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KEY CLINICAL QUESTION

April 8 - 11, 2018 | Orlando, FL | Orlando World Center Marriott

Answers on inpatient nutrition

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NEW TRACKS BRING FOCUS TO HM18 PROGRAM

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Building on momentum from 2017

By Thomas R. Collins

t the 2018 annual meeting of the Society of Hospital Medicine – running from April 8 to 11 in Orlando – the theme could well be "in with the new, and in with the new." Planners for Hospital Medicine 2018 (HM18) have managed to pack the conference with five new tracks: Great Debate, Nurse Practitioner/Physician's Assistant (NP/PA), Palliative Care, Seasoning Your Career, and a new Career Development workshop track. And they did this while eliminating only one track that was on the schedule last year – technology – and without adding any extra days to the meeting.

The trick was including more half-day tracks. With more tracks in smaller time chunks, the schedule provides more flexibility, and attendees have more choices to find what they're looking for, said Kathleen Finn, MD, SFHM, an assistant professor of medicine at Harvard Medical School, Boston, and the HM18 course director.

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QUALITY IMPROVEMENT

Jeffrey Glasheen, MD, SFHM

Data analytics are a cornerstone of health care quality.

INTERNATIONAL PARTNERSHIPS

Ron Greeno, MD, FCCP, MHM

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Hospital medicine model continues to experience growth globally.

Hospitalist Movers and Shakers

By Matt Pesyna

Jason Blair, DO, recently was named an honorary Fellow by the American College of Osteopathic Internists (ACOI) for excellence in the practice of internal medicine. Dr. Blair currently is a hospitalist at Lake Regional Health System in Osage Beach, Mo.

The degree of Fellow is given to physicians who demonstrate continuing professional accomplishments, scholarship, and professional activities, including teaching, research, and community service. The ACOI represents more than 5,000 osteopathic internists and subspecialists nationwide. Dr. Blair joined Lake Regional in 2017.

Eric Howell, MD, was selected as one of seven winners of the Armstrong Award for Excellence in Qual-



ity and Safety, chosen by Johns Hopkins Medicine. According to Hopkins, the award goes to physicians who partner "with patients, families, colleagues, and

Dr. Howell

staff members to optimize patient outcomes and eliminate preventable harm."

Dr. Howell is the division director of the Collaborative Inpatient Medicine Service (CIMS) and a professor of medicine at the Johns Hopkins Bayview Medical Center in Baltimore. He received the award for his work with project EQUIP (Excellence in Quality, Utilization Integration, and Patient-Centered Care) to improve quality and efficiency and to reduce mortality, emergency department boarding, and patient lengths of stay.

David Svec, MD, MBA, has been named the new chief medical officer at Stanford Health Care – ValleyCare in Pleasanton, Calif. Dr. Svec has served as a hospitalist and internal medicine specialist at ValleyCare for the past 6 years. Previously, he was ValleyCare's medical director of the hospitalist team and a clinical assistant professor of medicine. Dr. Svec helped develop the hospitalist program at ValleyCare and will continue to work in that capacity while advancing into his new role.

As CMO, Dr. Svec will carry on the mission of Stanford Health Care, including increasing innovative programs, monitoring outcome measures, and developing and implementing improvement plans.

Dr. Svec earned Stanford Health Care's 2016 David A. Rytand Clinical Teaching Award, the 2016 Lawrence Mathers Award: Exceptional Commitment to Teaching/Active Involvement in Medical Student Education, and the 2014 Arthur L. Bloomfield Award for Excellence in Clinical Teaching.

Business Moves

Sound Physicians in Tacoma, Wash., recently announced that it will take over providing hospitalist services for SSM Health DePaul Hospital and SSM Health St. Mary's Hospital in St. Louis. Sound Physicians already had been running critical care at SSM Health St. Clare Hospital, Fenton, Mo.

"We have been impressed with their efficiency and professionalism of establishing Sound Physicians' infrastructure that supports providers and implementing processes to drive improved outcomes," said Rajiv Patel, MD, vice president of medical affairs for SSM Health DePaul Hospital.

Pittsburgh-based **Highmark Health** and **Allegheny Health** **Network**, and Erie, Pa.–based **Lecom Health** have agreed to establish an affiliation with Warren (Pa.) General Hospital, a full-service, 87-bed facility about an hour from Erie. The agreement will provide Warren General with capital to make improvements to its maternity unit and radiation oncology equipment, among other services.

The partnership includes Warren General agreeing to use AHN affiliates for clinical, emergency, and hospitalist services, and Warren General physicians will join the AHN integrated network. AHN, Highmark, and Lecom will assist Warren General with capital investments and community health reinvestment projects.

Hospitalist

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QI leader: Jeffrey Glasheen, MD, SFHM

Analytics, board support are quality improvement keys

By Eli Zimmerman

Frontline Medical News

effrey Glasheen, MD, SFHM, had not considered focusing on quality improvement (QI) while studying at the University of Wisconsin, Madison. It was not until a medical error led to the death of a family member that his eyes were opened to the potential consequences of a system not invested in care quality.

"I couldn't square with it because I had spent the last 2-3 years of my life working with some of the most dedicated, passionate, hard working people who all were trying to improve lives, and the fact that what I was seeing could result in a family member dying just didn't make sense," said Dr. Glasheen. "At the time I thought "This must be one of those unfortunate things that happens once in a lifetime,' and I put it on the back burner."

As more research on medical errors emerged, however, Dr. Glasheen realized his family's experience was not as unique as he had thought.

It was after reading the now famous Institute of Medicine report, "To err is human," which found that medical errors were responsible for 44,000-98,000 deaths a year, that Dr. Glasheen resolved to pursue a career in quality improvement.

Because it was early in his medical career, he began on a small level, teaching his residents about the importance of patient safety and giving lessons on core competencies involved in quality care and higher liability. But he quickly expanded his efforts. "I started with what I had control over," Dr. Glasheen explained. "From there, I moved to teaching more medical students, which led to teaching in front of classrooms, which opened the door to the idea of starting a hospitalist training program."

In 2003, Dr. Glasheen pitched the program to the University of Colorado at Denver, Aurora, where he completed his residency; this pitch led to the development of a hospitalist training program that focused on improving safety outcomes. ________ He served as the director



of the University of Colorado Hospital Medicine Group from 2003 to 2015, during which time he was approached by the dean to assist in creating and leading the hospitalist training program for internal medicine residents. The first of its kind, the rig-

Dr. Glasheen

orous University of Colorado

program was designed to give residents tools useful beyond the clinical setting to become successful health system leaders.

In 2013, Dr. Glasheen and his colleagues founded the Institute for Healthcare Quality, Safety & Efficiency, which is guided by the mission to improve the quality of care provided on the local level. He has since become the chief quality officer for UCHealth and the University of Colorado Hospital Authority and an associate dean for clinical affairs in quality and safety education, as well as continuing to be a professor of medicine.

For those hoping to pursue quality improve-

ment, Dr. Glasheen stressed the importance of a strong basis in data analytics.

"One of the most common things I see with data is people start to chase common cause variation, which means they'll look at a run chart over the course of 12 months and react to every up and down when those are essentially random," Dr. Glasheen said. "Being able to understand when something is particularly significant and when your interventions are actually making an impact is a skill set I think people who are new to quality improvement don't often have."

Having support from board members is also critical to success, although starting without such support should not deter future QI leaders.

"There needs to be a vision from the leadership that this work is important, and not just through words but through deeds, because no board in the country will say that quality is not important," Dr. Glasheen said. "I would say start with small projects you can control, that tie back not only to patient lives but financial performance as well. If you can tell a board you saved the lives of 40 patients who would have died during the year and saved \$1-\$2 million in the process, the question will shift from whether the board should invest in QI resources to how much should be invested."

Looking ahead, Dr. Glasheen highlighted the growing importance of hospital-acquired infections, such as surgical-site infections, catheter-associated urinary tract infections, and ventilator-associated pneumonia, as areas that need to be focused on in the QI sphere.

How policy illustrates the value of membership

A force multiplier for SHM's effect on policy decisions

By Joshua Lapps

ederal programs can be enormously complicated, and the Medicare value-based payment programs, such as the Physician Quality Reporting System, the physician value-based payment modifier, and the new Merit-Based Incentive Payment System, are no exception.

It can be a challenge to navigate the rules, to identify how and which measures to report, and to determine how to integrate those requirements into your practice. Furthermore, the feedback from these programs to providers can be difficult to read and interpret.

Part of the value of being a member of the Society of Hospital Medicine (SHM) is having another set of eyes – particularly those that spend a significant amount of time immersed in federal regulations – to parse the policy-practice nexus. SHM hears from members all over the country, many in different practice types and with different policy needs. This knowledge can be shared, both with other members and with policymakers.

Your membership contributes directly to the advocacy efforts of SHM, and the engagement of members with staff on policy issues is a force multiplier for the effect SHM can have on policy decisions. Sometimes, we can put an exact number on the value of belonging to SHM.

For instance, a solo-practicing hospitalist called seeking perspective on why he received a letter indicating he would be receiving a penalty in 2018 for failing the requirements of Physician Quality Reporting System reporting. This hospitalist had successfully reported on as many measures as he possibly could, so he could not understand why he would be receiving a penalty.

A different read of the feedback reports, and some strategic questions from SHM staff, helped this hospitalist understand why he was being penalized and how, in this case, he could ask the Centers for Medicare & Medicaid Services for reconsideration. Upon second review by CMS, the penalties were overturned, and this provider should save nearly \$30,000 in Medicare payments in 2018.

SHM helped the provider by being a sounding board and by sharing information learned from experiences other members had with these programs. In turn, the knowledge gained from this interaction will be used to fine-tune SHM's educational materials and outreach efforts about these programs. It has also already contributed to advocacy efforts with CMS regarding how they can improve the programs.

Want to learn more about SHM's advocacy efforts and how policy affects hospitalists? Stop by sessions at Hospital Medicine 2018 in Orlando; there will be one on pay-for-performance programs on Monday, April 9, at 3:15 p.m. and others on health policy throughout the day on Wednesday, April 11. Learn more at www.shmannualconference.org.

Mr. Lapps is the government relations manager at SHM.

Key Clinical Question

When should nutritional support be implemented in a hospitalized patient?

Malnutrition linked with increased LOS, readmissions, mortality

By Kathleen C. Abalos, MD, and Audrey Corbett, MD

Background

At the time of admission to the hospital, malnutrition is already present in over 20% of patients.¹ Hospitalized patients are particularly susceptible to developing malnutrition because of increased catabolic states in acute illness and poor intake from decreased appetite, nil per os status, and impaired mental status.

Malnutrition is associated with increased hospital mortality, decreased functional status and quality of life, infections, longer length of stay, higher hospital costs, and more frequent nonelective readmissions.¹²

Identifying patients who are malnourished or at risk for malnutrition

An international consensus committee recommended the following criteria for the diagnosis of under-



Dr. Abalos

Dr. Corbett

nutrition if two of six are present³:Insufficient energy intake.

- Weight loss.
- Loss of muscle mass.
- Loss of subcutaneous fat.
- Loss of subcutations fat.
 Localized or generalized fluid ac-
- cumulation that may sometimes mask weight loss.
- Diminished functional status as measured by handgrip strength. The joint commission requires

that all patients admitted to acute care hospitals be screened for risk of malnutrition within 24 hours. The American College of Gastroenterologists recommends using a validated score to assess nutritional risk, such as the Nutritional Risk Score (NRS) 2002 or the NUTRIC (Nutrition Risk in the Critically Ill) Score, which use a combination of nutritional status and diet-related factors – weight loss, body mass index, and food intake – and also severity of illness measurements.⁴ Inflammation associated with disease and injury results in metabolic alterations that affect a patient's nutritional needs – increased energy expenditure, lean tissue catabolism, fluid shift to the extracellular compartment, acute phase protein changes, and hyperglycemia. Malnutrition can thus be classified by etiology⁵:

- Starvation-related malnutrition, such as anorexia nervosa, presents with a deficiency in calories and protein without inflammation, .
- Chronic disease-related malnutrition, such as that caused chronic obstructive pulmonary disease, cancer, and obesity, presents with mild to moderate inflammation.
- Acute disease or injury–related malnutrition, such as that caused by sepsis, burns, and trauma, presents with acute and severe inflammation.

