Improved care of elderly patients with heart failure has led to shorter hospital stays and lower rates of death while in the hospital. Unfortunately, after leaving the hospital, many of these patients are at risk of being admitted to a nursing home, are frequently re-admitted to the hospital, or die in the month following hospital discharge. Working with a multidisciplinary team, UCSF Medical Center has been able to care for more patients in their homes, prevent hospital readmissions and provide palliative care for those with late-stage heart failure.

Heart failure affects about 5 million Americans, and is the leading cause of 30-day hospital readmissions among older patients. It is a chronic, progressive disease in which the heart is unable to pump enough blood to the rest of the body, causing fatigue, shortness of breath and swelling in the feet and legs. Patients often take multiple medications to manage their illness, must restrict their salt intake, and need to weigh themselves daily to detect whether they are retaining excess fluid, which can back up into their lungs. Yet despite the complexity of the disease, some studies have estimated that up to half of heart failure readmissions are potentially preventable.

In 2006, 23 percent of heart failure patients age 65 and older were readmitted to UCSF Medical Center within a month of discharge, whereas by 2011, only 12 percent were readmitted. (The national average is 25 percent.) The rate of heart failure patients readmitted to the hospital within 90 days also dropped, from 45 percent in 2006 to 27 percent in 2011 – a 40 percent reduction.
Choosing Wisely

When I was training to become a doctor, the mantra I grew up with was that our job wasn’t to worry about what things cost – we were supposed to do everything to help our patients. It turns out that much of that approach is probably wrong.

The Congressional Budget Office estimates that up to 30 percent of care delivered in the United States goes toward unnecessary tests, hospitalizations and other services that may not improve patients’ health, and may actually cause harm. Doing what is best for our patient does not always mean ordering every possible medication, test or procedure that may be available.

Our role as doctors has changed since I entered the field. We have a responsibility to help patients choose care that is supported by the best evidence, showing that it is effective for patients like them. We also have a larger responsibility to think about the health of the entire community – including vulnerable and underserved patients – as well as the patient in front of us. Often, we can achieve the same or even improved outcomes, if we make wise choices and develop better ways of practicing medicine.

As Molly Cooke, MD, William G. Irwin Endowed Chair and director of the Academy of Medical Educators, wrote in a recent New England Journal of Medicine article, “We are stewards of … ‘the medical commons.’… Educating physicians to be cost aware is a critical responsibility of medical schools and residency programs.”

As several stories in this issue illustrate, UCSF is a leader in this effort:

- Faculty at San Francisco General Hospital and Ocean Park Health Center have piloted programs that employ an effective, easy-to-use test that can potentially help screen many more people for colorectal cancer than colonoscopy alone.
- Researchers at the San Francisco Veterans Affairs Medical Center have made important discoveries about which mammography screening protocols are most likely to maximize benefit while minimizing harm.
- A multidisciplinary initiative at UCSF Medical Center has reduced 30-day readmissions of heart failure patients by almost half.
- Our residents and faculty at UCSF Medical Center and SFGH have developed educational materials to provide information about cost and radiation exposures for commonly ordered radiology tests, and have also developed a cost awareness curriculum.

Last summer, a number of UCSF faculty and I attended a conference sponsored by the American Board of Internal Medicine Foundation entitled “Choosing Wisely: The Responsibility of Physicians, Patients and the Health Care Community in Building a Sustainable System.” UCSF was one of the most well-represented institutions at the conference. We are proud that the Department of Medicine has so many faculty members who are pioneering ways to improve quality of care while lowering costs, and we thank you for your support of these efforts.

Sincerely,

Talmadge E. King, Jr., MD
Chair, Department of Medicine
Julius R. Krevans Distinguished Professorship in Internal Medicine
UCSF Heart Failure Program: Improving Outcomes

continued from front page

“Each hospital readmission has a story, and we try to find out what it is,” says Eileen Brinker, RN, MSN, program coordinator for a recently established heart failure readmission initiative at UCSF. “Were they able to get their medications? Are they unable to get to appointments because they can’t get down the stairs? Is the patient’s caregiver burned out?”

Brinker and her fellow program coordinator, Maureen Carroll, RN, CHFN, are at the center of UCSF’s successful efforts to provide better care to older heart failure patients. By cultivating excellent communication, patient education, team approaches to care and careful attention to transitions between hospital and home, the program has reduced 30-day readmissions for heart failure patients 65 and older by nearly half compared to five years ago.

