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# CARDIO BEAT

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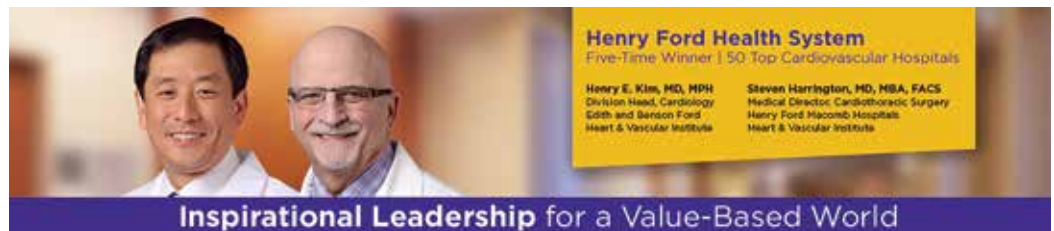
## Henry Ford Hospitals Named In Top 50 Cardiovascular Centers In The United States

Henry Ford Hospital in Detroit and Henry Ford Macomb Hospital in Clinton Township, Mich., have been named among the Top 50 Heart Hospitals for 2017. They were selected from more than 1,000 hospitals evaluated across the United States; this is the fifth time each of the Henry Ford hospitals has received the award through the 100 Top Hospitals program by Truven Health Analytics.

“We continually strive to provide highly advanced, life-saving cardiovascular options to the people of southeast Michigan,” says cardiologist Henry Kim, M.D., division head for Cardiology in the Heart & Vascular Institute at Henry Ford Hospital. “To be recognized both at Henry Ford Hospital and Henry Ford Macomb Hospital is truly an honor.”

The Truven evaluation is based on publicly available data that compares patient outcomes, operational efficiencies and financial metrics. Study winners had better outcomes while operating more efficiently and at a lower cost than others included in the analysis. The Truven data showed 2017 winners had:

- Significantly higher inpatient survival than non-winning cardiovascular hospitals (20–55 percent higher);
- Fewer patients with complications (20–22 percent fewer);
- Higher 30-day survival rates for acute myocardial infarction, or heart attack; heart failure; and heart bypass patients (.5–1.1 percent higher survival rate);
- Lower readmissions rates for those same types of patients (1.05 percentage points lower);
- Hospital stays that are on average one day less;
- \$1,200 to \$6,100 less in total costs per patient case.



Together, Henry Ford Hospital and Henry Ford Macomb Hospital offer cardiovascular options not available at other heart centers in the region, including complex cardiac electrophysiology, advanced cardiac imaging, cardio-oncology and specialists in congenital heart disease.

Henry Ford Hospital is a heart magnet hospital for patients throughout Michigan, providing highly specialized care while partnering with cardiologists at patients’ local hospitals. The hospital is also the only center in metro Detroit area to offer advanced heart failure treatments ranging from heart pumps to heart transplants, providing specialized attention through the Henry Ford Women’s Heart Center.

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# Top 50 Cardiovascular Centers In The United States

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The hospital's Center for Structural Heart Disease is home to pioneering interventional cardiologist William W. O'Neill, M.D. He is one of only 26 Master Fellows out of 4,500 world-wide members of the Society for Cardiovascular Angiography and Interventions (MSCAI), the professional medical society for invasive and interventional cardiologists. Dr. O'Neill, who pioneered the use of angioplasty to stop heart attacks, and his team continue to perform groundbreaking, catheter-based procedures to treat structural heart disease.

That dedication to advanced care also extends to the award-winning Henry Ford Macomb Hospital in Clinton Township, Mich.

Steven Harrington, M.D., the hospital's medical director of cardiothoracic surgery, attributes the award to fast, efficient and highly effective treatment for everything from the time it takes to treat a patient experiencing chest pain to the costs associated with cardiovascular care.

From ensuring 100 percent of patients undergoing angioplasty receive aspirin to low rates of vascular complications and blood transfusions during procedures, the Clinton Township hospital leads the region in cardiac care.

Henry Ford Macomb Hospital offers one of the nation's largest cardiac robotic surgery programs. The hospital also extended cardiology care into the community by providing 12-lead echocardiogram devices to area ambulance providers so cardiovascular specialists can prepare for life-saving interventions during heart attacks while patients are en route to the hospital.

"Our motto, 'All for you,' isn't just a slogan. It's how we practice medicine, every day," says Dr. Harrington. "We also share our best practices with other health systems, with the thought that we truly focus on improving patient care across the board."

According to industry studies based on Medicare patients, if all cardiovascular providers performed at the level of the Truven winners:

- More than 9,000 additional lives could be saved annually in the United States;
- An additional 6,000 heart patients could be complication-free;
- More than \$1.4 billion could be saved.