Laboratory indicators such as albumin, prealbumin, and transferrin are not recommended for the determination of nutritional status. Instead, as negative acute-phase reactants, they can be used as surrogate markers of nutritional risk and degree of inflammation.⁴

Overview of the data

What are the indications for initiating nutritional support, and what is the optimal timing for initiation?

Patients who are malnourished or at significant risk for becoming malnourished should receive specialized nutrition support. Early enteral nutrition should be initiated within 24-48 hours of admission in critically ill patients with high nutritional risk who are unable to maintain volitional intake.⁶ In the absence of preexisting malnutrition, nutritional support should be provided for patients with inadequate oral intake for 7-14 days or for those in whom inadequate oral intake is expected over the same time period.⁷

How should nutritional support be administered? Dietary modification and supple-

mentation

In patients who can tolerate an oral diet, dietary modifications may be



made in order to facilitate the provision of essential nutrients in a well-tolerated form. Modifications may include adjusting the consistency of foods, energy value of foods, types of nutrients consumed, and number and frequency of meals.⁸ Commercial meal replacement beverages are widely used to support a standard oral diet, but there are no data to support their routine use.⁷

Enteral nutrition

Enteral nutrition (EN) is the method of choice for administering nutrition support. Contraindications to enteral feeding include diffuse peritonitis, intestinal obstruction, and gastrointestinal ischemia.9 The potential advantages of EN over parenteral nutrition (PN) include decreased infection rate, decreased total complications, and shorter length of stay, but there has been no observed difference in mortality. EN is also suggested to have nonnutritional benefits related to providing luminal nutrients - these include maintaining gut integrity, beneficial immune responses, and favorable metabolic responses that help maintain euglycemia and enhance more physiologic fuel utilization.4

Enteral feeding can be administered through the following routes of access:

• Nasogastric tubes: A nasogastric or orogastric tube with radiologic confirmation of positioning is the first line of enteral access. Gastric feeding is preferred because it is well tolerated in the majority of patients, is more physiological, requires a lower

Case

A 60-year-old male with a history of head & neck cancer, treated with radical neck dissection and radiation 5 years prior is admitted with community-acquired pneumonia and anasarca. Prior to admission, he was on a soft dysphagia diet and reports increased difficulty with solid foods and weight loss from 70 kg to 55 kg over 2.5 years. Should nutritional support be initiated?

level of expertise, and minimizes any delay in initiation of feeding.

- **Postpyloric tubes:** Postpyloric feeding tubes are indicated if gastric feeding is poorly tolerated or if the patient is at high risk for aspiration because jejunal feedings decrease the incidence of reflux, regurgitation, and aspiration.
- Percutaneous access: When longterm enteral access is required that is, for greater than 4 weeks - a percutaneous enteral access device should be placed. Prolonged use of a nasoenteric tube may be associated with erosion of the nares and an increase in the incidence of aspiration pneumonia, sinusitis, and esophageal ulceration or stricture. Patients who have had a stroke are the most likely to benefit from percutaneous endoscopic gastrostomy placement, as 40% of patients can have continued dysphagia as long as 1 year after.^{4,10} Absolute contraindications for percutaneous endoscopic gastrostomy (PEG) placement include serious coagulation disorders (international normalized ratio greater than 1.5; fewer than 50,000 platelets/mcL), sepsis, abdominal wall infections, marked peritoneal carcinomatosis, peritonitis, severe gastroparesis, gastric outlet obstruction, or a history of total gastrectomy. Risks often outweigh benefits in patients who have cirrhosis with ascites, patients undergoing peritoneal dialysis, and patients who have portal hypertension with gastric varices, but PEG can be considered on a case-by-case basis.¹¹

Parenteral nutrition

Parenteral nutrition is reserved for patients in whom enteral feeding is contraindicated or who fail to meet their nutritional needs with enteral feedings. If EN is not feasible, then parenteral nutrition should be initiated as soon as possible in patients who had high nutritional risk on admission. Otherwise, PN should not be initiated during the first week of hospitalization because there is evidence to suggest net harm when initiated early. Supplemental PN may be considered for patients already on EN who are unable to meet more than 60% of their energy and protein reguirements by the enteral route alone, but again, this should be considered only after 7-10 days on EN. PN is generally stopped when the patients achieve more than 60% of their energy and protein goals from EN.4

How should patients be monitored while receiving nutritional support?

If a patient is severely malnourished and refeeding is initiated, serious complications can occur, which are summarized in Table 1; these complications can include severe electrolyte disorders, fluid shifts, and even death.¹² Refeeding syndrome occurs in the first few days of initiating

a diet in severely malnourished patients, and its severity is directly related to the severity of malnutrition prior to refeeding. The National Institute of Health and Clinical Excellence created criteria to identify patients at risk for refeeding syndrome; these criteria include having a body mass index less than 18.5 kg/m²; unintentional weight loss of greater than 10% in the previous 3-6 months; little or no nutritional intake for more than 5 days; low levels of potassium, phosphorus, or magnesium before refeeding; and a history of alcohol misuse or taking certain drugs, such as insulin, chemotherapy, antacids, or diuretics.9

The general rule in initiating nutritional support for severely undernourished patients is to start low and go slow. Patients less than 30% below ideal body weight should be hospitalized for refeeding and monitoring by a licensed dietician.¹² Electrolytes should be repleted prior to the initiation of feeding, and serum electrolytes should be checked every 24-48 hours in the initial refeeding process. Patients should be monitored for signs of volume overload - lung exam for rales, cardiovascular exam for edema, and exams for elevated jugular venous pressure. Heart rate tends to be bradycardic

in anorexic patients; therefore, if a patient becomes tachycardic this could represent volume overload. Thiamine deficiency can also occur and present as wet beriberi (heart failure) or dry beriberi (Wernicke's encephalopathy). Neurologic exams should be conducted because sodium shifts can cause central pontine myelinolysis. Gastrointestinal symptoms of refeeding include bloating or constipation caused by prolonged transit time and delayed gastric emptying, or they can include diarrhea caused by intestinal atrophy.^{9,12}

Aspiration is a risk with enteral feeding – the risk factors include being older than 70 years, altered mental status, supine position, and bolus rather than continuous infusion.⁴ Postpyloric feeding may reduce the risk of aspiration. Expert consensus suggests elevating the head of the bed by 30°-40° for all intubated patients receiving EN, as well as administering chlorhexidine mouthwash twice daily.⁶

Diarrhea is very common in patients receiving EN. After evaluating for other etiologies of diarrhea, tube feeding-associated diarrhea may be managed first by using a fiber-containing formulation. Fiber should be avoided in patients at risk for bowel ischemia or severe dysmotility. If



Which of the following is not a criteria for the diagnosis of malnu-trition?

- A. Weight loss
- B. Insufficient energy intake
- C. Prealbumin
- **D.** Diminished handgrip strength

Answer: C. Prealbumin. Laboratory indicators of nutrition, such as albumin, prealbumin, and transferrin, and markers of infection or inflammation are not recommended for the determination of nutritional status. Because negative acute-phase reactants, they instead can be used as surrogate markers of nutritional risk and degree of inflammation

diarrhea persists despite fiber, small peptide formulations, also known as elemental tube feeds, may be used.^{4,6}

Gastric residual volume (GRV) is commonly monitored in patients receiving enteral nutrition. However, the American College of Gastroenterology does not recommend using GRVs to monitor EN feeding because it is a poor marker of clinically meaningful variables, such as gastric emptying, risk of aspiration, and *Continued on following page*

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Continued from previous page

risk of poor outcomes, and increases the risk of tube clogging and inadequate delivery of EN. If GRVs are being monitored, tube feedings should not be withheld because of high GRVs when there are no other signs of intolerance.⁴ Nausea may be managed by changing a patient from bolus to continuous feedings or by adding promotility agents such as metoclopramide or erythromycin.⁶

Special considerations in common conditions treated by hospitalists

The principles outlined above are general guidelines that are applicable to most patients requiring nutrition support. We have highlighted special considerations for common conditions in hospitalized patients who require nutritional support below.

Critical illness

- Enteral nutrition should be deferred until patient is fully resuscitated and hemodynamically stable.
- Severely malnourished or high nutritional-risk patients should be advanced toward goals as quickly as can be tolerated over 24-48 hours.
- Patients with acute respiratory distress syndrome or acute lung injury, or those expected to require mechanical ventilation for more than 72 hours, should receive trophic feeds or full nutrition by enteral route.⁶

Pancreatitis

• Oral feeding should be attempted as soon as abdominal pain is decreasing and inflammatory markers are improving.¹³

Table 1: Complications of nutritional support

- Refeeding syndrome
 - Electrolyte abnormalities: hypokalemia, hypophosphatemia, hyponatremia
- Volume overload: edema, rales, elevated jugular venous pressure
- Bradycardia, arrhythmias
- Thiamine deficiency: wet beriberi (heart failure) or dry beriberi (Wernicke's encephalopathy)
 Rhabdomyolysis
- Cardiac or respiratory failure because of adenosine triphosphate (ATP) depletion caused by hypophosphatemia
- Delayed gastric emptying, constipation, diarrhea
- AspirationDiarrhea

- A regular solid, low-fat diet should be initiated, rather than slowly advancing from a clear-liquid diet.¹³
- In severe acute pancreatitis, initiation of enteral nutrition within 48 hours of presentation is associated with improved outcomes.¹³
- There is no difference in outcomes between gastric and postpyloric feeding.¹⁴
- Initiation of parenteral nutrition may be delayed for up to 5 days to allow for a trial of oral or enteral feeding.¹⁵

Surgical patients

- Consider postponing surgery to provide 7-10 days of preoperative nutrition supplementation in patients with risk of severe undernutrition.¹⁶
- Consider postoperative nutritional support if patients are at risk for severe undernutrition, are unable to eat for more than 7 days perioperatively, or are unable to maintain oral intake above 60% of recommended intake for more than 10 days.¹⁶
- Consider total parenteral nutrition in cases of impaired gastrointestinal function and absorption, high output enterocutaneous fistulae, obstructive lesions that do not allow enteral refeeding, or prolonged gastrointestinal failure.¹⁶

Prolonged starvation

- Because of the high risk of refeeding syndrome, patients greater than 30% below ideal body weight should be hospitalized for close monitoring during refeeding.¹²
- Typical goal for weight gain is no greater than 2-3 pounds per week.¹⁰
- Total parenteral nutrition should be reserved for extreme cases, and if used, carbohydrate intake should not exceed 7 mg/kg per min.¹²

Stroke

- Enteral nutrition should be initiated within 24-48 hours of initial hospitalization if a patient is estimated to require feeding for more than 5 days and/or remain nil per os for 5-7 days.
- If a patient is intubated with increased intracranial pressure, this could delay gastric motility requiring a postpyloric tube placement.
- Initial placement of percutaneous endoscopic gastrostomy tubes can be considered if the hospitalized patient is expected to require nutritional support for greater than 30 days. Most patients will have improved dysphagia symptoms within 1 month of their acute stroke, although as many as 40% can have continued dysphagia up to 1 year.¹⁰

- At the time of admission to the hospital, malnutrition is present in 20%-50% of patients. All hospitalized patients should be screened for nutritional risk and nutritional support should be considered if patients are not expected to be able to meet nutritional needs for more than 7 days.
- Patients with severe malnutrition on admission, severe critical illness, or severe acute pancreatitis should be provided nutritional support within 24-48 hours.
- Use the gut! Nutritional support should be provided via the most physiologic route possible. Total parenteral nutrition should be reserved for patients in whom adequate nutrition cannot be provided enterally.
- Consider a percutaneous endoscopic gastrostomy tube if the patient is expected to require tube feedings for more than 30 days.
- Patients with severe malnutrition who are given nutritional support are at high risk of developing refeeding syndrome, which manifests as electrolyte depletions and heart failure or volume overload.

Back to the case

The patient was admitted for a common general medical condition, but it is important to recognize that malnutrition was present on admission with weight loss and generalized fluid overload. Furthermore, he is at high nutritional risk because of his low body weight, poor oral intake, and dysphagia. Additionally, the acute inflammation from pneumonia places him in an increased catabolic state.

He was able to maintain some volitional oral intake, but after 7 days of close monitoring by a licensed dietician, it was determined that he was unable to meet his nutritional needs via the oral route. A PEG tube was placed, and tube feeds were initiated, because his dysphagia – which was a significant factor contributing to his inability to meet his nutritional needs orally – was expected to persist for greater than 30 days.

