

Public release date: 18-May-2009

Contact: Nina Eminovic, Ph.D.

n.eminovic@gmail.com

[JAMA and Archives Journals](#)

Web-based consultations may reduce referrals to dermatologists

A Web-based system allowing general practitioners to confer with specialists regarding patients with skin conditions may reduce referrals to dermatologists by approximately 20 percent, according to a report in the May issue of *Archives of Dermatology*, one of the JAMA/Archives journals.

"In Western countries, health services face increasing pressures because of the aging population and patients' increasing demands for evaluation by specialists," the authors write as background information in the article. "The demand results in increased referral to specialists and longer waiting times for appointments. This has led to a debate regarding the appropriateness of referrals and what treatment general practitioners should be able to provide before referral. Improved communication between general practitioners and specialists leads to lower referral rates."

Telemedicine using e-mail or Web sites holds promise for enhancing communication, especially in the area of dermatology, which is visual in nature and is the frequent reason for both visits to the general practitioner and referrals. Nina Eminović, Ph.D., of the University of Amsterdam, the Netherlands, and colleagues conducted a randomized controlled trial of teledermatologic consultations involving 85 general practitioners from 35 practices in two regions of the Netherlands.

Eighteen of the practices, which included 46 general practitioners, were randomly assigned to participate in the intervention. For each of 312 eligible patients, the clinicians took four digital images of the skin problem and attached them to a form completed on a secure Web site. A dermatologist reviewed the form and provided feedback within 48 hours about further procedures. The other 16 practices, which included 39 general practitioners, referred 293 eligible patients according to their usual practices.

All of the patients were seen in the office by one of five study dermatologists after about one month. The dermatologist then rated whether the consultation was preventable, most often

because the patient had recovered or the general practitioner could have treated the condition without a specialists' assistance. In-person consultations were determined to be preventable for 39 percent of the patients in the teledermatology group and 18.3 percent of the control patients—a difference of 20.7 percent. At the one-month visit, 20 percent of patients who received teledermatologic consultations had recovered compared with 4.1 percent of control patients.

A group of 350 patients (57.8 percent), including 191 (54.6 percent) in the teledermatology group, completed a satisfaction questionnaire following the study. No differences were observed between the two groups in interpersonal aspects or general satisfaction.

"Teledermatologic consultation successfully enables general practitioners to treat patients they would otherwise refer to a dermatologist," the authors conclude. "Further research conducted with more specific patient groups as well as about patient satisfaction should be encouraged."

###

(*Arch Dermatol.* 2009;145[5]:558-564. Available pre-embargo to the media at www.jamamedia.org.)

Editor's Note: This study was supported in part by Senter Novem (Agency of the Dutch Ministry of Economic Affairs) and ZonMw (Dutch Organization for Health Research and Development). KSYOS Health Management Research provided the digital cameras and teleconsultation software. Please see the article for additional information, including other authors, author contributions and affiliations, financial disclosures, funding and support, etc.
