SURGERY UPDATE LEADING THE WAY



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Department of Surgery

Dedicated to Clinical Care. Research and Education

- · Cardiothoracic Surgery
- · Colorectal Surgery
- · Community Surgery
- Surgical Education
- · General Surgery
- · Pediatric Surgery
- · Surgical Oncology
- · Transplant Surgery
- Trauma and Critical Care
- Vascular Surgery

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Leading the Way is written for physicians for medical education purposes only. It does not provide a complete overview of the topics covered and should not replace the independent judgment of a physician about the appropriateness or risks of a procedure for a given patient.

From the Chair

DOUGLAS B. EVANS, MD

Donald C. Ausman Family Foundation Professor of Surgery and Chair

This issue of *Leading the Way* has your favorite I football team on the cover for two reasons:

- We have hopefully captured your attention, causing you to pick up this issue and explore further.
- Aaron and Co. emphasize (when they play well) the value of "team." This issue is devoted to the importance of "team" in the practice of medicine.

The articles contained in this issue discuss some of the multidisciplinary conferences which are supported by the clinical departments of the Medical College of Wisconsin. There is no better way to achieve optimal patient care than through multidisciplinary review. It provides an opportunity for re-review of all data elements (a critical quality metric) and allows clinicians to voice their opinions (often in disagreement) on how a patient should be treated. Through such repeated discussion/debate, consensus is often reached with regard to stage-specific therapeutic recommendations, and perhaps most importantly, relationships are developed.

I recently returned from visiting a foreign medical institution where their annual surgical oncology conference was held in honor of a well-known surgeon with whom I worked. At the afternoon's tumor board/ panel discussion, one of the host surgeons presented just what you would expect—a patient who everyone was glad to have managed by someone else. In fact, my first comment was, "I am fortunate that this is not my patient." The patient was a young woman with an unfixable problem. Interestingly, when I probed further, their multidisciplinary conference could not come to a decision regarding a treatment plan. The surgeon did not want to operate, the medical oncologist did not

want to consider third line chemotherapy or another systemic option, a clinical trial was not available, the radiation oncologist refused to consider radiation, and the patient was too young (and of good performance status) to accept best supportive care—albeit with a terminal malignancy. What happened? The patient sought another opinion and was treated elsewhere because her doctors left her unsupported (medically and emotionally)—information that only became apparent as the discussion closed.

Although an invited guest should always be politically correct (especially in a foreign country), this was a failure of the multidisciplinary conference/ process and a powerful example of how challenges to team building can adversely affect patient care. Through team management of such difficult patients, the disease-site physicians come together as a unit, all responsible for the care of the patient regardless of whose name is on the chart. Sometimes (perhaps often), there may not be consensus for what should be done or in what sequence. However, after sufficient debate, a play gets called and all members of the team support the patient, the plan of care, and each other.

Sometimes the decision is for no further treatment; a decision that is often accepted when clearly presented based on sound rationale rather than conveyed as indecision, a broken play, or fumble. This does not mean that time always proves such decisions correct, but the decisions were made with the best available data and for the right reasons. The benefit to patient outcome of team management is immeasurable. I know you will enjoy the enclosed articles and my thanks to all who wrote them and all who support the multidisciplinary practice of medicine. •

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Selected Multidisciplinary Conferences and their meeting location and time

