

GERIATRIC MEDICINE

Inside This Edition

- 2 Communication and Decision Making With Critically Ill Patients
- 4 New Developments in Chronic Care Management Services
- 6 Finding Long-Term Success in Preventing Delirium
- 8 RAVEN Continues and Curavi Health Expands Services
- 9 Geriatric CME Courses
- 10 Fracture Liaison Service Update and Advancements
- 11 Recent Publications

Message from the Chief



I am excited to again share with you some updates from our Division of Geriatric Medicine. While the updates are recent, our mission is unwavering: to enhance the health of older adults through new models of clinical care, transformational research, and innovative training.

Clinically, we launched an innovative unit at a UPMC nursing home designed to improve care after discharge for TAVR or advanced heart failure. We expanded our VA teledementia program, our Geriatric Cardiology and Geriatric Chronic Pain services, and our Geriatric Acute Trauma Service at UPMC Presbyterian, which now admits more than 2,000 seniors annually.

Research remains a priority. Some new key publications can be found on page 11 of this issue. In addition, several more of our faculty were recently recognized for their work. **Steve Handler, MD, PhD**, received the Peter Lamy Award from the American Society of Consultant Pharmacists. **Joe Hanlon, PharmD**, received the William B. Abrams Award in Geriatric Clinical Pharmacology from the American Society of Clinical Pharmacology and Therapeutics. **Dan Forman, MD**, received VA Pittsburgh's Outstanding Contribution to Science award for his work in geriatric cardiology. **Michelle Rossi, MD**, received the VA Federal Executive Board's Gold Award for her teledementia program. **Anne Newman, MD, MPH**, became Editor-in-Chief of the *The Journal of Gerontology, Series A: Biological Sciences and Medical Sciences*.

Our *training* programs also flourished. Our interprofessional geriatrics course now concurrently trains > 200 trainees from the health sciences. We created a new fellowship in geriatric palliative care and a two-year fellowship for hospitalists. For residents interested in geriatrics we initiated a new longitudinal clinic with a year-long curriculum and a house-calls program. Our geriatric fellowship again filled all of its slots with exceptional candidates. **Debra Weiner, MD** concluded her seminal 12-part series deconstructing chronic pain in older adults, and **Rollin Wright, MD, MPH** published her innovative two-part approach to dementia in *ACP's Annals Online*.

In this edition you will also find articles highlighting several of our other programs, including a new chronic care management initiative led by **Amelia Gennari, MD**, and **Nancy Jones, MSOL, BSN**, and a new research initiative by **Leslie Scheunemann, MD**, which focuses on communication and decision making in the ICU. We also showcase the continued success of the Hospital Elder Life Program (HELP) led by **Fred Rubin, MD**. Now in its 16th year, HELP has continued to enhance its success in preventing and mitigating complications of delirium in hospitalized patients. **Susan Greenspan, MD**, updates results of her fracture liaison service, now a model for the National Osteoporosis Foundation. Finally, **Dr. Handler** describes the renewal of our CMS Innovation Center-funded RAVEN initiative. He also discusses new developments in telemedicine through the Curavi Health startup company where he serves in a leadership role.

If such innovative approaches appeal to you, we hope that you will consider joining us! We seek individuals who share our commitment. Whether your interests lie in direct care, new clinical models, training, and/or research, I look forward to hearing from you.

With kind regards,

Neil M. Resnick, MD

Division Chief and Thomas Detre Professor of Medicine

Associate Director, Aging Institute of UPMC Senior Services and the University of Pittsburgh
Director, Hartford Center of Excellence in Geriatrics



Affiliated with the University of Pittsburgh School of Medicine, UPMC Presbyterian Shadyside is ranked among America's Best Hospitals by *U.S. News & World Report*.

UPMC LIFE CHANGING MEDICINE

Communication and Decision Making With Critically Ill Patients

Doctor-patient communication is a multilayered, high-stakes process fraught with difficulties and intense emotions. For patients incapacitated by critical illness whose families are asked to step in to act as surrogate decision-makers, communication about their loved one's preferences, values, and care goals is a challenging process.



"We need to make sure the patient's values and preferences are consistently discussed, and discussed in a way that has validity."

Leslie Scheunemann, MD, MPH

Leslie Scheunemann, MD, MPH, is one of the Division's newest faculty members. Dually-trained in geriatrics and pulmonary/critical care medicine, Dr. Scheunemann specializes in research on communication and shared decision making with critically ill patients and their families in the ICU. Dr. Scheunemann has published widely on the subject, and has worked with and been mentored by two of UPMC's foremost experts on doctor/patient communication — Robert M. Arnold, MD, and Douglas B. White, MD, MAS.

