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FOR IMMEDIATE RELEASE

CQI in Healthcare - Is It Possible?

(The Rogosin Institute, New York, New York and MIQS, Boulder, Colorado)

People are individuals. They differ. Patients differ too. Yet, patients with chronic diseases are frequently treated using protocols that ignore patient variability and that have rarely been tested in diverse populations. They do not take into account characteristics that may influence responses to treatment such as age, race, gender, and co-morbid illnesses.

Continuous Quality Improvement (CQI) is an iterative, continuing, process used in industrial manufacturing. It enhances quality, and reduces manufacturing costs. It has the potential to accommodate care of patients as individuals, contain variability between individual patients and their co-morbid conditions and also reduce healthcare costs. However, CQI is little used in medicine.

On May 20, 2014, the online journal, PLOS ONE, published a paper http://dx.plos.org/10.1371/journal.pone.0097066 by researchers at The Rogosin Institute who studied 250 patients with End Stage Renal Disease treated by hemodialysis in a unit utilizing a patient-centered, coded, electronic medical record. Since anemia is a critical and costly problem in dialysis patients, treatment of anemia was analyzed using intravenous iron and epoetin (EPO) in a 12-month period of standardized protocol use. Aiming to achieve optimal hemoglobin (Hb) with minimum EPO doses and to maintain stable Hb and EPO, researchers applied the CQI process for an 18-month period.

The results were striking:

1. Hb **increased** 9% while EPO given decreased 36%. At the same time, EPO use In the US decreased 40%, but Hb **decreased** 7%. Hb was higher than in 10 countries where patients received more EPO than in the CQI study unit.
2. Hb variation decreased 27%
3. Iron deficiency was rare.
4. New orders for IV iron decreased 40%, for EPO 84%.
5. Staff time for data review and order writing decreased 50%.
6. EPO charges decreased 32%; they were $23 below the Medicare bundle allowance.
7. Mortality was 42% less than the US average.

This study showed that a CQI process wedded to an appropriately designed EMR can lead to better outcome and reduce cost. Neither alone sufficed. Clinical and administrative leadership is needed for introduction and implementation of CQI, and education and encouragement of physicians, nurses, and other caregivers.

CQI enabled caregivers to ask why therapeutic objectives were not met, promoted correction of underlying problems or complications, and did so repeatedly and particularly.

The CQI process is sustainable, practical and appropriate for complex, expensive therapies now used in chronic disease patient care. These results suggest that it provides a model to address the issues raised by the recent Institute of Medicine report, Best Care at Lower Cost: The Path to Continuously Learning Health Care in America. It also provides an approach to design of methodologies to optimize physician decision making for individual patient care in heterogeneous patient populations. Victor E. Pollak, M.D. Senior Vice President and Medical Director, MIQS Inc., and co-author of the paper comments: This study showed that, using an encoded electronic medical record, it is possible to re-engineer daily medical practice, and to use data from that practice to improve patient care at much lower cost.

MIQS, Inc.

Founded in 1990, MIQS is the leading provider of award-winning electronic medical record and billing software used in the care of end stage renal disease patients who are treated with hemodialysis and peritoneal dialysis.

The Rogosin Institute

The Rogosin Institute mission is to provide the best possible health care and quality of life for people with kidney disease.