Division	Title	Schedule	Location
Cardiothoracic Surgery	Multidisciplinary Thoracic Tumor Conference	Thursdays @ 0700	CCC Room J
Cardiothoracic Surgery	Advanced Heart Failure and Cardiac Transplantation Multidisciplinary Team Meeting	Thursdays @ 1530	Cardiothoracic Surgery Conference Room E5680
Cardiothoracic Surgery	M&M Conference	Wednesdays @ 0700	FH Specialty Clinics Room E5680
Cardiothoracic Surgery	Lung Transplant Group Meeting	Fridays @ 0730	General Internal Medicine Conference Room C5407
Colorectal Surgery	Colorectal/GI Tumor Board	Tuesdays @ 1700	CCC Room M
Department of Surgery	Grand Rounds	2nd & 4th Wednesday @ 0730	FH Helfaer Auditorium
Department of Surgery	M&M Conference	Wednesdays @ 0700	FH Helfaer Auditorium
Endocrine Surgery	Endocrine Multidisciplinary Disposition Conference	1st, 2nd & 4th Thursdays @ 1700	FH Boardroom
Endocrine Surgery	Endocrine Multidisciplinary Disposition Conference	3rd Thursday @ 1600	FH North Tower Conference Room 2009
General Surgery	GI Case Conference	Mondays @ 1600	FH Dean Roe Auditorium
General Surgery	Condon Hernia Institute Conference	3rd Friday @ 0700-0830	FH Conference Room 3509
General Surgery	MIS teleconference	1st Friday @ 0700	FH Resident Resource Room, Room 3607
General Surgery	Bariatric Surgery Patient Review	2nd Friday @ 0700	FH Resident Resource Room, Room 3607
Pediatric Surgery	Fetal Concerns Weekly Conference	Wednesdays @ 0730	CHW Large 6M Conference Room
Pediatric Surgery	Fellowship Professor Rounds	Thursdays @ 0730	CHW OR Conference Room
Pediatric Surgery	Multidisciplinary Conference	Fridays @ 0730	CHW Large 6M Conference Room
Pediatric Surgery	Surgery Grand Rounds	Fridays @ 0830	CHW Large 6M Conference Room
Pediatric Surgery	M&M Conference	Fridays @ 0630	CHW Large 6M Conference Room
Pediatric Surgery	Tumor Board	Thursdays @ 0730	Children's Corp Ctr, Suite 440, Room 130
Pediatric Surgery	Clinical Research Committee	2nd Tuesday @ 1700 Does not take place June–Aug., Dec.	Children's Corp Ctr, Suite 320
Surgical Oncology	Multidisciplinary Melanoma Conference	2nd & 4th Fridays @ 0730	CCC, Room L
Surgical Oncology	PBD Multidisciplinary Conference (Pancreas)	Fridays @ 0700	FH Dean Roe Auditorium
Surgical Oncology	Breast Conference	Mondays @ 1200	CCC, Room M
Surgical Oncology/ Orthopaedic Oncology	Multidisciplinary Sarcoma Conference (aka Musculoskeletal Tumor Board)	Wednesdays @ 0700	CCC Room L
Surgical Oncology/ Transplant Surgery/ Vascular IR	Hepatic (Liver) Tumor Conference	Mondays @ 0700	CCC, Conference Room M
Transplant Surgery	Conferences listed on page 16 (back cover)		
Trauma Surgery	Trauma/ACS Conference	Tuesdays @ 0645	Bridge Building Conference Room H
Trauma Surgery	Critical Care Conference	2nd & 4th Fridays @ 0730	Dynacare Lab Building, Trauma Conference Room
VAMC General Surgery	Multidisciplinary Tumor Board	2nd & 4th Tuesdays @ 1600	VAMC Conference Room 3548
VAMC General Surgery	Case Conference	Tuesdays @ 0730	VAMC Clinic Conference Room
Vascular Surgery	VA- Peripheral Vascular Board	Fridays @ 0730	VAMC Rose Room, 5th Floor
Vascular Surgery	Vascular Case Conference	Tuesdays @ 0700	FH Conference Room 3509

Colorectal Tumor Board



KIRK LUDWIG, MD Vernon O. Underwood Professor and Chief, Division of Colorectal Surgery

or almost six years now, a group of dedicated surgeons, physicians, nurses, and support staff have been gathering on a weekly basis for a Colorectal Tumor Board. What follows is the who, what, why, and when.

Anyone with an interest in colorectal cancer is invited to attend. On a regular basis, the attendees will include medical students, surgical residents, colorectal surgeons, surgical oncologists, medical oncologists, radiation oncologists, a radiologist, pathologists, genetic counselors, nurses, nurse practitioners, physician assistants, clinical research personnel, and various other support staff for the programs that care for colon and rectal cancer patients. The more people in attendance, the more stimulating the discussion, the more we all learn from each other, and the less food and drink we have to carry back to the office afterward (drinks and snacks are provided).

