QUALITY IMPROVEMENT AND PATIENT SAFETY (QPS ve IPSG)

Anadolu Medical Center

August, 2014
Contents

• Quality Improvement and Patient Safety (QPS)
• Quality Improvement and Patient Safety Program Goals
• QA Activities in Anadolu Medical Center
• JCI International Patient Safety Goals
This chapter includes:

- Continuously
  - planning
  - designing
  - monitoring
  - analyzing
  - improving

clinical and managerial processes.
QPS Standards

This approach includes

• **leading** and **planning** the quality improvement and patient safety program;
• **designing** new clinical and managerial processes well;
• **measuring** how well processes work through data collection;
• **analyzing** the data; and
• **implementing and sustaining** changes that result in improvement.
Planning

An approved “Quality Improvement and Patient Safety Plan”

• to initiate and **maintain improvement**
• to **reduce risks** to patients & staff
In accordance with the “Quality Improvement and Patient Safety Plan”

- Design of new processes
- Redesign of existing processes to improve
- Use clinical practice guidelines and clinical pathways
Monitoring

Identify performance indicators to monitor clinical and managerial areas
Data Collection for Quality Monitoring
Clinical Monitoring;

1) Clinical documents
   I. Progress Notes
   II. Complete Filled Inpatient Filled
   III. Written Surgery Report within 24 Hours
2) Patient with risk of falls identified during the initial assessment
3) Falls with injury (I-NSC-5)
4) Reassessment of pain after analgesic administration
5) Rate of readmission the same or related diagnosis within 30 days of being discharged with the unplanned
6) Adult smoking cessation advice/counseling given to patients who had an acute myocardial infarction (I-AMI-4)
7) Mortality number and rate
8) ICU's Pressure Ulcer Rates
9) Preoperative Patient Preparation Unit Utilization
Data Collection for Quality Monitoring
Managerial Monitoring;

1. Workers exposed to splashes of blood and body fluids.
2. Periodic Inspection Ratio
3. Life Support Equipment Maintained and Inspected
4. Room rate per physician outpatient clinics
5. Sent to the Provincial Health Directorate of Statistics Submitting time rate
6. Capacity Utilization Rate
7. Patient Satisfaction - Inpatient(IP)
8. Patient Satisfaction - Outpatient(OP)
9. Nursing Turnover Rate
10. Employee Satisfaction
11. Days in Accounts Receivable
12. Training Hours per Capita (Cumulative)
The 5th Edition International Standards for Hospitals require organizations to select five clinical measures from the JCI International Library of Measures:

- Adult Smoking Cessation Advice/Counseling (I-AMI-4)
- I-AMI-9 Inpatient Mortality
- I-NSC-4 Patient Falls
- I-NSC-5 Falls with injury
- I-AMI-1 Aspirin at Arrival
- I-VTE-1 Venous Thromboembolism Prophylaxis
Validation and Analysis of Measurement Data

QPS.1
A qualified individual guides the implementation of the hospital’s program for quality improvement and patient safety and manages the activities needed to carry out an effective program of continuous quality improvement and patient safety within the hospital.

QPS.4
A quality improvement program is only as valid as the data that are collected. To ensure that good, useful data have been collected, an internal data validation process needs to be in place.

QPS.6
The hospital uses an internal process to validate data.
When Do We Need Validation?

Data validation is most important when

• **a new measure is implemented**

• **data will be made public** on the organization’s Web site or in other ways;

• **a change has been made to an existing measure**, such as the data collection tools have changed or the data abstraction process or abstractor has changed;

• the data resulting from an existing measure have changed in an unexplainable way;

• **the data source has changed**, such as when part of the patient record has been turned into an electronic format and thus the data source is now both electronic and paper; or

• **the subject of the data collection has changed**, such as changes in average age of patients, research protocol alterations, new practice guidelines implemented, or new technologies and treatment methodologies introduced.
How To Apply a Reliable Validation?

