Back in the game

Stan Larkin is the first patient in Michigan to leave the hospital with a total artificial heart.
Balancing act

Medication combo reduces repeat MI but carries other risks

Long-term use of ticagrelor with aspirin after myocardial infarction (MI) significantly reduced the risk of a recurrence, stroke or cardiovascular death, but increased major bleeding risk, according to findings from the PEGASUS trial.

The University of Michigan Frankel Cardiovascular Center was one of 1,161 sites in the international study. Patients randomized one to three years after an MI to a median 33 months of dual antiplatelet therapy with ticagrelor cut those risks compared with a similar duration of aspirin alone. The trial results were presented at the American College of Cardiology meeting and published simultaneously in the New England Journal of Medicine. Nearly 8 million people in the U.S. have a history of MI.

New possibilities

Pulmonary arterial hypertension drug found to reduce mortality by 40 percent

A late-stage drug trial shows the effectiveness of selexipag (Uptravi®) to treat pulmonary arterial hypertension (PAH), a progressive condition characterized by high blood pressure in the lungs. Vallerie McLaughlin, M.D., director of the Pulmonary Hypertension Program at the University of Michigan Frankel Cardiovascular Center, presented the Phase III trial data at the 2015 American College of Cardiology meeting.

The presentation highlighted that the investigational drug selexipag significantly reduced the risk of a morbidity/mortality event by 40 percent versus placebo. Selexipag is an oral drug and is more convenient than current treatments targeting the prostacyclin pathway that must be inhaled or taken intravenously.

"The data suggest that, should selexipag be approved, many more of our PAH patients can be treated proactively with an oral therapy targeting this pathway, offering long-term outcome benefits. In addition, a key highlight is the benefit shown in patients already receiving treatment for PAH, including those already on combination therapy at baseline," McLaughlin said.

Earn CEUs

Attend a full-day course on movement disorders

Faculty from the U-M Medical School will be providing a full-day course on movement disorders. Topics will include recognition, diagnosis, efficient assessment and initial management of patients with Parkinson’s disease, essential tremor and restless leg syndrome. Symptoms of Parkinson’s disease, including dementia, and recognition of how movement disorders contribute to falls will also be presented.

WHO SHOULD ATTEND: Neurologists, psychiatrists, geriatricians, primary care physicians, nurses and physician assistants who see patients with movement disorders

DATE: Friday, Sept. 25, 2015
TIME: 7:30 a.m. – 4 p.m.
LOCATION: The Inn at St. John’s in Plymouth
REGISTER: med.umich.edu/intmed/cme
RATE: $150, or $100 for allied health professionals and retirees

COURSE DIRECTOR: Kelvin L. Chou, M.D., the Thomas H. and Susan C. Brown Early Career Professor and clinical associate professor of Neurology and Neurosurgery in the Department of Neurology

CIC ONLINE Get linked to the New England Journal of Medicine article.

STUDIES Find out about other cardiovascular research studies that could benefit your patients at umclinicalstudies.org.
Myeloma treatment has improved significantly with the introduction of new classes of drugs — first immunomodulatory drugs, then the new biologic therapies and proteasome inhibitors. These advances have increased survival from less than four years to seven years or longer. Up to 98 percent of patients respond to these new therapies. In the last decade alone, nearly 20,000 additional people continue to live with multiple myeloma.

With these advances come more options for physicians and patients to consider for this rare disease, making the care of patients with multiple myeloma increasingly complex. To help optimize care across the region, a group of physicians have joined together to form the Great Lakes Multiple Myeloma Working Group. The group includes academics, large group practices and private institutions from Michigan and northern Ohio.

“Given how rapidly treatment options have changed in multiple myeloma, numerous controversies and uncertainties regarding the ‘best’ way to treat myeloma have arisen. Add to this complexity an expanding array of clinical trials available to patients, and decision-making in myeloma care can become extremely difficult. Being able to share ideas and practice styles is critical to improving care for all our patients,” says Craig Cole, M.D., who runs the Multiple Myeloma Clinic at the University of Michigan Comprehensive Cancer Center.
Breathe deeply

Caring for children with complex asthma

difficult-to-treat asthma results in hospital admissions, emergency department visits, missed school and work, and an inability to engage in physical activity. In some cases, recurrent pneumonia or frequent respiratory infections can actually be traced back to an underlying asthma diagnosis.

