Analyzing historical and current data to make predictions about the future isn’t new to healthcare—the process is regularly used to create everything from risk stratification to readmission rates.

But Dr. John Cromwell, Associate Chief Medical Officer and Director of Surgical Quality and Safety at UI Hospitals and Clinics is one of the first surgeons in the country to bring predictive analysis into the operating room. Predictive analytics extends the precision inherent in surgery past the procedure, as data analysis helps determine the course of patient care.

Through a variety of different tactics, including predictive analytics, surgical site infections (SSI) for colon surgery patients have dropped 74 percent in just two years.

Data was developed and validated on about 1,600 patients, and limited to particular procedures with higher infection rates.

A key to success with predictive analytics is the quality and quantity of data entered into the system. “Outcomes data is crucial,” Cromwell notes. “We don’t always have the data on the particular outcome we are interested in, but it is essential to building the model.”

As more outcomes data becomes available, appropriate models can be built to expand the use of predictive analytics to other specialties and clinical issues.

Models also respond to process improvements, constantly recalibrating. “The models recognize us doing a better job,” Cromwell says. “There’s AI (artificial intelligence) learning going on, showing decreased risk.”

Cromwell sees enormous potential for predictive analytics for UI Health Care. The process could help decide what goes into SSI reduction bundles for every patient in the OR, and even lead to significant improvements in after care through home monitoring. This initial process has revealed that a surprising indicator of probable infection was a patient’s home zip code, a surrogate marker for health care access, socio-economic status, and health literacy. “It’s a marker of things we don’t traditionally account for when we’re treating patients,” Cromwell adds.

Challenges to a widespread rollout include IT infrastructure issues and policies that restrict direct access to medical records. “We also need to work out the techno-cultural leap,” Cromwell says. “We’re bringing technology into a place where there really isn’t a policy around its use, and it’s a cultural leap for people to trust models on computers.”

A trio of skill sets

To effectively utilize predictive analysis, Cromwell recommends a department, team or individual have three distinct aptitudes:

1. Clinical Understanding
2. Analytics Experience
3. Data Wrangling Ability

Interested in working with Dr. Cromwell?

Dr. Cromwell is currently interested in working with select groups that meet the criteria for success. If you would like to discuss collaborating with Dr. Cromwell, contact him at john-cromwell@uiowa.edu.

- Have appropriate outcomes data
- Talk to your leadership
- Build your team
Dear Colleagues and Friends,

As Dean of the University of Iowa Roy J. and Lucille A. Carver College of Medicine and Executive Director of UI Physicians (UIP), we are delighted to introduce this exciting new publication from UIP.

Produced exclusively for UIP members, this newsletter provides a valuable platform for sharing insights and information needed to help keep you informed about services and initiatives being launched by UIP. We will also be providing updates in the form of synopses of cutting-edge studies and procedures that may benefit your patients. In turn, we hope you will share these insights on the exceptional programs available across UI Health Care with your patients in the hopes of ultimately increasing in-house referrals.

UIP brings the best of academic medicine to our patients: impeccable quality, innovative clinical care, and the ongoing education of the next generation of health professionals. In this inaugural issue, and in every issue going forward, you will discover articles summarizing the latest health care technologies, world class clinical services, critical interdisciplinary collaborations, breakthroughs in medicine and research, and an overview of the work that UIP leadership is doing on your behalf. As a member of UIP, you are an integral part of our success! We are confident that this newsletter will serve as a valuable resource by providing enhanced connection to our remarkable professional network - UI Physicians. Thank you in advance for spending just a few minutes of your time exploring how UIP can support your practice.

Sincerely,

Debra A. Schwinn, MD    Douglas J. Van Daele, MD
Dean, University of Iowa Carver College of Medicine    Executive Director, UI Physicians
Chair, UI Physicians Board    Vice Dean for Clinical Affairs
Professor of Anesthesia, Pharmacology, and Biochemistry    Associate Professor of Otolaryngology
debra-schwinn@uiowa.edu    douglas-van-daele@uiowa.edu

University of Iowa Physicians: Who We Are and What We Do

University of Iowa Physicians (UIP) is the largest multi-specialty medical and surgical group practice in Iowa. Established in 1946 as the Faculty Practice Plan (with a name change in 2006), we serve more than 800 physicians, and over 300 participants, representing more than 200 subspecialties and over $260 million in annual revenue.

Your UIP Board welcomes your participation, comments and suggestions.