The essential elements of a credible data validation process include the following:

- **Re-collecting the data by a second person** not involved in the original data collection.
- **Using a statistically valid sample of** records, cases, and other data.
- **Comparing the original data with the re-collected data**
- **Calculating the accuracy** by dividing the number of data elements found to be the same by the total number of data elements and multiplying that total by 100. A 90% accuracy level is a good benchmark.
- **When data elements are found not to be the same**, noting the reasons (for example, unclear data definitions) and taking corrective actions.
- **Collecting a new sample after all corrective actions have been implemented** to ensure the actions resulted in the desired accuracy level.
**Standart** | QPS 3.4
---|---
**Amaç** | Cerrahi Bakım Kalitesini Artırmak
**Gösterge** | Tam Doğru Cerrahi Profilaksi Yapılma Oranı

### Gösterge Tanımı
ASM'de gerçekleştirilen ameliyatlarda aşağıda belirtilen parametreler ölçülecek ve bu üç parametrenin de aynı anda yapılma oranı hesaplanacaktır. Bu parametreler; Antimikrobiyal profilaksinin insizyondan önceki bir saat içinde verilmesi, Profilaksi için güncel kılavuzlarla uyumlu antibiotik kullanımı ve Profilaksinin 24 saat içinde sonlandırılmasıdır. Üç parametrenin aynı anda uygulanma oranıdır.

**Veri Kaynağı:** Tibbi Enformasyon Yöneticisi

### Analiz ve Yorum

### Yürütülen Faaliyetler

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Surgical Care Improvement Project (SCIP)
Analyzing

Aggregate and analyze collected data

• to transform into useful information
• to make decisions
• to define potential improvement areas
Improving

- Use information from data analysis to achieve and sustain improvement
Quality Improvement and Patient Safety Program Goals

- Apply accepted and proven quality principles and standards and quality tools
- Support the organization’s mission and strategic plan;
- Establish and maintain the organization systems and process based on recognized standards
- Define the mechanism for establishing organization-wide quality improvement program.
- Promote effective communication at all levels.
- Identify improvement areas
- Coordinate and aggregate the information from the prioritized performance indicators selected by the clinical and managerial departments and programs
Quality Improvement and Patient Safety Program Goals

• Identify areas of concern and opportunities for improvement giving priorities to certain problems
• Coordinate recommended improvement activities through multidisciplinary teams.
• Establish the steps for implementation of performance improvement project. (PDCA)
• Develop appropriate and effective reporting methods
1 Patient Safety First

Why?

because...

Why?

because...

Why?

because...

Why?

because...

Why?

because...

Why?
Quality Activities in Anadolu Medical Center

- International Patient Safety Goals
- Staff Trainings
- Patient Safety Committee
- Incident Reporting
  - Sentinel Events,
  - Adverse Events
  - Near-Misses

- Committees
- KPI’s
- Surveys
- FMEA
- RCA
- Clinical practice guidelines and clinical pathways
Incident Reporting Software: Reporting Starts from the Portal
Incident Reporting Software: How to Report

Olayı gören / belirleyen kişi

İsim

E-posta adresi

Olayın gerçekleştiği tarih
(format gg.aa-yyyy, örneğin: 25.11.2007)

Olayın gerçekleştiği saat

Olayın belirlendiği yer

Olayın gerçekleştiği yer

Tibbi bölüm
Incident Reporting Software: How to Report

Olay hasta ile ilişkili ise hasta protokolü

Hasta numarası
Soyadı
Doğum tarihi

Hangi konu ile ilgili olay bildirimi yapacaksınız?