Bottom line

Nutrition support should be initiated in this patient with malnutrition on admission and high nutritional risk.

Dr. Abalos is an assistant professor at Georgetown University Medical Center in Washington. Dr. Corbett is an assistant professor at the University of Oklahoma Health Sciences Center in Oklahoma City.

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American Academy of Pediatrics





New tracks at HM18 continued from page 1

"We decided, since there were a bunch of themes that we really wanted to cover, we would do half-day tracks. The shorter tracks

are also a way to gauge interest in a topic without making a big commitment to it," Dr. Finn said. "The grouping of topics in smaller tracks in the Day-at-a-Glance helps people easily see a collection of lectures or a theme they might want to attend."

While choosing themes

for the meeting, the planners were trying to stay true to their own theme: timeliness.

"There's pressure to make it a very relevant meeting," Dr. Finn said. "We really want to have our finger on the pulse of what prac-



Dr. Finn

ticing hospitalists need and want to know and what is important to them. All the members of the committee feel very invested in figuring

out: What is timely? What do we want to talk about right now? What are the active discussions and issues going on in health care that affect us in our practice?"

Assistant course director Dustin Smith, MD, SFHM, an associate professor of medicine at Emory Uni-

versity, Atlanta, said much of the information for this year's meeting came from the 2017 annual meeting, including attendance at sessions, speaker reviews, and session ratings.

"It's building on momentum from



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The point-of-care ultrasound pre-course at HM17 was a hit with attendees.

the previous meeting," he said. "Sometimes we choose things to offer that we know are going to go well, and sometimes we choose things that we hope go well, and all of a sudden we see [that they] go very, very well." For instance, he said, the topic of sepsis was so popular last year that it has its own precourse this year.

The data on which the HM18 program is built don't stop there. The 23 members of the planning committee – chosen strategically to represent a wide geographic range and array of practice types – all bring their own thoughts and experiences, as well as input from colleagues at their own centers. Then there are the submissions for workshop topics: Any SHM member can submit an idea, and – while just a few are chosen – those ideas help organizers see patterns of interest that can affect the planning of the rest of the sessions.

Here are more details on the new tracks:

Great Debate

The annual meeting has traditionally had a "Great Debate" on perioperative medicine, but the format – with carefully chosen speakers who are dynamic and entertaining – will be used to cover pulmonary medicine and infectious diseases this year as well.

"It's a hugely successful talk," Dr. Finn said. "We can tell by our numbers that lots of people go, and it's always funny, and it's a very clever way of discussing the latest literature – by having two very dynamic speakers present a case and then debate the two options of the case *Continued on following page* Continued from previous page

and then use the literature to support the answer," she said.

The hope is that the format will be more than just entertaining but will be an effective teaching tool, too.

"We think the high level of engagement and format of the talk leads to better overall education for those who attend," Dr. Smith said.

NP/PA

This track includes topics chosen by the committee for advanced practice professionals.

"There are many hospitalist programs that include NP/PAs – this is what came through in all the feedback – and everybody is struggling with how do you best incorporate NPs and PAs into the group practice and have everybody work at the top of their license and work well together," Dr. Finn said.

"The idea, too, is to be very inclusive of all providers and offering a track that focuses on NP/ PAs but also includes physicians, physician leaders, and physician administrators," Dr. Smith said. "It's not designed for one type of practicing professional; it should be a good educational track for all."

Palliative Care

This was a topic that had been sprinkled throughout programs in previous years, but Dr. Finn and Dr. Smith said it was considered too important not to have its own track this year. "I think hospitalists are often the doctors caring for patients at the end of their lives since many Americans die in the hospital," Dr. Finn said. "So as a result, this is a skill set that as hospitalists we need to be very good at."

Seasoning Your Career

This is a track geared toward one of this year's themes: With "hospital medicine" now a concept that's more than 2 decades old, how do hospital-

"We really want to have our finger on the pulse of what practicing **hospitalists need and want to know** and what is important to them."

ists keep up the momentum in their careers, how do they take stock, how do they make the important decisions they face as they move ahead in their jobs?

"Hospital medicine is now over 20 years old – many hospitalists are now midcareer," Dr. Finn said. "We picked an entire track on 'seasoning your career' to offer people ideas and skills to reflect on and rethink their career. Do you want to expand what you're doing? Do you want to change it? How do you make this a lifelong career?"

Career Development

There have always been workshops with a career development focus, but this year six of them were chosen to be placed under the heading of an official "Career Development" workshop track.

"When you review the Day-at-a-Glance schedule, it really demarcates it," Dr. Smith said. "This really helps attendees be able to quickly look through and find where they want to be for their next session."

> "Are there other skills you want to take on for the second half of your career?" Dr. Finn said. "Do you want to take on leadership? Do you want to learn how to better give your peers feedback? Do you want to promote women in your group? Do you want to prevent burnout or use emotional intelligence to improve your career? We cohorted these topics together."

Aside from the new tracks, the course directors also drew attention to other new elements of the HM18 program.

For instance there are new topics in the Rapid Fire sessions. In the "Managing the Patient on Your Service: Appendicitis, Bowel and Biliary Obstruction" session, a general surgeon will talk about how to manage these surgical issues when the patient is on a medical service. In "Interventional Radiology: What Every Hospitalist Needs to Know," an interventional radiologist will dis-*Continued on following page*

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RIV takes center stage at HM18

Popular event highlights cutting-edge research

By Suzanne Bopp

f prior SHM annual meetings are any guide, a highlight of the upcoming HM18 conference will be the Scientific Abstract and Poster Competition. This event, also known as Research, Innovations, and Clinical Vignettes (RIV), has become one of the annual meeting's most popular events. Crowds of attendees cluster around posters to read abstracts summarizing some of the most exciting, cutting-edge research in hospital medicine.

Networking in that crowd is a major factor in the RIV's popularity, says the HM18 Innovations chair, Benji K. Mathews, MD, SFHM, CLHM, assistant professor of medicine at the University of Minnesota, Minneapolis.

"From my standpoint, the power of this Innovations RIV competition is the opportunity to network," Dr. Mathews said. "In addition to primary authors, often these posters have several different people involved, and then there's the foot traffic: We're expecting thousands of people to walk through. The hope is to create the opportunity to network, to collaborate intergenerationally and also cross-institutionally."

The RIV competition features some 1,000 posters this year, Dr. Mathews said. Plenary and oral sessions are chosen from the pool of abstracts prior to the meeting, and their authors are invited to present on-site at HM18.

But in spirit, the RIV is not really

a competition, said RIV chair Ethan Cumbler, MD, FHM, professor of medicine at the University of Colorado.

"It's really about sharing the latest science and the cases and innovations that are going to change practice tomorrow. The RIV is

about sharing Dr. Mathews with our col-

leagues and moving the science of hospital medicine forward," he said.

"Hospitalists can share and discuss their work and exchange ideas in a nonthreatening, collegial manner," Dr. Mathews added. "In the end, we understand it's not all about winning. We try to make sure it's an atmosphere where people can engage and collaborate with each other."

As far as the competitive element goes, the judges' decisions are driven by an abstract's content, organization, and style, Dr. Mathews said. "When we look at abstracts, affecting patient care in the authors' own hospital is a beautiful thing, but is there a potential in this abstract to reach the masses? Is it able to be implemented beyond their local microcosm to affect people regionally, nationally, internationally? If there's potential for that, that's usually a good abstract."

What's new in 2018

The more than 1,000 posters and oral presentations at HM18 is a new

record, and it demonstrates the growth of hospital medicine as a scientific field, Dr. Cumbler said.

"We received a huge number of submissions," he



revealed. "We see that trend rise, year over year, and the quality has been going up as well." New this year

is a Trainee Award category for resident and

student authors. Another difference in 2018: The top 15 advances in Research and Innovations have been given a special track on Day 2 of the conference, with oral presentations by the authors sharing their work.

The vignettes are being featured in a new way as well. "We have so many incredible cases that we're going to have a clinical vignette luncheon on two different days of the conference," Dr. Cumbler said. "These are cases that we want to highlight, so that the experience of a hospitalist in one part of the country could help a hospitalist provide the right diagnosis for a patient on the other side of the country. There are lessons to be learned in clinical medicine, and our clinical vignettes is a fantastic way of sharing them."

In making their selections in the different categories, the judges aimed to highlight some negative studies this year, Dr. Mathews said, which is a slight departure from previous years. "Sometimes you try something and it didn't work, and it's important to share that so we don't just try the same thing over and over."

This year, Research and Innovations abstracts will be grouped by theme, making it easier for attendees to navigate the posters. "If you've got a particular interest in a topic like transitions or communication, you'll be able to find that portion of the poster session and talk to some of the people who are doing groundbreaking work in that topic," Dr. Cumbler said.

He also noted that he expects to see a strong expression of RIV content on social media from HM18, as judges encounter some of the best and most interesting work at RIV. Dr. Mathews is similarly enthusiastic about that amplification of the work.

"I love that the conversation continues into social media platforms such as Twitter," he said. "People are engaging back and forth, saying, 'Hey, take a look at this poster.' Being in a room with countless people interested in research innovations for a field that's still relatively young – I love that there's movement toward that."

Exciting research

By definition, the research on display at the RIV is the best of the best. "It's difficult to get your work accepted at a national meeting, and it's a high honor to be selected as a finalist. The poster abstracts or oral presentations that win are always remarkable pieces of work," Dr. Cumbler said.

Continued on following page

Continued from previous page

cuss when hospitalists may want to call in an interventional radiologist or refer to a hospital that has an interventional radiologist. And "Vulnerable Populations and Hospitalists" will continue with the theme of social determinants of health that was highlighted at last year's meeting by keynote speaker Karen DeSalvo, MD, the National Coordinator for Health Information Technology.

Dr. Smith said that the program committee directors work with the Rapid Fire presenters so that the three or four questions discussed in the sessions are what attendees will want to learn most.

"We take an additional step: Once we recruit the speaker and have identified the topic, we have members of our committee work with the speakers," he said.

"We don't want them to come and give us an esoteric talk in an area that interests them. We

want them to answer the clinical questions that hospitalists have," Dr. Finn added.

Dr. Finn and Dr. Smith also highlighted sessions with a twist. For example, "Stupefy: EKGs for Fun"

With "hospital medicine" now a concept that's more than 2 decades old, how do hospitalists keep up the momentum in their careers?

is a session about EKGs that encourages hospitalists to "just go have fun reading them," Dr. Finn said, while "Voldemort Is on the Plane: Airplane Emergencies" is scheduled for the final day of the conference, just before everyone flies back home. As for catchy Disney-influenced titles, such as "The Mad Hatter: Updates in Delirium" and "Waiting in Line for 'It's a Small World' and Other Things We Do for No Reason," part of the credit

> can go to Dr. Finn's niece. She said she "hired" her to come up with a list of Disney, Pixar, and Harry Potter movies and catchphrases. Then the committee worked them into the session titles.

Dr. Smith joked that part of his role was to veto some titles that were "a bit too cringe-worthy." "The theme of Orlando is making

people happy," Dr. Finn said. "One of the goals – the hopes – for me at this meeting is that people bring their inner child and get curious again and explore new ideas and new topics and new career possibilities." Continued from previous page

Some of this year's most exciting projects examine prediction models and scoring systems for patients with infections such as sepsis or influenza, he said. "One of the most fascinating abstracts looked at deep learning, or machine learning, to create algorithms to predict sepsis and decompensation in ways that simplistic models might not. Many of our current prediction rules are designed around simple acronyms, because they're easy to remember: the ABCD score, the CURB-65 score. But if you looked at the source code of the Google search algorithm - not that they'd let you - you'd discover that it doesn't translate to a simple four-variable prediction model. It's incredibly complex; it looks at interactions between variables."

This research attempts to move medical prediction models in that direction, Dr. Cumbler said. "Examining deep learning models, or neural networks, to help clinicians make more accurate predictions and take better care of patients – we are getting a taste of the future of clinical medicine at HM18."

Several research projects high-

lighted at RIV this year examine ways to make better use of the data in the electronic health record.