The C.S. Mott Children’s Hospital Asthma Wellness Program is specifically designed for high-risk pediatric asthma patients.

“We’ve crafted our program around the needs of children 3 years of age and older who have had at least two emergency room visits or an inpatient admission for asthma,” says Marc Hershenson, M.D., chief of the division of Pediatric Pulmonology at C.S. Mott Children’s Hospital.

The Mott team works closely with each child’s family and primary care providers to manage complex asthma through a robust yearlong protocol utilizing intensive education and case management. Emphasis is focused on decreasing emergency department visits and admissions. Each child in the program is seen by a pediatric pulmonologist, nurse educator, respiratory therapist and social worker.

“We take a collaborative, multidisciplinary approach to treating children with complex asthma,” says Hershenson. “We’ve found that to be the best way to help minimize the complications of asthma for these children. Causes of poor asthma control can range from failure to use an inhaler correctly to co-morbidities such as gastroesophageal reflux or fungal sensitization. On the other hand, some referrals for difficult-to-treat asthma turn out to have other diseases like primary ciliary dyskinesia or recurrent aspiration. Our multidisciplinary model allows us to provide accurate, comprehensive, multifaceted care for each child.”

Opening airways
The Asthma Wellness Program focuses on keeping high-risk pediatric asthma patients out of the emergency department and hospital.

COMPREHENSIVE AND CONVENIENT
The U-M pediatric pulmonology team—including 11 pediatric pulmonologists—offers expertise in pulmonary conditions ranging from common breathing disorders to rare conditions:

- Wheezing
- Chronic cough
- Recurrent respiratory infections and pneumonia
- Respiratory insufficiency requiring ventilator assistance
- Asthma
- Lung diseases of premature infants including bronchopulmonary dysplasia
- Sleep-disordered breathing including central and obstructive apnea
- Cystic fibrosis
- Aerodigestive disorders
- Congenital abnormalities of airway and lung development including tracheobronchomalacia
- Interstitial lung disease

The current wait time is less than two weeks. Care is provided at both Mott and the Northville Health Center.

ONLINE Learn more at mottchildren.org/pulmonary.

REFER To make a referral or speak with a pulmonologist, call M-LINE at 800-962-3555.
Going home from the hospital was an important milestone for Stan Larkin, a 24-year-old resident of Ypsilanti, and also for the state of Michigan. When Larkin was discharged on Dec. 23, 2014 from University of Michigan Frankel Cardiovascular Center in time to spend the holidays with his family, he went home without a human heart.

Larkin is the first in the state of Michigan to leave the hospital with a total artificial heart. Using a device called The Freedom Driver, a 13-pound power supply that delivers compressed air to pump blood through the body, Larkin's artificial heart is fueled by a portable driver, rather than the traditional "Big Blue" hospital driver that weighs 418 pounds and is the size of a washing machine.

All in the family
Stan Larkin and his brother Dominique Larkin, 23, are in a simultaneous battle with heart disease. In 2007, Stan collapsed at a basketball game, and tests revealed a condition called right ventricular
dysplasia, a leading cause of cardiac arrest.

Because the heart condition can be inherited, doctors believed others in his family might be at risk. Just weeks after Stan’s diagnosis, his younger brother, Dominique, was also found to have familial cardiomyopathy. Some people who have cardiomyopathy — especially those who have hypertrophic cardiomyopathy (HCM) — may live a healthy life with few problems or symptoms. Others may have serious symptoms and complications. As the heart becomes weaker, it is less able to pump blood through the body and maintain a normal electrical rhythm.

Surgeons at the U-M Frankel Cardiovascular Center implanted a defibrillator to help regulate Stan’s heart rhythm.

For a time, the defibrillator kept Stan’s heart beating at a regular rate, but he had to limit physical activity. It was not clear just how strong his heart was.

Nov. 7, 2014, doctors removed his failing heart and replaced it with the SynCardia temporary total artificial heart.

With the total artificial heart, there are two tubes that exit the body, and those tubes have to be connected to a machine that can deliver compressed air into the ventricles to allow blood to be pumped through the body.

The Freedom Driver does the same thing as Big Blue — deliver compressed air — except it is portable.