UNIME ITUK, MBBS  
Clinical Assistant Professor of Anesthesia (2015)

COLLEEN KENNEDY STOCKDALE, MD  
Clinical Associate Professor of Obstetrics and Gynecology (2015)

BRIAN LINK, MD  
Professor of Internal Medicine (2014)

BRUNO POLICENI, MD  
Clinical Associate Professor of Radiology (2015)

ALAN REED, MD  
Professor of Surgery (2012 and 2014)

ELLIOTT SOHN, MD  
Assistant Professor of Ophthalmology and Visual Sciences (2015)
Volume to Value: the Changing Face of Health Care Reimbursement

The Affordable Care Act (ACA) has meant significant shifts in national and state health care strategy, with new terminology, adjusted payment frameworks, assertive goals and aggressive timelines.

One facet of the ACA that directly impacts UI Health Care is the new premium placed on value and care coordination over volume and care duplication, and its direct effect on Medicare reimbursement. The Department of Health and Human Services (HHS) has adopted the following framework to align Medicare reimbursement with quality and value, rather than simply rewarding volume.

Categories 3 and 4 accounted for 20 percent of Medicare fee-for-service payments to providers by the end of 2014. HHS intends that number to grow to 30 percent by the end of 2016 and 50 percent by the end of 2018. By the end of 2016, 85 percent of Medicare fee-for-service payments will be in categories 2, 3 and 4, rising to 90 percent by the end of 2018.

“It is expected that eventually this system will extend beyond Medicare,” said Douglas Van Daele, MD, Executive Director of UI Physicians. “HHS is working closely with both state Medicaid programs and private payers to achieve similar goals and timelines.”

The system is intended to ultimately reward those groups that provide high quality care at low cost, which is a hallmark of UI Health Care.

In anticipation of the changing models, UI Health Care has been participating in a variety of Accountable Care Organizations (ACOs). “We are already participating with Medicare, Medicaid and Wellmark,” Van Daele stated, “and we are preparing for coming changes, though it is not clear what they will look like.”

That uncertainty means there is little physicians can do at the present time but stay educated. UI Physicians will provide regular communication about transitioning models, changing requirements and new developments.

Payment Taxonomy Framework

<table>
<thead>
<tr>
<th>CATEGORY 1</th>
<th>CATEGORY 2</th>
<th>CATEGORY 3</th>
<th>CATEGORY 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee for Service—No Link to Quality</td>
<td>Fee for Service—Link to quality</td>
<td>Models Built on a Fee-for-Service Architecture</td>
<td>Population-Based Payment</td>
</tr>
<tr>
<td>Payments are based on the volume of services and not linked to quality or efficiency.</td>
<td>At least a portion of payments are based on the quality of health care delivery.</td>
<td>Some payment is linked to the effective management of a population or an episode of care. Payments are still triggered by delivery of services, but opportunities for shared savings or two-sided risk.</td>
<td>Payment is not directly triggered by service delivery so volume is not linked to payment. Clinicians and organizations are paid and responsible for the care of a beneficiary for a long period.</td>
</tr>
</tbody>
</table>

Bariatrics

Our bariatrics program has been accredited as a national Bariatric Surgery Center of Excellence since 2007. The program has been recognized for both safety and outcomes, with technical success and low complications. Recent data from the national Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program gave UI Hospitals and Clinics an “exemplary” rating for seven of 11 parameters for the Laparoscopic Roux-en-Y Gastric Bypass procedure, with the other four parameters rated “as expected,” compared to other centers of excellence throughout the country.

NIH criteria for bariatric surgery include a BMI over 40 or a BMI over 35 with comorbidities. In longitudinal studies, surgical weight loss has been shown to be maintained at greater than 50% at five years and beyond. UI Health Care’s program is exceptionally successful due to close attention to preoperative education and extraordinary teamwork: staff surgeons, nurses, dietitians and PAs work closely together to make sure patients are well prepared for success. The lifelong follow-up offered adds to the long-term impact of the program.

Bariatric Surgeons

- **ISAAC SAMUEL, MD**
  - Associate Professor of Surgery
- **PETER NAU, MD**
  - Clinical Assistant Professor of Surgery
- **JESSICA SMITH, MD**
  - Clinical Assistant Professor of Surgery

Procedures

- Laparoscopic Roux-en-Y Gastric Bypass
- Laparoscopic Sleeve Gastrectomy
- Laparoscopic revisions of failed weight loss

Laparoscopic Sleeve Gastrectomy

Surgeons with UI Health Care are using the innovative technique of Laparoscopic Sleeve Gastrectomy (LSG) to successfully treat severe obesity. In LSG, the stomach is permanently reduced to 15 to 20 percent of its original size, leaving a banana-shaped portion that has both restrictive and malabsorptive qualities to effect weight loss.