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Building a Team

“Creating teams that look at the whole patient is part of becoming accountable for the continuum of care,” says Teresa De Marco, MD, director of the Heart Failure and Pulmonary Hypertension Program at UCSF, and a physician champion of the heart failure readmission reduction initiative. “Our team takes ownership of the patient, like they’re part of our family. We want to make sure they do well, not just when they are in the hospital, but after they are discharged. Our goals are to reduce hospitalization, help patients feel better and do more to slow progression of their disease, and improve longevity.”

The heart failure readmission reduction project was established in 2008, with funding from the Gordon and Betty Moore Foundation. This grant enabled UCSF Medical Center to hire Brinker and Carroll – both experienced cardiac floor nurses – to lead the initiative. They began by building a multidisciplinary team, including physicians, nurses, case managers, social workers, dieticians, chaplains and palliative care specialists. “We want to make sure that everyone is involved who should be,” says Brinker. “Because we know the players so well, we can pull everyone in when it is appropriate.”

This team identified the key issues in the care of heart failure patients and implemented processes to improve their care. Brinker and Carroll developed an e-mail system to notify inpatient and outpatient providers and other team members when heart failure patients are readmitted. They ensured that patients discharged from the hospital would receive a follow-up appointment with their primary care physician, or the outpatient heart failure clinic. “We realized that sometimes the outpatient clinics didn’t know when their patients were hospitalized, even though they are just across the street,” says Brinker.

They updated patient education materials, translated them into four languages and established better methods for teaching patients and their families about the disease and its management. Instead of cramming education into a hurried monologue on the day of discharge, Brinker and Carroll arrange to discuss different topics with patients each day they are hospitalized – and build relationships in the process. “We have the privilege of having time to spend at the bedside with patients and their families,” says Carroll. “Our mantra is, ‘Listen before we teach.’ Just taking the time to get to know the patient establishes a trust.” They trained team members in the “teach-back method,” asking patients to explain key concepts in their own words, which demonstrates comprehension and indicates if any points need to be explained another way.

They also call to check on patients within one week of discharge, again by day 14, and may make several more calls, depending on a patient’s needs. “They don’t think to tell us, but because we are asking, we find out things like they haven’t gotten their meds for three days,” says Carroll. “It’s a great way to troubleshoot.”

Receiving Care at Home

The most frail older heart failure patients are referred to GeriTraCCC, which stands for Geriatric Transitions, Consultation, and Comprehensive Care. The UCSF program was established in 2010 with support from the S.D. Bechtel, Jr. Foundation. “Our readmissions had
designed to pump blood to the body in patients with a failing heart). For those in whom all management options are exhausted or for whom they are inappropriate, palliative care, provided by a compassionate team, is instituted.

Sharing Innovations

The heart failure readmission reduction initiative is continuing to develop better ways to prevent unnecessary readmissions. “I would love to get our 30-day readmissions rate down into the single digits,” says Carroll.

One component is the “Better Effectiveness After Transitions – Heart Failure” (BEAT-HF) Trial, for which the five University of California medical centers and Cedars-Sinai Medical Center received a $9.9 million grant from the Agency for Healthcare Research and Quality. Andrew Auerbach, MD, MPH, and Michelle Mourad, MD, lead UCSF’s participation in this randomized study evaluating the effect of telemanagement techniques to reduce heart failure readmissions.

For some patients with progressive late-stage heart failure, additional advanced heart failure management strategies may be employed, including heart transplantation or mechanical circulatory support (heart assist devices designed to pump blood to the body in patients with a failing heart). For those in whom all management options are exhausted or for whom they are inappropriate, palliative care, provided by a compassionate team, is instituted.

Many GeriTraCCC patients have advanced heart failure, and about one-third die within a year. Kao discusses end-of-life wishes with her patients, and supports them in achieving the highest quality of life possible. “One patient was very sick, but taking care of her intensively at home enabled her to go with her spouse on a drive to Napa and to the opera – things that meant a lot to the couple in the final months before she died,” says Kao. “Some hospitalizations are very appropriate to keep someone safe, but there are many that are preventable, and we go to great lengths to help people stay at home. Having care come to patients at home is a far more economical and patient-centered way of providing care.”

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The heart failure team is also focusing on expanding collaborations with outpatient partners, training skilled nursing facilities and home care agency staff on optimal post-discharge care for heart failure patients. They are also working to apply lessons learned to reduce preventable readmissions among patients with other chronic diseases, such as pneumonia, diabetes, and chronic obstructive pulmonary disease. “What we have learned can be disseminated across all high-risk patients,” says Brinker. “All patients deserve this standard of care.”
Raising Cost Awareness

“Getting more tests does not equate to better care,” says Niraj Sehgal, MD, MPH, associate chair for Quality Improvement and Patient Safety. In addition to being potentially harmful, over-ordering tests contributes to escalating health care costs. “As a lot of the national debate is highlighting, it’s not just about providing safe and high-quality care, but also being cost-effective, so the system can be sustained,” says Krishan Soni, MD, MBA, chief resident in Quality Improvement and Patient Safety.