What do we discuss at our Tumor Board? The majority of cases discussed will be colon or rectal cancer cases, but we also discuss anal cancers, pre-sacral or retro-rectal tumors, small bowel cancers, appendiceal cancers, and the occasional stomach, esophageal, or gynecologic cancer. Some of the cases might seem rather mundane, while many will be quite complicated. For example, we will discuss malignant polyps where we review the colonoscopy notes, the photographs, and, most importantly, the pathology to decide whether or not the polypectomy was curative and whether or not a formal resection of the involved segment of colon should be recommended. We might also discuss carcinoid (neuroendocrine) tumors removed during colonoscopy or at appendectomy. Based on pathology and other factors, is surgery indicated, and if so, what type? What might be the best plan for a small gastrointestinal stromal tumor (GIST) discovered in the rectum? What about the treatment of a large GIST involving the rectovaginal septum? What about the patient with chronic ulcerative colitis who now has a rectal cancer discovered on surveillance colonoscopy? What should be done with appendiceal tumors or masses? What exactly would the pathology tell us and predict about how the tumor will behave and what exactly does advanced imaging of the peritoneum tell us about the tumor? Might a patient with carcinomatosis from an appendiceal, stomach, colon, or rectal cancer be a candidate for a radical debulking operation and heated intraperitoneal chemotherapy (HIPEC)? These are issues we might discuss.

Most frequently, we discuss colon and rectal cancer cases. Much of our time is spent discussing locally advanced tumors. What should we do with the right colon tumor invading the duodenum with bulky adenopathy at the middle colic vessels? What about the young patient with a sigmoid tumor associated with aortic and aorto-caval adenopathy, or the bulky, obstructing mass in the rectosigmoid that appears to be invading the dome of the bladder, or the transverse colon tumor that involves the distal pancreas, and the greater curve of the stomach? What about the rectal cancer patient who has a tumor involving the prostate or bladder trigone? What about the patient with isolated inferior mesenteric artery (IMA) nodes that light up on a PET scan two years after a sigmoid resection where the IMA was left intact? All of these cases are challenging and all benefit from a good long look at the radiographs, a good long discussion about what might be the best in terms of sequencing of the various therapies, and a nice discussion of who should be in the operating room to provide the best chance for a good outcome.

Stage IV patients also consume much of our time. Should the primary be removed first, should we treat first with chemotherapy or a combination of chemotherapy and radiation therapy, should we treat first and then have the surgical oncologist address the metastatic liver disease, or should the colorectal surgeon and surgical oncologist operate at the same setting to do a combined resection of the primary and metastatic disease? These are real and everyday issues that we discuss and these decisions are best made with all the involved surgeons and physicians in the same room, at the same time.

Finally, we spend quite a bit of time discussing the best treatment approaches for our patients with primary or recurrent rectal cancers. Here we make use of the skills and expertise of our outstanding radiology colleagues. Local staging involves the latest in MRI technology looking at the local lymph nodes, the distance of the tumor from the mesorectal fascia and surrounding structures, and trying to determine who might or might not benefit from neoadjuvant chemoradiation based on the threat of local recurrence, or who might be a candidate for local excision. Based on the location of the tumor and MRI characteristics, some patients will be offered participation in a cooperative group trial looking at standard neoadjuvant chemoradiation versus neoadjuvant chemotherapy alone.

The treatment of rectal cancer has changed drastically in the last 20 years and is still evolving rapidly. We review all of our rectal cancer patients with the goal of offering the latest and most innovative treatment options to include sphincter preservation. Many patients come having been told they need a permanent colostomy and we can offer alternatives through careful consideration of the patient, the exact location of the tumor, and careful staging evaluations. The vast majority of our rectal cancer patients will avoid a permanent colostomy and some very carefully selected patients will avoid surgery altogether through the use of neoadjuvant chemoradiation and a "watch and wait" strategy for those who are thought to have had a clinical complete response to their therapies.¹

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Why do we have a Colorectal Tumor Board? We meet on a regular basis with a number of goals in mind. First and foremost, the number one goal of our Tumor Board is to improve patient care. While there is certainly still the one doctor, one patient, and one operation scenario, modern cancer care has clearly evolved to a multidisciplinary approach for many, if not most, cases. We see our patients in multidisciplinary clinics, we are primarily focused on treating a specific set of disease processes, and the best care clearly is obtained in an environment where a number of specialists can communicate on a regular basis and bring their ideas and impressions to the table for discussion. All those involved will hear the history, understand the physical findings, and see the x-rays and the pathology, if necessary. At the end of the day, a coordinated, individualized plan, with everyone on the same page, can be put in place. There is simply tremendous value in having all interested parties in the room at the same place and time so that patient care is optimized.

