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Quality Improvement Plan for Surgical Departments

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ABSTRACT. The rising awareness of patients about medical care and the great competition among doctors and health organizations, besides limited resources, put a lot of pressure on hospitals to implement quality improvement programs. Surgeons are the most affected people by these factors and they have not only to be aware or participate in those programs but to be leaders of quality improvement programs. In this paper we tried to collect the guidelines for a quality improvement program for surgical departments.

Keywords: Quality improvement, Surgery, Standard.

Introduction

The concern for the quality of care in medicine is not a new concept but as old as medicine itself. But the formal systematic organization of the quality management and application of the philosophy of total quality improvement is new in the medical aspect. There are few, if any, surgeons who are not deeply concerned with the quality of treatment their patients receive. It is the cornerstone of the Hippocratic Oath[1] and for most surgeons, pursuit of quality is the single most important aim in their professional lives.

What is Quality? There is no single definition of quality that applies to all situations in health care. One of the best definitions of quality of care is that kind of care which is expected to maximize an inclusive measure of patient welfare[2]. At the very least it is to do no harm, but usually to do some good and, ideally, to achieve the greatest good that is possible to achieve in any given situation. Total quality management should include everybody: physicians, top level management, nurses, staff, and regular workers. It should also include everything clinical and administrative.

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Function of Total Quality Management: To review, analyze, and evaluate the quality of medical care and, accordingly: 1) to make recommendations for establishment, maintenance, continuing improvement, and enforcement of professional standards, and 2) to enforce the compliance of the medical staff rules and regulations.

Objectives of Total Quality Management: To improve health care through:

* Proper diagnosis.
* Management update.
* Proper surgical procedures whenever indicated and in proper time and ensuring that the patient will benefit from the procedure.
* Optimal utilization of available resources. More care is usually more expensive but not always better. Doing more laboratory tests[3], more x-rays, and more interventions does not necessarily lead to good quality. Unnecessary care besides putting the patients at risk and causing them discomfort can be harmful as well.
* Obtain satisfaction of the expectations of the public that is not only concerned with the quantity of the health service but the quality as well.
* The implications of surgical quality assurance in clinical trials, e.g. cancer[4].

Selection and Using Measurement Techniques: Standards appraisal will be by direct observation concurrently during, or retrospectively after, delivery of the care.

The surgical staff will help in appraisal by collecting data and notifying the surgical quality improvement personnel who will investigate the problem and try to solve it with the head of the department.

Participatory continuous improvement[5] means involvement of the surgical staff in quality improvement and collecting data which has the following advantages:

1. The person providing the service will be the one who will know what is going on and will improve his service if needed, i.e., self-assessment and self-improvement[6,7].
2. It is more easy and more applicable to collect the data by person of the same profession[1,2] and more easy if collected concurrently[1] than retrospectively.
3. This ensures that quality improvement will continue and not be dependent on personnel who may leave at any time.

Indicators of Quality: Quality assurance is an integral part of patient care activity. It's role is not punitive[8] but problem identification, problem solving, and seeking opportunity to improve the health care provided to the patients. Reasonable care will be taken to ensure that negative findings do not get into the wrong hands and that they will be employed primarily for corrective action rather than for punishment.

All staff should become aware and involved in this continuous quality improvement. They should be given specific services-orientation criteria describing how they can continuously demonstrate high quality care by fulfilling specific responsibilities.

Quality improvement is a continuous dynamic process. The basic steps for quality improvement[9] is shown in Fig. 1.

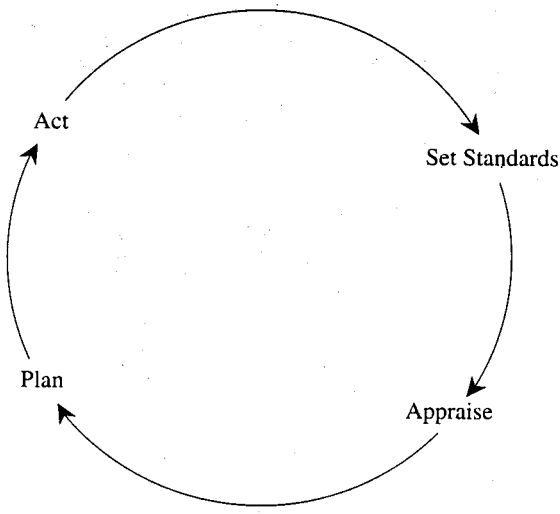

FIG. 1. Basic steps for quality improvement

Setting standards[9,10] is shown in Fig. 2. Practical examples are given in appendices 1, 2, 3 and 4.

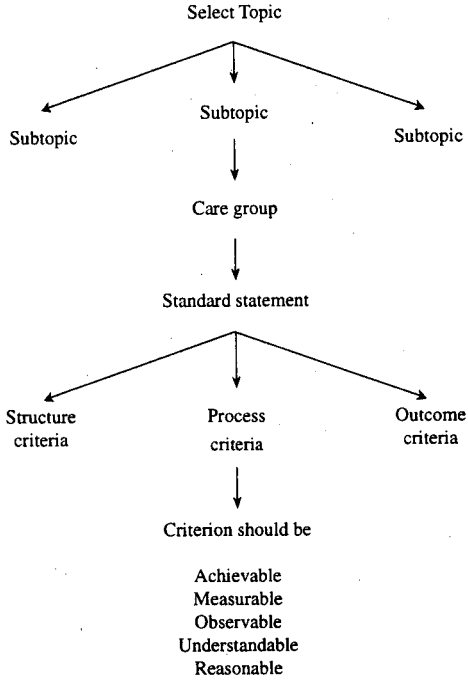

FIG. 2. Setting standards.