Yet most physicians don’t know the cost of the tests they order, and may not fully consider the effects of over-testing on both patients and the health care system. To help change this, the Department of Medicine has developed two recent initiatives that foster cost awareness.

Radiology Utilization Awareness Campaign

Sehgal and a project team designed a two-phase intervention focused on providing information about cost and radiation exposure for commonly ordered radiology tests. The goal was to determine whether providing this information would influence ordering practices for hospitalized patients. Faculty were also provided with an educator’s facilitation guide to jump-start conversations with trainees during rounds. Teams were encouraged to discuss and reflect upon whether recently ordered radiology tests were in fact indicated, whether test results changed their clinical management, and how big is the problem of over-ordering radiology tests.

The cost awareness phase of the project led to reduced radiology test ordering in five of six studies evaluated. Residents also reported increased knowledge about the cost of these tests and their likelihood of taking these costs into consideration when ordering.

Cost Awareness Curriculum

Soni and third-year resident Christopher Moriates, MD, developed a yearlong curriculum to increase awareness of the cost and appropriateness of tests, procedures and medications. “As people are learning how to care for their patients, they are also learning to be stewards of effective resource utilization, right from the beginning,” says Soni.

Each month, trainees examine a different condition frequently seen in the hospital, such as chest pain. Moriates and Soni give interns a cost awareness overview, and then share an anonymous, itemized bill from an actual UCSF patient diagnosed with that condition. Half the interns then research evidence-based guidelines to outline which patients should receive which tests and under what circumstances. The other interns research actual practices at UCSF, and the costs of those tests. After discussing their findings with each other, they help Soni and Moriates prepare an hour-long conference to share lessons learned with students, residents and attending physicians.

“We definitely discuss the circumstances in which tests are worth their cost,” says Moriates. “We also find how much we do that costs a lot of money but does not provide any benefit, and the evidence suggests we shouldn’t be doing it…. As a resident, you want to order every single thing that your attending might ask about in the morning. Part of what we need to do is change that culture, so attendings aren’t asking, ‘Why didn’t you order that?’ but rather, ‘Why did you order that test – what is that going to show us?’”

Moriates and Soni have presented their findings from this innovative curriculum at local and national meetings, and the American College of Physicians invited Moriates to join their planning committee to develop a high-value, cost-conscious care curriculum.

For people concerned that cost awareness might lead to rationing of care, Soni has this comparison. “If you went to a mechanic who told you what was wrong with your car, then gave you the necessary services and billed you for them, you wouldn’t call that rationing – you’d call that a trustworthy and effective person who does their job appropriately.”

“In medicine, we’re trying to promote a similar model,” said Soni. “We don’t want to withhold anything you need. It’s all about figuring out what your problems are, and how we can effectively treat them using the least harmful, least invasive and least costly approach.”

Niraj Sehgal, MD, MPH
Krishan Soni, MD, MBA
Christopher Moriates, MD
Early in her career, Louise Walter, MD, struggled with the decision about which of her elderly patients she should encourage to obtain a screening mammogram. “When I looked at the guidelines, the U.S. Preventive Services Task Force recommended that you stop at age 70, the American Geriatrics Society said to stop at 85, and the American Cancer Society said, you never stop screening,” recalls Walter, now a geriatrician at the San Francisco Veterans Administration Medical Center (SFVAMC). “I was like, ‘What do you do?’”

That question launched a research career devoted to developing more tailored guidelines for cancer screenings among older patients. Walter is one of a number of UCSF faculty members whose discoveries are helping to guide the use of screening tools in ways that have the best chance of helping patients while minimizing harm.

One of the challenges that Walter faced is that most randomized controlled clinical trials exclude patients above age 70. “With most of the things we do in medicine, we are extrapolating from things that have been shown to work in a younger population,” says Walter. “Also, the one-size-fits-all approach to medical care based on age does not work. I’d see a really healthy 80-year-old woman who was hiking up Mount Tam, and then I’d see a really sick 75-year-old with severe dementia. Their medical care should be tailored to their health, not just their age.”

With her colleagues, Walter developed a framework for individualized decision-making, helping physicians weigh the harms and benefits for a particular patient, as well as the patient’s life expectancy and values. Because mammography is not a very precise test, it yields many more false-positive test results than diagnoses of actual cancer. Consequently, patients may receive unnecessary biopsies, as well as surgery, chemotherapy and radiation to treat slow-growing cancers that would never have been life threatening.

