

Institute for Cancer Care Innovation

Newsletter

Winter 2016/2017

Primary Goals

- * Increase the value of care delivery
- * Measure outcomes important to patients and providers
- * Accurately measure cost
- * Test new reimbursement models
- * Integrate IT to improve value
- * Promote value-based health care education

TABLE OF CONTENTS:

Head and Neck Pilot	1
Value Assessment in RadOnc	2
Measuring Value for Psychosocial Oncology Patients.....	2
Enhanced Surgical Recovery.....	3
Testing: Lung Bundle Modeling	4
Welcome to the Team!.....	4
Leveraging New EHR to Measure Outcomes	5
PROs Nationally	5
Spreading the VBHC Experience.....	6
New Partnership with Faculty Leadership Academy	6

Visit ICCI online at:
mdanderson.org/innovation

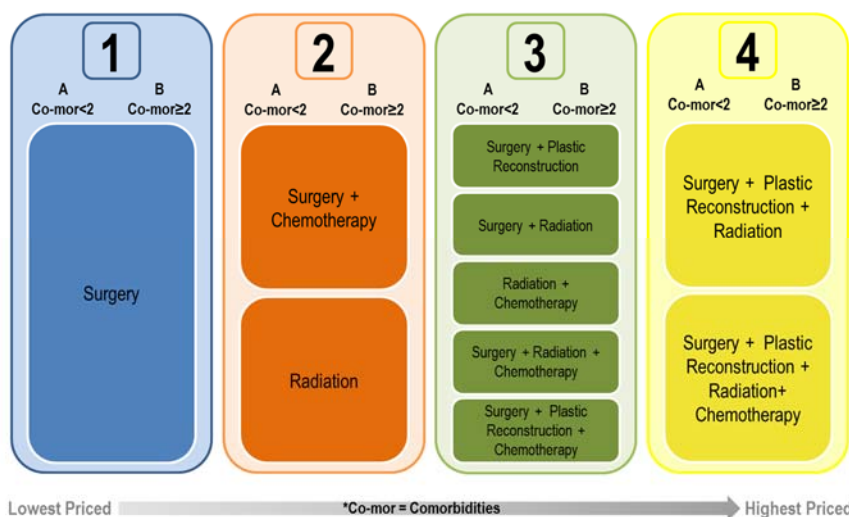
Email:
InstCancerCareInnov@mdanderson.org

THE UNIVERSITY OF TEXAS
MD Anderson
Cancer Center
 Making Cancer History®

Head and Neck Bundled Payment Pilot Update

Since 2013, The University of Texas MD Anderson Cancer Center has been committed to developing and testing innovative new reimbursement models for cancer care. Implementation of a single payment for all services delivered in an agreed upon time frame, a bundle, has been advocated as a way to improve outcomes and control costs in cancer care. In 2014, MD Anderson partnered with UnitedHealthcare to develop and test a novel head and neck bundle payment model for several head and neck cancer sites - lip and oral cavity, laryngeal, oropharyngeal and salivary gland.