Running out of options
Over time, Stan’s condition worsened and his dysplasia progressed to both ventricles of his heart so neither chamber could collect and pump blood effectively. He became progressively weaker, and his doctors grew more concerned that he wouldn’t survive the wait for a suitable organ for transplant.

In October 2014, Stan was admitted to the U-M Frankel Cardiovascular Center and underwent a series of physiological tests to determine if he was a good candidate for an artificial heart. With the test results and the knowledge that his time was running out, this became his best option. On
Prior to the development of The Freedom Driver, the only FDA-approved driver for the SynCardia temporary total artificial heart was the large Big Blue hospital driver, which confined patients to the hospital for months, even years, waiting for a matching donor heart. The Freedom Driver does the same thing as Big Blue — deliver compressed air — except it is portable.

First connected to Big Blue, Stan was switched to The Freedom Driver, which was approved by the FDA in June 2014 to power the total artificial heart as a bridge to transplant. His care marks two milestones: he is the first U-M patient to make the transition to The Freedom Driver, and the first patient in Michigan to go home with it.

Stan is still listed for a heart transplant, and we hope to transplant him as soon as an organ is available.”

—Jonathan Haft, M.D.

The wait continues at home

“Stan is still listed for a heart transplant, and we hope to transplant him as soon as an organ is available. In the meantime he can be at home, he can be functional, and continue to rehabilitate himself so he’s in the best possible shape when his opportunity comes,” says University of Michigan cardiac surgeon Jonathan Haft, M.D.

Stan’s brother, Dominique, also progressed to biventricular dysplasia and ultimately received an artificial heart. Since then, he received a heart transplant and continues to regain his health. Meanwhile, Stan worked with occupational and physical therapists to be well enough to navigate the world with The Freedom Driver.

The Freedom Driver is powered by two lithium-ion batteries that recharge with a standard electrical outlet, and is designed to be worn in a backpack or shoulder bag. Staying close to a power supply, eating low-sodium meals and taking a bevy of blood-thinning medications have helped Stan remain healthy as he continues his wait for a transplant.

There’s no denying when he’s around because of the sound of the rhythmic pulses broadcast by the device strapped to his back, but Stan says, “I can honestly say I’ve gotten used to it. This is what’s keeping me going. I can’t wait to get a heart transplant so I can truly feel like myself again.”

A team approach

Of the 5.7 million Americans living with heart failure, about 10 percent have advanced heart failure, according to the American Heart Association. Heart failure is considered advanced when patients feel shortness of breath even at rest. Even at an advanced stage, treatment options exist to help the heart pump as best as it can.

The Heart Failure Program at the University of Michigan Frankel Cardiovascular Center focuses on the complex management of advanced heart failure, circulatory support and heart transplantation. The Heart Failure Program team has extensive, high-volume experience in the treatment of patients with acute heart failure. Heart failure services include a telemanagement team of nurses as well as an inpatient team of nurse practitioners and physician assistants to ensure safe, collaborative, patient- and family-centered care.
Kyle Clark, 25, of Imlay City was a very sick young man when he was admitted to U-M in February. Oxygen therapy was no longer sufficient to keep the effects of cystic fibrosis at bay, so physicians at the U-M Transplant Center moved him along an expedited pathway to join a groundbreaking clinical trial.

Ex vivo lung perfusion makes more lungs available for transplant

Kyle Clark, 25, of Imlay City was a very sick young man when he was admitted to U-M in February. Oxygen therapy was no longer sufficient to keep the effects of cystic fibrosis at bay, so physicians at the U-M Transplant Center moved him along an expedited pathway to join a groundbreaking clinical trial.

The University of Michigan and Gift of Life Michigan, in collaboration with Henry Ford and Spectrum health systems, are the only study participants in Michigan. The study, which is on the forefront of science and technology, uses ex vivo lung perfusion to optimize lungs for transplantation that might otherwise have been deemed unusable.

Ex vivo perfusion is based on the heart-lung support technology known as extracorporeal membrane oxygenation, or ECMO, which was pioneered at the University of Michigan by Robert Bartlett, M.D., now a professor emeritus of Surgery.

A lung incubator

The study is evaluating the revolutionary XVIVO Perfusion System from Sweden, which has the ability to warm lungs to normal temperature, re-inflate them and allow physicians to recondition and evaluate them for transplant. The environment permits the potential recovery of transiently damaged lungs in a short period of time.