- İlaç Yönetimi (İlaç hataları, order hataları, Advers ilaç etkileri vb.) ve Beslenme (Diyet hataları, TPN, PPN vb.)
- Düşme
- Enfeksiyon
- Kan ve Kan Ürünleri
- Tanı Görüntüleme (Laboratuvar ve radyoloji tıbbi tespitler)
- Hastane Bíyoloji Verilere (HIS) Dahil, Cihaz veya Medikal / Cerrahi Sarf Malzemesi
- Klinik Süreçler (Tedavi ve bakım hizmetleri)
- Hasta Hizmetleri
- Başı Yarası
- Perinatal (Gebelik dönemi, doğum ve yeniden doğan süreçleri)
- Cerrahi, İşlem, Anestezi ve Sedasyon Süreçleri
- Teknik Hizmetler / Bina
- Diğer
Incident Reporting Software:
For Administrators

Yeni Bildirim

Araştırma Sürecinde

Risk | Olay Numarası | Olayın Konu Başlığı | Olayın Açıklaması | Olay Tarihi | Araştırıcı
--- | --- | --- | --- | --- | ---
Orta | 11-0004 | İlaç Yönetimi (İlaç hataları, order hataları, Adverse iLAŞ | Doktoru: Zafer Gülbaş Yine Arzu Ataş | 13-01-2011 | Elif Sözer
Healthcare System

have

• Good-equipped hospitals
• Perfect-trained physicians and nurses

however...

• Huge amount of money spent
• But waste about 40 cents of each health care dollar spent
• And a lot of errors
• Causing, for example …
Unsafe Patients

- At least 1.5 million preventable ADEs in the US each year; the true number possible much higher.  
  *IOM, 2006*

- For every 1000 patients admitted to a hospital, approximately 3 will die and 1 will suffer serious longterm disability due to ADEs.

- Each preventable ADE in the hospital, perhaps 400’000/year, adds about $8’750 to the cost of the hospital stay. Annual cost is about $3.5 billion for the US

ADE: Adverse Drug Event (=injury due to medication)
Donor Mix-Up Leaves Girl, 17, Fighting for Life

By DENISE GRADY

17-year-old girl is in critical condition after mistakenly being given a heart and lung transplant from a donor with the wrong blood type at Duke University Hospital in Durham, N.C.

March 4, 2003

Bad Doctors Get a Free Ride

By SIDNEY M. WOLFE

The death of Jésica Santillán, the 17-year-old given a heart and lung transplant last month from an incompatible donor, has become the latest argument in Congress against President Bush's plan to limit malpractice damage awards. With doctors in several states staging work stoppages to protest the soaring costs of premiums, the plan to put caps on pain-and-suffering payouts had been picking up steam.

Yet in all the discussion of tragic cases and dollar amounts, a major cause of the malpractice problem is ignored: the failure of state medical boards to discipline doctors.

The fact is, only a small percentage of doctors account for most of the money paid out in malpractice cases. From 1990 to 2002, just 5 percent of doctors were involved in 54 percent of the payouts -- including jury awards and out-of-court settlements -- according to the National Practitioner Data Bank of the Department of Health and Human Services. (The data bank allows hospitals and medical boards to see the records of individual doctors but, thanks to pressure from the American Medical Association, Congress forbids it to release information to doctors or the public.)

Of the 35,000 doctors with two or more payouts during that period, only 8 percent were disciplined by state medical boards. Among the 2,774 doctors who had made payments in five or more cases, only 463 -- one out of six -- had been disciplined.

Is it any coincidence that the states least likely to discipline doctors are among those with insurance crises? Pennsylvania -- where the governor had to intervene to keep doctors from going out on strike over malpractice insurance costs -- has disciplined only 5 percent of the 512 doctors who had made payments in malpractice suits five or more times, the lowest percentage of any state. (Arizona, for example, has disciplined nearly half of the doctors in this category.)
Texas Toddler Dies in Nebraska Hospital after Heparin Overdose

Coagulation Cascade
Want to know more about Coagulation Cascade? Visit Thrombosis Adviser!
www.ThrombosisAdviser.com

Submitted by Denise Reynolds RD on 2010, April 2 - 03:36

A 23-month-old Texas girl has died at the Nebraska Medical Center in Omaha after being given an overdose of the blood-thinning drug Heparin. The incident is just one of a horrifying trend among children who receive the medication, most prominently happening to the twins of actor Dennis Quaid and wife Kimberly in 2007.

