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Provider Attitudes Affect Older Patients' Enthusiasm Toward Email

Patient enthusiasm was high, especially among minorities and men

Older patients are enthusiastic about the option of using email to communicate with their physicians, according to a study published in a recent issue of the *Journal of Medical Internet Research*. Those who rated their interactions with the physician not as highly but who judged their physician to have good communication skills showed the most interest in electronic exchanges.

The ever-increasing pervasiveness of the Internet and email offers the doctor-patient relationship another context within which to grow. Some research had suggested it to be an untapped resource with great potential for positive impact, but data were limited. The study authors thus sought to inves-

tigate, and they chose elderly patients as the study population because this group is at high risk for multiple comorbidities and poor communication with the physician. Older people's concerns are also more likely to be overlooked, or not addressed adequately for their peace of mind — providing a good opportunity for electronic communication to meet unmet needs.

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The authors used data collected in 2003 from two large randomized controlled trials in southern California. A final, pooled sample of 4,059 patients older than age 65 years, along with their 181 physicians, was interviewed and included. Only 1.3 percent of patients reported communicating via email with their providers, but nearly half (49.3 percent) indicated an enthusias-

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tic interest in doing so. With each year increase in age, the odds of being enthusiastic decreased by approximately 0.97. African Americans, Hispanics, and men were more enthusiastic than whites and women, and those patients who did not use email in general were less likely to show interest. One possible explanation cited in the study is that minorities and men are less likely to be vocal during the office visit, and may therefore benefit more from external support.

Physician attitude and communication skills affected patient opinion as well: patients whose doctors were enthusiastic, good communicators, and who usually — but not always — allowed enough time to cover issues showed the most interest. Physicians themselves were 4.96 times more likely to express interest in electronic communication if they

were somewhat or very dissatisfied with their current work situation, versus very satisfied. The authors surmise dissatisfaction may lead to a desire to try other methods of communication.

The study authors conclude that email and Internet use will only grow and could provide a basis for reimbursement-related policy changes. They add that “significant opportunities exist to use electronic tools to overcome some communication barriers affecting older patients.”

Source: Singh H, Fox SA, Petersen NJ, et al. 2009. Older patients' enthusiasm to use electronic mail to communicate with their physicians: cross-sectional survey. *Journal of Medical Internet Research* 11(2):e18.

Review of Three Noninvasive Carotid Imaging Modalities

DSA has largely been replaced by Doppler ultrasound, magnetic resonance angiography, and CT angiography

Clinicians have a plethora of imaging modalities to choose from when it comes to the carotid artery. Although digital subtraction angiography (DSA) remains the gold standard, noninvasive tools such as ultrasound, magnetic resonance angiography (MRA), and CT angiography have largely replaced it, according to the authors of a review published in the *Lancet Neurology*.

The study authors reviewed literature pertaining to imaging in relation to the diagnosis and management of patients at risk for stroke. There is a short time window for effective stroke prevention, and stenosis severity must be determined quickly so that the most appropriate treatment may be decided upon. Carotid imaging must, therefore, facilitate accurate grading of the

carotid stenosis as well as be able to track therapeutic effect.

Traditionally, DSA was used to assess carotid stenosis, and many still consider it to be the most accurate method. High-resolution images that reveal flow dynamics are produced, and newer versions with three-dimensional rotational views add to the

original two-dimensional DSA. This modality is invasive, however, requiring femoral artery puncture and direct intra-arterial injection of contrast material. The review authors also found that patients have a significant risk of neurological complications with the procedure. Further, it demands

an experienced physician and is time-, money-, and labor-intensive. For these reasons, interest in other, noninvasive carotid imaging options has grown.

The authors conclude that contrast-enhanced MRA is the more accurate noninvasive carotid imaging tool, but that multi-slice CT angiography may soon become the most popular choice.

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The authors consider Doppler ultrasound, MRA, and CT angiography to be the most important and most accurate modalities in terms of replacing DSA for carotid imaging. Doppler ultrasound's strengths include portability, low cost, and the ability to assess stenosis, flow dynamics, and both plaque and vessel wall structure. But because ultrasound does not show surrounding areas, it relies on extrapolation, which can limit accuracy. It is also subject to operator and hospital variability. These characteristics make Doppler ultrasound a good screening test before confirmation via MRA or CT angiography.

Because MRA is similar to DSA as well as being noninvasive, it has become quite popular among clinicians. Contrast-enhanced is the type of MRA of choice, as it represents an improvement over the older time-of-flight MRA. The main concern is lack of spatial resolution; the authors say this may improve in the near future though, as technological development advances.

CT angiography is the third non-invasive tool, which the authors argue will become the technique

of choice for noninvasive carotid imaging. Although it exposes the patient to ionizing radiation and may not be ideal in cases of extensive plaque calcification, it is very accessible and capable of producing high-quality images with a spiral CT machine. This method is slightly less accurate but outweighs the risk of DSA, as do Doppler ultrasound and MRA.

The authors conclude that contrast-enhanced MRA is the more accurate noninvasive carotid imaging tool, but that multi-slice CT angiography may soon become the most popular choice. They add that "imaging techniques such as high-resolution MRI or CT combined with PET hold the promise of earlier and more specific diagnosis, and will enable individualized patient-centered diagnosis and therapy."

Source: U-King-Im JM, Young V, Gillard JH. 2009. Carotid-artery imaging in the diagnosis and management of patients at risk of stroke. *Lancet Neurology* 8:569-580.

Hot Topic Highlights

Neuroscience Domain recently posted the following Hot Topics to your website:

Soy May Help Prevent Stroke

Eating dried soybeans, tofu, and other foods rich in soy, as well as drinking soymilk, is associated with a lower risk of the most common type of stroke, according to a study published in *Neuroepidemiology*. The authors found that the amount of fruits, vegetables, and soy foods eaten was significantly lower in patients who had a stroke than in patients who did not have a stroke — and there was a 0.2 percent reduction in stroke risk with each additional gram of soy consumed each week. The positive effects of soybeans and soymilk were greater than those of tofu, but it appeared that consuming all three types of soy products led to a substantial decrease in stroke risk.

Source:

Liang W, Lee AH, Binns CW, et al. 2009. Soy consumption reduces risk of ischemic stroke: a case-control study in southern China. *Neuroepidemiology* 33:111-116.

Statins Beneficial After First Stroke

Patients who take a statin drug after stroke reduce their risk of a second stroke in the next 10 years, as well as improve their chances of long-term survival, according to a study published on the *Neurology* website. Millions of patients take statins, and their benefits are many. The authors found that patients who were given a statin after leaving the hospital for a first-ever stroke had a 7.6 percent risk of second stroke, versus a 16.3 percent risk for those not receiving a statin. This effect appeared to be related to the ability of the statin to greatly reduce levels of LDL or “bad” cholesterol.

Source:

Milionis HJ, Giannopoulos S, Kosmidou M, et al. 2009. Statin therapy after first stroke reduces 10-year stroke recurrence and improves survival. Published on May 26, 2009 on the *Neurology* website.