“Think of the XVIVO as an incubator. Right now, our transplant team has a window of about four hours to determine whether lungs are optimized in the XVIVO and are going to be suitable for transplant. But the window of recovery is brief and the transplant must take place soon after. Things moved rapidly for Kyle,” says Rishi Reddy, M.D., one of the U-M transplant surgeons who performed Clark’s transplant. “In the future, I expect improvements will

The donated lungs would not have been suitable but for the recovery process they went through prior to implantation.
give us more time to assess donated lungs. Perhaps we could have as long as 24 hours for lungs to be reconditioned and implanted.”

In Clark’s case, the donated lungs would not have been suitable but for the recovery process they went through prior to implantation, and he would have remained on the transplant waiting list, losing more of his ability to breathe as each day passed. Instead, he became the first Michigan resident to receive lungs reconditioned in the XVIVO device.

**Salvaging lungs to save lives**

“Historically, less than 20 percent of organ donors actually have their lungs used to save a life. Often the nature of a donor’s death traumatizes the lungs, even when other organs are usable. For example, lungs may be bruised or punctured from the trauma of an automobile accident,” says Reddy. “But others are unusable because they are transiently injured. Some of these can benefit from the special incubation and reconditioning in the XVIVO device. This means that in the future, there will be more lungs available for transplant, and people on the list could have shorter wait times.”

Reddy anticipates that even if only 25 percent of the currently unusable lungs were salvaged, it would double the number of available lungs for transplantation. And with quicker access to transplantation, fewer people will die while waiting.

Ex vivo perfusion is one of three research approaches to the shortage of donor lungs, and the first to come to market. Organogenesis and stem cell transplants show promise in replacing or repairing damaged lungs but are not yet ready for clinical study.

**Collaborating to raise hope**

Transplants using the XVIVO Perfusion System from Sweden currently take place within the framework of an interventional clinical trial studying the safety of recovering marginal donor lungs for implantation. The University of Michigan; Gift of Life Michigan, which purchased the device; and Henry Ford and Spectrum health systems are collaborating in the clinical trial.

The device resides at U-M, where its five lung transplant surgeons use the XVIVO device to provide services to the lung transplant programs at Henry Ford and Spectrum, as well as their own. The U-M Transplant Center is the largest and most experienced in Michigan, and one of the largest in the nation. The collaboration among the three transplant centers is unique in Michigan and was done to bring the hope of transplantation to more patients needing this lifesaving surgery.

If only 25 percent of the currently unusable lungs were salvaged, it would double the number of available lungs for transplantation.
t was a day Kasey Hilton had been anticipating from the beginning of her pregnancy — finding out whether she was having a boy or girl.

But the ultrasound appointment in June 2014 brought news she and her husband, Mike, weren’t ever expecting to hear. They were having a baby boy, but he had a serious spinal cord defect called myelomeningocele that is associated with lifelong disabilities.

There was, however, hopeful news. University of Michigan’s C.S. Mott Children’s Hospital and Von Voigtlander Women’s Hospital had recently become the only hospital in the region, and among just over a dozen in the country, to offer fetal surgery to correct the defect months before birth. The procedure prevents further damage to the spinal cord and improves neurologic function.

The Hiltons spent the day meeting with many experts from the Fetal Diagnosis and Treatment Center at Mott. After extensive testing, doctors determined that Kasey and the baby were potential candidates for the procedure. The Hiltons then underwent multidisciplinary counseling by the team to understand the relative maternal and fetal risks and benefits.

Fetal myelomeningocele repair prevents spinal cord damage and improves neurologic function

“Although not a cure, fetal surgery prevents ongoing damage to the spinal cord and is associated with improved neurologic outcomes,” says Cormac Maher, M.D., associate professor of Pediatric Neurosurgery.

Last July, when Carter was only 23.5 weeks gestation, Kasey underwent fetal surgery with the hope of improving her baby’s outcome. This procedure required an experienced multidisciplinary team working seamlessly together. Maternal anesthesia was provided by Baskar Rajala, M.D., pediatric anesthesia by Paul Reynolds, M.D., and fetal monitoring

Carter Hilton
Kasey Hilton underwent fetal surgery when Carter was 23.5 weeks gestation.
by Sarah Gelehrter, M.D., and Rebecca Jane Vartanian, M.D. Five surgeons were involved in the procedure — Treadwell, Maher, pediatric surgeon George Mychaliska, M.D., and maternal fetal medicine specialists Deborah Berman, M.D., and Clark Nugent, M.D.