The hospital is investigating the circumstances surrounding the death of Almariah Duque, from Dallas, Texas, who was at the hospital for several organ transplants needed because of a congenital condition. Paul Baltes, a hospital spokesperson, confirmed that the girl received too much Heparin.

Back in November 2007, the newborn twins of actor

Kentucky Surgical Malpractice: Jury Awards Woman $2.5 Million After Surgical Sponge Left in After Hysterectomy Results in Personal Injuries

A Kentucky jury says Three Rivers Medical Center in Lawrence County must pay former patient Sophia Savage $2.5 million for a surgical mistake that resulted in a surgical sponge being left inside her body following a medical procedure. Savage underwent her hysterectomy in 2001.

About three and a half years later, she had to undergo another surgery to remove the sponge. Part of her small intestine had to be taken out because the sponge had gotten lodged against it.

She claims that having the foreign object in her body caused her to experience depression, anxiety, abdominal pain, constipation, and diarrhea. For her Kentucky surgical malpractice verdict, the jury awarded Sophia $1,934,031 for past and future pain, $65,969 for medical costs, and $500,000 for her husband's loss of consortium claim.

A 2003 report in the New England Journal of Medicine noted that about 1,500 of the medical errors that occur annually involve surgical team members accidentally leaving a surgical tool or a sponge inside a patient. It can also take years before the patient starts to exhibit symptoms. The longer the surgical sponge remains in the body, the greater the harm to the patient.

A surgical sponge left inside the human body can result in infected abscesses or injury.

Girl’s left kidney operated on by mistake
Civil Hospital surgeon ‘destroys’ records to evade action
Mahesh Sharma

Mandi Ahmedgarh, October 10
Parents and relatives of a teenage girl of a poor backward class family of nearby Assi Kalan village have exhausted their resources to get her right kidney treated but surgeon at the Civil Hospital, Ludhiana, whom they entrusted the treatment not only operated her left kidney by mistake, but also allegedly destroyed the reports and records at the hospital obviously to evade any action.

Tired of the repeated visits to the hospital to get the needful done the family has now sought the intervention of the higher authorities so that the life of the girl may be saved.

Manjit Kaur, a resident of the village, said her daughter Meena had been complaining about pain in the right part of her abdomen for the past around one year. The girl was taken to various clinics and hospitals at Jodhan, Pakhowal and the local town and expensive diagnostic tests were performed on her. Investigating professionals had pointed out that she had a cortical calculus in her right kidney.

“As we can not afford expensive treatment at some good private hospital, my brothers took her to the Civil Hospital, Ludhiana. Meenu was admitted here on April 24. Though the doctor concerned had told us that the stone would be removed by an operation, our daughter was operated on for her left kidney by mistake. The doctors even destroyed all the reports and records of the treatment,” said Manjit Kaur.
Kidney blunder doctor's 'burden'

A doctor who faces being struck off for removing the wrong kidney from a patient who later died, has told a General Medical Council (GMC) disciplinary hearing of the burden he carries as a result of the mistake.

Consultant urologist John Gethin Roberts and surgeon Mahesh Goel are accused of serious professional misconduct in connection with the operation in January 2000 on Graham Reeves, 69, at Llanelli's Prince Philip Hospital. They both deny the charges.

On Tuesday, the General Medical Council decided that the medics were wrong, that they did have a case to answer, and it is now considering if that error amounted to serious professional misconduct.

Addressing the hearing, Mr Roberts, who was supervising the surgery, said the mistake would hang over him for the rest of his life.

"On this particular day I made an error... I am prepared to accept that," he said.

