

## Quality in Surgery

Do you practice quality surgery?

## Quality in Surgery

Yes, I practice *HIGH* quality surgery!

## Quality in Surgery

Can you do it better?

## Quality

Meets needs  
Exceeds expectations

## Quality

Patient Safety  
Clinical Effectiveness

## Quality not improved by

- Name, blame and shame
- M & M Rounds
- Regulatory bodies
- Legal judgments

## Forgive and Remember

### Managing Medical Failure

Charles L. Bosk  
1979, 2003

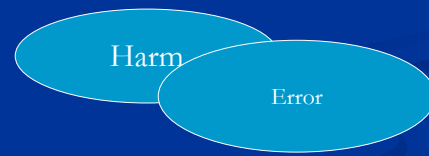
Surgery creates  
expectation of  
positive outcomes

Negative outcomes  
“what did you do  
wrong?”

## Forgive and Remember



## Error and Harm



## Quality is improved by

- NSQIP
- RCT
- TQM
  - Plan - Do - Check - Act

## Deming

- Statistical process analysis
- 14 Steps

## 14 Steps

- 1. Create constancy of purpose towards improvement of product and service, with the aim to become competitive, stay in business, and to provide jobs.

## 14 Steps

- 2. Adopt the new philosophy. We are in a new economic age. Western management must awaken to the challenge, must learn their responsibilities, and take on leadership for change.

## 14 Steps

- 3. Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by creating quality into the product in the first place.

## 14 Steps

- 4. End the practice of awarding business on the basis of price tag. Instead minimize total cost. Move towards a single supplier for any one item, on a long term relationship of loyalty and trust.

## 14 Steps

- 5. Improve constantly and forever the system of production and service, to improve quality and productivity, and thus constantly decrease costs.

## 14 Steps

- 6. Institute training on the job.

## 14 Steps

- 7. Institute leadership (see point 12.) The aim of leadership should be to help people and machines and gadgets to do a better job. Leadership of management is in need of overhaul, as well as leadership of production workers.

## 14 Steps

- 8. Drive out fear so that everyone may work effectively for the company.

## 14 Steps

- 9. Break down barriers between departments. People in research, design, sales, and production must work as a team, to foresee problems of production and in use that may be encountered with the product or service.

## 14 Steps

- 10. Eliminate slogans, exhortations, and targets for the work force that ask for zero defects and new levels of productivity.

## 14 Steps

- 11a. Eliminate work standards (quotas) on the factory floor. Substitute leadership.
- 11b. Eliminate management by objective. Eliminate management by numbers, numerical goals. Substitute leadership.

## 14 Steps

- 12a. Remove barriers that rob the hourly worker of his right to pride of workmanship. The responsibility of supervisors must be changed from sheer numbers to quality.
- 12b. Remove barriers that rob people in management and in engineering of their right to pride in workmanship. This means *inter alia*, abolishment of the annual or merit rating and of management by objective, management by the numbers.

## 14 Steps

- 13. Institute a vigorous program of education and self-improvement

## 14 Steps

- 14. Put everybody in the company to work to accomplish the transformation. The transformation is everybody's job.

## Wisdom of Crowds

- **The Wisdom of Crowds: Why the Many Are Smarter Than the Few and How Collective Wisdom Shapes Business, Economies, Societies and Nations**

by James Surowiecki

## Wisdom of Crowds

- 1. Diversity.
- 2. Independence.
- 3. Decentralization.
- 4. Aggregation

“each person comes with information and error”

## What to do?

- Data
- Effective teams
- Simulations
- Plan - Do - Check - Act