Walter also found that frail elders are at increased risk of suffering negative outcomes from false-positive test results and unnecessary cancer treatment. “The person has a major surgery, gets wound infections, rips off all their bandages because they get delirious, ends up spending a year of their life getting wound care, and then dies of a stroke,” says Walter. “That is a huge harm from a screening mammogram, in someone that we knew had a very low chance of benefit.”

Walter has also done research on the unintended downstream harms suffered by frail elders who are screened for other types of cancer, including colon, cervical and prostate cancer. “The lag time for benefit from these screenings is at least five to ten years,” says Walter. “We should be doing things that are going to benefit these patients in the next couple of years, not in 10 years. We can do so many things to help frail elders have a better quality of life, such as helping with their depression or maintaining their independence at home, rather than sending them for a screening test that is trying to find an asymptomatic problem when they already have multiple problems.”
“When people come in wanting antibiotics for a cold, when you tell them all the reasons why you don’t recommend it, the vast majority say, ‘Okay, I don’t want it,’” says Walter.

“The same thing with mammograms. When I explain to the caregivers of my frail, elderly patients with dementia what could happen, they say, ‘Oh, we don’t want that. Let’s focus on these other issues.’ The problem is, it takes time to have that conversation. I am always struck by how it is easier to do something – give people antibiotics, send them for a mammogram – rather than have a harder conversation about why these could be potentially harmful. I think that is why we sometimes do too much in medicine.”

Stratifying Screening by Breast Cancer Risk

Another UCSF researcher who has studied mammography is Karla Kerlikowske, MD, who also serves on the faculty at the SFVAMC. She recently co-authored a study published in the Annals of Internal Medicine that found that after 10 years of annual screening, more than half of women will receive at least one false-positive test result. She and her colleagues also found that receiving a mammogram every other year instead of annually reduced the likelihood of obtaining a false-positive result from about 60 percent to about 40 percent within 10 years. There was no statistically significant increase in the number of late-stage cancer diagnoses by screening every two years rather than annually.

These findings are in line with guidelines issued in 2009 by the U.S. Preventive Services Task Force, a respected, independent panel of medical experts. The task force recommended biennial screening mammography for women aged 50 to 74 years, replacing its earlier guidelines recommending that starting at age 40 women should have mammograms every one to two years. The new guidelines were controversial, and were cited by opponents of the health care reform bill as an example of government “rationing” of health care.

“Countries all over the world use a two-year screening interval,” says Kerlikowske. “In the U.S., somehow we think that annual is better, but there is no data to support that recommendation. From a benefit-harm ratio, it doesn’t make sense. You get the same benefit from screening every two years, and reduced harms.”

Another challenge is that not all breast cancers are created equal. For example, ductal carcinoma in situ is a premalignant abnormality located inside the milk ducts, which has not invaded nearby tissues, and is more of a risk factor rather than cancer itself. There are also slow-growing invasive cancers that can be detected by clinical breast exam or mammography and have the same impact on life expectancy. Highly aggressive cancers are often deadly even if they are identified through mammography. In the remaining 20 to 30 percent of breast cancers, identification of tumors with mammography can improve outcomes and potentially decrease women’s chance of dying of breast cancer. Unfortunately, mammography is unable to distinguish among these different types of breast cancer.

Kerlikowske is also developing better ways to determine women’s risk level for developing breast cancer, and tailoring screening protocols that maximize benefit while minimizing harm. For example, she found that a 40-year-old woman with dense breasts and a family history of breast cancer has a similar risk level as a typical 50-year-old, and should probably have screening mammography every two years. A 50-year-old with fatty breasts and no family history probably has reduced risk, and probably only needs to be screened every three years. Women with strong family history of breast cancer may be identified with the BRCA 1 or 2 gene mutations and are at higher risk and therefore have different screening protocols than the general population.

“The whole idea is to risk-stratify women for screening,” says Kerlikowske. “Just like for coronary artery disease, where you don’t give everybody simvastatin for their cholesterol, we’re trying to develop an analogous approach for breast cancer screening.”

What’s Best for Patients?

Both Kerlikowske and Walter have produced groundbreaking work in discovering how to best use screening tools like mammography. “Their research has really been seminal,” says Rita Redberg, MD, MSc, a UCSF cardiologist who is the editor of the Archives of Internal Medicine.

Redberg has also been an active contributor to this wider discussion. The backlash against the U.S. Preventive Services Task Force guidelines on mammography inspired a long conversation between her and Deborah Grady, MD, MPH, associate dean for Clinical and Translational Research.