"I think that the social aspects of the medical field have not necessarily caught up with how fast the science and technology have moved, and how much our entire culture has changed," says Dr. Scheunemann. Physicians used to live in their communities and practice medicine with patients they knew well. They understood who these people were before they became ill. They knew their personalities, they knew their values and, perhaps, even shared them because their communities were largely homogeneous. But this has all changed with time. "We physicians are no longer embedded in our communities. Most of us as ICU doctors have never met our patients before they became critically ill and landed in the ICU, in many cases incapacitated."

A lack of familiarity leads to a lack of knowledge. The only way to obtain this knowledge is to communicate with — and try to draw out and understand from — the patient or surrogate about how to treat them the way they want to be treated.

Patients and Surrogates — Discussing Preferences and Values

Even with advance directives, living wills, and other tools designed to help people articulate their treatment preferences in the event of life-threatening illness or injury, conversations with patients or surrogates about their preferences, values, and goals remain difficult and inconsistent.

Dr. Scheunemann and colleagues' recent research¹ shows that — even when clinicians and families are talking — they are often not talking at all about the patient's values and preferences, or they fail to talk about the values that tend to be most important to patients near the end of life.

They conducted a study from five ICUs of 71 clinician/surrogate conversations about goals of care for an incapacitated patient. Analysis showed that in 30 percent of the conversations, no discussion occurred about the patient's preferences or values. Thirty-seven percent of conversations discussed both preferences and values, and in the remaining 33 percent of conversations only one attribute, either preferences or values, was discussed. Furthermore, Dr. Scheunemann and colleagues found that fewer than 12 percent of the conversations included discussions of "values of high importance to most patients, such as independence, cognitive and physical function, and social engagement."

As Dr. Scheunemann explains, the reasons for their findings are multifactorial. Good communication requires that everybody be able to come to the table. That does not always happen, for many reasons. There is overwhelming evidence that physicians have a tremendous amount of influence on these conversations. The exact factors are hard to research, but one of them is almost certainly asymmetries in our relationships with patients and families. They tend to see us as experts, which we are: We are experts in medicine. But *they* are experts in the patient. All of us can under-recognize the importance of that personal expertise, which hinders the decision-making process."

As critical as talking about patient values and preferences is to patient-centered care, it has received little attention in ICU research. "My work has convinced me that part of the mental paradigm is off. We are so focused on the moment, as clinicians we often don't back up to say, 'Wait a minute, who is this person, where are they in life?'"

My job is to provide them help, but I have to figure out what kind of help they want first. That part is really missing from our training as physicians.”

“And, of course, it’s not just about the communication skills of the clinician. The patient and family’s communication skills also matter. If they are able to advocate for themselves, they can tell us what kind of help they want so we can find a shared vision more easily. However, it’s much more complicated when the communicative skills of the provider and the communicative skills of the patient and families are not ideal,” says Dr. Scheunemann.

Helping Clinicians Help Critically Ill Patients

It is unrealistic to expect that we will be able to fully prepare patients and families for the realities of critical illness, including decision-making about goals of care. That places more responsibility on clinicians’ communication skills. However, most programs simply don’t emphasize this aspect of a doctor’s training. “It’s difficult. As a medical student or resident you have to balance learning a tremendous volume of medical information with learning a deep set of interpersonal skills. These are two very separate tasks, and they both take significant amounts of time. The first tends to take precedence,” says Dr. Scheunemann.

Most of the time, a patient can make a decision about what treatment she wants without explicitly articulating her values. But the unexpressed, abstract values are what makes the decision authentic and personalized to her. They are the crux of whether a family is representing a loved one. This is why it’s so hard working with surrogates — because we are asking them to talk about things people almost never talk about in a way they almost never talk, and we are asking them to do that under the pressure of critical illness. It is challenging for both clinicians and families to overcome these barriers.

In 2012, Drs. Scheunemann, Arnold, and White developed what they called “**The Facilitated Values History**”² to begin to take some of these communication skills out of the abstract, and provide a framework for clinicians to guide surrogates and researchers to study this area of communication. It synthesized literature from decision psychology and medical decision-making, and identified seven core communication skills to help clinicians talk about patients’ values and preferences: attend to surrogates’ emotions, help surrogates understand their contribution to decision-making, understand the patient as a person, explore specific values and potential conflicts between them, summarize, deliberate about how to apply the values and preferences to treatment, and make a patient-centered recommendation. Experts around the country use this framework for teaching students and residents, and it has served as the foundation for Dr. Scheunemann’s subsequent research.

New Research in Discussing Patient Values and Preferences

As Dr. Scheunemann and colleagues have delved deeper into analyzing clinician-family conversations, they have been able to describe in more detail where communication breakdowns occur. They found that, although clinicians and families exchange information about patients’ values and preferences in nearly three-quarters of conversations, they largely fail to deliberate robustly about how to apply that information to decisions about goals of care, and most of the time discussion omits important end-of-life values.