*For more information about the cardiovascular services available through Henry Ford Macomb Hospital or the Henry Ford Heart & Vascular Institute, visit [henryford.com/heart](http://henryford.com/heart) or call 844-725-6424.*

## New Cardiac Inpatient Unit Opens At Henry Ford Hospital



*The B-2 Cardiac and Short Stay Unit, home to inpatient cardiology and short stay, opened in mid-August with a ribbon cutting ceremony. Congratulations to all who worked on this project.*

## Virtual Vascular Clinic: A Feasibility Pilot Study



Judith Lin, M.D.

The 10-month use of HIPAA-compliant videoconferencing technologies was the focus of a proof-of-concept feasibility pilot study presented to the Society for Clinical Vascular Surgery by Judith Lin, M.D., Janelle Crutchfield, BSN, Valerie Gunn MBA, Josephine Klapac, RVT, and Courtney Stevens, MsEM, all of Henry Ford Health System.

The objective of the study was to evaluate the initial experience of a virtual clinical encounter (VCE) among vascular surgery patients within an integrated healthcare system. The study evaluated feasibility, demographics, encounter type, healthcare resource utilization, and patient satisfaction via SurveyMonkey® questionnaires.

This study included vascular patients from October 2015 to August 2016. These patients selected synchronous virtual visits at Henry Ford Health System satellite facilities, with existing vascular laboratories for imaging and lab testing, rather than a traditional office visit. Feedback from the patients supported refinement of the VCE process through iterative cycles of improvement using the LEAN startup method and bricolage. Video-based software Microsoft Skype for Business® over HIPAA-compliant networks provided patient-provider interaction. Like traditional clinic visits, data was entered in the patient's EPIC® electronic medical record.

The results showed 55 patients underwent 82 VCEs. The average age of the patient was 57 (range 29-79) and 41 females (74.5 percent) participated in the study. Ethnicity included 43 white (78.1 percent), nine black (16.3 percent), one Asian (1.8 percent), and two Mediterranean (3.6 percent).

## Patients Find Virtual Care Saves Time And Travel Too

"It is *very* futuristic medicine," says patient Sherri of Shelby Township, one of the first virtual care patients to experience her office visits online. Sherri's initial virtual visit was after her first varicose vein surgery performed by Judith Lin, M.D., vascular surgeon. Before Sherri's second surgery, she again met Dr. Lin online with results of her diagnostic tests from the first surgery and to prepare for the second surgery. More than half of her appointments were virtual.

"It's time-saving and convenient," Sherri explains. Rather than a 45-minute drive to Henry Ford Hospital in Detroit or an hour drive to Henry Ford West Bloomfield Hospital, Sherri eagerly accepted the opportunity to minimize the drive and not lose four hours of work for each pre- and post-op visit. Sherri's virtual visits took place at Henry Ford Medical Center in Sterling Heights. "It was only 10 minutes from my office in Sterling Heights and I could go during my lunch break."

The diagnosis of the sample population included arterial (abdominal aortic aneurysm, carotid occlusive disease, peripheral artery disease) and venous (deep vein thrombosis, varicose vein) disease.

Among the 82 VCEs, visit types were 15 new (18.3 percent), 30 postoperative (36.6 percent), and 37 (45.1 percent) were returning patients; 74 (90.2 percent) included point-of-care ultrasound during their telemedicine visits at our on-site vascular laboratory, one computed tomography scan, and seven (8.5 percent) without any same-day imaging; 35 (42.7 percent) had a single VCE while 47 (57.3 percent) had multiple VCEs at two virtual clinic locations.

All 55 patients responded to the questionnaire: 91 percent stated that they would highly recommend virtual visits to a friend or colleague; 100 percent found their virtual visits more convenient than the traditional method, and were able to communicate clearly with their provider; quality responses were overwhelmingly positive.

Conclusions of the study indicated that secure virtual visits can be conducted using commercially available hardware and software solutions over encrypted and secure networks. VCE allows more access for patients who require additional care while decreasing overall in-person clinic utilization. Synchronous telemedicine with point-of-care ultrasound was effective in evaluating common vascular conditions. Virtual care may be used for management of patients with chronic vascular disease.

While at Henry Ford Medical Center - Sterling Heights, Sherri had the necessary diagnostic testing and imaging. Sitting in a private room with a computer, the results and

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*Patient Sherri received quality care and saved time with virtual clinic encounters.*

# Virtual Clinic Encounters Advance Healthcare

In late 2015, a virtual vein clinic began under the clinical direction of Judith Lin, M.D., director of the Henry Ford Vein Center and medical director of the Vascular Lab, and the technology expertise of Courtney Stevens, director of Virtual Care at Henry Ford Health System.