MD Anderson Head & Neck Treatment Bundles

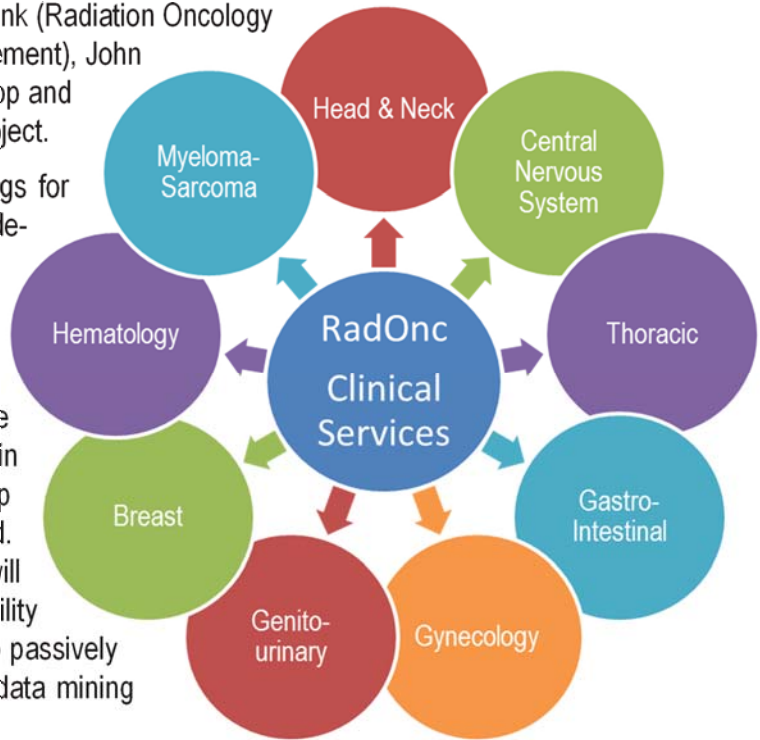


The model consists of four primary head and neck price bundles. Each primary bundle is split into a high-risk and a low-risk group, based on patient specific characteristics, bringing the total number of head and neck bundles to eight. The pilot has completed its enrollment phase and shows encouraging results. For the most part, patients' utilization of clinical services and their associated expenses are reasonably close to expectations. Several challenges did emerge during the collaboration. Most of the difficulties experienced were related to administration and resources needed to manage the bundles. Neither organization had electronic systems specifically designed to manage bundled payment claims. As MD Anderson moves forward with its development and testing of bundled payments, it is simultaneously exploring administrative tools designed to work with this new payment methodology. Successfully identifying and integrating such a technology is critical for properly operationalizing and scaling any bundle initiative. ICCI and its collaborators will continue monitoring all patients for financial and clinical outcomes through the pilot's end in October 2017.

Value Assessment in Radiation Oncology Care

This year the American Society for Radiation Oncology (ASTRO) conference focused on enhancing value and improving outcomes for cancer patients. The MD Anderson Radiation Oncology team stepped up to the challenge, and in August 2016, Stephen Hahn, M.D., head of MD Anderson's Division of Radiation Oncology, set forth a division-wide initiative to assess the value of radiation oncology care. Benjamin Frank (Radiation Oncology Division), Nicholas Olivieri (Office of Performance Improvement), John Calhoun and Alexis Guzman (ICCI) joined forces to develop and deploy the time-driven activity-based costing (TDABC) project.

The Radiation Oncology initiative kicked off with meetings for every clinical service within the division. Teams began developing process maps of the services offered and allocating time and resources to all activities in the workflows. All 9 clinical services are being mapped, and costing will be completed by the end of January 2017. The ambitious deadline is imposed to help demonstrate that TDABC can be quickly and effectively implemented in a large health care institution when appropriate leadership commitment and project management support is provided. Once the initial costing activities are complete the team will begin discussing enhancements to long-term sustainability including the possibility of using information technology to passively capture activity times and development of user-friendly data mining programs to aid in clinical and financial decision making.



Measuring the Value of Psychosocial Oncology Care at MD Anderson

Although MD Anderson has an integrated, multi-disciplinary delivery model of care, the value and impact of psychosocial services on patient outcomes is unknown. To address this knowledge gap, a multi-disciplinary team began evaluating the current psychosocial cancer care landscape, both internally and externally, and as a result, developed a conceptual framework that summarized the barriers to care and illustrated their relationship to sustaining value-based outcomes for our stakeholders. Their next steps involved

evaluating the impact of distress screening on care costs and outcomes. In October of this year, the project team presented their preliminary work at the 18th International Psycho-Oncology Society Congress in Dublin, Ireland. The project is a multi-disciplinary effort being conducted by team members in the departments of Psychiatry, Social Work, Nursing, Clinical Operations, Finance, Medical Affairs, ICCI and institutional Executive Leadership.

In 2016, ICCI began supporting the team's efforts, assisting with value-based measurement data collection to support the development of an integrated mental health services access and financial model of care. By quantifying the value of psychosocial service provision, we stand to improve the quality and delivery of that care, provide better health outcomes for cancer populations, and reduce health care costs at MD Anderson and beyond. The project presented in Ireland was well received and there are plans to pilot a new psychosocial service delivery model in at least one multi-disciplinary center, in early 2017.

Value-Based Integrated Mental Health Service Model for Cancer



Source: (Adapted) Health People 2020. (2016) Retrieved from: <http://www.healthypeople.gov/2020/topicsobjectives/topic/Access-to-Health-Services>

Enhanced Surgical Recovery Program Adds Value to Patient Care in 2016

In 2016, ICCI worked closely with faculty and staff from the Divisions of Anesthesiology and Critical Care, Surgery, Nursing, and Cancer Care Medicine to fully implement Enhanced Surgical Recovery Program (ESRP) in 9 surgical disciplines. ESRP members in each of the implemented programs discussed the essential perioperative elements of their pathways and subsequently implemented the necessary operational changes by August 2016. While smaller cohorts of patients were treated on newly implemented pathways in breast and head and neck cancers, each of the more mature programs increased its patient volume and continued to demonstrate improvements in care. Programs with sufficient patient volumes and outcome data contributed to our value agenda by significantly decreasing perioperative opioid use per patient, reducing inpatient post-surgical pain profiles and decreasing the average length of the in-hospital recovery period.

