

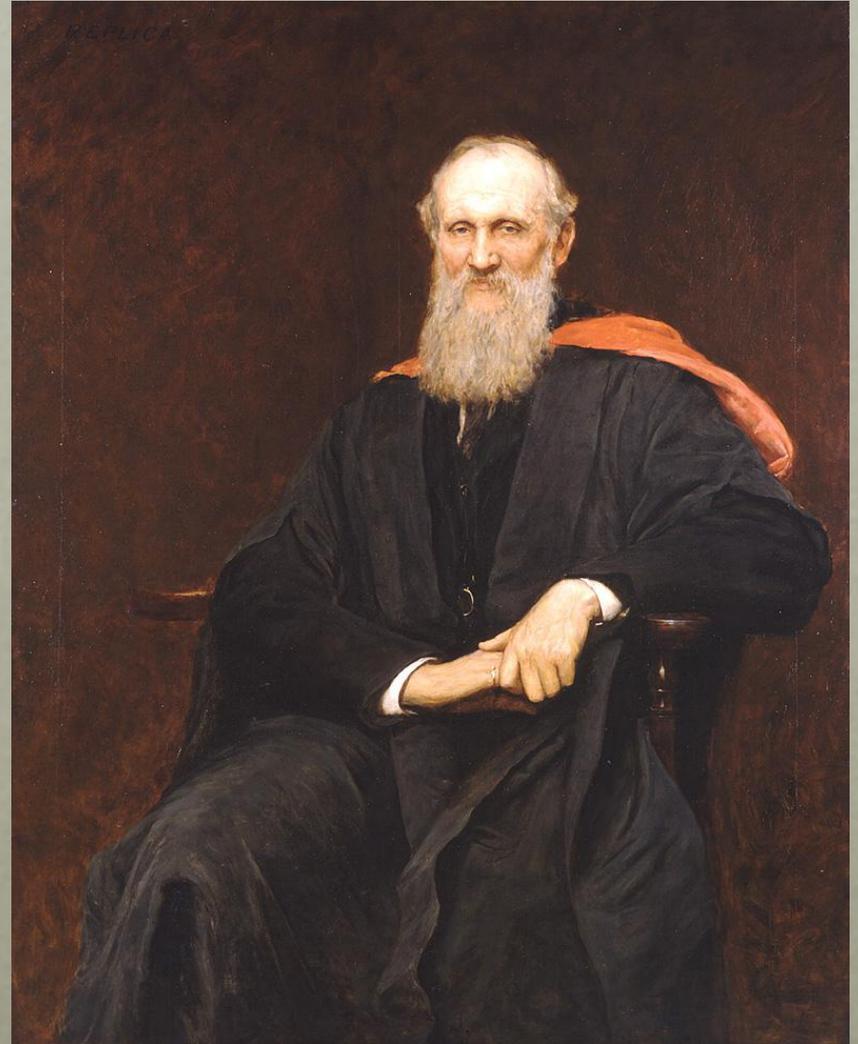
THE PRIME IMPORTANCE OF ONGOING MEASUREMENT IN ASSURING QUALITY

Christian Dameff

Jeff Tully

*“When you cannot
measure it, when you
cannot express it in
numbers, your knowledge
is of a meager and
unsatisfactory kind.”*

- Lord Kelvin



WHO WE ARE

- QI involves a collaboration between dispatch centers, fire departments, and the Arizona Department of Health Services.
- We are interested in helping optimizing a process that already involves great dispatchers.
- We are **NOT** auditors, individual performance evaluators, or regulators.

WHY WE DO THIS

- Out of hospital cardiac arrest has a national survival rate of 8%. (1)
- Dispatch assisted bystander CPR has been shown to be a crucial factor in survival. (2)
- Studying and measuring current practices can lead to new protocols further strengthening the chain of survival.

(1) MMWR Weekly February 15, 2002/51(06); 123-6: State-Specific Mortality from Sudden Cardiac Arrest --- United States, 1999.

(2) Smith E., Cooke M., Woollard M., Ferri M.. Dispatcher-assisted CPR for out of hospital cardiac arrest. Journal of Emergency Primary Health Care (JEPHC). 2005

HOW WE DO THIS

- We collect, listen, and analyze suspected cardiac arrest calls recordings from individual dispatch centers.
- We objectively measure important quantitative factors such as time points and whether CPR was in progress at the start of a call.
- We subjectively measure qualitative factors such as whether the caller was hysterical or effectiveness of CPR instruction.
- We record these factors and input them into a database to compute key metrics. The results are then given back to the individual centers in the form of a standardized report.

QI FORM

TELEPHONE-ASSISTED CPR QUALITY ASSURANCE EVALUATION

Disp Date ____/____/____ Inc# _____

Dispatch Agency: Phx ___ Mesa ___ Other _____

Time of 911 call _____

Time in call when final dispatcher first addressed caller _____

Time of dispatch: BLS: ___ ALS: ___ Patient is: Adult ___ Child ___ Infant ___

Breathing Normally Yes ___ No ___ Unk ___ Agonals reported or heard _____

Patient Conscious Yes ___ No ___ Unk _____

CPR already in progress when call received? Yes ___ No ___

Need for CPR recognized (by QI): No ___ Yes ___ Time: _____

Need for CPR recognized by dispatcher: No ___ Yes ___ Time: _____

Instructions given: No ___ Yes ___ Time instructions began: _____

Time in call when breathing assessment began _____

Time in call when breathing assessment ended _____

Time of first compression _____

Time of first ventilation (if appropriate) _____

Delay in identifying need for CPR? _____

Rescuer was caller Yes ___ No ___ Rescuer knew how to do CPR? Yes ___ No ___ Unk ___

CPR coached appropriately? ___ Rate? Yes ___ No ___ Depth? Yes ___ No ___

Continuous Coaching Yes ___ No ___ Caller stayed on line entire time Yes ___ No ___

Dispatcher was assertive Yes ___ No ___ Call was sent ASAP Yes ___ No ___ Probably ___

Language Barrier: No ___ Yes ___ Language: _____ Language Line Used Yes ___ No ___

CPR Instructions **not** given _____ Obvious 901H ___ DNR ___ Difficult Access _____

Unable to calm caller? ___ Dangerous environment ___ Caller left phone ___

Other _____

PRELIMINARY DATA

- Total calls 281
- Average time to first compression: 244.4 sec (≈ 4 min)
- Average time to start of instructions: 182.1 sec (≈ 3 min)
- Percent of calls where victims received both compressions and ventilations 12.8%
- Percent of calls where caller refused or was unable to perform CPR 27.5%

CLOSING

- Future directions-
 - SHARE begins process but centers gradually take over self QI
 - Expand number of dispatch centers

Hindsight is 20/20...we appreciate the incredibly difficult circumstances of your job and appreciate the work you do for our communities every day of the year.