“Telemedicine is the fastest-growing segment in healthcare. It improves patient access, minimizes provider shortages and ultimately reduces healthcare costs,” explains Dr. Lin. But patients like it too, as it provides convenience through reduced drive times and increased access to the physician.

The technology to create a virtual appointment is not unlike the technology used in business. Stevens explains that the use of “Skype for Business adds a level of online security needed to ensure privacy in business, but also meets the needs of health care professionals. Additional layers of security are also in place at Henry Ford with an encrypted network that further supports HIPAA compliance as patients interact with their doctor.”

## The Vein Center Virtual Care Process

Pre-surgically patients are given a choice to interact through a virtual care experience or a traditional in-office visit. “It’s important to pre-determine what type of services can be provided virtually, not all patients are candidates,” explains Dr. Lin. Vein Center patients can select one of the designated Henry Ford facilities in Sterling Heights or Grosse Pointe for their virtual appointment, or a traditional in-office appointment at West Bloomfield or Detroit.

Frequently, when the patient arrives at one of the facilities, further imaging or diagnostic testing is performed prior to the virtual appointment. Janelle Crutchfield, R.N., vascular surgery, then accompanies the patient to the private computer area where she connects to Dr. Lin, who is physically located miles away.

Dr. Lin and the patient can see and hear each other via the computer’s web camera. Through this online virtual visit the two interact. A typical virtual visit may include a mutual review of reports and actual patient images, discussion about concerns or questions the patient may have and further care plans for the patient. To ensure confidentiality, the patient is in a private room and at the conclusion of the visit, Crutchfield ensures that the computer is properly

logged out. The visit is then charted by Dr. Lin and Crutchfield in EPIC, the electronic medical record. No audio or video recording of the visit is maintained.

## Insurance Coverage

The Michigan Telemedicine Parity Law of 2012 requires reimbursement for telemedicine visits for covered diagnoses, care and education. This regulation first addressed reimbursement by Blue Cross, then went further to include group or non-group health care, and health maintenance organizations. Some insurance companies like HAP and Blue Cross Blue Shield have opted to cover more services than required by CMS, recognizing the value and future of Telemedicine.

Medicare patients also qualify, the patient must be located in a rural area facing a health professional shortage during the time of the virtual visit.

The patient services must be provided at an authorized originating site, such as a physician office, hospital, critical access hospital, Federally Qualified Health Center, skilled nursing facility, community mental health center, or renal dialysis center. In addition, the patient must be within a state where the practitioner is medically licensed. Approved telemedicine practitioners include physicians, NP, PA, Midwife, CNS, CRNA, clinical psychologist or social worker and registered dietician or nutrition professional.

There are specific CPT and HCPCS codes that are covered, as well. CMS provided a list of Telehealth Services for 2016. There are many other requirements to ensure coverage, which can be verified through CMS.

Stevens explains, “There are several pilot programs underway, including mobile video applications of virtual care.” Henry Ford Health System is known for its ability to reduce costs and improve quality, so it’s no surprise that virtual care is one of their strategies as they embark on their second century of exceptional health care.



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images were uploaded to the computer by a member of the vascular surgery team and Dr. Lin appeared on the monitor. “She reviewed and explained the results of the tests taken just minutes before,” Sherri explains, “The images were so clear, she showed me where the blockages were in my veins, she even had pictures of my leg to make sure it was healing properly.”

Virtual Care or Telehealth is appropriate for certain types of care. “As the fastest-growing segment in healthcare, telemedicine will improve patient access, and satisfy patient demand, ultimately reducing health care costs,” says Dr. Lin.

“I got the same great attention at my virtual visits, maybe even more. I hope other people take advantage of virtual care when it’s available,” Sherri said.

## RESEARCH

# Henry Ford Hospital Leading Site For Best-CLI Study Recruitment

The vascular surgeons and interventional cardiologists at Henry Ford Hospital, working together in a collaborative manner, continue to study treatment options for a subset of patients with peripheral arterial disease (PAD). These patients have experienced critical limb ischemia (CLI) marked by intractable foot pain and/or the presence of open and non-healing wounds or even gangrene.

Designed as a multi-disciplinary, randomized study, researchers will examine outcomes over time of the best open surgical bypass and the best endovascular means to open up blocked arteries, the two major treatment options for revascularization for CLI.

Sponsored by The National Institutes of Health, the national goal is study 2,100 patients. To date, 735 patients have been enrolled in the study from approximately 120 centers nationally.