Team	Start	Patients	Opioids	Pain	LOS
Liver	2013	300	↓	↓	↓
Thoracic	2014	1000	↓	↓	↓
Gynecologic	2014	560	↓	↓	↓
Bladder	2014	360	↓	↓	↓
Colorectal	2014	300	↓	TBD	↓
Spine	2015	90	↓	↓	↓
Neuro	2015	50	↓	↓	TBD
Breast	2016	In startup ~20 patients			
Head-Neck	2016	In startup ~20 patients			

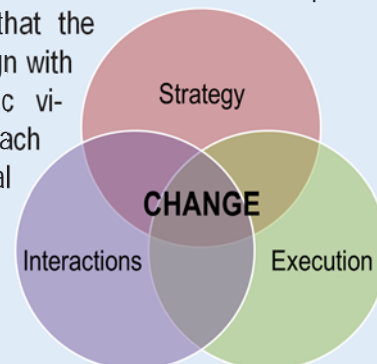
Program leaders from the Division of Anesthesiology and Critical Care and the Division of Surgery, in partnership with the ICCI ESRP project lead, presented the program implementation status, progress to date and recommendations for further expansion to the MD Anderson Executive Leadership. The ESRP initiative continues to gain wide support from the clinical, administrative and executive management at MD Anderson. Building on the strengths of the program and the results to date, the ESRP team established 2017 program goals to further increase the value of perioperative care provided by MD Anderson. Goals for the year include: 1) extending the ESRP pathways to at least 40% of the eligible surgical population treated by the teams; 2) extending the principles of enhanced recovery to cancer medicine; 3) assessing the financial impact of en-

hanced recovery on patients, providers, and payers; and 4) establishing a Center of Excellence (CoE) in Perioperative Medicine. Through the CoE partnership with Anesthesiology, Surgical Oncology and Nursing, ICCI anticipates achieving even greater perioperative benefits for patient as the teams focus on each of the supporting elements represented in the figure below.



ESRP Initiative in action

Vijaya Gottumukkala, M.D., a professor of Anesthesiology and Perioperative Medicine and the co-lead for the ESRP initiative at MD Anderson, credits key factors for the success of this multi-disciplinary initiative as the excellent collaborative working relationship between the various clinical partners and stake-holders in this endeavor, strong leadership by co-leads in each of the teams and a singular focus on providing patient-centric, value-based perioperative cancer care. While we as a group have achieved remarkable results in a short period of time, he notes that the ESRP goals for 2017 align with our institutional strategic vision and will establish each of our teams as national and international leaders in the value-based perioperative care of cancer patients.



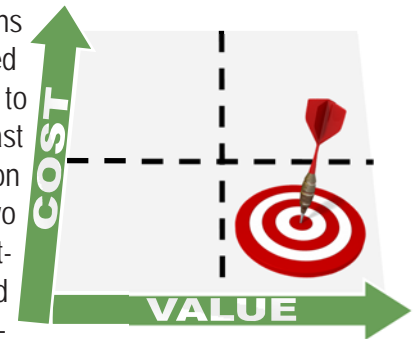
Testing New Reimbursement Models: Lung Bundle Modeling

The ICCI team is committed to testing new reimbursement models in cancer care. As we close out work on the first-of-its-kind head and neck cancer price bundle, we are working with leaders in the Thoracic Center to assess the feasibility of an early- to mid-stage lung cancer bundle. A lung cancer bundle is a logical next step for MD Anderson for several reasons: 1) lung cancer treatment is a high-volume disease; 2) evidence-based protocols are in place for treating patients; and 3) treatment is delivered by integrated multi-disciplinary teams to achieve optimal outcomes. Additionally, lung cancer treatment bundling is of interest to payers—including CMS and UnitedHealthcare, is concurrently being pursued at other cancer care organizations, and is of high interest to MD Anderson faculty and staff. Due to its exceptional ability to diagnose and treat a variety of lung cancer cases more safely and effectively than providers working in a fragmented care setting, MD Anderson is well positioned to benefit from a lung bundle study.