The operation is performed through five to six small “keyhole” incisions, effectively decreasing the risk of potential complications, post-operative pain, and time until the patient can return to work and other activities. “Physicians started reporting success with this procedure about 15 years ago, when it was the first part of a more complex duodenal switch,” explained Peter Nau, MD, Clinical Assistant Professor of Surgery. “Patients were losing so much weight with the first stage surgery that they didn’t need the second.” Since 2012-13, insurance companies have recognized LSG as an appropriate stand-alone procedure.

LSG is simpler than a bypass, which makes it especially successful in high-risk patients and those whose fear of a bypass keeps them from seeking a surgical solution for their obesity. “The Sleeve Gastrectomy doesn’t change the anatomy as much as a Gastric Bypass and is a much shorter operation,” said Isaac Samuel, MD, Director of the UI Obesity Surgery Program and Associate Professor of Surgery. “It is a very good alternative for high-risk heart disease and transplant patients, and those with pulmonary disease.” However, he cautions that there is still a major role for the Gastric Bypass and that the choice of operation has to be tailored for each individual patient.

Patients who have the LSG procedure and follow the other program requirements typically lose up to 60-70 percent of their excess body weight, and improve or eliminate many obesity-related issues, such as diabetes, high blood pressure, and sleep apnea. “Laparoscopic sleeve gastrectomy can also be easier to perform than a gastric bypass in patients with large central abdominal hernias who need substantial weight loss prior to hernia repair,” emphasized Dr. Jessica Smith, Clinical Assistant Professor of Surgery.

For more information, please contact Dr. Isaac Samuel, Dr. Peter Nau, or Dr. Jessica Smith at 356-7675.
Cancer is a complex disease of genomic alterations, exploiting many different molecular mechanisms. Fighting cancer requires a comprehensive team of oncologists, surgeons, pathologists, radiologists, and cancer researchers and all of their support staff, fellows, residents and students to better understand the cause of disease and opportunities for advancing treatment. The Molecular Tumor Board in the Holden Comprehensive Cancer Center was created to bring together this team to focus on how the molecular genetic information being obtained from the patient’s tumor specimen can be used to affect improved treatment outcomes for patients with cancer. Bridging the gap between genomics research and patient care, this specialized group examines how this new model of genome-informed personalized health care can be implemented to advance the practice, delivery and economics of health care.

Patient cases are chosen for presentation to the group, and the genomic data, basic science related to any alterations identified, and treatment options, including information on clinical trials, is discussed. Basic and translational researchers with programs related to the cases share their experimental data and knowledge, which has led to the development of further collaborative projects.

The molecular pathology laboratory uses DNA sequencing of the patient’s tumor to identify the presence or absence of these markers either singularly or in large multiplex combination reactions referred to as next generation sequencing (NGS).

One NGS assay, the Cancer Mutation Profiling assay, has been validated for identification of common cancer mutations in a range of tumors including lung, colon, urothelial, breast, and others. The molecular pathology laboratory is currently working on additional multi-target NGS assays for acute myeloid leukemia and myelodysplastic syndrome, melanoma, and soft tissue sarcomas. The treating provider, usually in oncology, refers the individual patient cases to the laboratory for mutation profiling.

Questions about the tumor board or molecular testing may be directed to Carmen Tillman, tumor board coordinator or Aaron Bossler, MD, PhD, Director of the molecular pathology laboratory.
**Finance Committee**

This committee will be responsible for reviewing and making recommendations to the Board regarding UIP income and expense statements, balance sheets, billing, collections, expenditures which are outside of the usual UIP expenditures and long-term capital plans. They will review and make recommendations to the Board and Dean of the CCOM or designee concerning Departmental compensation plans.

**Membership**
- Herbert Berger, MD
- Mark Hingtgen
- Matt Howard, MD
- Barry London, MD
- Thomas Oetting, MD
- Nitin Pagedar, MD
- Alan Reed, MD
- Gary Rosenthal, MD
- Brad Vanvoorhis, MD

**Ex officio**
- Douglas Van Daele, MD

**Administration**
- Grant Worthington

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**Practice Management Committee**

This committee will be responsible for reviewing and making recommendations to the Board concerning clinic management, clinic personnel, multi-disciplinary clinics, new clinical practice proposals, improved utilization of resources, improvements in clinical performance, setting guidelines for and measuring outcomes of care.

**Membership**
- Thomas Collins, MD
- Janet Fairley, MD
- Mark Granner, MD
- Aparna Kamath, MD
- Larry Marsh, MD
- Nicolas Noiseux, MD
- James Potash, MD
- Karl Thomas, MD

**Ex officio**
- Douglas Van Daele, MD
- Todd Patterson
- Rami Boutros, MD

**Administration**
- Steve Donahoe
- Dale Geerdes
- Chris Laubenthal
- Laurie Smith

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**Clinical Affairs Committee**

This committee will make recommendations to the Board concerning malpractice insurance and self insurance premiums to be assessed to individual departments, risk management, new and existing regulations regarding compliance, quality metrics initiatives, document deficiencies, marketing, and new and existing regulations regarding credentialing for clinical practice.