"One of the pieces of research I'm particularly excited to hear more about looks at how the vast data that exists within electronic health records is actually used," Dr. Cumbler said. "With electronic health records, we have all of the infor-

"There are lessons to be learned in clinical medicine, and our clinical vignettes [luncheon] is a fantastic way of sharing them."

mation in a patient's record at our fingertips, yet this creates incredible new challenges for the hospitalist needing to make decisions in real time, with the limitations of our organic neural networks." Dr. Cumbler revealed that one of the research teams sharing their work at HM18 explored how hospitalists interact with the volume of information that exists within the health record at the time of admission. "The results are pretty amazing," he said. Another project Dr. Cumbler

found fascinating examines the impact of delivery of real-time performance data to hospitalists on their phones, and how it affected practice across a number of different performance metrics.

"We will see a project using game theory to teach quality improve-

> ment and another sharing important quality improvement work occurring at the intersection of evidence-based medicine and patient experience – like looking at how to keep patients

NPO for less unnecessary time," he said. "It makes perfect sense that we don't want to keep people hungry in the hospital longer than we need to. It's really interesting seeing how one team worked to make that happen and what they found."

The importance of the RIV

The influence of the RIV program extends far beyond the conference itself; there are implications for the field of hospital medicine today and into the future.

"The RIV competition allows the field in hospital medicine to mature and evolve, so we remain cutting edge," Dr. Mathews said. "That's the beauty of the innovation field: Research is built off of it."

Dr. Cumbler said that the growth and evolution of the RIV is reflective of the maturation of hospital medicine as a specialty. "It's transitioning from a different way to organize patient care to learning more, in a scientific way, about how care can and should be delivered."

At its heart, the RIV is really about community, he added. "The community of hospitalists is sharing knowledge, graciously and unselfishly, so that we can all improve the quality of care that we're providing and give patients safer care, a better experience, and improved outcomes."

Finally, RIV offers a way for hospitalists to be engaged in lifelong learning. "The presenters are teaching from their experience, and the hospitalists who come to the RIV get to leave better clinicians, researchers, and leaders as a result," Dr. Cumbler said. "These things, to me, are about our evolution as a profession."

Congratulations to the 2018 SHM Awards of Excellence recipients:



Excellence in Research *Teryl Nuckols, MD, MSHS*

Excellence in Teaching Jennifer O'Toole, MD, MEd

Excellence in Management in Hospital Medicine *Maria Lourdes Novelero, MA, MPA*

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Clinical Excellence for Nurse Practitioners and/or Physician Assistants Meredith K. Wold, PA-C

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Here are the 'must-see' sessions at HM18

New tracks on managing alternative providers, palliative care

By Michele G. Sullivan Frontline Medical News

elcome to HM2018, the second-happiest place in Orlando – at least for hospitalists who want to be in the know.

The 2018 education program is a ride through the diverse world of hospital medicine, with sessions ranging from clinical updates to cutting-edge techniques, communication tools, building a satisfying career, and finding your way through tangles of red tape and policy.





Dr. Chang

Dr. Sehgal

Two tracks new for 2018 hone in on managing alternative providers and palliative care.

The half-day NP/PA track (beginning April 11 at 7:30 a.m.) recognizes these practitioners for their crucial roles in hospital medicine care delivery. Among the discussions aimed at hospitalists: best practices in provider utilization and collaboration; supervision vs. collaboration; and challenging situations when working with mid-level providers.

The Palliative Care track (also a half day, starting April 11 at 10 a.m.) recognizes the crucial role hospitalists play in optimizing end-of-life care. Sessions will help hospitalists understand that role, and guide them in managing pain and other symptoms commonly encountered during this transitional time.

As for the rest of the meeting, picking favorites is as tough as picking between Disney's Big Thunder Railroad and Splash Mountain, said HM18 course director Dustin Smith, MD, SFHM, of Emory University, Atlanta. "We feel strongly that all offerings at the conference are 'mustsees,' and it's why we offer repeat sessions of what we predict will be the most popular talks overall. Since there are so many good sessions competing for attendees at the same time, we wanted to make sure we offered these repeat sessions of common, high-yield clinical topics."

The Repeated Sessions track is set for April 10, and runs a full day. The track includes these dynamic sessions:

- Updates in congestive heart failure: Pablo Quintero, MD; 11-11:40 a.m.
- He-who-shall-not-be-named: Updates in sepsis and critical care: Patricia Kritek, MD; 11:50 a.m.-12:30 p.m.
- Not true love's kiss? Updates in infectious disease: John Sanders, MD; 2:50-3:30 p.m.
- Updates in acute coronary syndrome: Jeff Trost, MD; 3:40-4:20 p.m.
- Waiting in line for 'It's a Small World' and other things we do for no reason: Tony Breu, MD, FHM; 4:30-5:10 p.m.
- "The Mad Hatter": Updates in delirium: Ethan Cumbler, MD, FHM; 5:20-6:00 p.m.

In addition to the sepsis update in the Repeated Sessions track, Dr. Smith noted that sepsis will also be the topic of a pre-course offering (April 8, 8:15 a.m.-4:50 p.m.). "The topic of sepsis remains a hot item in hospital medicine," he said.

"I'd also like to highlight a new pre-course offering this year -'Keep your finger on the pulse: Cardiology update for the hospitalist' (April 8, 8:30 a.m.-4:50 p.m.)," Dr. Smith added. "Many of our precourse offerings are carry-overs from previous years due to ongoing great success with the individual pre-courses themselves. Although we have had a cardiology precourse in our lineup of offerings in the past, we chose to offer a freshly redesigned pre-course in cardiology this year to round out the lineup of pre-course offerings and to keep things fresh.'

The **"Stump the attentive (not absent-minded) professor**" sessions on clinical unknowns in the Diagnostics Reasoning track are also must-sees, Dr. Smith said. So much so, that SHM is offering two of them this year

(April 9, 2:00-2:40 p.m.; 3:45-4:25 p.m.). Dr. Smith's codirector, Kathleen Finn, MD, SFHM, also has a few personal favorites on the education program. "I know the talks in the '**Seasoning your career track**' will be great," said Dr. Finn, a hospitalist at Massachusetts General Hospital, Boston. "This new track provides mid-career hospitalists (and new hospitalists) ideas in how to continue to make their career enjoyable and stimulating. It includes talks on how to advance in a leadership position, use emotional intelligence to achieve success, prevent burnout, or design your group's schedule so it doesn't rule your life."

The board weighs in

The 2018 HM18 line-up garnered an enthusiastic thumbs-up from *The Hospitalist*'s editorial advisory board. We polled these experts for their 2018 "must-see" sessions, and they responded with a selection that spans the meeting's wide-ranging offerings.

1. Leadership essentials for success in hospital medicine (April 9, 10:35 a.m.-12:05 p.m.)

Amit Vashist, MD, MBA, FHM, system chair, hospitalist division, Mountain State Health Alliance, Virginia/Tennessee, is especially excited about this session, intended to help hospitalists assume leadership roles.

"Given the ever-expanding footprint of hospitalists inside the hospitals and beyond, and the way they are being called upon to be the drivers of an increasingly value-based care, I believe it is imperative for every hospitalist provider - regardless of being in a leadership role or not - to have a fundamental understanding of the leadership nuances pertaining specifically to hospital medicine in order to optimally leverage their skill set to drive transformational changes in the health care arena," he said. "This primer on leadership essentials should pique the interest of the hospitalists further towards developing a deeper appreciation of some of the leadership dimensions must-haves in the realm of hospital medicine."

2. Through the looking glass: A psychiatrist's tricks for inpatient acute behavioral emergencies (April 10, 2:50-3:50 p.m.)

Raj Sehgal, MD, FHM, clinical asso-

ciate professor of medicine, University of Texas Health Sciences Center at San Antonio, pegged behavioral medicine as important.

"Even for a seasoned hospitalist who never breaks a sweat treating the most acutely medically ill patients, the acutely psychotic (or agitated, or suicidal) patient can provoke significant anxiety," Dr. Sehgal said. "The opportunity to gain another couple of 'tools' to add to our kit for these patients should help alleviate that feeling."

3. "Mirror, Mirror on the Wall": Which articles are the fairest of them all? Top pediatric updates (April 10, 5:45-6:45 p.m.)

No need for an academic meeting to be boring, said Weijen Chang, MD, SFHM, chief of pediatric hospital medicine at Baystate Children's Hospital, Springfield, Mass.

"A must-see is **Top Pediatric Updates**. It is entertaining, educational, and we almost got thrown out last year for bringing beer!" Dr. Chang said.

4. Winning hearts and minds at the bedside: Battling unconscious bias through cultural humility (April 11, 9:10-9:50 a.m.)

Sarah A. Stella, MD, a hospitalist at Denver Health, had a hard time choosing between the many interesting offerings. "There are quite a few great sessions this year that I'm interested in, but this is one of my top picks:"

"Recognizing and confronting our implicit biases and how they affect patient-physician interactions is hard but incredibly important work," Dr. Stella said. "I'll definitely be attending this session by Aziz Ansari to learn how to improve my relationship (and hence outcomes) with my patients."

5. Update in hospital medicine

(April 10, 1:40-2:40 p.m.) Raman Palabindala, MD, FHM, a hospitalist at the University of Mississippi Medical Center, Jackson, thinks the most important session at HM18 is the annual update.

"Almost every year, this is the most high-energy presentation, and I don't think I ever missed this ses-Continued on following page

SHM's first institutional partner: Adfinitas Health

Customized memberships offer benefits designed specifically for organizations

ne year ago, the Society of Hospital Medicine (SHM) launched a "listening tour" to gain an understanding of strategic objectives of organizations that employ large numbers of hospitalists.

SHM met with members who are program directors, C-suite executives, multi-site group leaders, and practice administrators to discover how SHM could help positively impact their staff, and identified some common themes, including:

- Integrating nurse practitioners/physician assistants into their practices.
- Planning for growth and succession and incorporating SHM meetings, CME, and training into those plans.
- Proving the value of the hospital medicine program to the C-suite.

As a result of these findings, SHM has launched an institutional partner program that offers customized memberships for select hospital medicine management companies and health systems with large hospitalist groups, with benefits designed specifically to meet their unique needs.

These partnerships are structured over a 2-year period. SHM staff will be assigned to each partner to be in constant communication and serve as a concierge for their specific goals and objectives. This provides a means for consistent "listening" and sharing feedback with other SHM departments, committees, and work groups to ensure SHM is ahead of trends and can prepare solutions for when they will be most needed.

Growing membership from these partnerships also will help with SHM's efforts on Capitol Hill and with the strength of the hospital medicine movement overall.

Adfinitas Health is the first organization to sign on as part of SHM's institutional partnership program.

The Hospitalist recently sat down with Idara Umoh Nickelson, MBA, vice president of business development at Adfinitas Health, to discuss the partnership with SHM.

Why is Adfinitas Health choosing to become an institutional partner with SHM? Adfinitas Health is a trusted partner to more

than 50 diverse hospitals and post-acute facilities across Maryland, Virginia, Michigan, and Pennsylvania. We are mission focused and led by our core values, which means we always lead with a patient-centered approach to care that produces higher patient satisfaction, better clinical outcomes, and greater value for our partners. We focus on bringing leading-edge practices and protocols to our partner facilities to drive quality and elevate care.

Our decision to become an institutional partner with SHM was simple. Besides being the voice of our industry, SHM plays a critical role in advancing the field of hospital medicine. We know that our providers look to SHM as a resource for clinical and professional development; by becoming an institutional partner, we hope to support that growth objective.

We are looking forward to the opportunity to advance the field of hospital medicine and drive practices and innovations that better support patient-centered care.

Which SHM resources and opportunities do you find most valuable for your providers?

The most valuable resources for our providers are the opportunities for learning and professional development. The education offerings are comprehensive and evidence based, which is critical. Whether a provider is looking to fulfill a continuing medical education requirement or needs information to help enhance their performance, we know that they will get what they need from SHM.

The annual conferences, chapter events, and training academies also are valuable to our company and providers. We provide core hospitalist programs that can be customized with integrated complementary services - such as palliative care, pain management, pediatrics, and critical care - based on the needs of the client. We also heavily integrate advance practice providers into our programs. Therefore, we rely on the diverse set of training and learning opportunities that SHM holds throughout the year.

What does it mean to your organization to be the first partner in this program?

Adfinitas cofounders Doug Mitchell, MD, and Hung Davis, MD, have been committed to advancing the field of hospital medicine for nearly 2 decades. They were early members of SHM, along with our other company partners and many of our providers. So, it is an honor to be the first institutional partner - certainly an important milestone in our corporate history. The company has grown from 1 hospital in 2007 to more than 50 hospital and post-acute partners across four states over the past 11 years.