Furthermore, the research suggests that just asking family members ‘what do you think the patient would want’ is too large a question: there was never an instance in which it led to a patient-centered treatment recommendation without

requiring additional deliberation. “You have to break it down into smaller units for them to be able to answer. You get important information — and show the family their own expertise — by asking, “What was your family member’s life like? How was that for them? What would that mean in this circumstance?”

While the full results of Dr. Scheunemann’s new study are currently under review, she knows exactly where her future investigations lie. “We need to make sure the patient’s values and preferences are consistently discussed, and discussed in a way that has validity. I think that what my colleagues and I will be working on going forward is trying to figure out how can we prepare family members for conversations, things we as clinicians can do during the advance care planning process to better prepare patients and families for these conversations when they happen. Furthermore, how do we prepare ourselves as clinicians and better leverage our interdisciplinary teams to ensure we are focused on the patient and that we collaborate effectively with families so that we are all aligned to the same goals for the patient.”

References and Further Reading

- 1 Scheunemann LP, Cunningham TV, Arnold RM, Buddadhumaruk P, White DB. How Clinicians Discuss Critically Ill Patients’ Preferences and Values With Surrogates: An Empirical Analysis. *Crit Care Med*. 2015; 43(4): 757-764.
- 2 Scheunemann LP, Arnold RM, White DB. The Facilitated Values History: Helping Surrogates Make Authentic Decisions for Incapacitated Patients With Advanced Illness. *Am J Respir Crit Care Med*. 2012; 186(6): 480-486.

New Developments in Chronic Care Management Services

Since 2015, when the Centers for Medicare and Medicaid Services (CMS) created a new chronic care management billing code, Geriatric providers and practices have been able to charge for certain non-face-to-face services in the management of chronically ill patients. Yet few providers, including geriatricians, have utilized the codes despite providing the services for which it compensates. A major impediment has been the complexity of billing and the corresponding need to devise the processes and collaborations to allow it. Led by Dr. Amelia Gennari and Nancy Jones, we decided to take on the challenge in an attempt to fine tune and standardize the Division's care management and, at the same time, receive compensation for time devoted to caring for the complex patient.



Amelia Gennari, MD



Nancy Jones, MSOL, BSN, RN-BC

The program is innovative, patient-centric, sustainable, and scalable, all characteristics that **Amelia Gennari, MD**, director of ambulatory care for the Division of Geriatric Medicine, is always looking for to improve overall patient care and outcomes. "It's also team-based, and at its heart it's focused on preventing decline in a chronically ill patient population," says Dr. Gennari.

CMS Program Details

The new CMS guidelines allow for several types of billing scenarios for chronic care management (CCM) and complex CCM services.¹ Physicians, certified nurse midwives, clinical nurse specialists, nurse practitioners, and physician assistants are all eligible to bill for CCM services after initiation of the service during a face-to-face visit in which a comprehensive care plan is set forth and explicit patient consent is obtained. (Table 1)

One of the biggest challenges to enrollment, according to **Nancy Jones, MSOL, BSN, RN-BC**, clinic manager of outpatient

geriatrics, is the potential patient copay. Although copays are part of the CMS guidelines, they also depend on the individual's insurance coverage. For this reason, patients have to explicitly consent to the program to receive the services, and they can opt out any time should they choose to do so. "With a patient population that is often dependent on fixed incomes, recurrent copays are a challenge, but not an insurmountable one. As a Division, we currently have well over 60 individuals participating in the program, and that number will only rise over time," says Ms. Jones.