"It is something regrettable, something I will carry with me as a burden for the rest of my days."
Joint Commission International (JCI)

International Patient Safety Goals
International Patient Safety Goals (IPSG)

1. Identify Patients Correctly
2. Improve Effective Communication
3. Improve the Safety of High-alert Medications
4. Ensure Correct-Site, Correct-Procedure, Correct-Patient Surgery
5. Reduce the Risk of Health Care–Associated Infections
6. Reduce the Risk of Patient Harm Resulting from Falls
Goal 1: Identify Patients Correctly

- Ask for **at least two of the three identifiers** including the name surname, birthday (day/month/year) and medical record number.
- Verify patient identification before **all invasive and diagnostic procedures**.
- Patient identification **wristbands** for inpatients.
- "**Time-out**" before starting all surgical and invasive procedures (preventing wrong site, wrong procedure, wrong patient surgery).
- Not use these for identification
  - Patients room numbers, locations.
Goal 2: Improve Effective Communication

Standard IPSG.2.1

• The hospital develops and implements a process for reporting critical results of diagnostic tests.

Standard IPSG.2.1

• The hospital develops and implements a process for handover communication.
Ineffective Communication

- Reporting critical test results
  - Potassium result was reported by lab to nurse
  - Nurse hears result as a very low value of 2.7.
  - After the patient's laboratory results are entered on the screen, it was seen as 8.7.
Improve Effective Communication

- Effective communication, which is **timely, accurate, complete, unambiguous**, and understood by the recipient, reduces errors, and results in improved patient safety.

- Reporting the critical test results,

- **Verbal and telephone orders** that includes: writing down & reading back

- A standard communication method including **asking and answering questions** during **hand-offs**

- **SBAR**

- Inappropriate abbreviations, symbols and wordings
Handovers of patient care within a hospital occur

• between health care providers, such as between physicians and other physicians or health care providers, or from one provider to another provider during shift changes;

• between different levels of care in the same hospital such as when the patient is moved from an intensive care unit to a medical unit or from an emergency department to the operating theatre; and

• From inpatient units to diagnostic or other treatment departments, such as radiology or physical therapy.
JCI Root Cause Categories and Subcategories

- Human Factors: 1827; 22%
- Leadership: 1648; 20%
- Information Management: 1584; 19%
- Assessment: 1417; 17%
- Physical Environment: 529; 6%
- Information Management: 537; 6%
- Operative Care: 345; 4%
- Continuum of Care: 280; 3%
- Medication Use: 236; 3%
Goal 3: Improve the Safety of High-alert Medications

IPSG.3
The hospital develops and implements a process to improve the safety of high-alert medications.

IPSG.3.1
The hospital develops and implements a process to manage the safe use of concentrated electrolytes.
Improve the Safety of High-alert Medications

• When medications are part of the patient treatment plan, appropriate management is critical to ensuring patient safety.

• A frequently cited medication safety issue is the unintentional administration of concentrated electrolytes
  • Potassium chloride [2mEq/ml or more concentrated],
  • Potassium phosphate, sodium chloride [0.9% or more concentrated],
  • Magnesium sulfate [50% or more concentrated].

• Inadequate orientation of staff members.

• Remove the concentrated electrolytes from the patient care unit to the pharmacy.

• Areas where concentrated electrolytes are clinically necessary,
  • Emergency Department
  • Operating Theatre,

• How they are clearly labeled and how they are stored
Goal 4: Ensure Correct-Site, Correct-Procedure, Correct-Patient Surgery

• Ineffective or inadequate communication between members of the surgical team.
• Lack of patient involvement in site marking, and lack of procedures for verifying the operative site.
• Inadequate patient assessment and medical record review, a culture that does not support open communication among surgical team members, problems related to illegible handwriting and the use of abbreviations are frequent contributing factors.
• The essential processes found in the Universal Protocol are
  – Marking the surgical site;
  – A preoperative verification process; and
  – A time-out that is held immediately before the start of a procedure.
### SIGN IN