A secondary goal of our Tumor Board is education for those in attendance. Each specialist will have their own take on a situation, each will be armed with specific data sets, each will have their own biases and ideas and, with everyone in the same room, a perfect forum for cross-fertilization exists. Personally, I am fairly familiar with the surgical options for the cancers I manage. What I look forward to is learning about the latest thoughts from my colleagues, especially those from different specialties. We all leave the room with a bit more insight into the disease processes we help our patients through. We hear about the latest data from various trials, we can decide which of our patients might be eligible for our various open trials, and we have a forum for discussing innovative treatment strategies. Over the course of time, we should all be learning something through the discussions at Tumor Board.

Our final goal is really just a byproduct of the first two goals, and that is to build a sense of collegiality and teamwork that ultimately helps our patients and those who care for them. We are constantly striving to build a stronger and better team with the thought that we want a strong "program", not just one or two strong clinicians or individuals.

So, when do we meet and what would one do to have a case presented? We meet every Tuesday evening from 5:00–6:00 p.m. at the Froedtert/ MCW Clinical Cancer Center in Conference Room M. The agenda for Tuesday night's discussion is sent out by e-mail on Friday afternoon. Please join us.

TO BE ADDED to the e-mail distribution list or to add a case to the agenda, please feel free to contact the Division of Colorectal Surgery at 414-805-5783. Dr. Ludwig can be contacted at 414-805-5783, kludwig@mcw.edu.

REFERENCES

Kosinski L, Habr-Gama A, Ludwig K, Perez R: Shifting Concepts in Rectal Cancer Management: A review of contemporary primary rectal cancer treatment strategies. CA Cancer J Clin 2012;62:173–202.

Endocrine Surgery



TRACY S. WANG, MD, MPH Chief, Section of Endocrine Surgery, Division of Surgical Oncology

The discipline of Endocrine Surgery encompasses the surgical management of disorders of the thyroid, parathyroid, adrenal glands, and neuroendocrine tumors of the pancreas and gastrointestinal tract. The management of patients with surgical endocrine disease is intellectually stimulating and often complex. At the Medical College of Wisconsin, the weekly Endocrine Surgery multidisciplinary conference includes a team of endocrinologists, radiologists, pathologists, and surgeons, joined by other members of the Endocrine Surgery program (allied health professionals, genetic counselors, and new patient coordinators). We hold robust discussions of the preoperative evaluation (biochemical and radiographic), indications for surgery, and the postoperative management of patients with parathyroid disease, adrenal tumors, and benign and malignant thyroid disease.

Over the past several years, societies such as the American Thyroid Association (ATA), American Association of Endocrine Surgeons (AAES), and National Comprehensive Cancer Network (NCCN), to name a few, have published consensus guidelines for the management of patients with benign and malignant endocrine disease. These guidelines are an invaluable reference and have helped set a standard for all practitioners in the management of patients, but are not intended to be rigid constructs for patient care. The flexibility in established guidelines allows high-volume providers and institutions to engage in informed debate regarding the optimal treatment for patients and thereby individualize patient care, based on personal and institutional capabilities and experiences.

For example, patients with differentiated thyroid cancer have an excellent overall prognosis and very high survival rates. The potential for discovery of recurrent thyroid cancer is most important in the management of patients after initial thyroidectomy. However, the risk of recurrent disease will vary depending on patient age, tumor size, extrathyroidal extension of disease, and extent of lymph node and/or distant metastases. It is the risk of recurrent disease that dictates postoperative recommendations for use of radioactive iodine (RAI), either for thyroid remnant ablation and/or adjuvant therapy (Table 1). Radioactive iodine is typically well tolerated, but does require pre-treatment dietary restrictions, post-treatment contact precautions, and may cause drying of lacrimal ducts, salivary glands, and mild gastrointestinal symptoms in some patients. The optimal method of RAI administration, either using recombinant thyroid stimulating hormone or

Multidisciplinary Disposition Conference

TABLE 1—Risk of recurrence in patients with differentiated thyroid cancer, as defined by the MCW Endocrine Cancer Program [based on AJCCTNM staging]