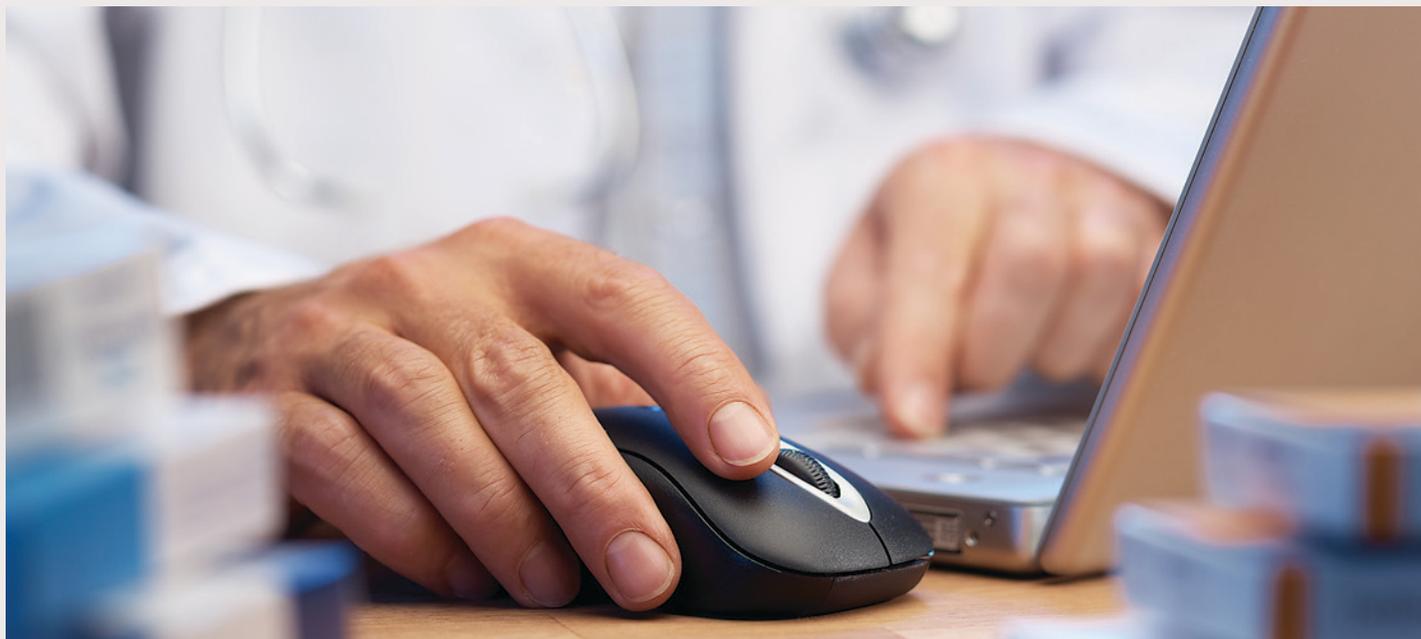
Implementation at UPMC

Implementation of the model required input and cooperation from multiple stakeholders. It also required developing additional tools in the electronic health record to enable providers to capture the necessary patient data and facilitate the monthly billing process. Reimbursements for phone encounters, time spent with patients via a secure web portal, working with a caregiver

Table 1: Chronic Care Management

Chronic care management services, at least 20 minutes of clinical staff time directed by a physician or other qualified health care professional, per calendar month, with the following required elements:

- Multiple (two or more) chronic conditions expected to last at least 12 months, or until the death of the patient
- Chronic conditions that place the patient at significant risk of death, acute exacerbation/ decompensation, or functional decline
- Comprehensive care plan established, implemented, revised, or monitored



on specific aspects of patient care, pharmacy facilitation — all of these services are now collectively captured in the system and billed to CMS within the program parameters. The goal is to follow these patients routinely, ensure they are meeting their goals of care, make adjustments when necessary, and do everything possible to keep them as healthy as possible and out of the hospital.

The acknowledgement by CMS that these types of patient encounters are worth compensation speaks volumes about the overall approach to patient care that geriatricians believe is fundamental to managing medically complex, at-risk older adult patients.

Measuring the Outcomes

A range of data points is being collected about the patients enrolling in the CCM program at UPMC. (Table 2) These data points will allow for robust future analysis of the program and identification of trends in a number of key areas.

For Dr. Gennari, it is particularly interesting to track the patient's goals of care as well as the financial results. "The former is key to ensuring a patient-centric, patient-focused care program. The latter is critical for the program's sustainability system-wide over the long-term," says Dr. Gennari.

Part of the analytics of the program includes a small, dedicated QI team consisting of a geriatric fellow, Internal Medicine resident, and a volunteer to specifically review and analyze the patient goals of care and other program metrics. A dedicated EPIC team is collecting metrics.

Table 2: Key Program Analytical Data

- Enrolled patients
- Eligible vs. Enrolled vs. Declined participation
- Total hours of care provided
- Who is providing patient care
- Patient diagnoses
- Patient goals of care and detailed care plans
- Follow-up visits
- Emergency department visits
- Hospital admissions
- Financial analysis

The Future of CCM at UPMC

What started as a Division of Geriatric Medicine initiative is now expanding into a global UPMC program — UPMC Focused Care. The success of the Division's work in developing a chronic care management program within the CMS guidelines, including its successful pilot test in the Division's ambulatory clinics, has led to rollout of the program by a growing contingent of community medicine practices. This care model has already been implemented in 10 primary care practices across the UPMC system, with plans for an additional nine practices to join in the near future. "Our goal is to make this available to as many patients as possible. We know this type of program can work and are confident the long-term data on these patients will validate this type of care and the tremendous effort of everyone involved," says Ms. Jones.

