SHORT REPORT

Quality Management Savings: at Al-Hussein Hospital, Salt, Jordan

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The Quality Assurance Project (QAP) provides technical assistance in improving the quality of health care and the development of a sustainable local capacity for achieving continuous quality improvement. The QAP also aims to achieve greater returns on the Ministry of Health investments in health through improved efficiency. In February 1994, Al-Hussein Hospital in Salt, Jordan began to implement a quality assurance project in accordance with the agreement signed by the Jordan Ministry of Health (MOH) and the United States Agency for International Development (USAID).

The quality assurance (QA) concepts of improving quality of care, performance, cost reduction and cost recovery, through the use of quality improvement methods of problem identification, priority setting, solution development, implementation and team work, are gaining a great deal of interest in the developing countries.

In addition, the newly taught QA methodology for opportunity improvement and problem-solving techniques helps in finding, defining and focusing the efforts of health organizations and health providers on urgent problems.

Cost reduction and elimination of unnecessary services and waste are of great importance in the United States, but they are absolutely necessary in the developing nations where resources are scarce and limited. Increasingly in the US there is strong quantitative evidence that high quality outcomes are typically less expensive than poor quality outcomes. Deficiencies in health care, or poor quality, lead to customer complaints, waste, complications, hospital-acquired infections and the need to repeat work over again [1].

Developing countries lack the means and funds to improve hospital performance through purchasing and upgrading equipment, through building, refurbishing or remodeling existing infrastructure, or through hiring and training additional staff or expanding services.

For the developing countries, therefore, improvements in health services are best accomplished through the reduction and elimination of waste, and through saving unnecessary expenditure, and the re-allocation of these savings to other areas that suffer from shortages of supplies and materials.

With this in mind, the quality improvement teams (QI) at Al-Hussein Hospital embarked on a project improvement activity. It was noted by a member of the hospital quality improvement team that electrocardiogram (EKG) readings in most of the developed nations' hospitals are conducted using a water soluble gel, such as K-Y Gel. In Jordan, however, EKG readings were conducted using xylocaine gel.

The QI team conducted an inquiry as to why xylocaine gel (30 gram tube) is used for EKG procedures, only to discover that the nurses chose this particular gel because of its availability and usability.

After identifying this improvement opportunity, the team discussed the hypothesis of using plain water for EKG readings. It was decided that this theory should be researched and the data collected, recorded and analysed. It was also agreed that patients would be subjected to both procedures: i.e. patients would undergo EKG readings facilitated by the use of water and by the xylocaine lubricant. Readings were to be recorded immediately by the physician or nurse in attendance and, to prevent any possibility of variation or bias, each set of EKGs were read by two different specialists in order to eliminate any doubt. This data was later compared and analysed.

The Pediatric Department and the Internal Medicine Department were briefed about the QI project objectives of taking two EKG readings (the first reading was to be conducted with the use of xylocaine and the second reading was immediately conducted with the use of water.
alone). With their permission 20 patients were chosen, mainly from the departments of pediatrics and internal medicine.

Through an organized and systematic testing of the 20 patients, the QI team found no significant differences in the readings of the EKGs by using the lubricant or water.

Chiefs of nurses of all the departments were called to a meeting. The QI team discussed their findings at length. By the end of the meeting the chiefs of nurses endorsed the use of water for EKG procedures instead of the xylocaine lubricant.

Instructions to the chief pharmacist were given, to record, monitor and ration xylocaine gel orders for all departments by the first of January 1995. A significant drop in xylocaine gel orders was noted. Between 1994 and 1995 xylocaine gel use decreased by 82%.

Given that the cost of each tube is $2.80, the result was that in 1995 the hospital had saved $3262. These direct savings were channeled to other areas of need.

<table>
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<tr>
<th>Year</th>
<th>Number of xylocaine gel tubes used</th>
<th>Total $ cost</th>
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<tbody>
<tr>
<td>1994</td>
<td>1403</td>
<td>$3928.40</td>
</tr>
<tr>
<td>1995</td>
<td>238</td>
<td>$666.40</td>
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It is also important to note that xylocaine is contraindicated in cardiovascular insufficiency, kidney and liver malfunction [2,3]. Although xylocaine use on EKG patients was limited to a small area, and its absorption through the skin is minimal, the use of water eliminated any possible undesired risks and complications for patients.

Quality is improved by instituting preventive management techniques, whereby real or potential problems are identified and then solved or eliminated as well [4].

REFERENCES