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Editorial Open Access

Quality Assurance and Patient Safety in the Gastroenterology Unit

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Editorial

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Introduction

Hospital in general and gastroenterology unit in particular is a dangerous place. Patients are hospitalized, examined and treated for a very good reason, with a positive effect on their survival and quality of life, but at the same time have adverse events and complications of endoscopic and surgical procedures, missed diagnosis or drug side effects that achieve the opposite. In 3.7% of hospitalizations adverse events may occur, and cause death in 13.6% of them. About third of the mortality cases are associated with negligence [1]. Complications and potential harm of procedures and treatment occur in 12 cases out of 100 hospitalizations; 28% of them are preventable and 1% lethal [2]. Every year 44000 to 98000 patients die in the USA because of adverse events, or 1.8% to 2.4% of 2.4 million hospitalizations every year [3].

This sad information lead the World Health Organization to declare: "To Err is Human", to advance patient safety regulations, quality assurance programs, quality improvement plans, quality indicators development and measurements, and to encourage accreditation organizations around the world.

Patient Safety

Patients referred to gastroenterology are in danger of miss diagnosis, wrong treatment, and complications of endoscopic procedures. In the first 2 issues gastroenterology service is similar to any other clinical field based on good clinical practice that is medical history, proper physical examination, laboratory tests, and radiological investigation. In this regard, medicine should be based on updated evidence based data and clinical guidelines. Endoscopic procedures are different, and should be treated separately. The process of endoscopy is divided into many stages, and every stage is in danger of failure and unwanted adverse event or side effect. A failure in any stage of this process may end in a bad result, such as perforation in colonoscopy, or massive bleeding after gastric polypectomy. Proper indication, patient pre-sedation and pre-procedure assessment, safety measures of the procedure, proper sedation, and recovery after the procedure will minimize the danger of unwanted events. "Time Out" check list that includes the International Patients Safety Goals (IPSG): patient identity, prevention of infection, prevention of fall, the right patient and procedure, staff communication, and high-risk drug monitoring, is now mandatory in most of the endoscopic units in the Western world. Patient should be followed after the procedure, given useful instructions and open routes for communication with the operating team.

Quality Assurance

Patients' complains, criticism, or improvement recommendations should be properly addressed. Periodical tracers with a validated questionnaire is recommended, which include retrospective as well as prospective evaluation of team performance. Regular staff meetings are required to collect staff recommendations and to compare experience. Every team member should know and understand the unit function and particular his/her function as a team member. Every team member should be evaluated annually, and his role clearly addressed in the department strategy plan.

Complicated procedures such as stent insertion, endoscopic mucosal resection, endoscopic sub mucosal resection, papilotomy, papilectomy, biopsy through endoscopic ultrasound, are prone to adverse events. Thus, in these procedures only highly trained physicians and nurses should be allowed to participate. When a new procedure is started in the hospital, every step is rehearsed and repeated till all team members know their part. The leader of the new procedure should be trained in an experienced site or bring an experienced endoscopist from outside the hospital to help at the first steps. Committees of the hospital or outside organizations such as the Ministry of Health or JCI are periodically inquiring adverse events or sentinel events in the endoscopy unit. Any deviation from international, national or local benchmarking should be thoroughly examined, and failures corrected.

Quality Plan

Annual quality improvement plan (QI) is required and includes clinical protocols, instructions for endoscopic procedures and patients and staff safety regulations. Mapping of every step in the following endoscopic procedures is needed: Upper endoscopy, colonoscopy, sigmoidoscopy, endoscopic retrograde cholangio pancreaticography (ERCP), linear and radial endoscopic ultrasound (EUS), biopsy and cytology, histology processing, read back tool for critical results, time-out check list before the procedure, post-procedure assessment (including Aldrate score and falls). Potential failure should be assessed in every step, and a safety solution is mandatory. Benchmarking for success is needed for every procedure. For example, in colonoscopy the preparation quality, complete examination to the cecum or the terminal ileum, retroflection in the rectum to avoid missing peri-anal lesions, adequate polyp or adenoma finding and removal, American Society of Anesthesiology (ASA) score for every patient and proper sedation, cleaning the endoscopes according to the most demanding guidelines – all these are essentials for a safe and high quality colonoscopy. A new QI is needed every year for continually improving efforts in the endoscopy unit. Prevention of endoscopy complications such as perforation, bleeding and sepsis and of sedation adverse events

is the utmost goal of the QI as the achievement of the clinical aims, such as prevention of cancer development.

Quality Indicators

Quality indicators help the professional team to assess the quality of clinical processes, and to improve constantly in diagnosis, treatment and safety. There are clinical indicators for process, outcome and service, as well as for patient safety. For the last decade there is emphasize on endoscopy associated indicators, but clinical process other than endoscopic procedure should also be in focus. Thus, every unit should concentrate on several chosen quality indicators which include procedures, service measurements, outcomes and safety and are considered accountable [4,5]. Examples are: Bone mineral density in patients with inflammatory bowel disease [6-11], gastro-protective agents given for high risk patients on non-steroidal anti-inflammatory drugs [12-15], colonoscopy following positive fecal occult blood test [16-18], gastroscopy in patients with reflux and Barrett's esophagus [19-22], documentation of family history of colorectal cancer [23-27], and colonoscopy in these patients [28-30], complete colonoscopy and cecal description or photos, colonoscopy withdrawal time, polyp/adenoma detection rate and proper report and recommendation for follow up [31]. Special projects to improve the indicators, such as enhancing compliance of patients with a positive result of fecal occult blood test to undergo colonoscopy or screening for occult hepatitis C infection, can be performed as part of the department QI.

Risk Management

Malpractice claims against physicians and health institutions are increasing continuously in the Western world, and become a serious problem in health economy. Strategies for decreasing these claims and reducing financial losses have become an important part of every health plan. Many physicians, avoiding the unpleasant experience of being sewed because of negligence, practice defensive medicine, such as assurance behavior or avoidance behavior, as was reported recently among specialists and gastroenterologists from North America and Japan [32,33].

Reporting adverse events and complications should be an integral part of daily routine work in the gastroenterology unit and endoscopy. This strategy is important for preparation of potential claims, assigning dedicated sums of money by the insurance company, establish the benchmarking for adverse events, and for education and systematic improvement of patient safety [34-36].

Conclusion

Patient safety, quality assurance and risk management are integrated issues of the gastroenterology unit and should be part of daily activity. Every gastroenterology unit should adopt quality indicators and quality improvement plan for advancing the safety of the patients.

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