“We talked about how the reaction to that very scientific and evidence-based announcement was negative, and how we needed a whole public re-education process,” says Redberg. “Right now, people think that if a little health care is good, then more health care is better, which is not always the case.”

The two developed the idea for “Less is More,” and launched the series in the Archives of Internal Medicine in 2010. Grady is section editor, and the articles highlight areas of health care with no known benefit, and definite harms. Several of the articles have prompted the FDA to issue warnings about faulty drugs and devices, which were described in the series. Redberg and Grady also welcome more UCSF contributions of research, cases and commentaries to this series.

“Part of our American culture is that we embrace technology,” says Redberg. “But not all technology is great for all people at all times…. People are quick to label as rationing, anytime the government is not recommending particular health tests. Perhaps if the focus of the communications was on the fact that these additional mammograms were hurting women, there would have been a more positive reaction.”

She notes that cost is not a criterion for the series. “We’re looking at it from the perspective of, what’s best for the patient,” says Redberg. “Certainly, that means not putting themselves at risk when there’s no benefit.”
Colorectal Cancer
Screening More Patients at Lower Cost

Colorectal cancer is the third most common cancer in both men and women, and is expected to cause nearly 50,000 deaths in the United States this year, according to the American Cancer Society. If caught early by routine screening, the prognosis for patients with colorectal cancer is quite good. Unfortunately, about 40 percent of Americans who meet criteria for screening have never been screened, and a disproportionate number of uninsured and underserved patients are diagnosed with advanced cancers. Physicians at UCSF have been working to improve the rate of routine screening and thereby improve the prognosis for patients with colorectal cancer.

“Colorectal cancer is a serious problem, and not enough people are receiving routine screening, especially among the uninsured and underserved population,” says James Allison, MD, adjunct investigator at the Kaiser Division of Research. In most cases, colorectal cancer develops slowly from a benign polyp, a process which can take up to 10 years. About one in four Americans has a polyp by age 50, but only a small proportion of those polyps develops into cancer. For people without a family history of colorectal cancer or other risk factors, routine screening after the age of 50 is recommended.

Debate Over Best Screening Method
The best method for screening the general population has been hotly debated. Two national task forces each developed a menu of screening options, which include stool tests – in which a patient collects a small feces sample that is then analyzed for signs of bleeding caused by colon polyps or colorectal cancer – and structural exams, such as colonoscopy – in which a gastroenterologist inserts a flexible tube with a camera through the anus to look for polyps or cancer in the colon.

In 2000, Katie Couric’s broadcast of her own colonoscopy on the “Today” show led to much discussion in the media and a documented increase in the colonoscopy rates. That year, Congress mandated that Medicare cover screening colonoscopy once every 10 years, and the American College of Gastroenterology recommended colonoscopy as the “preferred strategy” for colorectal cancer screening.

Successful Screening at Lower Cost
Unfortunately, colonoscopy is an invasive procedure that can cost thousands of dollars, and it is not readily available to all who need it. “Colonoscopy is a good screening test, but it is not the only good option,” says Allison.

UCSF faculty members have developed a model to increase screening rates among average-risk patients by offering an easy-to-use test that costs about $8 – the fecal immunochemical test (FIT) – rather than using colonoscopy for initial screening.

Allison and his colleagues have conducted extensive research on various stool tests. They published articles in the New England Journal of Medicine and the Journal of the National Cancer Institute showing the effectiveness of the FIT in detecting blood in the stool from larger polyps and cancer, which tend to bleed.

Unlike earlier stool tests, such as the guaiac tests for fecal occult blood, FIT requires only one sample (rather than three) and does not require dietary and medication restrictions. “The FIT is effective in identifying patients with large polyps and cancer, and is easy and inexpensive enough to administer annually, thus allowing plenty of time for these slow-growing polyps and cancers to be identified before they become fatal,” says Allison. “With the new and improved choices for fecal occult blood testing (FOBT), annual FOBT testing can play an important role in colorectal cancer screening.”

Improving Screening Rates: The Ocean Park Health Center Experience
Lisa Golden, MD, medical director of Ocean Park Health Center (OPHC) – a San Francisco Department of Public Health clinic which provides primary care to mostly low-income, uninsured patients in the Sunset and Richmond districts – wanted to improve her clinic’s screening rates for colorectal cancer. In 2008, OPHC’s screening rates for colorectal cancer among their 2,000 patients aged 50 and older was about 40 percent.

“We told patients that this new test was a serious problem, and not enough people are receiving routine screening, especially among the uninsured and underserved population.”