The development of our lung bundle payment model started with a retrospective analysis of all patients newly diagnosed and treated at MD Anderson for non-small cell lung cancer from 2009 to 2013. Preliminary analysis identified the treatment plan as the most important predictor of cost. Costs were further differentiated by the number of comor-

bilities, cancer stage and smoking status. Risk-adjusted bundled prices and stop-loss threshold models were determined from the results of the cost analysis.

Bundled payment means that care can be centered on the value of care to patients, not on the least costly care. MD Anderson is mindful of these two points and has constructed its head and neck and lung bundles accordingly. MD Anderson's bundles are built on treatment plans that are appropriately risk-adjusted to the patient receiving the care. In this way, patients and their providers are free to choose the most appropriate care based on all the facts of their particular situation balanced against the best evidence for caring for their disease. The MD Anderson team is also working to produce a set of clinical and patient-centered outcome measures of performance to go along with the price performance of its bundles. Our goal is to be able to demonstrate the value of the care we provide to patients, payers and policy makers. They, in turn, can compare this to other options available to them.

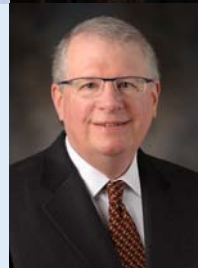
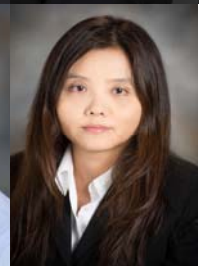


Welcome to the Team!



Earlier in the year, ICCI announced the appointment of **Ronald Walters, M.D.**, and **Thomas Aloia, M.D.**, as associate heads of ICCI. Dr. Walters has been essential in ICCI's focus on outcomes measurement and new reimbursement strategies. Dr. Aloia has led MD Anderson's Enhanced Surgical Recovery Program in an effort to reduce costs and improve outcomes for surgical patient. Their experience and leadership will further drive ICCI's mission and goals. ICCI also extended faculty associate appointments to **Katy French, M.D.**, anesthesiologist and medical director of the Anesthesia Assessment Center; **Ravin Ratan, M.D.**, medical oncologist; **Simona Shaitelman, M.D.**, radiation oncologist; and **Randal Weber, M.D.**, chair of department of Head and Neck Surgery and chief patient experience officer. We also offered **Yu-Ting Huang, Ph.D.**, associate director of business analytics in the Division of Finance an ICCI Associate appointment.

We are fortunate to have these distinguished MD Anderson faculty and staff join our team. Their appointments strengthen our efforts to effectively deliver, measure and improve cancer care value for patients, providers and payers as we continue to be a recognized leader in cancer care value delivery and measurement. More about our new members can be found on the [Leadership Page](#) of our website.



Leveraging New Electronic Health Record to Measure Outcomes

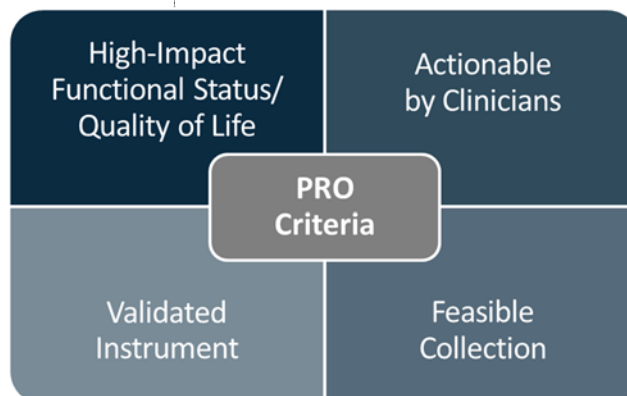
In March 2016, MD Anderson successfully implemented the EPIC electronic health record (OneConnect) at its main campus and six Houston-area locations. Before go-live, Clinical Operations and ICCI staff worked with IT teams to configure the system to collect and produce disease-specific outcome measure sets. This initiative, called MD Anderson Patient & Provider Outcome Development (MPPOD), utilized an expedited process to identify care outcomes most important to patients, providers, and insurers. Multi-disciplinary teams of clinical, quality, and data personnel defined outcome sets using a three-tiered outcomes hierarchy developed by ICCI external advisor Professor Michael Porter. Each outcomes set contains clinically-captured measures (e.g., treatment complications) and patient-reported functional status and quality of life outcomes collected via validated patient-reported outcome (PRO) surveys.