What long-term benefits do you see this partnership offering to your hospitalists?

At our size and scale, the need for a more formal institutional partnership with SHM made perfect sense. We strive to be an employer of choice for hospitalists, including physicians, nurse practitioners, and physician assistants. Our focus on core values builds a culture of engaged, talented employees who feel supported as they progress in their careers. We strive to do all we can to support that growth, and this partnership will help us meet and exceed that goal.

What message are you sending Adfinitas Health hospitalists by partnering with SHM?

We are encouraging our hospitalists to take full advantage of the many learning opportunities and resources that this partnership will bring to bear. We will be actively promoting the customized training that we'll be offering, as well as the ease of accessing content through the online SHM Learning Portal.

In addition, we want our hospitalists to be connected to the field and remain on the cutting edge of what is important and how best to care for patients. We'll be encouraging them to be active and involved members at the state and national levels and leverage SHM to grow their professional network.

For more information on SHM's institutional partnerships, please contact Debra Beach, SHM customer experience manager, at 267-702-2644 or DBeach@hospitalmedicine.org.

Continued from previous page

sion, no matter who the presenter is," he said. "As physicians, I think we need this update every year, and this is the best single hour where we can learn a lot about new research related to hospital medicine. This is the most concentrated extract of the entire meeting. The behind-the-scenes efforts of the presenters take up to 50-100 hours of work – we should take advantage of this session."

6. Serious illness communication:

A skills-based workshop (April 11, 8:00-9:30 a.m.) Lonika Sood, MD, FHM, of the department of hospital medicine, Au-



Dr. Sood

the-hospitalist.org 17

rora BayCare Medical Center, Green Bay, Wis., has a passion for both leadership and scholarship, and her choices reflect that interest.

"Having enjoyed and learned a lot from the workshops at HM17, I would highly recommend checking out a few that will help polish your communications - a much-needed skill in hospital medicine," she said.

Finally, don't just pick up another embroidered mouse-ear hat on your way out. The best HM18 souvenir is taking back the knowledge you

March 2018

gained and - as Dr. Sood said there's a session for that:

7. How to bring the things you learn at SHM back to your institution: Advocating for high value care on hospital committees (April 11, 8:00-9:30 a.m.).

For more information on the HM18 education sessions, check the latest version of the conference schedule at http://shmannualconference.org/conference-schedule.

HM18 plenaries explore challenges ahead

Multiple health care trends will confront hospital medicine in coming years

By Gregory Twachtman Frontline Medical News

he plenary sessions bookending the Society of Hospital Medicine's HM18 conference will provide insight into the current state of hospital medicine and a glimpse at the directions in which it is evolving.

Opening the conference will be Kate Goodrich, MD, chief medical officer at

the Centers for Medicare & Medicaid Services.

"What I want people to understand is the evolution within our health care system from one where we pay for volume to paying for value, and the role that Medicare can play in that," Dr. Goodrich said in an in-



Dr. Goodrich

terview. "Medicare has traditionally been sort of a passive payer, if you will, a passive payer of claims without a great deal of emphasis on the cost of care and the quality of care. [Now there is] a groundswell of concern nationally, not just here at CMS but nationwide, around the rising cost of care, and our quality of care is not as good as it should be for the amount that we spend."

Dr. Goodrich said her plenary talk will look at how "that came to be, and then what CMS and other payers in the country are trying to do about it." She said the United States is in a "truly transformative era in our health care system in changing how we pay for care, in service of better outcomes for patients and lower costs. I would like to give attendees the larger picture, of how we got here and what's happening both at CMS and nationally to try and reverse some of those trends."

Closing HM18, as has become tradition at the annual meeting, will be Robert Wachter, MD, MHM, of the University of California San Francisco, who will focus on the broader changes that must happen as the role of the hospitalist continues to evolve.

"I am going to talk about the changes in the world of hospital care and the importance of the field to innovate," Dr. Wachter said. "To me, there are gravitational forces in the health care world that are making ... patients who are in hospitals sicker than they were before. More and more patients are going to be cared for in outpatient settings and at home. We are going to start to ... see things like sensors and telemedicine to enable more care outside of the hospital."

Dr. Wachter said hospital medicine must evolve and mature, to continue to prove that hospitalists are indispensable staff members within the hospital.

"That was why the field became the fastestgrowing profession in medical history. We can't sit on our laurels. We have to continue to innovate," he said. "Even as the system changes around us, I am confident that we will innovate. My talk will be a pep talk and include reflections on how the world of health care is changing, and what those changes will mean to hospitalists."

As value-based purchasing programs – and the push to pay for value over volume in Medicare and the private sector – continue to become the

"I can confirm from my

[that] I have absolutely en-



countered that exact trend," she said. "I feel like every time I go in the hospital, my patients are sicker and more complex. That is the population

of patients that hospitalists are dealing with. That's why we are actually in that practice. We enjoy taking care of those types of patients and the challenges they bring, both on a clinical level but I would say also even on a social and economic level."

Dr. Goodrich said that trend will present one

"In a value-based purchasing world, transitioning to payments based on quality and cost is harder because ... sicker patients cost more and it is harder to improve their outcomes."

of the key challenges hospitalists face in the future, especially as paying for value entails more two-sided risk.

"In a value-based purchasing world, transitioning to payments based on quality and cost is harder because by nature the sicker patients cost more and it is harder to improve their outcomes. They come to you already quite sick," she said. "That's a dilemma that a lot of hospitalists face, wondering 'How is this going to affect me if I am already seeing the sickest of the sick?"

Dr. Wachter noted that the trend of steering less sick patients to the outpatient setting, as well as other economic factors, would change the nature of hospitalist practice.

"It will be more acuity, more intensity, more complex relationships with your own hospital and often with partner hospitals," he said. "More of the work will be digitally enabled than it would have been 5 or 10 years ago."

Integration of data and technology innovation will be a key to better serving this sicker population, Dr. Wachter predicted. We need "to take much fuller advantage than we have so far of the fact that we are all dealing with digital records and the decision support, the data analytics, the artificial intelligence that we get from our computer systems is pretty puny," he said. "That is partly why physicians don't love their computers so much. They spend huge amounts of time entering data into computers and don't get much useful information out of it."

Dr. Goodrich agreed that this is a challenge.

"How do we make it usable for the average front-line nurse or doctor who didn't go to school to learn how to code and analyze data?" she asked. "How do we get platforms and analytics that are developed using human-centered design principles to make it very understandable and actionable to the front-end clinician, but also to patients and consumers? What is really needed to truly drive improvement is not just access to the data but usability." She added that this problem is directly related to the usability of electronic health records. "That is a significant focus right now for the Office of the National Coordinator [of Health Information Technology] - to move away from just [adopting]

EHRs, to promoting interoperability and also the usability aspects that exactly gets to the problems we've identified."

Dr. Wachter also warned that too much data could have a negative impact on the delivery of care.

"One of the challenges we face is continuing to stay alert, not turn our brains off, and become increasingly dependent on the computer to give us information," he said. "How do we avoid the challenges we've already seen from things like alert

and alarm fatigue as the computer becomes more robust as an information source. There is always the risk it is going to overwhelm us with too much information, and we are going to fall asleep at the switch. Or when the computer says something that really is not right for a patient, we will not be thinking clearly enough to catch it."

Despite the looming challenges and industry consolidation that are expected, Dr. Wachter doesn't believe there will be any shortage of demand for hospitalists.

"I think in most circumstances, [hospitalists are a protected] profession, given the complexity, the high variations, and the dependence that it still has on seeing the patient, talking to the patient, and talking to multiple consultants," he said. "It's a pretty hard thing to replace with technology. Overall, the job situation is pretty bright."

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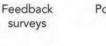
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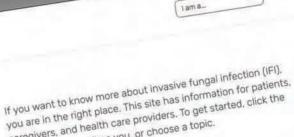
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Reference: 1. Magill SS et al. N Engl J Med. 2014;370(13):1198-1208.



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In the Literature

ITL: Physician reviews of HM-centric research

By Miriam Gomez-Sanchez, MD; Amber Inofuentes, MD; Amanda Lusa, MD; Sheena Mathew, MD; Pooja Mehra, MD; Rahul Mehta, MD; Glenn Moulder, MD; Paul Helgerson, MD, SFHM

Division of Hospital Medicine, University of Virginia, Charlottesville

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By Miriam Gomez-Sanchez, MD

1 High 5-year mortality in patients admitted with heart failure regardless of ejection fraction

CLINICAL QUESTION: Are there differences in 5-year outcomes in patients hospitalized with heart failure with preserved ejection fraction (ejection fraction [EF], greater than or equal to 50%), heart failure



with borderline ejection fraction (EF, 41%-49%), or heart failure with reduced ejection fraction (EF, less than or equal to 40%)? BACKGROUND:

Dr. Gomez-Sanchez Heart failure with preserved EF is a common cause of

inpatient admission and previously was thought to carry a better prognosis than heart failure with reduced EF. Recent analysis using data from Get With the Guidelines–Heart Failure (GWTG-HF) registry has shown similarly poor survival rates at 30 days and 1 year when compared with heart failure with reduced EF.

STUDY DESIGN: Multicenter retrospective cohort study.

SETTING: 276 hospitals in the GWTG-HF registry during 2005-2009, with 5 years of follow-up through 2014.

SYNOPSIS: A total 39,982 patients who were admitted for heart failure during 2005-2009 were included in the study with stratification into three groups based on ejection fraction; 18,398 (46%) with heart failure with reduced EF; 2,385 (8.2%) with heart failure with borderline EF; and 18,299 (46%) with heart failure with preserved EF. The 5-year mortality rate for the entire cohort was 75.4% with similar mortality rates for patient with preserved EF (75.3%), compared with those with reduced EF (75.7%).

BOTTOM LINE: Among patients hospitalized with heart failure, irrespective of their ejection fraction, the 5-year survival rates were equally dismal. Hospitalists may wish to use this information in goals of care discussions.

CITATION: Shah KS et al. Heart failure with preserved, borderline, and reduced ejection fraction: 5-year outcomes. J Am Coll Cardiol. 2017 Oct 31. doi: 10.1016/j.jacc.2017.08.074.

> Dr. Gomez-Sanchez is a hospitalist at the University of Virginia Medical Center.

By Amber Inofuentes, MD

2 Providers' prior imaging patterns and ownership of equipment are strong predictors of low-value imaging

CLINICAL QUESTION: Is there evidence that ownership of imaging equipment, prior ordering history,

and ordering behavior in other clinical scenarios are associated with obtaining low-value imaging?

BACKGROUND: For many common conditions, expert guidelines such as Choosing Wisely recommend against ordering specific low-value tests, yet overuse of these tests remains widespread, and unnecessary care may account for up to a third of all medical expenditures. Studies have demonstrated that there is considerable geographic variation in health care usage and higher overall imaging



among clinicians who own imaging equipment. No prior study has assessed whether prior ordering patterns of low-value care predict future ordering patterns or whether provid-

ers who order low-value imaging in one clinical scenario are more likely to do so in another scenario.

STUDY DESIGN: Retrospective analysis of insurance claims data.

SETTING: Medical claims data from a large U.S. commercial health insurer, inclusive of 29 million commercially insured members across all 50 states from January 2010 to December 2014.

SYNOPSIS: Using the claims database, researchers created three unique study samples to examine clinician predictors of low-value imaging. The study involved outpatient visits by patients aged 18-64 years without red-flag symptoms. The first included 1,007,392 visits across 878,720 patients with acute, uncomplicated low-back pain. Physicians who ordered imaging for the prior patient with back pain were 1.8 times more likely to do so again. Similarly, in 492,804 visits by 417,010 patients with headache, clinicians who ordered imaging on the prior patient demonstrated a twofold higher odds of imaging. Physicians who practiced low-value ordering for one condition were 1.8 times more likely to do so for the other. Across all studies, imaging ownership was an independent predictor (odds ratio, 1.8).

As this study analyzed only claims data, some patients may have warranted imaging based on red-flag symptoms that were not documented. Hospitalists designing initiatives to reduce low-value testing should consider targeting specific providers with a history of low-value test use.