At that time, OPHC used FOBT as a first-line screening tool for colorectal cancer. They wanted to make the switch from the more finicky FOBT to the FIT, which is easier for patients to use. However, FIT costs about $8, compared to about $4 for the FOBT. Golden partnered with the California Department of Public Health and the Centers for Disease Control and Prevention to obtain grant funds to offset the increased FIT cost. These grant funds also allowed OPHC to give them prepaid mailer envelopes, which allowed patients to mail the sample directly to the SFGH lab, rather than having to bring it in person to OPHC. In addition, the Clinic developed patient educational materials about the importance of preventive care and colorectal screening in various languages.

“We told patients that this new test

— James Allison, MD
was much easier to use, that you could mail it back in, and that it was not yet available elsewhere within the Department of Public Health system,” says Golden. “When people feel like they’re getting something new and improved, they’re going to seriously think about following through.” With the new FITs, OPHC’s screening rates have increased to 73 percent in the past year – and Golden and her team are working to increase those rates even further in the future.

Improving Diagnostic Colonoscopy Rates

Patients who have a positive FIT are referred to San Francisco General Hospital (SFGH), the safety net hospital in the UCSF system, for a diagnostic colonoscopy. SFGH performs about 1,700 colonoscopies annually; however, wait times can exceed four months. What was needed was a better system to ensure that patients who have a positive test had a timely follow-up colonoscopy and appropriate management.

To streamline patients’ access, UCSF gastroenterologist Lukejohn Day, MD, and his colleagues at SFGH are now offering a program known as “direct access colonoscopy.” Through this program, patients with a positive FOBT or FIT first attend a group colonoscopy education class in English, Spanish or Cantonese that explains how to prepare for a colonoscopy. Participants then receive an appointment for the procedure within three weeks. By reconfiguring providers’ schedules and offering direct access colonoscopy, SFGH has been able to increase the number of colonoscopies they can offer by almost 20 percent over the last two years, and have reduced waiting times for patients with a positive FOBT or FIT by 50 percent.

“We’re hoping to replicate OPHC’s success across all our clinics here,” says Day, who is leading these efforts. Within the next year, he projects that all clinics at SFGH and across the San Francisco Department of Public Health (DPH) system will switch to offering FIT to the approximately 27,000 patients eligible for routine colorectal cancer screening.

In addition, for patients who are not eligible for SFGH’s direct access process for colonoscopies, DPH physicians teamed up with Operation Access, a nonprofit which mobilizes licensed volunteer medical professionals, hospitals and other medical facilities to provide donated outpatient surgeries and procedures to low-income, uninsured patients. In 2010, Operation Access provided 95 donated diagnostic colonoscopies throughout the Bay Area, with an average value of $6,345 per procedure, according to Jennifer Errante Paidipati, director of the Operation Access Institute.

Operation Access has also helped share information about the OPHC-SFGH model screening program, convening meetings throughout California to share best practices and help local communities improve colorectal cancer screening programs. “FIT is not a second-rate screening test,” says Paidipati. “It helps us target people who really need colonoscopy, rather than using colonoscopy to do routine screenings.”

Higher Quality, Lower Costs

“This is an important improvement,” says Talmadge E. King, Jr., MD, chair of the Department of Medicine. “The model they have developed – using the FIT as a screening procedure, involving not just the physician but the entire care team in offering colorectal cancer screening to the patient, partnering with gastroenterologists to ensure rapid diagnostic colonoscopy in appropriate patients, and developing patient-centered educational materials – is an excellent example of the type of change we can make to improve quality and reduce cost.”

The OPHC-SFGH model is also being promoted by the California Colorectal Cancer Coalition (C4), the California branch of the American Cancer Society, and the California Department of Public Health to increase screening in other underserved communities serviced by a safety net hospital, says Allison.

“The one thing most associated with success in screening programs is having your primary care physician saying, ‘You need to be screened,’” says Allison. “My goal is to inform primary care physician that FIT offers a way to screen large numbers of patients, especially in the underserved and uninsured population.”
Dr. Steve Harr: Investing in Success

Health care is 18 percent of our economy, it’s extraordinarily complex, and it’s very difficult for most people to understand,” says former UCSF resident Steve Harr, MD, who is a managing director and now leads Morgan Stanley’s global biotech investment banking business. “When you have the opportunity to train at UCSF, you gain a really unique skill set that can be beneficial to whatever area you go into, whether it’s treating patients, basic science, public health, policy, developing drugs or investing.”

Harr says he thoroughly enjoyed his medicine residency, which he completed in 2000. He was interviewing for cardiology fellowships, and was particularly interested in translating laboratory discoveries into new treatments to help patients. Through talking with friends, he found that investment banking could provide an unorthodox but perhaps accelerated way to pursue this interest. He became a research analyst, first at the investment banking firm of Robertson Stephens, then at Morgan Stanley.