**Membership**
- Gwen Beck, MD
- John Buatti, MD
- Thomas Cross, MD
- Stephen Hunter, MD
- John Kemp, MD

**Ex officio**
- Douglas Van Daele, MD

**Administration**
- Richard Reiber, MD
- Joa Morgan, MD
- George Phillips, MD
- William Sharp, MD
New Members

Please help us in welcoming our new members of University of Iowa Physicians.

**ANJALI ALATKAR SHARATHKUMAR, MBBS, MD**  
Clinical Associate Professor of Pediatrics  
Specialties or specific procedures: Pediatric Hematology-Oncology/Bone Marrow Transplantation

**SARIKA DESHMUKH, MBBS**  
Clinical Assistant Professor of Internal Medicine  
Specialties or specific procedures: Nephrology and Hypertension

**JUANA NICOLL CAPIZZANO, MD**  
Clinical Assistant Professor of Family Medicine  
Specialties or specific procedures: Family Medicine, Geriatric Medicine, IUD and Nexplanon insertion and removal, colposcopy, endometrial biopsy, minor sutures, trigger point injections, skin biopsy

**CLAUDIA CORWIN, MD, MPH**  
Clinical Assistant Professor of Internal Medicine  
Specialties or specific procedures: Occupational Medicine

**AMER EL SAYED, MD**  
Clinical Assistant Professor of Internal Medicine  
Specialties or specific procedures: Gastroenterology/Hepatology

**SURAGAMA SHARMA, MD**  
Associate of Anesthesia  
Specialties or specific procedures: General Anesthesia

**REBECCA WINNIEK, MSN, CNM**  
Clinical Assistant Professor of Obstetrics and Gynecology  
Specialties or specific procedures: Certified Nurse Midwife

**CASSIM IGRAIM, MD**  
Clinical Associate Professor of Orthopaedics and Rehabilitation  
Specialties or specific procedures: Orthopaedic Spine Surgery

**GOLNAZ ALEMZADEH, MD**  
Associate of Anesthesia  
Specialties or specific procedures: General Anesthesia and Critical Care Medicine

**RICHARD HOFFMAN, MD**  
Clinical Assistant Professor of Internal Medicine  
Specialties or specific procedures: General Medicine
Iowa City Heart Center, P.C. Joins UI Health Care

On May 1, the cardiologists and advanced registered nurse practitioners of Iowa City Heart Center, P.C. joined the University of Iowa Health Care team. The group has practiced in Iowa City for over 25 years, with outreach clinics in Dubuque, Fairfield, Ford Madison, Mount Pleasant and Washington, Iowa.

The Iowa City Heart Center benefits from association with access to the services of an academic medical center. “To further enhance our services requires close collaboration with a comprehensive health care system,” said Linda Lee, MD, cardiologist and president of Iowa City Heart Center. “All of our group’s providers have close connections to the University of Iowa.”

“IU Health Care and the UI Heart and Vascular Center will both benefit in many ways,” said Phillip Horwitz, MD, Director of the UI Heart and Vascular Center. “Acquiring an experienced group of cardiologists with strong ties to the community, a strong referral base, and an established network of satellite locations will enhance the reach, visibility and penetration of UIHC and UI Heart and Vascular Center in eastern Iowa.”

Iowa River Landing Buildout on Schedule

The fourth and fifth floors of Iowa River Landing, with four procedure suites and 41 exam rooms, is slated for completion in early May. The new facilities expand existing IRL services for Gastrointestinal, Vascular, Urology, Internal Medicine, Diabetes and Obstetrics and Gynecology specialties. A public open house was held Saturday, May 9, with procedures and clinic visits starting in the new space on May 11. The expansion continues IRL’s primary objectives of exemplifying the onstage/offstage model, creating a different patient workflow, helping to decompress the main campus, and creating an additional entry point into UI Health Care.

North Liberty Pediatrics Location

UI Children’s Hospital pediatricians have moved from the former Lion’s Drive clinic in North Liberty to an expanded facility at 1765 Lininger Lane. The new clinic features 11 exam rooms, a procedure room and an on-site laboratory. Clinic hours are 8 a.m. to 5 p.m. Monday through Friday.

Quick Contact Directory

We hope you received your 2015 Quick Contact Directory created by Physician Relations and printed for you courtesy of UIP. This booklet lists the phone numbers of UI Health Physicians, organized by department and specialty. To access an electronic version of the Directory, go to http://www.uihealthcare.org/ReferringProviders/