CLINICALDigest

Brief summaries of the latest clinical findings

Heart Disease

What's "Real" QOL for AFib Patients?

When a patient with atrial fibrillation (AFib) is asked questions about health, such as "Are you bothered by palpitations?" and "Are you limited in your ability to have recreational pastimes?" the answers can be a good indication of clinical changes as well as changes in quality of life (QOL), according to researchers from the University of Toronto in Canada; the University of Alabama at Birmingham; St. Jude Medical in St. Paul, Minnesota; Beth Israel Deaconess Medical Center in Boston, Massachusetts; the University of Kansas Hospital and Mid America Heart Institute, both in Kansas City, Missouri; and Good Samaritan Hospital in Los Angeles, California.

The researchers used the Atrial Fibrillation Effect on QualiTy of Life (AFEQT) questionnaire, a 20-question survey shown to be valid, reliable, and sensitive to clinical changes in patients with AFib. Patients completed the AFEQT and the Atrial Fibrillation Severity Scale at baseline and 3 months, and a Global Change form at 3 months. Physicians completed a Physician Global Change form at month 3.

Of the 214 patients, 196 rated themselves as *no change* or *improved* on the Patient Global Change form, and 189 patients had *no change* or *improved* on the Physician Global Change form. Patients who rated themselves on the Global Change form as having *unimportant change* had a mean increase in the AFEQT score of 6.9 points; whereas those who rated themselves as having had *small improvements* had a mean change in the AFEQT score of 20.9. In patients who rated a moderate improvement in global QOL, the AFEQT scores rose from 51.9 to 70.8 (18.9 points). Patients with moderately improved AFib symptoms had an increase of 17.9 units on the AFEQT scale.

The physicians tended to see the patients as doing better than the patients felt they were. In 51 cases, the physician's global rating of change indicated more improvement than the patient's rating. Only in 18 cases did the physician's rating indicate less improvement than the patient's rating. Moreover, the physicians' global ratings of change were not able to distinguish those patients with small clinical improvement from those with no clinical change. However, the patients who the physicians thought had improved by a moderate amount had a mean change in the AFEQT score of 21 points.

The researchers counted a change score of 4 to 5 points as a "moderate and unambiguously meaningful improvement in QOL." As a conservative estimate, they say, "we assume that if the AFEQT score change is at least 19 points, there is very likely to be a substantial improvements in QOL, and this was achieved in 35% of the entire cohort; this improvement can be termed a *meaningful important* improvement."

Although the researchers found the AFEQT questionnaire measured meaningful improvements from both patients' and physicians' point of views, the researchers recommend that real meaningful improvements be assessed from the patient's point of view. "Since patients are the ones who experience their health-related quality of life," they note, "the patients' global assessment is the most relevant anchor to judge whether a difference is meaningful."

However, they pointed to research that has shown patients' recollections can alter their current feelings. Given that, it might be that some of the patients in the *little or no change in global score* group (53% of all patients) had *true improvement* in at least some symptoms, the researchers say.

Source: Dorian P, Burk C, Mullin CM, et al. *Am Heart J.* 2013;166(2):381-387.e8. doi: 10.1016/j.ahj.2013.04.015.

Mental Health

Stroke Risk and Later Dementia

Having a stroke at midlife is rare, but having the risk factors for stroke at midlife can lead to a detectable decline in cognitive performance over 10 years, say researchers from the Centre for Research in Epidemiology and Population Health in Villejuif, the Université de Versailles in St. Quentin, and Hôpital Ste. Périne in Paris, all in France; and University College London in the United Kingdom. Having > 1 component of the Framingham Stroke Risk Profile (FSRP)—even if it's only low- to mid-level risk—is the danger sign.

The researchers studied 4,153 men and 1,657 women from the Whitehall II study, a longitudinal cohort study. They administered cognitive tests 3 times over the 10 years and assessed the patients according to the FSRP, which scores on age, sex, systolic blood pressure, diabetes, smoking, cardiovascular disease, atrial fibrillation, left ventricular hypertrophy, and use of antihypertensive medicines.