The doctors performed open fetal surgery, which involved deep maternal anesthesia, hemostatic hysterotomy, extensive maternal and fetal monitoring and partial exposure of the fetus. Once they had access to the 1-pound fetus, Maher performed the delicate, 30-minute operation to repair his spinal canal and cover the defect with skin. The uterus was closed using a specialized technique to incorporate the membranes and ensure a watertight seal.

Hilton was closely monitored in the hospital by the maternal fetal medicine team and then sent home on bed rest. She underwent serial ultrasound examinations and was regularly examined for signs of preterm labor.

At 34 weeks, Carter Hilton was born via C-section. Although Carter did require a ventriculoperitoneal shunt, he is currently doing well.

Innovative and promising

"Fetal surgery for myelomeningocele is innovative and promising," says Mychaliska, director of the Fetal Diagnosis and Treatment Center. "Although fetal surgery improves outcomes, children with myelomeningocele still require long-term care. In addition, the potential fetal benefits must be weighed with an understanding of the potential maternal and fetal risks."

Fetal surgery prevents ongoing damage to the spinal cord and is associated with improved neurologic outcomes.

For nearly a decade, U-M doctors have been working together to develop the Fetal Diagnosis and Treatment Center, which provides comprehensive prenatal diagnosis and cutting-edge fetal surgery for carefully selected patients. "We are fortunate to have a talented and experienced team dedicated to our maternal and fetal patients," says Mychaliska.

"The team carefully explained to us the risks involved for both me and my unborn son, but we did not hesitate to say yes in light of the potential to improve his quality of life," Hilton says. "I had concerns, as anyone would, but knew I was in good hands. "We'll have to watch Carter for various milestones in his life and we won't know if he will have challenges with things like walking or with his bowels and bladder until he's old enough to walk and potty train," she says. "For now, he's doing great, and we are grateful to the entire fetal team at U-M for a procedure that could help give him a better future." 

The MOMs trial

The landmark randomized prospective clinical trial comparing prenatal versus postnatal repair of myelomeningocele, known as the MOMS trial, closed early due to efficacy, and the results were published in the New England Journal of Medicine.

By 12 months, children who had fetal surgery had a decreased need for shunting and less hindbrain herniation. At 30 months of age, those who received fetal surgery also scored better on mental and motor function tests and were more likely to walk independently. However, fetal surgery was also associated with an increased risk of preterm delivery and uterine dehiscence at delivery.

Inclusion Criteria
- Mothers ≥ 18 years of age
- T1—S1 with hindbrain herniation
- Normal fetal karyotype
- Gestational age between 19 to 25 weeks

Exclusion Criteria
- Fetal anomaly unrelated to myelomeningocele
- History of spontaneous preterm birth
- Maternal BMI > 35
- Maternal co-morbidities
- Inability to comply with follow-up

Refer To refer a patient to the Fetal Diagnosis and Treatment Center, call M-LINE at 800-962-3555.

CIC Video Watch a video on fetal surgery and see annotated illustrations of the procedure.
From the day Piper Shumar was born, she suffered from constipation. “Her bowel movements were infrequent, and when she did have one it was softball-sized and hurt her terribly, often causing her to bleed,” says Kimberly Shumar, Piper’s mom.

Year after year, Piper’s constipation issues continued. She also had a hard time gaining weight. Even with supplemental nutrition, Piper remained chronically constipated as she turned 4 years old.

“Severe, long-term constipation in children needs to be treated aggressively,” says Dan Teitelbaum, M.D., pediatric surgeon and director of the Colorectal Pediatric Surgery Program at C.S. Mott Children’s Hospital. “Because there can be a number of causes for constipation, accurate diagnosis is the first step in either resolving the issue or ruling out more serious causes.”

A search for a cause

In Piper’s case, her original physicians initially believed she may have Hirschsprung’s disease and recommended an ileostomy. Piper’s parents sought out a second opinion and were referred to C.S. Mott Children’s Hospital.