References

- ¹ Full details of the CMS Chronic Care Management Guidelines can be found at the following link: <https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/ChronicCareManagementServicesChanges2017.pdf>

Finding Long-Term Success in Preventing Delirium

Delirium acquired by older adult patients while in the hospital can have significant negative consequences to their immediate and long-term health. It puts patients at greater risk for a number of conditions, increases their care burden both in and out of the hospital, and leads to increased morbidity and mortality.



"We've been able to prove, over many years, that the HELP program works and will continue to be an effective intervention against delirium."

Fred Rubin, MD

The condition also accounts for significant financial costs every year in the United States and globally. One long-term initiative at UPMC to combat and prevent delirium has proved to be a remarkable, sustained success.

The Hospital Elder Life Program (HELP) at UPMC Shadyside was developed and implemented by **Fred Rubin, MD**, professor of medicine in the Division of Geriatric Medicine and chief of the Department of Medicine at UPMC Shadyside. The HELP program at UPMC Shadyside was patterned after the original HELP program developed by Sharon Inouye, MD, while at Yale-New Haven Hospital in the 1990s. Prior to starting the HELP program at UPMC Shadyside, Dr. Rubin was no stranger to delirium, continually looking for ways to improve the care of hospitalized geriatric patients. To this end, Dr. Rubin has been involved in numerous projects to do just that since his arrival at UPMC Shadyside in 1987. Creating a more gero-friendly hospital has been a goal, with the development of continuing educational courses for residents and physicians, and partnering with a group of physicians to create the Clinical Update in Geriatric Medicine conference, now heading into its 26th year.

Prior to learning about the HELP program and the work of Dr. Inouye, Dr. Rubin and several colleagues at UPMC Shadyside had initiated a delirium task force to tackle the problem. The group consisted of nursing staff, pharmacology, social services, rehabilitation, psychiatry, neurology, and geriatrics. "While we were working on this problem, the HELP program was published, and after critical review we decided that the single most effective thing we could do to reduce delirium at UPMC Shadyside would be to replicate HELP. I reached out to Dr. Inouye and asked if her team would give us technical advice on how to replicate her program at our hospital. She agreed, and that is how we got started here," says Dr. Rubin.

Formally initiated in 2002 at UPMC Shadyside as a quality improvement program on one patient unit, the HELP program is now in its 16th year — still under Dr. Rubin's direction — and has expanded over the subsequent years to cover patients on 11 hospital units, attending to more than 7,000 patients each year. The HELP program has produced consistent reductions in delirium, has prevented approximately 1,500 new cases annually, and has led to hospital savings in excess of \$7 million annually.^{1,2} Additionally, length of stay has decreased, patient and provider satisfaction scores for the program have been maintained at the highest level, and patients leave the hospital without the added burdens that having had delirium can portend.

Program Structure, Key Interventions, and Evolutions Along the Way

The HELP program is administered by a relatively small cohort of full-time paid staff, and a larger, ever-changing group of volunteers numbering well over 100, now mostly made up of undergraduate and



Hospital Elder Life Program (HELP) Select Metrics Since 2002

Overall Delirium Rate Prior to HELP Initiative	41%
Current Overall Delirium Rate	18%
Current Incident Delirium Rate	3%
Delirium Cases Prevented Annually	1,500
Readmissions Prevented Annually	100
Annual Cost Savings	~\$7,000,000

graduate students pursuing studies and careers in a multitude of health care-related disciplines. This team is responsible for assessing all patients aged 70 or older for their risk of incident dementia, or in some cases prevalent delirium upon admission, and providing appropriate interventions at regular intervals to combat or prevent the onset of delirium for geriatric patients in the hospital.

Risk factors for delirium specifically targeted by the HELP program for intervention include cognitive impairment, sleep deprivation, immobility, visual impairment, hearing impairment, and dehydration. The implementation of interventions to address these risk factors were not all immediately applied when the program first began, due to institutional differences at UPMC Shadyside and while staff was being brought on board and trained. And the interventions have adapted over the years as more learnings about the program were obtained through its use and as technology has advanced. "Some of the changes we have made over the years include volunteers doing therapeutic activities with patients, and we've changed what some of those therapeutic activities are or how they are administered. For example, we now

have various programs on tablet devices the volunteers can use with patients. And because of the growing percentage of patients with baseline dementia who are admitted, we've developed new programming specifically for these individuals," says Dr. Rubin.

The Future of HELP

With 16 years of continuing success in treating and preventing delirium through the HELP program, Dr. Rubin is not content to just stop there. His work continues to improve the HELP program at UPMC Shadyside, mine the data collected for new trends and learnings about patient care, and work to expand HELP both at UPMC and around the world.