LOW-RISK FOR RECURRENT DTC				
Age <45 years	T1-3	N0		
	T1-3	N1a		
Age ≥45 years	T1b	N0		
	T2	N0		
MEDIUM/HIGH -RISK FOR RECURRENT DTC				
Any age	Patients with aggressive histological subtypes			
	Patients with familial thyroid cancer			
	Patients with distant metastases			
Age <45 years	T4	N0		
	T4	N1a		
	AnyT	N1b		
Age ≥45 years	Т3	N0		
	T4	N0		
	AnyT	Any N1b		

thyroid hormone withdrawal, and the optimal dose of RAI is the subject of much discussion among experts. Several years ago, the MCW Endocrine Cancer program created an institutional protocol for recommendations for radioactive iodine administration, depending on an individual patient's risk for recurrence. This protocol was conceived at our weekly multidisciplinary conference. The opportunity to review pathology, discuss the risks for recurrence, and optimal method of RAI administration, if recommended, is an invaluable tool and allows a multidisciplinary team to guide the optimal treatment of patients with thyroid cancer. •

FOR ADDITIONAL INFORMATION, please contact Dr. Wang at 414-805-5755; tswang@ mcw.edu. To add a patient for discussion/presentation, please call Amy Monroe, BSN, RN at 414-805-1268; amy.monroe@froedtert.com. We encourage practitioners interested in presenting cases for discussion to attend our weekly conference.

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- Wang TS, Evans DB: The importance of a multidisciplinary approach to endocrine tumors. Surgery 2010;148:1311–1312.
- Haymart MR, Banerjee M, Yang D, *et al*: The role of clinicians in determining radioactive iodine use for low-risk thyroid cancer. *Cancer* 2013;119:259–265.

Please see **page 2** for a listing of Selected Multidisciplinary Conferences and their meeting locations and times.

Outstanding Medical Student Teachers

Several Department of Surgery faculty and residents have been selected as recipients of medical student teacher awards. Please join us in congratulating and thanking these 2012–2013 recipients:

M3 Surgery Clerkship

John Aiken, MD
G. Hossein Almassi, MD
Betsy Appel, MD
Hani Hasan, MD
Kevin Hudak, MD
Andrew Kastenmeier, MD
Dean Klinger, MD
*Alysandra Lal, MD, MPH
C.J. Lee, MD
Kiran Turaga, MD, MPH

M3 Resuscitation and Perioperative Medicine Clerkship

David Milia, MD

M4 Surgery Sub-Internship

*Joseph Battista, MD Munya Chimukangara, MD Matthew Goldblatt, MD Jasmeet Paul, MD Allan Roza, MD *Craig Siverhus, MD Thomas Wade, MD Abby Wochinski, MD

*Community physician

Vascular Surgery Multidisciplinary Conferences



GARY SEABROOK, MD Chief, Division of Vascular Surgery

The Division of Vascular Surgery conducts two weekly multidisciplinary conferences, the Vascular Case Conference and the Peripheral Vascular Board. The Vascular Case Conference, held at Froedtert Hospital, is attended by the faculty of the Division of Vascular Surgery, Vascular Medicine, and Vascular and Interventional Radiology. Clinicians from cardiothoracic surgery, cardiology, and interventional neurology may also participate. Educational programs are presented by the vascular fellows from the participating clinical units, and significant time is allocated for review of cases requiring complex vascular intervention.

The Peripheral Vascular Board at the Zablocki VA Medical Center is a multidisciplinary conference that has been meeting weekly since 1976. Designed as a case planning conference, presenters include medical students, residents, and fellows from the Divisions of Vascular Surgery and Interventional Radiology. For each clinical case, a vascular surgery medical student presents the history and pertinent physical findings, vascular imaging is reviewed and interpreted by the vascular surgery and interventional radiology trainees; residents and fellows then present options for surgery and/or intervention, providing appropriate medical references to support their decision making. Faculty from the clinical services guide the discussion and develop a plan of care for each patient. Prior to the mid 1990s, when veterans were routinely admitted to the hospital for preoperative workups (the inpatient vascular surgery census frequently ranged from 60–80 patients), the patient would attend the conference to provide historical information and to be examined.

Multidisciplinary Case

An 86-year-old woman with a juxtarenal abdominal aortic aneurysm, discovered 11 years previously while undergoing evaluation for degenerative lumbar disc disease, had been followed with annual surveillance studies to track aneurysm diameter. When the maximum diameter of the infrarenal aorta enlarged to greater than 55 mm, aneurysm repair was recommended to reduce the future risk of rupture. The patient's comorbidities included chronic obstructive lung disease, spinal stenosis, total occlusion of the right internal carotid artery, and a 60-pack/year smoking history prior to 1975. In 2002, the maximum diameter of the infrarenal abdominal aorta was 38 mm. Slow incremental growth was documented over several years using a CT fusion ultrasound imaging. A 4 mm growth from 54-58 mm during a sixmonth interval provided indication for aneurysm repair. Imaging confirmed the anatomy of a juxtarenal aneurysm involving both renal arteries (Figure 1).