The Shumar family met with Teitelbaum, who performed additional colon biopsies as part of her evaluation. Rather than an ileostomy, Teitelbaum and the colorectal team at Mott recommended an appendicostomy, which would allow Piper’s parents to flush her entire colon to evacuate a bowel movement through a tube in her abdomen once a night.

“Appendicostomy has proven to be effective in select children with intransigent constipation that has failed maximum medical treatment,” says Teitelbaum. “For many children, this has provided significant relief and a better quality of life.”

Once Piper was placed under anesthesia for the appendicostomy, however, her body relaxed and she had a bowel movement.

“That indicated, to me, that Piper’s problem was actually related to a failure to relax her distal rectum and anal sphincters,” says Teitelbaum. “Based on that information, sacral nerve stimulation was a better alternative for Piper.”

Teitelbaum left the OR and met with the Shumars to discuss his recommendations with the family, who were pleased to hear that about this new, reversible treatment option.

A pacemaker for the sacral nerve

Sacral nerve stimulation (SNS) therapy uses a small a neurotransmitter, similar to a pacemaker, implanted under the skin in the upper buttock area. The device sends mild electrical impulses through a lead that is positioned close to the sacral nerve to positively influence the rectal sphincters and pelvic floor muscles.

The Colorectal Pediatric Surgery Program at C.S. Mott Children’s Hospital is one of only a few programs in the country with experience implanting sacral nerve stimulators in pediatric patients.

“Nerve stimulation can be particularly effective for select children with refractory constipation or intractable incontinence caused from injury to the sphincteric complex or congenital problems of the anal canal,” says Teitelbaum.

A two-stage procedure

The procedure is performed in two stages, which allows the team to assess improvement in bowel function during an initial procedure before implanting the subcutaneous device. Both
Sacral nerve stimulation is just one of the cutting-edge treatments offered at Mott for patients who have challenging colorectal disorders. The Colorectal Pediatric Surgery Program team specializes in caring for:
- Imperforate anus/anorectal malformations
- Cloacal deformities and cloacal extrophy
- Hirschsprung disease
- Rectal prolapse
- Familial polyposis
- Inflammatory bowel disease
- Anal fissure/fistula-in-ano
- Bowel management for fecal incontinence and constipation

Mott offers advanced colorectal diagnostics, surgical care and post-operative management of children with these challenging problems. The faculty is committed to incorporating new evidence-based surgical and medical techniques and research discoveries. Unlike many pediatric programs that treat just the disease, Mott provides lifelong support and follow-up care for families of children with colorectal disorders.

C.S. Mott Children’s Hospital Colorectal Pediatric Surgery Program

Procedures are performed on an outpatient basis, under general anesthesia by a team of surgeons specially trained in SNS placement.

For most patients, the nerve stimulator can remain in place for three to five years before the battery has to be replaced. “At that point, we’ll be able to determine if the stimulation has jump-started her system to the point where it’s not necessary anymore,” says Teitelbaum.

In Piper’s case, as soon as the nerve stimulator was implanted and turned on, Piper had a bowel movement. Since the surgery, she’s been having regular bowel movements.

“Piper is like a new kid now. She’s eating well, gaining weight and full of energy,” says Mrs. Shumar. “She calls the stimulator her ‘battery’ and says she loves it.”

ONLINE Learn more about the Colorectal Pediatric Surgery Program at mottchildren.org/colorectal.

REFER To make a referral or speak with a physician, contact M-LINE at 800-962-3555.
What you wear affects patient perceptions

What should doctors wear? And how does something as simple as their choice of a suit, white coat, scrubs or slacks influence how patients view them? A new analysis takes a comprehensive look — and finds that the answer isn’t as simple as you might think.

The findings were compiled by a University of Michigan Health System team from a comprehensive international review of studies on physician attire, and other sources. In all, the data they reviewed came from 30 studies involving 11,533 adult patients in 14 countries. Their review has been published in British Medical Journal Open.

In total, 21 of the 30 studies found that patients expressed clear preferences about what they felt doctors should wear, or said that physician attire affected their perceptions of a physician. In 18 of those studies, formal attire or a white coat was the preferred attire.

When the researchers drilled down further, they found that four of the seven studies that involved surgery patients reported that attire choice didn’t matter or that scrubs were preferred. The same was true of four of five studies that involved patients receiving emergency care or intensive care.