At the Society of Vascular Surgery meeting in June 2016, Timothy J. Nypaver, M.D., vascular surgeon and principle investigator at Henry Ford Hospital, presented the Henry Ford Hospital experience at the Best-CLI principle investigator's meeting, illustrating the methodology of his center's success with patient evaluation and recruitment. The Henry Ford Hospital site was recently recognized as

the nation's top site recruiter in the summer with a higher enrollment than any of the other 120 sites.

Dr. Nypaver explains, "Even though our participation in this study began in March 2016, nearly one year after the national study began, we have recruited on average more patients into the study over our limited time period." He attributes the enrollment success to a "collaborative model for research among disciplines to identify and enroll patients. It's a research model we will utilize going forward because it works well."

The study is also evaluating prospectively how these different treatment options for CLI affect health spending and health-related quality of life. Recruitment is still open for this study, which requires patients be examined up to 24 months after treatment and annually, thereafter.

*To refer a patient with critical limb ischemia for possible enrollment in the trial, call the Henry Ford Heart & Vascular Institute at 1-844-725-6424. For more information about the trial, visit [www.BESTCLI.com](http://www.BESTCLI.com).*



**Timothy Nypaver, M.D.**

## STAFF UPDATE

### **Stephen Smith, M.D.**

*Senior Cardiologist*

#### **MEDICAL SCHOOL EDUCATION:**

Michigan State University

#### **POST-GRADUATE TRAINING:**

Wayne State University (MI) –  
Internal Medicine

Henry Ford Hospital (MI) –  
Internal Medicine

Henry Ford Hospital (MI) – Cardiovascular Disease

#### **BOARD CERTIFICATION:**

American Board of Echocardiography  
American Board of Internal Medicine  
American Board of Internal Medicine: Cardiovascular Disease  
American Board of Nuclear Cardiology

#### **CLINICAL AREAS OF INTEREST:**

As a cardiovascular physician, Dr. Smith has a special interest in treating adults with cardiovascular diseases, valvular heart disease, screening for heart disease in athletes and treating those with chronic and genetic heart problems, using evidence-based medicine.



**Stephen Smith, M.D.**

### **Themistokles Chamogeorgakis, M.D.**

*Cardiothoracic Surgeon*

#### **MEDICAL SCHOOL EDUCATION:**

Patras University School of  
Medicine, Greece  
National and Kapodistrian  
University of Athens

#### **POST-GRADUATE TRAINING:**

Lankenau Medical Center (PA) –  
General Surgery

University Hospitals Case  
Medical Center (OH) –  
Thoracic Surgery

#### **BOARD CERTIFICATION:**

American Board of Surgery  
American Board of Surgery: Thoracic Surgery

#### **LANGUAGES SPOKEN:**

Greek  
French

#### **CLINICAL AREAS OF INTEREST:**

Clinical interests of Dr. Chamogeorgakis include thoracic transplantation, mechanical circulatory support and aortic surgery.



**Themistokles Chamogeorgakis, M.D.**

To connect with a Henry Ford physician, call:

Heart & Vascular Institute  
**1-877-434-7470**

Center for Structural  
Heart Disease  
**1-855-518-5100**



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SAVE THE  
DATE

# LIVE IN THE D

## *Cardiac Support Conference*

FRIDAY, JUNE 2, 2017 8 A.M. - 5 P.M. | SATURDAY, JUNE 3, 2017 8 A.M. - NOON  
WESTIN BOOK CADILLAC HOTEL, 1114 WASHINGTON BLVD., DETROIT, MI 48226

Join the Henry Ford Heart & Vascular experts as they discuss cardiac support therapies. Live transcatheter procedures will be transmitted during the conference. CME and MOC credits are pending. At the completion of the course, the participant will be able to:

- Summarize the key concepts of the physiology behind and the rationale for hemodynamic support.
- Compare and contrast the various percutaneous hemodynamic support devices available.
- Describe the use of appropriate hemodynamic support devices based on the clinical scenario including: complex high-risk PCI, CTO PCI, structural heart procedures and other novel settings.
- Describe the management of hemodynamic support devices in Cardiac Cath lab, Cardiovascular Intensive Care and other settings, including escalation and de-escalation of care, and access management.

### Course Directors:

William W. O'Neill, M.D.  
Medical Director  
Center for Structural Heart Disease  
Henry Ford Hospital

Khaldoon Alaswad, M.D.  
Director  
Cardiac Catheterization Laboratory  
Henry Ford Hospital

Akshay Khandelwal, MD  
Director, Outpatient Cardiovascular  
Services, and Director,  
STEMI Program and Cath Lab Quality  
Henry Ford Hospital



William W. O'Neill, M.D.



Khaldoon Alaswad, M.D.



Akshay Khandelwal, M.D.

Mark your calendar! More information coming  
January 2017, visit [henryford.com/pciconference](http://henryford.com/pciconference)