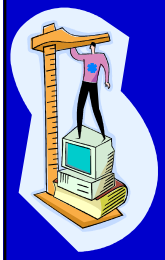


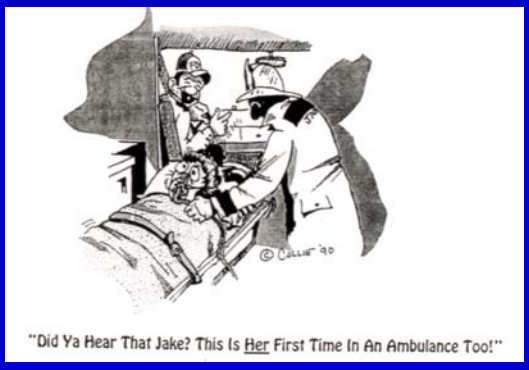
Developing a QI Program

One System's Experience

Beth Adams, MA, RN, NREMT-P
Quality Manager
Fairfax County Fire & Rescue Department

Objectives

- Where can I get a QA program? Can we afford it?
- Identify stakeholders in the QI process
- Overview QI elements & their use in EMS
- Discuss priorities, strategies & politics for implementation



"Did Ya Hear That Jake? This Is Her First Time In An Ambulance Too!"

Combined career/volunteer department
- 1330 uniformed personnel
- 250 operational volunteers

- 400 ALS providers, 930 BLS providers

395 square miles with > 1 million citizens

- 37 stations ~ 7 battalions
  - 37 ALS engines
  - 37 ALS transports (14 designated PTU)
  - 4 BLS ambulances
  - 14 trucks, 8 rescues, 3 tankers, 4 boats

- 3 shifts ~ 24 hour duty

FY 2009 Incidents

EMS	65,662
Suppression	23,689
Public Service	7,227
Total	96,578

What is Quality?

- "conformance to a standard of excellence"
- "Quality is fitness for use"
- know it when we see it?
- Quality is what the customer says it is

Quality-Why Bother?

Who sets quality standards?

- NHTSA ± VaOEMS/NVEMSC
- CAAS & CAMTS
- IAFC & IAFF
- NFPA
- AHA
- NAEMSP & ACEP
- ACS-COT
- Community/customers
- ASTM: F-30 Committee for EMS

12 VAC 5-31-10
Definitions

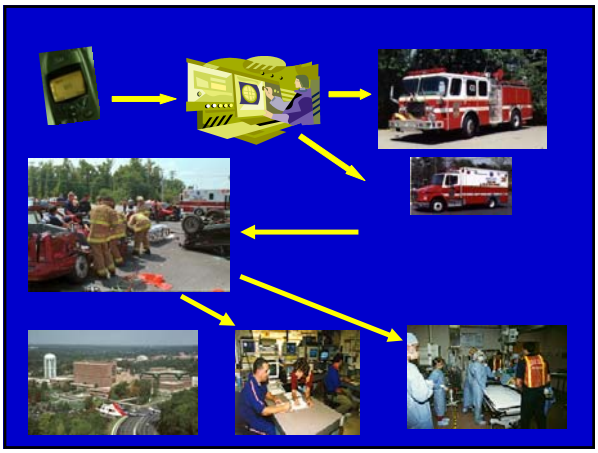
"**Quality management program**" or "QM" means the continuous study of and improvement of an EMS agency or system including the collection of data, the identification of deficiencies through continuous evaluation, the education of personnel and the establishment of goals, policies and programs that improve patient outcomes in EMS systems.

VDH-OEMS Regulations (2003)

12 VAC 5-31-600
Quality management reporting.

An EMS agency shall have an ongoing **Quality Management (QM) Program** designed to objectively, systematically and continuously monitor, assess and improve the quality and appropriateness of patient care provided by the agency. The QM Program shall be integrated and include activities related to patient care, communications, and all aspects of transport operations and equipment maintenance pertinent to the agency's mission. The agency shall maintain a QM report that documents quarterly PPCR reviews, supervised by the operational medical director.

VDH-OEMS Regulations (2003)



Everyone is a Quality Manager

What's in a name?

performance improvement

quality improvement

quality assessment

total quality management

quality assurance

continuous quality improvement

Quality Assurance/Assessment

- Can we really assure quality?
- Assessment ≠ Assurance

Quality Assurance ~ Donabedian

- Structure: what's in place
  - Standards, credentials, equipment, Facilities
- Process: medical care provided
  - intermediate measures: time to cath lab, intubation success, EMS scene time, time to defibrillation
- Outcomes: results
  - 6 D's: death, disability, disease, destitution, discomfort, dissatisfaction,

Quality Assurance

- Prospective
  - Structural Elements
  - Conformance to Standards
- Concurrent
  - Oversight as care being rendered
- Retrospective
  - Post event reviews

QA ~ Principles

- Objective Measures
- Analytic Methods
- Peer Review
- Development of Fixed Standards
- Focus on Feedback to Providers
- Measures Outcomes

QA: Toxic Side Effects

- "hunt for bad apples" … watch 100% to Find 5%
- What happens with results
- Problem ID, not problem solving

Quality Improvement

- Adopted by health care from Industry
  - W. Edwards Deming
  - J. Juran
- Statisticians who understood the impact of statistics on People!