How patients feel about their doctor’s attire can depend greatly on their age and culture, the researchers found.
In 18 out of 30 studies, patients preferred doctors to wear formal attire or white coats.

“...to tailor physician attire to patient preferences and improve available evidence, we would recommend that healthcare systems capture the ‘voice of the customer’ in individual care locations, such as intensive care units and emergency departments,” he says.

What to wear?
The subject of what to wear isn’t covered directly in medical school. Even for physicians in practice at hospitals on the U.S. News & World Report Best Hospitals ranking, specific guidelines are few and far between. Only five of those surveyed by the U-M team had official guidance for physicians about attire at all, and most just recommended it be “professional.” The others offered no formal guidance.

Patient satisfaction now influences how doctors and hospitals are paid — making the impact of patient perceptions of their doctors all the more important.

Currently, the U-M team is preparing to launch their own international study of the impact of physician clothing choices, under the name “Targeting Attire to Improve Likelihood of Rapport” or TAILOR. They’ll work to quantify how patients’ views of physicians change based on what they’re wearing, and where they’re providing care. The team will also evaluate how attire might affect patients’ trust in what that doctor says or recommends.

Hospitals in three countries have signed on to participate, making it the largest study of its kind. While pediatric patients and their parents will not be included, the researchers note that this is another area ripe for research.

“Everything is supposed to be evidence-based in medicine,” says Petrilli. “With this review and our new study, we can provide compelling evidence to influence the way physicians dress.”

One size does not fit all
How patients feel about their doctor’s attire can depend greatly on their age and culture, the researchers found. In general, Europeans and Asians of any age, and Americans over age 50, trusted a formally dressed doctor more, while Americans in Generations X and Y tended to accept less-dressy physicians more willingly.

Lead author Christopher Petrilli, M.D., an internal medicine resident at the U-M Health System who worked in the sharp-dressed world of investment banking before switching to medicine, says the study grew out of his conversations with senior physicians, including senior author Vineet Chopra, M.D., MSc, and co-author Sanjay Saint, M.D., MPH.

Chopra, a hospitalist and U-M Medical School assistant professor of General Medicine, adds that patient satisfaction now influences how doctors and hospitals are paid — making the impact of patient perceptions of their doctors’ knowledge, caring, professionalism and trustworthiness all the more important.

And, he says, the findings of the new study suggest that a “one size fits all” approach to policies and guidance for doctors won’t work.

CIC ONLINE Get linked to the study in British Medical Journal Open.
Five Minutes with Ted Lawrence, M.D., Ph.D.

New director of the U-M Comprehensive Cancer Center

What are the Cancer Center’s strengths?

I began my career at Michigan 28 years ago. In that time we’ve created an unprecedented environment of collaboration across specialties and disciplines. I don’t know of any other place that has a top medical school, school of public health, college of engineering, college of nursing, business school — and the list goes on. The cancer program can capitalize on the great strengths of all these areas.

What are your top priorities?

- **Clinical trials**: We do a lot of great clinical research here. However, we’d like to intensify recruitment to further deliver on our commitment to outstanding clinical research.
- **Using data from the Institute for Healthcare Policy and Innovation**: The IHPI uses data to evaluate how health care can be improved and to advise policymakers in order to impact change. This can help shape better cancer care and influence reform at the policy level.
- **Building relationships with other providers and systems across the state**: The vast majority of cancer care can be done in the community with strong partnerships. We’ve already started doing that; however, we want to create more of those partnerships to allow more patients in our state to receive the right cancer care in the right place.

What are some exciting areas of cancer research at the Cancer Center?

- **Precision medicine**: We have great strength here, using patients’ genetic information to diagnose or treat their individual disease, and discovering new targets for cancer therapy and the drugs to go after those targets. But that’s only a beginning.
- **Metabolomics**: There’s a lot of research now in cancer metabolism and how cancers process nutrients differently than normal cells. We’re always looking for the differences between cancers and normal tissues, because then we can target treatment more precisely.
- **Immunotherapy**: Some newly developed drugs can unleash the immune system against the cancer. While earlier immunotherapy was defeated because the cancer produces substances that makes it invisible to the immune system, now there are new drugs and antibodies available that essentially make the cancer visible to the immune system.