BOTTOM LINE: Among commercially insured patients, a clinician's prior imaging pattern and ownership of imaging equipment were strong independent predictors of low-value back pain and headache imaging.

CITATION: Hong AS et al. Clinician-level predictors for ordering low-value imaging. JAMA Intern Med. 2017 Nov 1;177(11):1577-85.

Dr. Inofuentes is assistant professor of medicine, division of hospital medicine, University of Virginia.

By Amanda Lusa, MD

3 Sodium bicarbonate and acetylcysteine for prevention of contrast-related morbidity and mortality in CKD patients

CLINICAL QUESTION: Do either intravenous sodium bicarbonate or oral acetylcysteine prevent renal morbidity and mortality in patients with chronic kidney disease (CKD) undergoing angiography?

BACKGROUND: Both intravenous sodium bicarbonate and acetylcysteine are commonly used therapies aimed at preventing contrast-induced nephropathy. However, data regarding their efficacy are



prior studies have largely included patients with normal renal function. **STUDY DE-SIGN:** Multinational,

randomized.

controversial, and

Dr. Lusa

controlled, double-blind, clinical trial.

SETTING: Medical centers (53) throughout the United States, Australia, New Zealand, and Malaysia.

SYNOPSIS: This study included 4,993 patients with CKD, stage III and IV, who were scheduled for angiography. The study population was predominately male (93.6%) and had diabetes (80.9%). Patients

were randomized to receive either sodium bicarbonate or normal saline infusion, and oral acetylcysteine or placebo. The primary outcome was a composite of death, dialysis, or a sustained increase in creatinine by 50% at 90 days, and the secondary outcome was contrast-associated acute kidney injury. There was no interaction between sodium bicarbonate and acetylcysteine. Neither therapy prevented the primary or secondary outcome. The main limitations to this study included a very narrow demographic making the results hard to extrapolate beyond male diabetes patients receiving contrast for angiography. Overall, this study suggests that treatment with sodium bicarbonate or acetylcysteine does not improve the contrast-related morbidity and mortality in patients with CKD III and IV.

BOTTOM LINE: Neither intravenous sodium bicarbonate nor acetylcysteine led to improved renal outcomes in predominantly male patients with diabetes and baseline renal dysfunction undergoing angiography.

CITATION: Weisbord SD et al. Outcomes after angiography with sodium bicarbonate and acetylcysteine. N Engl J Med. 2017 Nov 12. doi: 10.1056/NEJMal1710933.

Dr. Lusa is assistant professor of medicine, division of hospital medicine, University of Virginia.

By Sheena Mathew, MD

A Nonopioids as effective as opioids in reducing acute pain in the ED

CLINICAL QUESTION: What is the most effective analgesic combination, opioid vs. nonopioid, for treating acute extremity pain in the emergency department?

BACKGROUND: Patients often are prescribed opioids for acute pain in the ED while awaiting work-up. With the current opioid epidemic in the United States, it is important to examine the appropriate use of opioids and look for alternative medications for acute pain.

STUDY DESIGN: Randomized, controlled trial.

SETTING: Two urban New York City emergency departments from July 2015 to August 2016.

SYNOPSIS: 411 patients aged 21-65 years were randomized to four groups for treatment of acute extremity pain. Each received one oral analgesic combination: ibuprofen 400 mg and acetaminophen 1,000 mg; oxycodone 5 mg and acetaminophen 325 mg; hydrocodone 5 mg and acetaminophen 300 mg; or codeine

30 mg and acetaminophen 300 mg. Their pain was scored on presentation using a standard 0-10 numerical rating scale (NRS) and then at 2 hours after medication. The primary outcome was difference in NRS among groups. All patients had improvement in pain scores. Pain score improved by 4.4 in the oxycodone group, 4.3 in the ibuprofen group, 3.5 in the hydrocodone group, and 3.9 in the codeine group. There were no statistically significant differences among groups. Limitations to the study included short follow-up time, no reported data on adverse effects, and lack of uniform acetaminophen doses in each group.

BOTTOM LINE: There was no statistically significant difference in pain control among patients given a combination of acetaminophen and ibuprofen vs. three different opioids with acetaminophen when treating acute extremity pain in the ED.

CITATION: Chang AK et al. Effect of a single dose of oral opioid and nonopioid analgesics on acute extremity pain in the emergency department: a randomized clinical trial. JAMA. 2017 Nov 7;318(17):1661-7.

5 Inpatient care by PCPs associated with lower mortality than care by hospitalists

CLINICAL QUESTION: Are there differences in mortality and health care resource utilization in patients treated by hospitalists, primary care physicians, or other generalists?

BACKGROUND: Most hospitalized patients now are being cared for by hospitalists rather than their primary care physicians (PCP). Covering generalists, who lack a prior relationship with the patient, also care for hospitalized patients when their PCP is unavailable. Although past studies ______ have found some



Dr. Mathew

STUDY DESIGN: Retrospective study.

SETTING: Medicare admissions to acute care hospitals in all 50 states from January 2013 to December 2013.

SYNOPSIS: Researchers analyzed data from 560,651 patients admitted with the 20 most common diagnoses looking for differences in health care

utilization, length of stay, mortality, and discharge disposition depending on the type of provider: PCP, hospitalist, or other covering generalist. PCPs and other generalists consulted specialists more often than hospitalists. Length of stay was shorter in the hospitalist group. PCPs discharged patients to home more often than the other groups (68.5%, compared with 64% for hospitalists and 62% for other generalists). Readmission rates at 7 days were the same between hospitalists and PCPs but were higher in the other generalist group. PCPs also had lower 30-day mortality, compared with hospitalists (8.6% vs. 10.8%), while other generalists had higher mortality at 11%. Limitations include the use of administrative data and including only Medicare patients.

BOTTOM LINE: Inpatient care by PCP decreases mortality and increases likelihood of discharging home compared to care by hospitalists or other generalists.

CITATION: Stevens JP et al. Comparison of hospital resource use and outcomes among hospitalists, primary care physicians, and other generalists. JAMA Intern Med. 2017 Dec 1;177(12):1781-7.

> Dr. Mathew is assistant professor of medicine, division of hospital medicine, University of Virginia.

By Pooja Mehra, MD

6 Fecal microbiota transplantation by capsule effective in preventing recurrent *C. difficile*

CLINICAL QUESTION: Is fecal microbiota transplantation (FMT) by oral capsule noninferior to administration via colonoscopy in preventing recurrent *Clostridium difficile* infection (RCDI)?

BACKGROUND: Approximately 20% of patients with an initial episode of C. difficile develop recurrent disease. FMT is the most effective treatment for RCDI. Currently, it is believed that there is a higher rate of success with FMT by colonoscopy, but this is based on studies lacking a control group. The cost of administering FMT by colonoscopy is more than double the cost via oral capsule, and efficacy between the two routes has not been studied in a randomized fashion. If oral capsule delivery is noninferior, then wait times, cost, and procedure risk would be reduced.

STUDY DESIGN: Randomized, unblinded, noninferiority trial.

SETTING: Three academic medical centers in Alberta, Ca.

SYNOPSIS: Patients with at least three documented episodes of *C*.

difficile infection were randomized to receive FMT by either oral capsule or colonoscopy. Exclusion criteria included complicated *C. difficile* infections, cancer undergoing therapy, and conditions requiring antibiotics. The primary outcome was RCDI within 12 weeks after FMT. A total of 105 patients completed the trial, with 96.2% (51/53) of patients in the capsule group and 96.2% (50/52) of patients in the colonoscopy group remaining free of RCDI at the 12-week follow-up. This met the –15% noninferiority margin and suggests that oral



capsule may be an effective route of delivery for FMT. Limitations of the study are exclusion of complicated RCDI patients, lack of blinding, and no placebo control (which would have been

Dr. Mehra

helpful since the prevention rates were so high and recurrent diarrhea was self-reported among participants, leading to a subjective outcome).

BOTTOM LINE: FMT by oral capsule may be noninferior to FMT by colonoscopy in preventing RCDI at 12 weeks.

CITATION: Kao D et al. Effect of oral capsule- vs. colonoscopy-delivered fecal microbiota transplantation on recurrent *Clostridium difficile* infection: A randomized clinical trial. JAMA. 2017 Nov 28:318(20):1985-93.

> Dr. Mehra is assistant professor of medicine, division of hospital medicine, University of Virginia.

By Rahul Mehta, MD

Z Lower risk of ICH with dabigatran as compared to warfarin in atrial fibrillation

CLINICAL QUESTION: Is dabigatran superior to warfarin with regards to the risk of intracranial hemorrhage and myocardial infarction in patients with atrial fibrillation?

BACKGROUND: Several studies – including the RELY trial – have revealed a lower rate of intracranial hemorrhage with dabigatran, compared with warfarin, in patients with atrial fibrillation; however, few of these have been on populations generalizable to clinical practice. Furthermore, there are conflicting data on the association of dabigatran with higher rates of myocardial infarction in patients with atrial fibrillation versus warfarin.

STUDY DESIGN: Retrospective cohort study.

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comes in patients

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pitalists vs. PCPs,

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grouped covering

PCPs, which could

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affect the data.

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SETTING: The Sentinel Program (national surveillance system) including 17 collaborating institutions and health care delivery systems.

SYNOPSIS: In 25,289 propensity score-matched pairs of commercially insured patients aged 21 years or older starting dabigatran or warfarin therapy for atrial fibrillation, dabigatran was associated with a lower



rate of intracranial hemorrhage (hazard ratio, 0.89; 95% confidence interval, 0.72-1.09). similar rates of ischemic stroke and extracranial hemorrhage, and a potentially high-

Dr Mehta

er rate of myo-

cardial infarction (HR. 1.88: 95% CI. 1.22-2.90). However, the association between dabigatran use and myocardial infarction was smaller and not statistically significant in sensitivity analyses. Also, subgroup analyses demonstrated higher rates of gastrointestinal bleeding with dabigatran than did warfarin in patients aged 75 years or older and those with kidney dysfunction.

Although providing further reassuring evidence about bleeding risks - particularly intracranial hemorrhage - associated with dabigatran use, this observational study fails to clarify the association between dabigatran and myocardial infarction.

BOTTOM LINE: Dabigatran, compared with warfarin, in adults with atrial fibrillation is associated with a lower risk of intracranial hemorrhage and similar risk of ischemic stroke and extracranial hemorrhage.

CITATION: Go AS et al. Outcomes of dabigatran and warfarin for atrial fibrillation in contemporary practice. Ann Intern Med. 2017 Dec.19;167:845-54.

> Dr. Mehta is assistant professor, division of hospital medicine, University of Virginia.

By Glenn Moulder, MD

Don't delay hip-fracture surgery

CLINICAL QUESTION: What is the association of wait time and 30-day mortality in patients undergoing hip-fracture surgery?

BACKGROUND: Guidelines from the American College of Surgeons and Canadian Institute for Health recommend hip fracture surgery within 48 hours. However, a timeto-surgery threshold after which mortality and complications are

increased has not been determined. This study aims to determine a time to surgery threshold for hip-fracture surgery.

STUDY DESIGN: Retrospective cohort trial.

SETTING: 72 hospitals in Ontario, Ca., during April 1, 2009-March 31, 2014.

SYNOPSIS: Of the 42,230 adult patients in this study, 14,174 (33.6%) received hip-fracture surgery within 24 hours of emergency department arrival. A matched patient analysis of early surgery (within 24 hours of ED arrival) vs. delayed surgery determined that patients undergoing early operation experienced lower 30-day mortality (5.8% vs 6.5%) and fewer complications (myocardial infarction, deep vein thrombosis, pulmonary



embolism, and pneumonia). Major bleeding was not assessed as a complication. Also omitted from analysis were patients undergoing nonoperative hip-fracture management.

These findings suggest a time to surgery of 24 hours may represent a threshold defining higher risk. Twothirds of patients in this study surpassed this threshold. Hospitalists seeing patients with hip fracture should balance time delay risks with the need for medical optimization.

BOTTOM LINE: Wait time greater than 24 hours for adults undergoing hip fracture surgery is associated with an increased risk of 30-day mortality and complications.

CITATION: Pincus D et al. Association between wait time and 30-day mortality in adults undergoing hip fracture surgery. JAMA. 2017 Nov 28;318(20):1994-2003.