QI-Principles

- Processes are key
  - 80% of Errors are faulty processes rather than people problems
  - patient flow, information flow, material flow
- Patient-focused processes
- Integrate quality efforts into organization
  - Data driven decision making
- "Every defect is a treasure"

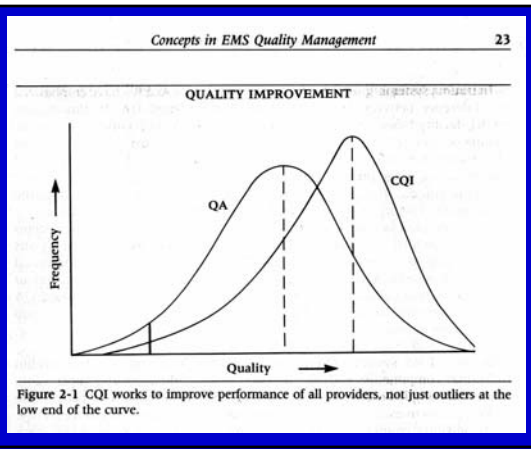


Figure 2-1 CQI works to improve performance of all providers, not just outliers at the low end of the curve.

Understand Variation

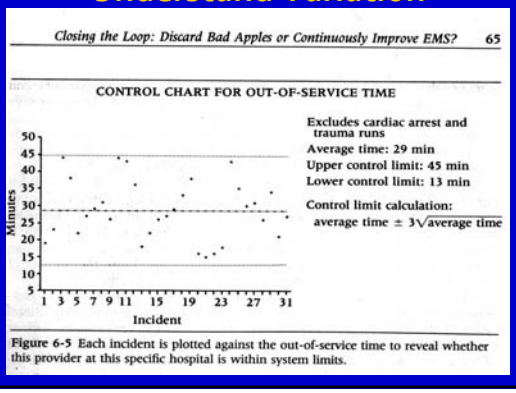
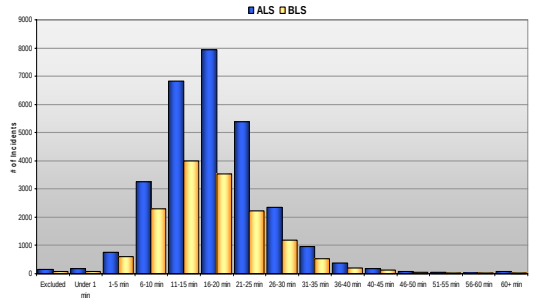
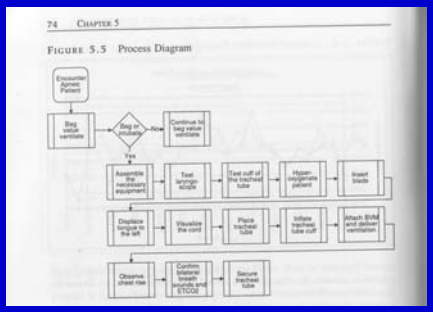


Figure 6-5 Each incident is plotted against the out-of-service time to reveal whether this provider at this specific hospital is within system limits.

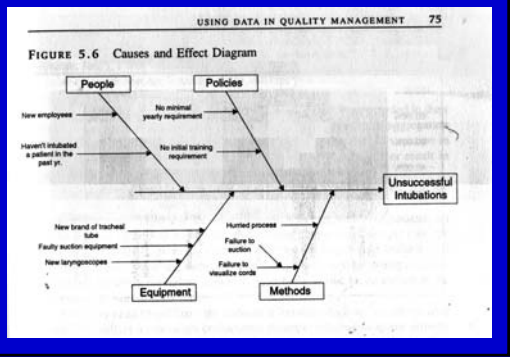
On Scene Time Intervals



Understanding Processes



Analyzing Processes



Process Improvement: Six Sigma

- Derived from manufacturing
  - 3.4 defects/million
- Process Improvement
  - Customer focused, "Metrics" driven
- Motorola, GE