Recently, Dr. Rubin has examined what, if any, effect the HELP program may have upon 30-day readmission rates. Sixteen years ago, readmission rates were not on most hospitals' radar, but now readmission rates have tremendous impact on many aspects of patient care and reimbursements and penalties from the Centers for Medicare and Medicaid Services. "We recently examined the effect of the HELP program on the readmission rate, and what we found is that HELP in fact does reduce the readmission rate. We are in the process of submitting our findings for publication, and we also presented some of our work as a poster at last year's annual meeting of the American Geriatrics Society," says Dr. Rubin.

Expansion to other UPMC entities may be possible in the future, and Dr. Rubin is very active on the national and international level discussing the HELP program with colleagues and institutions in an effort to expand the use of this proven, successful intervention. With the UPMC program being one of only four Centers of Excellence for the program worldwide, and with the largest active program in the world, Dr. Rubin and his colleagues are at the fore in helping other institutions adopt the HELP intervention, most recently collaborating with colleagues at the West Penn Hospital in Pittsburgh to initiate a program for their patients.

This idea — HELP — is spreading. And the reason it is spreading is because it works. "We've been able to prove that here at UPMC over a very long time," says Dr. Rubin, "and I expect we will continue to be at the forefront of its advancement well into the future."

References and Further Reading

Full details of the HELP program at UPMC Shadyside are available in the following two publications.

- 1 Rubin F, et al. Replicating the Hospital Elder Life Program in a Community Hospital and Demonstrating Effectiveness Using Quality Improvement Methodology. *J Am Geriatr Soc.* 2006; 54: 969-974.
- 2 Rubin F, et al. Sustainability and Scalability of the Hospital Elder Life Program at a Community Hospital. *J Am Geriatr Soc.* 2011; 59: 359-365.

RAVEN Continues and Curavi Health Expands Services

Having completed the first phase of the \$19 million CMS-funded project to reduce avoidable hospitalizations from nursing facilities (RAVEN), UPMC obtained additional CMS funding for a second phase of RAVEN through September 2020.



"It's about being as flexible as possible to meet the expanding and changing needs and uses of telemedicine."

Steven Handler, MD, PhD, CMD



Phase one, which relied on clinical interventions to reduce hospital admissions from 15 skilled nursing and rehabilitation facilities (SNFs), will now be complemented by a payment reform model at each of the original facilities, as well as at an additional cohort of 20 facilities across Pennsylvania. The payment model will test the feasibility — when appropriate — of paying SNFs and providers to manage residents with one of six qualifying conditions (Table 1) in the facility rather than in the hospital.

Table 1: Qualifying Conditions of RAVEN Phase Two

- Pneumonia
- Congestive Heart Failure
- COPD/Asthma
- Skin Ulcers/Cellulitis
- Fluid or Electrolyte Disorder or Dehydration
- Urinary Tract Infection

For Phase 2, **Steven Handler, MD, PhD, CMD**, has a new role as one of the RAVEN project co-directors while he continues to lead the telemedicine component. Dr. Handler indicates that it's too early in the second phase of the project to make any projections. However, on the RAVEN telemedicine front, Dr. Handler reports that the UPMC start-up — Curavi Health, a telemedicine services provider for nursing homes for which Dr. Handler serves as the chief medical and innovation officer — has been authorized to take over the telemedicine operations for the entire RAVEN program.

"We will start rolling out the new telemedicine solution this fall by replacing the existing telemedicine carts with our new CuraviCart™ and software, coupled with a detailed implementation and training plan. This is a big step forward because it validates that our new hardware, software, and implementation approach represent significant advances that should improve utilization and patient outcomes," says Dr. Handler.

Using the Curavi technology solution for the RAVEN project, nurse practitioners provide the consults and support to onsite users at the SNFs. The carts differ significantly from the previous models and have a number of major enhancements, including an integrated scanner for paper-based medical records. Another enhancement is an EKG solution in which a cardiologist provides a formal EKG assessment within an hour; the latter is the result of a partnership with UPMC's Heart and Vascular Institute.

Beyond its involvement with the RAVEN project, other significant advances at the

start-up are also noteworthy. Dr. Handler explains that it will offer additional services including geriatric psychiatry, wound care, and dermatology.

Curavi Health also now offers two models of service. In the first model, Curavi Health supplies the technology, training, implementation, ongoing support, and clinical services to its customers. "In the second mode, we now have the ability to offer a bring-your-own-provider approach. In this model, the customer supplies the clinical services and we handle the rest: technology, training, implementation, and ongoing

support. It's about being as flexible as possible to meet the expanding and changing needs and uses of telemedicine," says Dr. Handler.

References and Further Reading

Ingber MJ, et al. Initiative To Reduce Avoidable Hospitalizations Among Nursing Facility Residents Shows Promising Results. *Health Affairs*. 2017; 36: 441-450.

Raven.UPMC.com

CuraviHealth.com

Geriatric CME Courses

The following free CME courses are now available. To view these, and the full list of current courses, please visit UPMCPHYSICIANRESOURCES.COM/GERIATRICS.