Even in this "relatively low-risk" patient population, a higher FSRP score led to a chartable cognitive

decline. A score of ≥ 6 was associated with a faster decline in phonemic and semantic fluency, vocabulary, and global cognition domains but not memory and reasoning.

Among the risk factors studied, only diabetes independently predicted cognitive decline. The researchers cited other studies that have linked diabetes to longitudinal changes on magnetic resonance imaging markers of vascular brain injury, incident cognitive impairment and cognitive decline, and incident dementia. There is "compelling evidence," they add, for a causal relationship between alterations in glycemic control and subsequent brain ischemic and atrophic changes.

Overall, it seems that the FSRP is a good predictor of cognitive impairment and cognitive decline, the researchers say. But because aggregation of vascular risk was key, they suggest that vascular risk assessment may be better determined using a multifactorial risk score.

Their findings supported the idea that stroke risk factors begin to exert their influence on cognition early and may act in an additive manner. The findings were particularly important, the researchers feel, because the mean age of the study group was only 55 years. They noted that dementia was characterized by a long preclinical phase, and individuals who developed dementia may have shown subtle cognitive changes as early as 2 decades before the diagnosis. Given the important vascular contribution to cognitive impairment, they say, detection and treatment of risk factors—particularly at midlife—may be most effective in preventing or reducing cognitive impairment. Again citing other research, they point out that recent projections indicated that as many as half of Alzheimer cases might be prevented by risk factor reduction.

Source: Kaffashian S, Dugravot A, Brunner EJ, et al. *Alzheimers Dement.* 2013;9(5):572-579. doi: 10.1016/j.jalz.2012.07.001.

PREVENTIVE MEDICINE

Encouraging Herpes Zoster Vaccinations

One in 3 people will have herpes zoster, or shingles, in their lifetime, according to the Centers for Disease Control and Prevention. But even though a vaccine has been available since 2006, only 14% of adults aged > 60 years have received it.

Because lack of face-to-face discussion time with patients has been identified as one of the barriers to better vaccination rates, researchers at an Ohio State University clinic in Columbus investigated a new care model: using an electronic medical record (EMR) to communicate with patients and adding a pharmacist to the care team. They conducted a 6-month study to find out whether the EMR intervention would increase vaccinations more effectively than communications sent by mail.

The study involved 2,589 patients aged ≥ 60 years who had no documentation of having received a herpes zoster vaccination: 674 patients with activated personal health record status and 1,915 without. Of the patients with personal health records, 250 received information about shingles and the vaccine via electronic message; 424 were randomized to standard care. Of the patients who had no personal health records, 250 were randomized to receive an informational packet via U.S. mail and 1,665 received standard care. Patients were asked to contact the clinic if they were interested in receiving the vaccine. If they had already received the vaccine, they were asked to contact the clinic to have their record updated. The pharmacist reviewed the medical record to confirm that the vaccine was not contraindicated. The eligible patients were then mailed a prescription for the vaccine. Six months later, a second EMR report was generated to determine the change in vaccination rates.

Regardless of the type of health record, vaccination rates were significantly higher for the intervention groups compared with the usual-care groups: 13% of the intervention group with personal health records had been vaccinated compared with 5% of the control group. In the nonpersonal health record group, the rates were 5% vs 1.8% for the controls.

The researchers say the pharmacist was an integral part of the team, playing a "vital role" in ensuring patient safety, updating immunization and contraindication information, and reducing the workload of the physician. The chart review turned out to be particularly crucial, revealing a gap between vaccine administration and an updated medical chart—many patients had actually received the vaccine, but the chart didn't reflect it.

Source: Otsuka SH, Neeraj H, Tayal NH, Porter K, Embi PJ, Beatty SJ. *Am J Med.* 2013;126(9):832.e1-832.e6. doi: 10.1016.j.amjmed.2013.02.018.

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