An endovascular aneurysm repair was performed using parallelgrafting technique commonly known as "snorkeling," in order to maintain perfusion to the kidneys while effectively excluding the aneurysm (Figure 2). The procedure was performed via percutaneous access of the right and



FIGURE 1





FIGURE 3



FIGURE 4

left common femoral arteries and a surgically sewn conduit off the left axillary artery that was constructed to allow access to the left and right renal arteries for intervention (Figure 3). Perfusion to both renal arteries was maintained by covered stents interposed between the aortic wall and an aortic endograft. The patient recovered uneventfully following her operation and was discharged home five days post-procedure without complications. She has maintained normal renal function and perfusion on follow-up. A six-week post procedure CT scan has demonstrated no significant endoleaks and regression of the aneurysm sac from 5.8 to 5.4 mm (Figure 4).

Endovascular options for repairing juxtarenal and thoracoabdominal aneurysms entail the use of fenestrated or branched devices that are not widely applicable to all complex aortic anatomy, have limited availability to select centers, or are still under investigation. The "snorkeling" technique offers an "off-the-shelf," readily available solution to the management of complex aneurysms in patients who are otherwise poor candidates for open surgery. The short-term results of "snorkeled" repair of complex aneurysms has demonstrated reduced mortality, morbidity, and length of stay in comparison to traditional open repair. Intermediate results report greater than 90% visceral vessel patency and aneurysm exclusion. •

FOR ADDITIONAL INFORMATION, see references, visit mcw.edu/surgery, or contact Dr. Seabrook at 414-805-9160, gseabroo@mcw.edu. To add a patient to either of the vascular surgery conferences, please contact Brian Lewis, MD, at 414-805-9160, blewis@mcw.edu.

REFERENCES

- Greenberg RK, Sternbergh WC, Makaroun M, et al: Intermediate results of a United States multicenter trial of fenestrated endograft repair for juxtarenal abdominal aortic aneurysms. J Vasc Surg 2009;50(4):730–737.
- Lee JT, Greenberg JI, Dalman RL: Early experience with the snorkel technique for juxtarenal aneurysms. *J Vasc Surg* 2012;55(4):935–946.
- Patel RP, Katsargyris A, Verhoeven EL, et al: Endovascular aortic aneurysm repair with chimney and snorkel grafts: Indications, techniques and results. Cardiovasc Intervent Radiol 2013;36(6):1443–1451.

Fetal Concerns Center of Wisconsin Weekly Fetal Case Conference



AMY WAGNER, MDDivision of Pediatric Surgery



CASEY CALKINS, MDDivision of Pediatric Surgery

A 28-year-old woman was referred to the Fetal Concerns Center of Wisconsin for evaluation at 21 weeks gestation for a fetal neck mass. This was her and her husband's third pregnancy, and their other two pregnancies were uncomplicated. The mass was cystic in nature, large in size $(6.7 \times 5.0 \times 6.5 \text{ cm})$, and increased from previous ultrasound measurements. The mass caused the neck to be hyperextended, and appeared to extend into the thoracic inlet by ultrasound images. At the top of our differential diagnosis was a lymphatic malformation, but teratoma, thyroid mass, and thymic cyst were also on the list of possibilities.

We discussed this patient at our weekly Fetal Concerns Center of Wisconsin Case Conference (Wednesday mornings from 7:30-8:30 a.m. in the 6M Conference Room at CHW). Our multidisciplinary conference allows input from a myriad of healthcare providers including perinatology (highrisk obstetricians), pediatric surgery, neonatology, ENT, cardiology, urology, genetics, neurosurgery, radiology, anesthesiology, and is also attended by the Fetal Concerns nurses, who are the backbone of our program.

After discussing the patient's case and reviewing her images, we decided a fetal MRI would be most helpful to discern the anatomy, make a definitive diagnosis, and evaluate the airway. We anticipated that the safest way to deliver the baby and establish an airway was with an Ex-utero Intrapartum Treatment (EXIT) procedure.