More Tips on How to Live Long and Prosper: The Geriatrics 2016 Year in Review

Presented by: Rollin Wright, MD, MA, MPH

Dr. Wright reviews the framework for interpreting the evidence-based literature as it applies to older patients and some of the major themes in geriatric research.

Negotiating Diabetes Management in the Elderly

Presented by: Mary Korytkowski, MD

Dr. Korytkowski discusses the scope of the burden and complications in the elderly population that are dealing with diabetes. She also discusses ways to maintain and improve elderly patients' health status.

Supporting the Patient With Dementia

Presented by: Michelle Rossi, MD

Dr. Rossi discusses basic techniques to identify patients with dementia in your practice and shares advice on how to support those patients.

Incomplete Response in Late-Life Depression: Getting to Remission

Presented by: Charles F. Reynolds III, MD

Dr. Reynolds discusses his findings of the benefits and risks of augmenting an antidepressant with an atypical antipsychotic in older adults with depression.

Breaking Falls

Presented by: Rollin Wright, MD, MA, MPH

Dr. Wright provides a description and overview into the different types of falls and how they should be treated for the geriatric population.



Save the Date

26th Annual Clinical Update in Geriatric Medicine

April 5-7, 2018

Marriott Pittsburgh City Center

This three-day conference features speakers selected not only on the basis of their nationally recognized expertise, but also their ability to share it in a succinct and practical fashion that is easy to immediately incorporate into your practice.

Fracture Liaison Service Update and Advancements

Since its inception in 2015, the Fracture Liaison Service (FLS) within the Division of Geriatric Medicine has strived to ensure that every patient admitted to repair a fracture also receives appropriate evaluation and treatment for the underlying bone problem. Led by **Susan Greenspan, MD**, and **Karen Vujevich, MSN, CRNP**, the program continues to grow and succeed.



Susan Greenspan, MD



Karen Vujevich, MSN, CRNP

Integration of the FLS consult service into the UPMC electronic health care record in 2016 has facilitated steady growth, so much so that Dr. Greenspan is now hiring a second person to work alongside Ms. Vujevich to conduct consults and interventions.

Performance Improvements

The mean age of the hundreds of patients referred for consults is 70 years of age; approximately 75 percent are women. As a result of the FLS, bone density testing has increased from nine percent to 57 percent. Vitamin D testing for these fracture patients is now 92 percent, up from 20 percent before the service. The number of patients receiving physical or occupational therapy has also steadily risen to 45 percent.

Dr. Greenspan indicates that they have recently begun analyzing re-fracture rates of the patients seen in the FLS program. "The literature indicates that there is about a 10 percent re-fracture rate nationally for the types of patients we see in our program. Our program so far has achieved a 1.3 percent re-fracture rate, which is incredibly good for the patients."

With the continued success of the program, Dr. Greenspan and colleagues currently have one article under review that describes the initial pilot program data, and she is working on a second manuscript detailing the UPMC experience over the first several years of the FLS program's existence. The program also now serves as a model for the National Osteoporosis Foundation.

Promoting the Service and Finding National Recognition

In recent months, Ms. Vujevich has delivered several webinar presentations through the National Bone Health Alliance (NBHA) about the FLS program at UPMC. Additionally, Ms. Vujevich has joined a stakeholders group assembled by the American Society for Bone and Mineral Research (ASBMR) to address the crisis of osteoporosis. Ms. Vujevich joined the multidisciplinary group as one of the FLS coordinators and attended the first group meeting in Washington, D.C. in July 2017 to discuss the state of osteoporosis care and the true nature of the crisis that is unfolding with at-risk patients.



Recent Publications

Hanlon JT, Zhao X, Naples JG, Aspinall SL, Perera S, Nace DA, Castle NG, Greenspan SL, Thorpe CT. Central Nervous System Medication Burden and Serious Falls in Older Nursing Home Residents. *J Am Geriatr Soc.* 2017; 65: 1183-1189.

This nested case control study included 5,556 adults ≥ 65 years newly admitted to a nursing home with a history of a recent fall. In the ensuing 3 to 12 months, those on a high cumulative dose of agents that affect the brain were nearly twice as likely to suffer a serious fall. Thus, to decrease falls, clinicians should focus on reducing the total CNS medication burden as well as eliminating agents that are no longer indicated.

Tyagi S, Perera S, Brach JS. Balance and Mobility in Community-dwelling Older Adults: Effect of Daytime Sleepiness. *J Am Geriatr Soc.* 2017; 65: 1019-1025.

