monitored, including the patient’s heart rate and blood pressure. Discussions with the medical staff indicate that they desire maximum lead times of a day and a half.

You have been selected to manage a Six Sigma project focusing on reducing the lead times associated with receiving the results of stress tests. Based on your past experience with similar projects, you have identified 20 major activities. SSH’s steering committee has further granted you permission to select up to four team members from the available resource pool to staff the project.

Table 1 provides relevant background information on the 12 people currently available for assignment to the Six Sigma project. All resources are available to the project on a part-time basis and therefore support Six Sigma projects in addition to performing their normal job assignments. The table lists the employee name, job title, level of education, years of work experience, Six Sigma rank (Green/black belt), the number of Six Sigma projects the employee has worked on, the employee’s hourly rate, and the percent of time the employee is available. The hourly rate represents what will be charged against your project’s budget for work performed by a given employee. The percent available is based on a 40-hour work week. Therefore, the number of hours you can utilize a resource during a given week cannot exceed the available percentage times 40. To illustrate, Anna Frost can complete at most 8 hours (20% 40hrs/week) of project work per week.

To facilitate project planning, SSH uses an advanced Six Sigma database program to track the progress and performance of all ongoing projects. Furthermore, the HR department has developed a process to estimate the proficiency of employees completing various planned tasks in future Six Sigma projects based on the historical data contained in the database. The proficiency numbers can range between zero and 100, with a zero indicating no ability to perform the task and 100 implying extensive expertise and experience performing the task. Table 21 summarizes this information for the 12 employees listed in Table 1 for the 20 project tasks initially identified. Past experience with these estimates indicates they are fairly accurate over an entire project but that employee performance typically varies +/-3% within a given week. Thus, an employee with an estimated proficiency of 90 on a particular task would be expected to perform in the 87-93% range on the task in any given week.

A final comment regarding the available resources is in order. Specifically, past experience with projects indicates that conflict occasionally arises when more than one Black Belt is assigned to the same task. When such conflict does arise, it tends to negatively impact both the time required to complete tasks that the Black Belts are jointly assigned to as well as the overall quality of the work performed.

**Q1- Given the team’s experience and the scope of the project, should you expect to act more as a supervisor or a facilitator in your role as PM?**

In this case I would be a supervisor and I would elect facilitators to different groups. The facilitators being black belts who have more training and experience could take charge of a particular task that has other members.

**Q2- How would you recommend this project be organized? Functional project? Pure project? Matrix? Why?**

Using the Functional project management structure would be most effective for this scenario, since there are multiple types of job titles and knowledge basis along with there being different levels of leadership. Functional allows for different project teams members to be allocated to different units of the projects organization while keep leadership in place.

**Q3- While managing the project, you should expect to make tradeoffs between the three corners of the iron triangle. Which elements of the iron-triangle would you prioritize? Defend.**

Since the project details that they desire the performance of the project to cut lead times to 1 day I would say the scope of the project is most important. There is no mention of time constraints or cost constraints, but I would say that time takes a back seat to cost. This business is a large regional hospital that has many other duties and the stress tests do not seem to be their main duties in any way so time does not seem to be more important than the cost which could affect everything else in the functional business.

**Q4- Based off of your answer to Q3, which criteria should you use in selecting resources to serve on your project team? Order the criteria by priority, in case tradeoffs must be made.**

As stated in the question above I said that scope is the #1 concern of this project and then #2 would be cost. So ideally when considering the different staff resources that I have available I would put the most proficient people in order and then order them again on the most cost effective. This would find the middle ground where someone is very proficient in the project area that I am staffing but still being cost effective. There would most likely be multiple people ranging from different level in this middle area that I am describing so the final call would have to be made by me and depend on the situation or aspect of the project. If a certain aspect was more challenge, then I would apply a heavier weight to my #1 category of proficiency and make the final call based on that.

**Q5- From the available resource pool, who would you select to be on your project team? Connect to your criteria.**

As shown in the excel document that I provided there are several staff members that stand out when weighting their details in the levels described above. From a purely data driven approach Nick rogers, Peter Foltz, Peggy moss, and Joyce snyder are the 4 front runners in that order. This is shown in the data on the excel document.

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| **First** | **Last** | **Job Title** | **Education** | **Years Exp** | **SS Rank** | **SS Exp** | **# of SS Projects** | **Avg Proj Savings** | **Hourly Rate** | **Availability** |
| Anna | Frost | Radiology Practice Admin | MPH | 11 | GB | 1 | 1 | 50000 | 58 | 20% |
| Edward | Young | Radiology Office Admin | B | 7 | GB | 1 | 1 | 62000 | 36 | 30% |
| Hazel | Vaughn | Radiology Supervisor | B | 6 | GB | 2 | 1 | 74000 | 40 | 30% |
| Howard | Payne | Radiology Supervisor | B | 4 | GB | 1.5 | 1 | 68000 | 30 | 35% |
| Joyce | Snyder | Radiology Info Sys Mgr | B | 5 | GB | 3 | 3 | 112000 | 35 | 50% |
| Ken | Inman | Radiology DB Mgr | B | 3 | GB | 1.5 | 2 | 95000 | 25 | 50% |
| Nick | Rogers | Admin of Special Projects | B | 5 | BB | 3 | 6 | 211000 | 33 | 50% |
| Peggy | Moss | Radiology Senior Bus Analyst | MBA | 6 | BB | 3 | 6 | 240000 | 40 | 50% |
| Peter | Foltz | Radiology Bus Analyst | B | 3 | GB | 2 | 5 | 187000 | 30 | 50% |
| Roberta | Jackson | Senior Nurse Manager | B | 15 | GB | 1 | 1 | 75000 | 42 | 20% |
| Susan | Osborne | Staff Nurse | B | 8 | GB | 1 | 1 | 35000 | 35 | 50% |
| Stephanie | Thomas | Staff Nurse | B | 4 | GB | 1 | 1 | 42000 | 30 | 50% |