To prepare for implementation, ICCI associate Tracy Spinks consulted several early adopters, including The University of Texas Southwestern, Massachusetts General Hospital, and the University of Utah. Leaders shared their respective implementation experiences, potential pitfalls, and lessons learned. Several hospitals reported a positive impact on patient experience, patient care, and provider workflow. Recommendations from these sessions are being used to refine MD Anderson's launch of PRO collection and reporting in

six Multidisciplinary Centers. In parallel, the MPPOD project team is working with MD Anderson's Epic reporting team to build and deploy automated reporting for clinician and patient-reported outcomes.

Tinisha Mayo, program manager of clinical operations, led the review of nearly 200 structured data elements to catalog which data elements are available for real-time reporting and where data gaps exist.

With implementation of OneConnect, a MyChart patient portal can be used to administer and display PROs within the patient chart. This EHR-based collection and reporting of disease-specific outcomes supports clinical research, clinical operations, quality improvement, and value demonstrations. It also enhances the technical infrastructure needed to deliver patient-centered, value-driven care and will enable MD Anderson to provide patients with the outcomes information they need to make decisions about their care.



Patient-Reported Outcomes Nationally

Since 2010, ICCI associate head, Ron Walters, and ICCI associate, Tracy Spinks, have helped prepare MD Anderson for the nation's first cancer-specific public reporting program created under the Affordable Care Act.

Initial reporting began in 2013 and included measures of adherence to evidence-based guidelines and hospital-acquired infections. Over time, the program has expanded to include 17 measures, with most measures focusing on the processes of care.

Working with other Prospective Payment System (PPS) -exempt cancer hospitals, MD Anderson is helping to develop and validate meaningful outcomes for the program. Initial efforts examined unplanned readmissions in cancer patients. Currently, the centers are testing patient-centered outcomes for localized prostate cancer and lung cancer. Multi-center teams are leveraging standard sets from the International Consortium for Health Outcomes Measurement to produce measures of patient-reported outcomes (PRO), treatment complications and end-of-life care. These efforts are placing greater emphasis on outcomes that are meaningful to patients and that can support alternative payment methods. The latter is gaining increasing importance since the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) was passed. MACRA consolidated Medicare's physician quality and payment programs (including Meaningful Use) into a single program, which incentivizes early adoption of alternative payments and places up to 9% of physician payments at risk by 2022.



Spreading the Value-Based Health Care Experience

As the concept of value-based health care continues to gain momentum, interest in MD Anderson's value agenda also continues to spread. In addition to presenting at conferences, grand rounds, and symposiums, ICCI has hosted a number of national and international visitors seeking to observe value-based health care in practice. Harvard Business School professor and Director of Health Policy Research, Amitabh Chandra, visited and shared his experience with biopharma in an intriguing presentation in April 2016. Leaders from South Korea's Samsung Medical Center, executive directors from UCLA Health and a director of Hospital Da Luz in Lisbon, Spain traveled across the country and world in pursuit of a deeper understanding of the value proposition in health care. In October 2015, Australia's Peter Mac Cancer Center and the Cancer Institute of New South Wales invited our team to lead seminars on value-based health care delivery to their country's leaders and health policy influencers. One of the professors from the University of Sydney recently traveled to Houston to observe the value agenda in practice. Most recently, we were honored by visits from the US Navy Bureau of Medicine and Surgery and the University of Alabama Birmingham, both interested in implementing time-driven activity-based costing in their organizations. Their visits strengthened our partnerships in advancing a common mission of increased care value.

As a leader in value-based health care, ICCI welcomes opportunities to share experiences and develop relationships with interested health care providers. For more information about our partnerships and on-going work, please visit the ICCI external website.



New Partnership with MDA's Faculty Leadership Academy

ICCI is proud to announce a new partnership with the Faculty Leadership Academy (FLA) to provide value-based health care and project management education to personnel in formal leadership positions at MD Anderson. The FLA was launched in 2002 to provide division heads, chairs, section heads, center directors and faculty members with focused development opportunities. The curriculum to date has included seminars with a focus on soft skills such as self-awareness, emotional intelligence, communication, conflict resolution and mentorship. As of this year, the seminar will include a new course called "Leadership and the Transition to Value Management," taught by Thomas Feeley, M.D., and Thomas Aloia, M.D., and fellow project consultants John Calhoun and Alexis Guzman and associate Tracy Spinks. The new session will be focused on the value strategy and specific project management skill building and awareness. This initiative helps the institute achieve its goal of expanding value-based education.