Although insomnia is associated with an increased risk for falls and fractures, the relationship may be confounded by use of sleep medications. In this study of 120 community-dwelling seniors (average age = 78), the half who reported daytime sleepiness had slower gait speed, step width, and balance confidence. The association persisted after adjusting for covariates, including the use of sedating medications. Subjective sleep assessment should be considered when evaluating falls and falls risk.

Tyagi S, Perera S, Clarkson BD, Tadic SD, Resnick NM. Nocturnal Polyuria in Older Women With Urge Urinary Incontinence: Role of Sleep Quality, Time in Bed, and Medications Used. *J Urol.* 2017; 197: 753-58.

Excess nighttime urine production is common, bothersome, and the most common cause of awakening in the elderly. Such awakening increases the risk of falls, fractures, depression, institutionalization, and death. This study found that body mass index, use of some antihypertensives (angiotensin converting enzyme inhibitor/angiotensin receptor blockers), time in bed, and time until first awakening to void were all associated with nightly urine production. Since each of these factors is potentially modifiable, simple interventions may improve sleep and also reduce the risks associated with insomnia, as well as the need for sleep medications.

Weiner DK, Marcum Z, Rodriguez E. Deconstructing Chronic Low Back Pain in Older Adults: Summary Recommendations. *Pain Med.* 2016; 17: 2238-2246.

This article summarizes recommendations from a 12-part series that guides an approach to evaluating and treating chronic low back pain as a syndrome in older adults, i.e., a final common pathway for the expression of multiple contributors. The 12 previous articles

targeted hip osteoarthritis, fibromyalgia, myofascial pain, sacroiliac joint syndrome, lumbar spinal stenosis, lateral hip/thigh pain, leg length discrepancy, insomnia, maladaptive coping, depression, anxiety, and dementia.

Nayak S, Greenspan SL. Osteoporosis Treatment Efficacy for Men: A Systematic Review and Meta-analysis. *J Am Geriatr Soc.* 2017; 65: 490-495.

Two million American men, or 1 in 5, will sustain a fracture in their lifetime, and the associated mortality and morbidity are greater than among women. Yet men are less well studied and treated. This study found that bisphosphonates reduce the risk of vertebral fractures in men and possibly the risk of nonvertebral fractures.

Forman DE, Arena R, Boxer R, Dolansky MA, Eng JJ, Fleg JL, Haykowsky M, Jahangir A, Kaminsky LA, Kitzman DW, Lewis EF, Myers J, Reeves GR, Shen WK; American Heart Association Council on Clinical Cardiology; Council on Cardiovascular and Stroke Nursing; Council on Quality of Care and Outcomes Research; and Stroke Council. Prioritizing Functional Capacity as a Principal End Point for Therapies Oriented to Older Adults with Cardiovascular Disease: A Scientific Statement for Healthcare Professionals From the American Heart Association. *Circulation.* 2017; 135: e894-e918.

Although functional capacity is a priority for older adults, physicians traditionally focus on the heart for those with cardiovascular disease. Yet, comorbidity, inflammation, mitochondrial metabolism, cognition, balance, and sleep all bear on cardiorespiratory function and become more relevant with age. This important consensus statement prioritizes function as a major therapeutic goal. It also reviews the physiology underlying functional capacity at systemic, organ, and cellular levels, as well as the clinical skills needed to assess realms of function (e.g., aerobic, strength, balance, and even cognition) relevant to older patients. Finally, it provides practical recommendations for use in each health care setting.

Wright RM, Tabas G. A Case of Neurocognitive Decline. *Ann Intern Med.* 2016. <http://vp.acponline.org/virtualpatients>.

Puri A, Wright RM. Care of the Patient With Hip Fracture. *Ann Intern Med.* 2017; <http://vp.acponline.org/virtualpatients>.

These articles are part of the American College of Physicians' online virtual patient series available for CME and MOC credits. They also represent an original synthesis of applicable data difficult to find anywhere else.

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Ranked among the nation's top hospitals for geriatric care by *U.S. News & World Report*, UPMC offers older adult patients access to a multidisciplinary network of comprehensive clinical care. Our geriatricians, all specialists in internal medicine, have additional subspecialty training in geriatrics.

- We focus on the prevention, diagnosis, and treatment of geriatric syndromes, including:
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 - Falls or unsteadiness
 - Decreased appetite or weight loss
 - Multiple medical issues
 - Osteoporosis
 - Depression or agitation
 - Incontinence
 - Generalized weakness
 - Multiple medications with possible side effects
 - Functional decline
- Our physicians provide integrated care to patients in acute care, ambulatory care, home and community-based care, and long-term care.
- Each year, the Division hosts the Clinical Update in Geriatric Medicine, a three-day seminar featuring timely, relevant topics from a range of experts in geriatric medicine.

To learn more about the UPMC Division of Geriatric Medicine, please visit UPMCPhysicianResources.com/Geriatrics.

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