“Medical school and residency were a great training ground for what I did as an analyst,” says Harr. “I used and learned an incredible amount of knowledge about basic sciences, clinical trials, current standards of care, and impediments to delivery every day. Also, just as in clinical medicine, you’re forced to make decisions with imperfect information, and to continue to pressure that decision as new information becomes available. I looked at things with a critical, scientific eye, made a decision, and then communicated that to a general audience. That’s what you do in a patient interaction. One needs to be able to distill a complex set of facts into a relatively simple action plan or the impact to the patient is minimal.”

He credits many UCSF faculty for teaching him these skills, including Hal Barron, MD, associate clinical professor of medicine and epidemiology/biostatistics who also serves as executive vice president and chief medical officer of Genentech. “His knowledge, facility and ability to apply clinical data directly to patient decision-making was extraordinary,” says Harr.

“As a resident, Steve was an extremely bright individual who delved deep into the literature to convince himself that the conventional wisdom being taught was indeed supported by solid evidence,” says Barron. “It is this passion for seeking truth that has made him so successful in his various roles since leaving UCSF.”

‘Chasing down the Truth’

In 2007, Harr was featured in the Wall Street Journal for warning that high drug prices were unsustainable and could trigger government regulation, dampening innovation. “What I enjoyed most about being an analyst is that there was incredible intellectual freedom to chase down the truth around the relevant controversies of the time, whether that was around a drug’s likelihood of having a clinical benefit, or how companies are likely to evolve in an extraordinarily complex and challenging environment,” says Harr. “By working at Morgan Stanley, I’ve had the privilege to interact with and to impact the way others think about issues — including policy makers, investors and CEOs.”

Since 2010, Harr has led biotechnology investment banking at Morgan Stanley, helping drug companies worldwide map out and execute strategic decisions. “I work with senior management and boards, helping them think through how the landscape is likely to evolve over the next three to 10 years, and how they should maximize these opportunities,” says Harr. “The industry is facing tremendous pressure and undergoing significant change, with no single business model looking to be the answer yet.”

His advice to current residents: “Medicine is such a rapidly evolving field, and your role in 20 or 30 years is almost impossible to predict,” he says. “Learn how to analyze new scientific discoveries. Exploit all the resources around you, because there’s no other place in the world where you have access to the patient, scientific and entrepreneurial diversity that UCSF offers. Follow your passion, and go to what you think you will love over 10 or 20 years.”

Dr. Yuet Wai Kan: Pioneer in Molecular Genetics

Yuet Wai Kan (pronounced “yoot WHY conn”), MBBS, DSc, a world-renowned leader in hematology and genetics, says his decision to pursue a career in medicine was simple.

“My father said, ‘You are going to be a doctor,’ and that was it — honest,” says Kan, now the Louis K. Diamond Professor of Hematology, with a smile. “I was the youngest of 12 children, and none of my siblings were in medicine, so mine was the last chance he had.”

Kan earned his medical degree from the University of Hong Kong Medical School, and received clinical training in Hong Kong, the U.S. and Canada. During his training, he saw a patient with thalassemia — a genetic blood disorder that can cause anemia — sparking his research interest in genetics and hematology. “This was in the ’60s, and very little was known about this type of thalassemia,” says Kan. “It could be very severe, so that the fetus actually died in utero.”

After serving on the faculty at Harvard Medical School, Kan was recruited in 1972 as chief of the Hematology Service at San Francisco General Hospital, and became a Howard Hughes Investigator in 1976. “That was a period of very rapid growth at UCSF,” recalls Kan. Among his collaborators at UCSF were future Nobel laureates Harold Varmus, MD (now director of the National Cancer Institute), and J. Michael Bishop, MD (former chancellor of UCSF), and Herbert Boyer, PhD, who later co-founded Genentech. “We learned some basic research techniques from them, and they helped us a lot,” says Kan.

Applying Genetics to Disease

Kan pioneered the use of recombinant DNA and DNA cloning to diagnose thalassemia and sickle cell anemia at the molecular level, detecting the exact genetic mutations responsible for these disorders. Kan also discovered and described restriction fragment length polymorphisms (RFLPs), now known as single nucleotide polymorphisms (SNPs), which he employed to diagnose sickle cell anemia prenatally, and which eventually made human disease gene mapping possible.
Great Loss Inspires Search for IPF Cure

In 1975, Virginia and Raymond Harroun lost their 35-year-old son, John, to pulmonary fibrosis—a disease that scars the lungs, for reasons that are still unknown. In addition to his parents, John also left behind his sister, Anne, and his wife, Ivory.