ONoninvasive cardiac testing to rule out acute coronary syndromes provides no benefit in low-risk chest pain patients

CLINICAL QUESTION: Does clinical evaluation and noninvasive cardiac testing improve outcomes in patients who present to the emergency department (ED) with acute chest pain, compared with clinical evaluation alone?

BACKGROUND: The 2014 American College of Cardiology/American Heart Association clinical guideline includes a recommendation for noninvasive testing (exercise test or coronary commuted tomographic angiography [CCTA]) in patients

with chest pain but no evidence of ischemia. The ROMICAT-II (Rule Out Myocardial Ischemia/Infarction by Computer Assisted Tomography) trial randomized 1,000 ED patients with chest pain to undergo CCTA or usual care with unknown benefits and risks of this testing recommendation. The question of whether this testing may be omitted is addressed in secondary analysis.

STUDY DESIGN: Retrospective analysis of the ROMICAT-II trial data.

SETTING: Emergency department. **SYNOPSIS:** As compared with 882 patients who underwent noninvasive testing, 118 patients in the ROMI-CAT-II usual care group who did not undergo noninvasive testing had shorter lengths of stay (20.3 vs. 27.9 hours; *P* less than .001), lower rates of diagnostic testing (P less than .001), angiography (2% vs. 11%; P less than .001), and lower costs (\$2,261.50 vs. \$2,584.30). There was no difference in percutaneous coronary intervention (2% vs. 5%; P = .15), coronary artery bypass surgery (0% vs. 1%; *P* = .61), major adverse cardiac events (MACE; 2% vs. 1%; P = .24), or return ED visits (5.8% vs. 2.8%; P = .08) during the 28day follow-up period. These findings suggest noninvasive cardiac testing may be omitted in low- to intermediate-risk patients presenting with chest pain. However, this study was not designed or powered to address this question and patients were not randomized. These data may support hospitalists who choose not to order noninvasive testing in ED patients with chest pain.

BOTTOM LINE: In this secondary analysis of ROMICAT-II clinical trial data, patients who underwent clinical evaluation without noninvasive testing had shorter length of stay, less diagnostic testing, lower radiation exposure, and reduced costs with no difference in missed diagnosis of acute coronary syndromes, development of MACE, or return ED visits.

CITATION: Reinhardt SW et al. Noninvasive cardiac testing vs. clinical evaluation alone in acute chest pain: A secondary analysis of the **ROMICAT-II** randomized clinical trial. JAMA Intern Med. 2018 Feb 1:178(2):212-9

Dr. Moulder is assistant professor, University of Virginia Health System.

By Paul Helgerson, MD, SFHM

Readmitted patients less likely to be "very satisfied" with index admission

CLINICAL QUESTION: Are patient perceptions of care during index

hospitalization associated with likelihood of 30-day readmission?

BACKGROUND: Hospital readmissions are costly (more than \$40 billion annually) and common. Nearly one readmission in five is thought to be preventable. While many risk-prediction models exist, few incorporate patient perceptions during the index hospitalization or factors associated with patient experience.

STUDY DESIGN: Prospective cohort study.

SETTING: Single-center academic medical center

SYNOPSIS: A total of 846 patients - admitted to one of two inpatient general medicine wards at Massachusetts General Hospital in Boston, and were English speaking, aged 18 years or older, and possessed the ability to complete a 20-item study questionnaire – were screened from January 2012 to January 2016. An interviewer-assisted questionnaire was coupled with structured medical records review. Among items assessed were demographic information, patient perceptions of health, satisfaction with inpatient care, confidence in ability to perform self-care and understanding of the care plan, presence of a caregiver, and patient-predicted likelihood



of readmission. Of 846 enrolled patients, 201 were readmitted within 30 days. Readmitted patients were less likely to report being "very satisfied" with their overall care during the index

Dr. Helgerson

admission, and less likely to report that physicians "always listened" to them during the index stay.

BOTTOM LINE: This is the first study to relate patients' perceptions of their care during index hospitalization to the likelihood of readmission. Further investigation will be necessary to determine whether timely assessment of these perceptions can prompt effective intervention that improves likelihood of an enduringly successful transition home.

CITATION: Carter J et al. The association between patient experience factors and likelihood of 30-day readmission: A prospective cohort study. BMJ Qual Saf. 2017 Nov 16. doi: 10.1136/bmjqs-2017-007184.

> Dr. Helgerson is associate professor of medicine and section head, division of hospital medicine, University of Virginia.

Chair, Division of Hospital Medicine

at Lahey Hospital & Medical Center

The Division of Hospital Medicine at Lahey Health, headquartered in Burlington Massachusetts, is actively seeking an experienced physician leader to manage and operate Hospital Medicine Services within our geographically distributed system of hospitals located North of Boston. The Hospital Medicine group is comprised of approximately 63 physician FTEs, and 24 FTE advanced care providers responsible for approximately 11,000 discharges annually, and all committed to providing high quality patient-centered care. Our hospitalists enjoy a high level of collegiality and a supportive environment in which individual contributions are recognized and true team spirit is fostered and expected. The Chair of Hospital Medicine at Lahey Health reports to the Chair of the Department of Medicine.

Lahey Health is a progressive and highly regarded integrated healthcare system offering a continuum of care that includes three Truven Health Analytics top 100 hospital organizations in the country: Lahey Hospital & Medical Center, a renowned 317-bed, Tufts-affiliated Teaching Hospital; Winchester Hospital, perennially voted the top hospital to work for in Massachusetts; and Beverly Hospital, recognized by Blue Cross and Blue Shield for two years running as the top quality hospital in all of Massachusetts. Lahey Health also includes outpatient centers, primary care providers and specialists, behavioral health services, post-acute programs such as home health services, skilled nursing and rehabilitation facilities, and senior care resources located throughout northeastern Massachusetts and southern New Hampshire.

Lahey is dedicated to the goal of building a culturally diverse and pluralistic organization committed to caring for patients and ourselves in a multicultural environment. We strongly encourage applications from minorities and women.



It is expected that the Chair of Hospital Medicine will:

- Work and collaborate with physician, nursing and administrative leadership as a triad in achieving high quality, patient centric, and cost effective care.
- Collaborate effectively with the other Divisions within the Department of Medicine, and with the Departments of Emergency Medicine and Surgery, as well as community practitioners.
- Develop and implement quality improvement goals and objectives that are aligned with Lahey's organizational strategy.
- Provide high quality clinical care.
- Serve as a supportive role model and mentor to other members of the Division.
- Develop and conduct annual performance evaluations for all clinicians.
- Lead the recruitment and retention of physicians and advanced practitioners.
- In collaboration with administrative and finance staff, develop and manage to the annual budget for the Division.
- Actively support the educational mission of the Division in the teaching of medical students and residents, and in Lahey's CME programs.
- Develop a program of research which is inclusive and aligned with the clinical and quality improvement mission of the Division.

Candidates for this position:

- Must be Board Certified in Internal Medicine and eligible for licensure in Massachusetts.
- Should have a minimum of 5 years' experience working as a hospitalist, and at least 2 years' experience in a leadership role.
- Should have attained fellowship in the Society of Hospital Medicine and/or fellowship of the American College of Physicians.
- Should possess strong clinical, managerial and leadership skills, and demonstrate a high level of emotional and social intelligence.

For consideration and/or additional details, please contact: David T Martin, MD, FRCP, MACP Chair, Department of Medicine Lahey Hospital & Medical Center 41 Mall Road, Burlington, MA 01805





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SLUHN is a non-profit network comprised of physicians and 10 hospitals, providing care in eastern Pennsylvania and western NJ. We employ more than 500 physician and 200 advanced practitioners. St. Luke's currently has more than 220 physicians enrolled in internship, residency and fellowship programs and is a regional campus for the Temple/St. Luke's School of Medicine. Visit www.slhn.org

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Please email your CV to Drea Rosko at physicianrecruitment@sluhn.org

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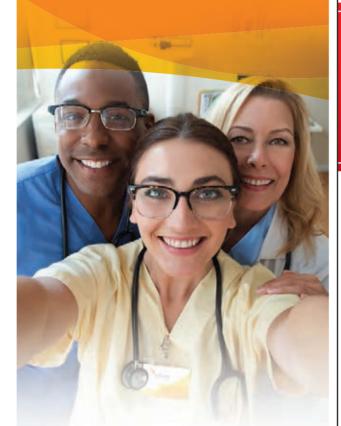
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Come join our well established hospitalist team of dedicated hospitalist at Emerson Hospital located in historic Concord, Massachusetts. Enjoy living in the suburbs with convenient access to metropolitan areas such as Boston. New York and Providence as well as the mountains, lakes and coastal areas. Opportunities available for hospitalist and nocturnists; full time, part time, per diem and moonlighting positions, just 25 minutes from Boston. A great opportunity to join a well established program.

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Emerson Hospital provides advanced medical services to more than 300.000 people in over 25 towns. We are a 179 bed hospital with more than 300 primary care doctors and specialists. Our core mission has always been to make high-quality health care accessible to those that live and work in our community. While we provide most of the services that patients will ever need, the hospitals strong clinical collaborations with Boston's academic medical centers ensures our patients have access to world-class resources for more advanced care. For more information please contact: Diane M Forte, Director of Physician Recruitment and Relations 978-287-3002, dforte@emersonhosp.org

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UC Health Hospitalist Group at West Chester Hospital seeking a board certified/prepared Internal Medicine or Family Medicine physician to join our growing Hospitalist group. West Chester Hospital is a community hospital, located just north of Cincinnati OH, with academic affiliation to the University of Cincinnati Health System.

Seeking candidates for a dedicated nocturnist position, 7p to 7a. Position is supported by 24hr Critical Care Services. The contractual obligation is for 12 shifts per month with opportunities/ incentives for additional shifts if desired.

Excellent benefits and retirement packages through the UC Health and the UC College of Medicine. Faculty appointed position at UC College of Medicine with hire. Oualified candidate must be ACLS certified.

CONTACT: Dr. Brad Evans, Director UC Health Hospitalist Group 513-298-7325 evansb7@ucmail.uc.edu

UNIVERSITY OF MICHIGAN **DIVISION OF HOSPITAL MEDICINE**



The University of Michigan, Division of Hospital Medicine seeks BC/BE internists to join our growing and dynamic division. Hospitalist duties include teaching of medical residents and students, direct patient care in our non-resident and shortstay units and involvement in quality improvement and patient safety initiatives. Novel clinical platforms that feature specialty concentrations (hematology/oncology

service, renal transplant service and bone marrow transplant teams) as well as full-time nocturnist positions are also available. Our medical short stay unit provides care for both observation and inpatient status patients and incorporates advanced practice providers as part of the medical team.

The ideal candidate will have trained at, or have clinical experience at a major US academic medical center. Sponsorship of H1B and green cards is considered on a case-by-case basis for outstanding individuals. Research opportunities and hospitalist investigator positions are also available for qualified candidates. An educational loan forgiveness program provides up to \$50,000 in loan forgiveness for qualifying educational loans.

The University of Michigan is an equal opportunity/affirmative action employer and encourages applications from women and minorities.

Mail or email cover letter and CV to:

Mail Vineet Chopra, MD, MSc, Chief, Division of Hospital Medicine,

UH South Unit 4, 1500 East Medical Center Drive, Ann Arbor, MI 48109-5226 Email kcreed@umich.edu

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Ideal candidates will have exemplary clinical skills, a strong interest in teaching house staff and a long term commitment to inpatient medicine. Interest in research and administration a plus. Salaried position with incentive, competitive benefits package including paid CME, malpractice insurance and vacation

Interested candidates, please email CV and cover letter to: dchenouda@nyuwinthrop.org



Or fax to: (516) 663-8964 Attn: Division Chief, Winthrop Hospitalist Associates An EOE m/f/c

NYU Winthrop Hospital is located in the heart of Nassau County in suburban Long Island, 30 miles from NYC and just minutes from LI's beautiful beaches.

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Full-time and part-time openings are available, as are opportunities for Nocturnists. At our large multi-specialty practice with approximately 450 providers, we strive to offer our patients a full scope of healthcare services throughout the Sacramento area. Our award-winning Hospitalist program has around 70 providers and currently serves 4 major hospitals in the area.