Institute of Medicine

- Committee on the Quality of Health Care in America was formed in 1998
  - To err is human (1999)
  - Interpreting the Volume-Outcome Relationship in the Context of Health Care Quality (2000)
  - Exploring Innovation and Quality Improvement in Health Care Micro-Systems: A Cross-Case Analysis (2000)
  - Bridging the Quality Chasm (2001)
  - Future of Emergency Care (2006)

Errors in EMS

Health Care Should Be

- Safe
- Effective
- Patient-centered
- Timely
- Efficient
- Equitable

Obstacles to EMS Quality

- If you've seen one EMS system.....
- Lines of Authority
  - Clinical outcomes are not aligned with leadership, budgets
- Data issues
  - Linkage; outcomes, etc

Quality Management Options

QA vs QI

Quality Management Options: you make the call

Seek out & destroy the evil doers

or

Build foundation from within organization

Seek out & Destroy the Evil Doers

Build foundation from within organization

- Formal leadership
- Informal leadership
- Employee groups

Continuous Quality Improvement

System Efficiency & Efficacy

Customer
Counting
Culture
Communication

Patient care is the highest priority.

It must be:

- high quality
- compassionately delivered
- consistent throughout the system
- sustainable over time through integrated CQI & training efforts
- continuously re-evaluated and refined

Customer

Public Perception of EMS

EMERGENCY!

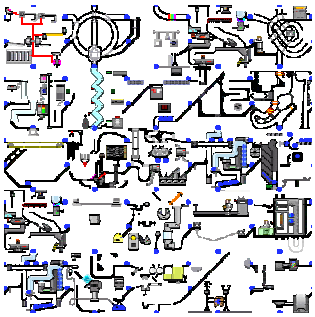
Customers

Customer satisfaction can be created or destroyed in an instant by a simple word or deed.

Counting

What?!
When?!
Consequences?!

"Not everything that counts can be counted, and not everything that can be counted counts."



Counting

- On-going
  - cardiac arrest, interfacility transport, refusals
  - chest pain, respiratory distress, pain
- Episodic
  - high risk, low frequency events
  - adverse events ± medical practice violations
  - "patient care concerns"
- Ad hoc requests

Culture

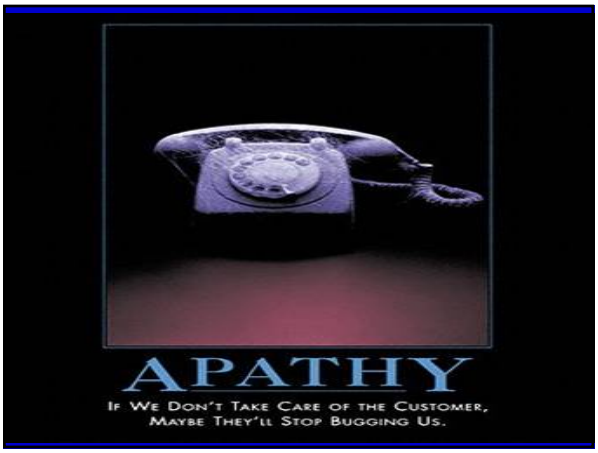
Assess your organizational culture

Is it an environment for …

commitment & change?
growth & development?

or

apathy & stagnation?
status quo & treading water?



Communication

Lessons Learned

- Confidentiality
- Paper flow & documentation
- Misadventures & missteps

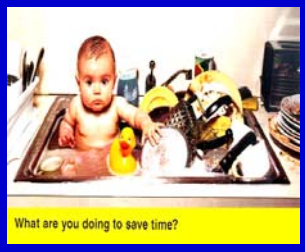
Confidentiality

- Rumor control
- Virginia General Assembly
  - HB 610 (2006)

EMS Quality Improvement Initiatives are Privileged & Confidential ~ Protected from Disclosure under Virginia Code § 8.01-581.17

Paper Flow & Documentation

- Process
  - Inquiry intake form
  - Investigation report
  - Review panel conclusions
  - Closure
- Tracking



Misadventures & Missteps

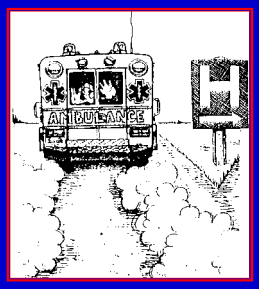
- Assumptions
- "No news is good news"
- Not having a process
- Not following process
- Taking action before getting all of the facts

Fatal Mistakes

- Study someone before you tell them
- Distribute results before allowing opportunity for improvement

Conclusions

- Quality = a crucial Issue in EMS & all of health care
- Public wants/expects both
  Quality Assurance and Quality Improvement
- Problem identification is the easy part
- Successful QI requires …
  organizational commitment & resources



beth.adams@fairfaxcounty.gov

"The important thing is not to stop questioning.
Curiosity has its own reason for existing."

Albert Einstein