Tragically, John’s father, Raymond, also developed the disease, and died in 1988. Then in 2000, Anne passed away from pulmonary fibrosis.

After losing her entire family to this disease, Virginia Harroun established the Harroun Family Foundation in 2001. It is dedicated to supporting research to find a cure for familial pulmonary fibrosis.

In 2006, board members of the foundation attended a patient symposium in San Francisco sponsored by the Coalition for Pulmonary Fibrosis. Harold R. Collard, MD, director of the UCSF Interstitial Lung Disease Program, was one of the speakers (see story, back page). “We were so impressed by his research in idiopathic pulmonary fibrosis (IPF) that we invited him for lunch, where he gave us a presentation on the work he was doing,” says Ivory Harroun Myers, John’s widow. Because John, Raymond and Anne suffered from a familial form of IPF, Virginia Harroun chose to support UCSF projects investigating different aspects of how genetics affect IPF.

Mrs. Harroun passed away at the age of 96, and Mrs. Myers was elected as the Harroun Family Foundation’s president and board chairman. The foundation has been able to make a gift to UCSF to support a postdoctoral IPF researcher for two years.

“Having early-career researchers who are bright, energetic and have time to commit to projects makes all the difference — yet it is very difficult to find funding for these kinds of positions,” says Dr. Collard. “Support like the Harroun Family Fellowship is the essential catalyst for discovery.”

“The big challenge with IPF is, we don’t understand the underlying cause of the disease,” says Dr. Collard. “We are making progress — for example, we now know that up to 20 percent of cases of lung fibrosis occurs in closely related family members, and we understand some of the pathways involved in familial disease. However, we need to continue our research into the biology of lung fibrosis so that we can design and target novel treatments, which will have a much greater chance of improving the outcome for these patients.”

“We are so pleased that we are able to do this — not only on behalf of the Harroun family, but for others who suffer from this disease,” says Mrs. Myers. “We who have been through this know the suffering the families go through. We are very grateful that we can partner with UCSF and Dr. Collard to help find a cure for this disease.”

Pictured at top, from left: Virginia and Raymond Harroun, and their children John and Anne Harroun Myers.

To support IPF research at UCSF, please contact Senior Director of Development Olivia Herbert at 415/476-9878 or oherbert@support.ucsf.edu.

IN MEMORIAM: Dr. John D. Baxter

John D. Baxter, MD, a leading endocrinologist whose research group was the first to clone the human growth hormone gene, died October 5, 2011 following complications of cancer surgery. He was 71.

Baxter served on the faculty of the UCSF Departments of Medicine and Biochemistry and Biophysics for more than 35 years, until becoming director of the Genomic Medicine Program and chief of endocrinology at the Methodist Hospital Research Institute in Houston in 2008. During his time at UCSF, he translated fundamental discoveries in molecular biology and recombinant DNA technology into applications with major clinical and commercial applications. These included cloning the key genes for human and bovine growth hormones, discoveries which led to the development of synthetic forms of these hormones. Baxter also founded several companies, including California Biotechnology Inc., and established the UCSF Diabetes Center.

Baxter was a member of the National Academy of Sciences and the Institute of Medicine, and was a past president of the Endocrine Society. He was the recipient of dozens of major awards and honors, and authored hundreds of peer-reviewed scientific articles. He is survived by his wife, the Honorable Lee D. Baxter, a retired San Francisco Superior Court judge; daughters Gillian Galligan and Leslie Baxter; and a grandson.
Idiopathic Pulmonary Fibrosis Care and Research at UCSF

Idiopathic pulmonary fibrosis (IPF) is one of the most common forms of interstitial lung disease (ILD), a group of more than 200 conditions that cause scarring (called fibrosis) or inflammation of the lungs. The most common symptoms of IPF are shortness of breath and a persistent dry, hacking cough. It is estimated that about 100,000 people in the U.S. are affected by IPF. The cause of IPF is still unknown, and there is not yet a cure.

The UCSF Interstitial Lung Disease Program, directed by Harold R. Collard, MD, is one of the few centers nation-wide specializing in the treatment of lung scarring. The program brings together the expertise of pulmonologists, radiologists, pathologists and nurses who specialize in treating patients with IPF and other forms of ILD. In addition, the ILD Program hosts educational seminars and runs a monthly patient support group called Living Well with ILD. The program also conducts novel research into the biology and epidemiology of IPF and other forms of ILD.

See related story, Harroun Family Foundation: Great Loss Inspires Search for IPF Cure, page 11.