# Reducing Medical Laboratory Error with Software

Our Quality Platform is a **DISRUPTIVE** breakthrough in quality management! Not just better – it is truly revolutionary!

# Bad patient results from medical laboratories harm or even kill patients and add $ Millions to healthcare

**Labs Need M.O.R.E. QUALITY**

## The Problem

### Laboratory Results Drive MOST decisions that impact the $2.7T healthcare costs in the USA

- Lab results impact >75% of diagnostic decisions
- Quality management is a difficult challenge for laboratory directors
- Existing recommended QC practices allow 5% clinical errors resulting in $ Millions in cost
- Existing Statistical QC (Sigma & Westgard Rules from 1980s)
  - is confusing, inaccurate, cumbersome and ineffective
  - lacks the mathematical capability to manage risk

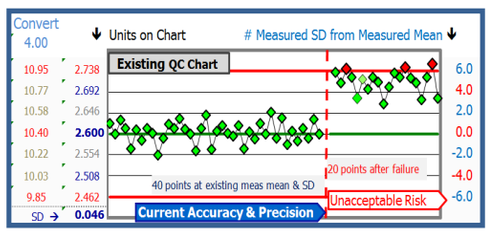
**Risk evaluation** – process of comparing the **estimated risk against given risk criteria** to determine the **acceptability** of the risk. CLSI EP 23-A

There is no place in the sigma equation for "Acceptable Risk Criteria."

**Existing QC processes allow too many errors and fail new regulations**

- Quality standards vary between laboratories, or may not be used at all.
- Analytical quality is expressed as a sigma-metric calculated with a dozen different formulae and estimated data. Six sigma applies 1980's manufacturing assumptions and standards.
- Sigma metrics do not vary with acceptable risk criteria or patient test volume.
- Staff are not competency-verified in QC. Practices vary from lab to lab.
- Processes like Westgard sigma-rules claim to produce acceptable QC processes. They are designed to stop at 5% error rates, - 1 allowable error in 20. When challenged to detect unacceptable risk levels, they fail at lower quality levels.

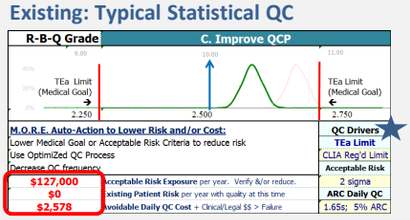
Lab staff think this is a good QC chart.



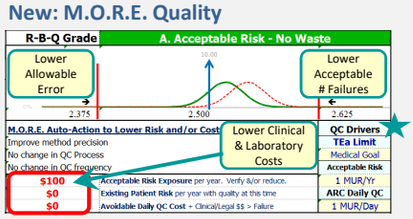

In fact, several patient runs would be reported before flagging this simulated failure of acceptable risk criteria.

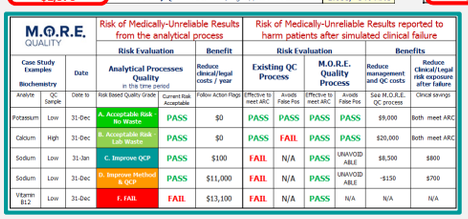
## The First Fully-Automated Quality Control Process!

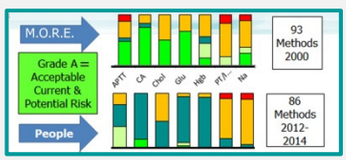
**Existing: Typical Statistical QC**




**New: M.O.R.E. Quality**




**Review hundred of methods in minutes!**

## The Solution

### Mathematically Optimized Risk Evaluation (M.O.R.E.™)

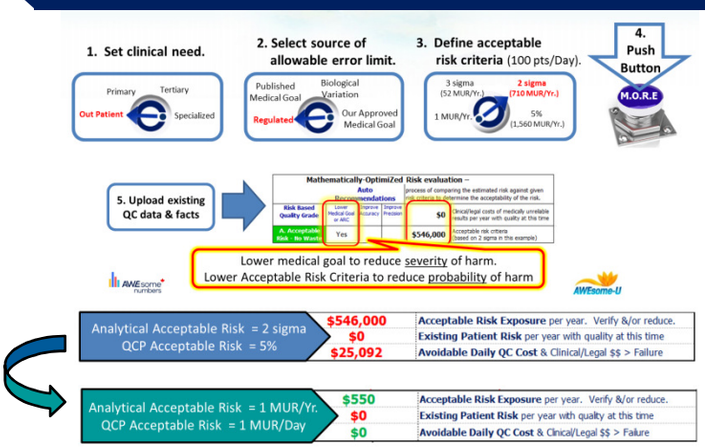
- is driven by locally-approved medical goals and acceptable risk criteria (ARCs) to meet medical & financial standards
- enables multi-site risk management
- consistently guides front line action
- removes 90% of human error from QC
- projects financial benefits of improved quality
- creates risk metrics, evaluations & recommendations
- auto recommends & verifies QC process to meet ARCs
- SaaS based Quality Platform
- is clear, accurate, dependable and effective

## The Benefits

### Better Medical Lab Quality drives healthcare costs down

- Reduce financial risk exposure by 50% overnight
- Easy to implement with minimal training – huge, quick ROI
- Enhances, not replaces, existing quality control software
- Reduce actual clinical, legal and laboratory costs
- Meet regulations – ISO; CMS' IQCP and CLSI's EP23A
- Intuitive reports, visualizations & recommendations replace a stack of reports & confusing statistical jargon
- Guide consistent QC practices throughout organization
- The same facts create the same action by everybody, everywhere
- M.O.R.E. Quality is a process that increases/verifies staff competency

## The Process





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