- **PATIENT HAS CONFIRMED**
  - IDENTITY
  - SITE
  - PROCEDURE
  - CONSENT

- **SITE MARKED/NOT APPLICABLE**

- **ANAESTHESIA SAFETY CHECK COMPLETED**

- **PULSE OXIMETER ON PATIENT AND FUNCTIONING**

- **DOES PATIENT HAVE A:**
  - KNOWN ALLERGY?
    - NO
    - YES

  - DIFFICULT AIRWAY/ASPIRATION RISK?
    - NO
    - YES, AND EQUIPMENT/ASSISTANCE AVAILABLE

  - RISK OF >500ML BLOOD LOSS (7ML/KG IN CHILDREN)?
    - NO
    - YES, AND ADEQUATE INTRAVENOUS ACCESS AND FLUIDS PLANNED

### TIME OUT

- **CONFIRM ALL TEAM MEMBERS HAVE INTRODUCED THEMSELVES BY NAME AND ROLE**

- **SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE VERBALLY CONFIRM**
  - PATIENT
  - SITE
  - PROCEDURE

- **ANTICIPATED CRITICAL EVENTS**
  - SURGEON REVIEWS: WHAT ARE THE CRITICAL OR UNEXPECTED STEPS, OPERATIVE DURATION, ANTICIPATED BLOOD LOSS?

- **ANAESTHESIA TEAM REVIEWS: ARE THERE ANY PATIENT-SPECIFIC CONCERNS?**

- **NURSING TEAM REVIEWS: HAS STERILITY (INCLUDING INDICATOR RESULTS) BEEN CONFIRMED? ARE THERE EQUIPMENT ISSUES OR ANY CONCERNS?**

- **HAS ANTIBiotic PROPHYLAXIS BEEN GIVEN WITHIN THE LAST 60 MINUTES?**
  - YES
  - NOT APPLICABLE

- **IS ESSENTIAL IMAGING DISPLAYED?**
  - YES
  - NOT APPLICABLE

### SIGN OUT

- **NURSE VERBALLY CONFIRMS WITH THE TEAM:**
  - THE NAME OF THE PROCEDURE RECORDED

- **THAT INSTRUMENT, SPONGE AND NEEDLE COUNTS ARE CORRECT (OR NOT APPLICABLE)**

- **HOW THE SPECIMEN IS LABELLED (INCLUDING PATIENT NAME)**

- **WHETHER THERE ARE ANY EQUIPMENT PROBLEMS TO BE ADDRESSED**

- **SURGEON, ANAESTHESIA PROFESSIONAL AND NURSE REVIEW THE KEY CONCERNS FOR RECOVERY AND MANAGEMENT OF THIS PATIENT**

---

*THIS CHECKLIST IS NOT INTENDED TO BE COMPREHENSIVE. ADDITIONS AND MODIFICATIONS TO FIT LOCAL PRACTICE ARE ENCOURAGED.*
Marking the Surgical Site

• Laterality,
• Multiple structures (fingers, toes, lesions), or
• Multiple Levels (spine)

• The mark should be;
  – consistent throughout the organization
  – should be made by the person performing the procedure
  – should take place with the patient awake and aware if possible,
  – and must be visible after the patient is prepped and draped.
Goal 5: Reduce the Risk of Health Care–Associated Infections

- Infection prevention and control.
- Catheter-associated urinary tract infections, bloodstream infections and pneumonia (often associated with mechanical ventilation).
- Central to the elimination of these and other infections is proper hand hygiene.
- Hand hygiene guidelines
- CDC – Bundles

*CDC: Centers for Disease Control and Prevention*
Goal 6: Reduce the Risk of Patient Harm Resulting from Falls

• Falls account for a significant portion of injuries in hospitalized patients.

• Evaluate patients’ risk for falls

• Take action to reduce the risk of falling and to reduce the risk of injury should a fall occur.

• The evaluation could include fall history, medications and alcohol consumption review, gait and balance screening, and walking aids used by the patient.

• A fall-risk reduction program
Preventing Patient Falls

- Trainings to patients and patient families
- Not leaving bed without any help
- Nurse call and frequently used objects are placed near to the patient
- Bed height is fixed at the lowest level
- All side rails in the up position
- Instruct the patient to wear non-skid footwear
- Unused equipment is removed from the room
- Proper lighting
Thank You For Listening!

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Hospital Accreditation Seminar
Iran
August 24th – 25th, 2014