Sacramento offers a wide variety of activities to enjoy, including fine dining, shopping, biking, boating, river rafting, skiing and cultural events

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ACADEMIC NOCTURNIST HOSPITALIST

The Division of General Internal Medicine at Penn State Health Milton S. Hershey Medical Center, Penn State College of Medicine (Hershey, PA) is seeking a BC/BE Internal Medicine NOCTURNIST HOSPITALIST to join our highly regarded team. Successful candidates will hold a faculty appointment to Penn State College of Medicine and will be responsible for the care in patients at Hershey Medical Center. Individuals should have experience in hospital medicine and be comfortable managing patients in a sub-acute care setting.

Our Nocturnists are a part of the Hospital Medicine program and will work in collaboration with advanced practice clinicians and residents. Primary focus will be on overnight hospital admission for patients to the Internal Medicine service. Supervisory responsibilities also exist for bedside procedures, and proficiency in central line placement, paracentesis, arthrocentesis, and lumbar puncture is required. The position also supervises overnight Code Blue and

Adult Rapid Response Team calls. This position directly supervises medical residents and provides for teaching opportunity as well.

Competitive salary and benefits among highly qualified, friendly colleagues foster networking opportunities. Excellent schools, affordable cost of living, great family-oriented lifestyle with a multitude of outdoor activities year-round. Relocation assistance, CME funds, Penn State University tuition discount for employees and dependents, LTD and Life insurance, and so much more!

Appropriate candidates must possess an MD, DO, or foreign equivalent; be Board Certified in Internal Medicine and have or be able to acquire a license to practice in the Commonwealth of Pennsylvania. Qualified applicants should upload a letter of interest and CV at: http://tinyurl.com/j29p3fz Ref Job ID#4524

For additional information, please contact: Brian Mc Gillen, MD — Director, Hospitalist Medicine Penn State Milton S. Hershey Medical Center c/o Heather Peffley, PHR FASPR - Physician Recruiter hpeffley@hmc.psu.edu



The Penn State Milton S. Hershey Medical Center is committed to affirmative action, equal opportunity and the diversity of its workforce. Equal Opportunity Employer – Minorities/Women/Protected Veterans/Disabled.

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The Medical Director, Hospitalist Service, is responsible for providing on-site clinical leadership and management for the Network. This individual will serve as the clinical lead and will work closely with physicians, Site Medical Directors, AP leadership and Staff to assure consistent high quality in keeping with the goals of the organization and the group. Must have three to five years' experience in Hospital Medicine and be board certified; leadership experience strongly preferred. Excellent compensation and benefit package.

SLUHN is a non-profit network comprised of more than 450 physicians, 200 advanced practitioners and 7 hospitals, providing care in eastern Pennsylvania and western New Jersey. St. Luke's currently has more than 180 physicians enrolled in internship, residency and fellowship programs and is a regional campus for the Temple/St. Luke's School of Medicine. Visit www.slhn.org.

Our campuses offer easy access to major cities like NYC and Philadelphia. Cost of living is low coupled with minimal congestion; choose among a variety of charming urban, semi-urban and rural communities your family will enjoy calling home. For more information visit **www.discoverlehighvalley.com**.

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Practice highlights:

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 Collaborative, cohesive hospitalist team established in 2002 with high retention rate and growth
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- Primary responsibility is adult inpatient care
- Manageable daily census
- Excellent support and collegiality with subspecialty services
- Competitive compensation and benefits package, including loan forgiveness

La Crosse is a vibrant city, nestled along the Mississippi River. The historic downtown and riverfront host many festivals and events. Excellent schools and universities, parks, sports venues, museums and affordable housing make this a great place to call home.

For information contact Kalah Haug, Medical Staff Recruitment, at kjhaug@gundersenhealth.org. or (608) 775-1005.





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Mercy Clinic is seeking Hospitalists and Nocturnists to join established Hospitalist teams at various hospital locations throughout the Greater St. Louis area.

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DIVISION HEAD OF HOSPITAL MEDICINE

The Henry Ford Medical Group (HFMG), one of the largest multispecialty group practices in the country, is seeking a highly gualified Division Head in its Division of Hospital Medicine. With nearly 30 years of experience in Hospital Medicine, HFMG established a separate Division of Hospital Medicine in 2008, and is the largest Division in the Department of Medicine with over 50 hospitalist faculty serving at three different hospitals.

This is an excellent leadership opportunity with continued professional growth in a strong hospitalist group committed to the development of high quality hospitalists. The Division continues to be a leader in HFHS efforts to promote systemic integration/alignment, clinical excellence, innovation, and value in an accountable care environment.

The successful candidate will be ABIM certified (preference Internal Medicine with a Focused Practice in Hospital Medicine) and have at least 7 years of hospitalist practice experience with progressive proven leadership skills in a large hospitalist program preferably in an integrated healthcare organization. Strong clinical and communication skills are essential. Significant experience with quality and care management initiatives, operational management, as well as medical education are also desired.

Generous group practice benefits are provided including: vacation, CME time/allowance, insurance (life/disability/ malpractice), and retirement package. A faculty appointment at Wayne State University School of Medicine is available commensurate with prior experience.

Review of applications will begin immediately and continue until the position is filled. Please submit your letter of interest and CV to:

Dr. Kimberly Baker-Genaw, Vice Chair of Medicine, in c/o Scott Johnson, Senior Physician Recruiter, at sjohns10@hfhs.org.





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Enjoy Cape Cod living at its best with miles of sandy beaches, quaint villages and beautiful sunsets over Cape Cod Bay. This is truly a great place to practice medicine and enjoy the amenities the Cape has to offer. Practice is located within 60 minutes of downtown Boston and downtown Providence, RI.

Please contact:

Cassandra Dombrowski Cape Cod Healthcare Physician Recruitment Phone: (508) 862-7882 Email: cdombrowski@capecodhealth.org



HOSPITALIST

The Division of Internal Medicine at Penn State Hershey Medical Center, The Pennsylvania State University College of Medicine, is accepting applications for **HOSPITALIST** positions. Successful candidates will hold a faculty appointment to Penn State College of Medicine and will be responsible for the care in patients at Penn State Hershey Medical Center. Individuals should have experience in hospital medicine and be comfortable managing patients in a sub-acute care setting. Hospitalists will be part of the post-acute care program and will work in collaboration with advanced practice clinicians, residents, and staff. In addition, the candidate will supervise physicians-in-training, both graduate and undergraduate level, as well as participate in other educational initiatives. The candidate will be encouraged to develop quality improvement projects in transitions of care and other scholarly pursuits around caring for this population. This opportunity has potential for growth into a leadership role as a medical director and/or other leadership roles.

Competitive salary and benefits among highly qualified, friendly colleagues foster networking opportunities. Relocation assistance, CME funds, Penn State University tuition discount for employees and dependents, LTD and Life insurance, and so much more!

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Known for home of the Hershey chocolate bar, Hershey, PA is rich in history and offers a diverse culture. Our local neighborhoods boast a reasonable cost of living whether you prefer a more suburban setting or thriving city rich in theater, arts, and culture. Hershey, PA is home to the Hershey Bears hockey team and close to the Harrisburg Senators baseball team. The Susquehanna River, various ski slopes and the Appalachian Trail are in our backyard, offering many outdoor activities for all seasons.



PennState Health Milton S. Hershey Medical Center

The Penn State Milton S. Hershey Medical Center is committed to affirmative action, equal opportunity and the diversity of its workforce. Equal Opportunity Employer – Minorities/Women/ Protected Veterans/Disabled.

Successful candidates require the following:

- Medical degree M.D., D.O. or foreign equivalent
- Completion of an accredited Internal Medicine Residency program
- Eligibility to acquire a license to practice in the
- Commonwealth of Pennsylvania
- Board eligible/certified in Internal Medicine
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For further consideration, please send your CV to:

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President's Desk Hospital Medicine: An international specialty

Hospitalist model growing globally

By Ron Greeno, MD, FCCP, MHM

his past fall, I had the honor of being invited to speak at a hospitalist physician conference in Tokyo. The conference was hosted by the Japanese Society of Hospital General Medicine (JSHGM) and was attended by over 800 hospitalists, including some from other East Asian countries.

The JSHGM is 7 years old and has 1,400 members; its growth mirroring the growth of practicing hospitalists in Japan. They wanted me to speak about the evolution of the hospitalist model in the United States and to learn more about their efforts to grow the nascent specialty in Japan. We also jointly wanted to discuss the opportunity for the JSHGM and the Society of Hospital Medicine to work together to benefit the hospitalist model in both countries.

This emerging partnership of the two societies is only the latest of a growing series of efforts on the part of SHM to support the growth of the hospitalist specialty internationally. It started with Canada in 2001, when a contingent of Canadian hospitalists requested to form their own chapter of SHM. They wanted to become the first international chapter and to join a group that has now grown to 56 state and regional chapters. Within a few years, the Canadian chapter evolved to become its own independent and flourishing Canadian Society of Hospital Medicine.

More recently, SHM has helped develop chapters in Brazil and the Middle East, with more chapters being planned. The International Special Interest Forum at Hospital Medicine 2018 in Orlando in April expects attendees from Chile, China, Germany, Holland, Spain, Taiwan and more.

So why all of this activity by hospitalists in countries whose health systems are so different from ours and from each other's? What is it about our specialty that has captured the interest of physicians, health systems, and governments from around the globe?

According to hospitalists from abroad, the answer is very consistent and very simple. It is the desire to lower cost and improve the quality of care. It turns out that the American health care system is not the only one that struggles with these issues. It seems that health care costs are too high everywhere and that the quest for higher quality, lower cost health care is a universal struggle. As Scottish-born health care economist Ian Morrison jokes, "Every health care system sucks in its own way."

Let's look at Japan. They have the longest average life expectancy in the world at 84 years, with about a quarter of their population over 65 years of age. On any given day, almost 14% of the population has a physician visit. Historically, they also have long hospital length of stays with current average length of stay anywhere between 14 and 21 days. This, of course, is very costly. ... and in their single-payer system, the entire cost of this care falls on the Japanese government. And as birth rates in Japan have decreased, there are fewer taxpayers to bear the financial burden of the progressively aging and sicker population.

Canada has a different challenge. Also a single-payer system, their largest issue for the acutely ill is the availability of an open hospital bed. Although the system varies somewhat from province to province, it is typical that hospitals are given a total annual budget that must cover all expenses for the year, independent of the volume of patients. Since most hospitals are perpetually full, the discharge of a patient results in another new admission, which in turn actually costs the hospital more money. This perverse incentive keeps hospital beds full as patients wait for one to open (especially for any elective procedure). Adding to the problem, physicians are paid fee for service and therefore also have no incentive to discharge patients.

As Canadian citizens clamor for more access to care, the government looks for ways to lower excessively long length of stays. Wait times for elective surgeries are unacceptable with some patients coming to the United States for surgery that they must then pay for themselves. The result is mounting pressure to move to models of care that are more efficient and less wasteful.

It is no wonder that physicians and health care planners from Japan, Canada, and around the world have viewed with great interest what hospitalists have accomplished in the American health care system. They recognize the potential of this relatively new model to decrease hospital length of stays, lower health care costs, and improve outcomes. After all, this is what the hospitalist model was invented to accomplish – to create value not through high production, but by improving the efficiency of care delivery, overall quality of care, and contributing to improved hospital operations.

As unrelenting economic forces continue to put pressure on health care systems worldwide, it will be fascinating to follow and continue assessing the impact of the hospitalist model in nations where it is implemented. That includes, of course, in the United States, where the model is still very young and continually evolving.

In the meantime, SHM will continue to learn about and work with our international partners. This certainly will be the focus of a special "Hospital Medicine in Japan" session at Hospital Medicine 2018 along with the International Special Interest Forum. And for the first time, we will also have an International Lounge where our international members can meet with each other and our American members to share ideas and enthusiasm for the future of our specialty.

These are just the first steps to expanding the hospital medicine movement across the globe. SHM is optimistic about the future opportunities for international collaboration and is committed to supporting the growth of the specialty and its practitioners, not only in the United States, but worldwide.



It seems that health care costs are too high everywhere and that the quest for higher quality, lower cost health care is a universal struggle.

Dr. Greeno is president of the Society of Hospital Medicine, and senior adviser for medical affairs, TeamHealth.





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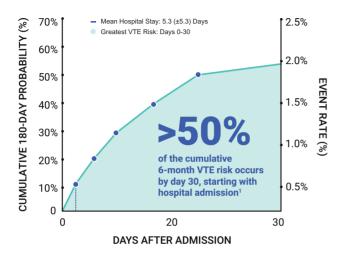


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