Future of Quality Improvement: Health care is too important and too expensive (> 10% of the budgets of many countries) not to be monitored carefully. Its complexity guarantees that this will not be easy, however, and it is likely that the future will see many more changes in quality improvement. There are different committees which are almost obligatory to be in every hospital to improve quality of care, e.g., morbidity and mortality using scanning system[11], blood transfusion and infection control committees. These committees do improve peri-operative patient care, for example, autologous blood transfusion[12], pre-operative chest x-ray[13], and postoperative infection [14]. Continuous quality improvement will result in a better outcome of many medical conditions in which the results of treatment are already considered to be satisfactory, for example, gallstones[15], intussusception[16], trauma[17], and constipation[18]. It is widely hoped that microcomputer technology[19] will be able to assist bad ideas into good ideas, however, and can not turn irrelevant or inaccurate data into information. Unless used within carefully developed quality improvement systems with documented efficacy, microcomputers may simply add to the time and expense of quality improvement efforts without enhancing results. The basic concept of a centrally-monitored hospital structure within which provision is made for ongoing observation and innovation by those actually involved in the care of patients retains the advantages of central monitoring and local invention. It is very important for every surgeon to be familiar and actively participate in a quality improvement program; otherwise, one day somebody who is not familiar with surgery will enforce it on him in the wrong way.

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Appendix 1

Topic : Postoperative Complication **Appraisal Date :**
Subtopic : Prevention of Deep Vein Thrombosis **Review Date :**
Care Group : All Surgical Patients **Authorized by :**
Standard Statement : No patient will develop deep vein thrombosis in the postoperative period.

No.	Structure	No.	Process	No.	Outcome
1	All patients will be assessed preoperatively for DVT manifestation, e.g., edema of ankle, tender calf muscles.	1	Ladies will stop any contraceptive pills preoperatively.	1	No patient will develop ankle edema or tender calf muscles.
		2	Prophylactic heparin will be given to all susceptible patients: elderly, obese, cardiac, cancer, and those who will have a pelvic operative procedure or an orthopedic procedure for the lower limb.	2	No blocked deep veins seen by venogram or more recent radioisotope study.
		3	Early mobilization of all surgical patients.		
		4	Using elastic stocking for susceptible patients.		

Appendix 2

Topic : Postoperative Complication **Appraisal Date :**
Subtopic : Postoperative Pulmonary Complication (Atelectasis, Pneumonia) **Review Date :**
Care Group : All Surgical Patients **Authorized by :**
Standard Statement : No patient will develop atelectasis or pneumonia.

No.	Structure	No.	Process	No.	Outcome
1	Preoperative assessment of the chest of all patients.	1	Preoperative and postoperative chest exercises for patients with poor chest condition and old age; also patients having chest and upper abdominal operation.	1 2	No patient will develop atelectasis within 72 hours postoperatively suspected by early postoperative rise of temperature.
		2	Early postoperative mobilization.		No pneumonia will develop in the postoperative period.

Appendix 3

Topic : Postoperative Complication **Appraisal Date :**
Subtopic : Postoperative Wound Complication **Review Date :**
Care Group : All Surgical Patients **Authorized by :**
Standard Statement : No patient will develop haematoma, wound infection, incisional hernia, or burst abdomen.

No.	Structure	No.	Process	No.	Outcome
1	Preoperative assessment of the patient in regards of his general nutritional status, straining cause as chest or micturition problem and any bleeding tendency.	1	Meticulous surgical procedure: good haemostasis.	1	No patient will develop haematoma.
		2	Aseptic routine.	2	No patient will develop wound infection.
		3	Meticulous wound closure with proper choice of suture material and avoid tissue tension.	3	No patient will develop a burst abdomen.
		4	Proper nourishment of the patient for proper healing.	4	No patient will develop incisional hernia.
				5	No reoperation to evacuate haematoma or infection.

Appendix 4

Topic : Postoperative Complication **Appraisal Date :**
Subtopic : Properly timed diagnosis of appendicitis **Review Date :**
Care Group : All Surgical Patients **Authorized by :**
Standard Statement : Appendicectomy should be done in proper time before perforated and develop peritonitis or progress to an abscess or a mass.

No.	Structure	No.	Process	No.	Outcome
1	A surgical resident is available for 24 hours.	1	Any patient with acute abdominal pain should be seen by the surgical resident.	1	Proper time for the operation whenever indicated.
2	CBC can be done at ER level.	2	Any query acute appendicitis should be admitted for observation.	2	No perforated appendix, no appendicular abscess or mass is found in the operative procedure.
3	Ultrasound examination when indicated.				

خطـــة لتحسـين جـودة الأداء في أقسـام الجراحـــة

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قسم الجراحة العامة ، كلية الطب والعلوم الطبية ، جامعة الملك عبدالعزيز ، جـــدة ، المملكة العربية السعودية

المستـخلص . إن تطور وعي المرضى بالعناية والتنافس الكبير بين الأطبـاء والمنظمـات الصحية بالإضافة إلى محدودية الامكانات المتاحة يضع المستشفيات تحت ضـغوط هائلة للانخراط في برامج من شأنها أن تحسن جودة الأداء . إن أطباء الجراحة هم من أكثر الناس تأثراً بهذه العوامل لذا ليس عليهم أن يكونوا علـى دراية بتلـك البرامج أو المشاركة فيها وحسب بل عليهم أن يكونوا رواداً لبرامج تحسـين جودة الأداء . حاولنا في هذه الورقة البحثه أن نجمع إرشادات لبرامج تحسـين جودة الأداء في أقسام الجراحة .