2017 TMC Value-Based Health Care Course

The Texas Medical Center's Value-Based Health Care Course for health professionals returns for its fourth year. Held on May 8 and 9, 2017, at the Houston Branch of the Federal Reserve Bank, the 2-day course is led by Harvard Business School professors Michael Porter and Robert Kaplan and The University of Texas at Austin Dell Medical School Professor Elizabeth Teisberg.

To register or for more information about the course go to: vbhc.texasmedicalcenter.org



ICCI Leadership

ICCI is a multi-disciplinary collaborative effort at The University of Texas MD Anderson Cancer Center, led by: **Thomas Feeley, M.D.**, as head of the institute; **Ronald Walters, M.D. and Thomas Aloia, M.D.** as associate heads of the institute; **Ethan Dmitrovsky, M.D., Thomas Buchholz, M.D., Robert Brigham, M.B.A., Dan Fontaine, J.D.**, as the Executive Steering Committee at MD Anderson; and, **Michael E. Porter, Ph.D., M.B.A.**, as key external advisor.



Thomas Feeley, M.D.

ICCI faculty associates are: **Steven J. Frank, M.D.**, proton center medical director, deputy department chair of strategic programs, and associate professor in radiation oncology; **Katy E. French, M.D.**, medical director, anesthesia assessment center, associate professor, anesthesiology and peri-operative medicine; **John C. Frenzel, M.D., M.S.**, chief medical information officer, professor in anesthesiology and preoperative medicine, and adjunct associate professor at school of health information sciences; **Sharon H. Giordano, M.D., M.P.H.**, chair of department of health services research, cancer prevention and population sciences, chair ad interim of department of health disparities research, and professor of breast medical oncology; **Charles F. Levenback, M.D.**, chief quality officer, office of executive vice president and physician in chief, and professor in gynecologic oncology; **Ravin Ratan, M.D.**, assistant professor, sarcoma medical oncology; **Simona Shaitelman, M.D.**, medical director, breast cancer-related lymphedema initiative, associate director, nellie b. connally breast center, assistant professor, radiation oncology; **Benjamin D. Smith, M.D.**, research director of breast radiation oncology section in radiation oncology and associate professor in radiation oncology and health services research; **Ya-Chen Tina Shih, Ph.D.**, professor in health services research, section of cancer economics policy; **Saroj Vadhan-Raj, M.D.**, chief of section of cytokines and supportive oncology and professor in sarcoma medical oncology; **Randal S. Weber, M.D.**, chair of department of Head and Neck Surgery chief patient experience officer; and **Anita K. Ying, M.D., M.B.A.**, endocrine center medical director, executive medical director of ambulatory operations, and associate professor in endocrinology.

Check Out Our Improved Website!

MD Anderson, in collaboration with its Marketing and IT departments, launched a new external website interface. The new system enables MD Anderson's external sites to be adaptable across all communication devices and user friendly to the visually impaired. During the relaunch, ICCI redesigned and reorganized our content to optimize navigation. Explore our new site by going to



mdanderson.org/innovation.

ICCI STAFF:

John Calhoun,
Project Consultant

Alexis Guzman,
Project Consultant

Delrose Jones,
Program Coordinator

Yao Li,
Sr. Data Analyst

Minh Mosley,
Admin. Manager

ICCI ASSOCIATES:

Yu-Ting Huang, Ph.D.,
*Associate Director of Business Analytics
in the Division of Finance*

James Incalcaterra, Ph.D.,
*Director of Value Measurement
and Analysis*

Tracy Spinks,
Program Director, Cancer Care Delivery

2016 Trainees:

Danielle Collado, *Research Intern*
Isela De La Cerda, *Grad Rsrch Assist*
Seohyun Lee, *Grad Rsrch Assist*
Aidan Loggenberg, *High School Grad*
Justin Onwenu, *College Student*
Iris Recinos, *Grad Rsrch Assist*
Mallika Sharma, *Grad Rsrch Assist*
Nancy Wood, *Grad Rsrch Assist*
Yijong Yang, *Grad Rsrch Assist*

Address:

The Institute for Cancer Care Innovation
The University of Texas MD Anderson
Cancer Center
1400 Pressler St.
Unit 1415
Houston, TX 77030

mdanderson.org/innovation

InstCancerCareInnov@mdanderson.org