The EXIT procedure is an ideal approach for delivery in a fetus with airway are compromise. These include cervical masses, oropharyngeal masses, severe micrognathia, large mediastinal masses, and some centers advocate EXIT-to-ECMO for severe cases of congenital diaphragmatic hernia. It is much more involved than a cesarean section. A general anesthetic is required for the mother and the fetus is partially delivered. Partial delivery is achieved with uterine relaxation (which requires high doses of inhalational anesthetics and excellent communication between the surgery and anesthesiology teams) and by maintaining amniotic fluid with an infusion of saline. A definitive airway is then established on the baby with laryngoscopy, bronchoscopy or a tracheostomy if required.

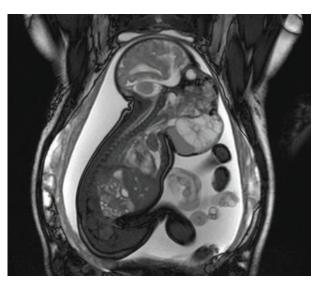


FIGURE 1—The fetal MRI with the fetus viewed in a sagittal orientation. The fetal cervical mass is visible obstructing the airway.

Once the airway is confirmed, the baby is delivered, the cord cut, and the hysterotomy closed.

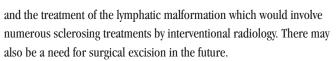
In our patient, the MRI confirmed our suspicions of a lymphatic malformation (Figure 1). It revealed the large, multiloculated, cystic lesion which extended from the right temporal mandibular region, across the floor of the mouth, and terminated in the left infratemporal fossa. There also was evidence of upper airway obstruction at the level of the hypopharynx/upper trachea. The lesion extended into the thoracic inlet, with suggestion of extension into the right upper thorax with some mass effect on the heart. A small pericardial effusion was present. Fetal echocardiography was completed and showed no impact on cardiac function.

For the remainder of the pregnancy, the patient was followed closely by ultrasound. We monitored the size of the mass and the degree of mediastinal shift to ensure the fetus did not develop hydrops fetalis (fetal heart failure). We also monitored the amount of extra amniotic fluid (polyhydramnios) that developed as the fetal trachea and esophagus were compressed which resulted in a decrease in the normal fetal intake of fluid. Additionally, many counseling sessions with the patient and her husband were held to help them understand the ramifications of the diagnosis of the lymphatic malformation and what to expect in the shortand long-term. During these consultations, we discussed the details of the EXIT procedure, the likelihood that the baby would need a tracheostomy,

FETAL CONCERNS — CONTINUED ON PAGE 8 >>







We discussed the patient at our conference regularly to ensure that our thoughts and treatment plans remained consistent. We also coordinated the details of the EXIT procedure and scheduled a "practice run" in the operating room.

The baby was successfully delivered by EXIT procedure on November 19, 2013. The operation went incredibly smoothly thanks to the coordinated efforts of the perinatology, pediatric surgery, ENT, anesthesia, and neonatology teams (Figure 2). The baby required a tracheostomy at the time of the EXIT and a gastrostomy tube in the postnatal period, but is now thriving at home (Figure 3). •



FIGURE 3—The baby doing well at home.

To refer a patient or request a transfer/consultation to the Fetal Care Center of Wisconsin, please call 1-855-FETALWI.

FOR ADDITIONAL INFORMATION, see references, visit mcw.edu/surgery, or contact Dr. Wagner at 414-266-6550, awagner@chw.org.

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- Mychaliska GB, Bealer JF, Graf JL, et al: Operating on placental support: The ex utero intrapartum treatment procedure. J Pediatr Surg 1997;32:227–231.

To refer a patient or request a transfer/consultation, please use the references below:

Froedtert & The Medical College of Wisconsin

Referrals: 800-272-3666

Transfers/Consultations:

877-804-4700

mcw.edu/surgery

Clinical Cancer Center

Referrals: 866-680-0505

Transfers/Consultations:

877-804-4700

Children's Hospital of Wisconsin

Referrals/Transfers/

Consultations: 800-266-0366

Acute Care Surgery:

414-266-7858

Multidisciplinary Hernia Case Conference



MATTHEW I. GOLDBLATT, MD
Medical Director of the Condon Hernia Institute,
Division of General Surgery

For decades, the repair of ventral, incisional and inguinal hernias has been the sole domain of the general surgeon. As the practice of abdominal wall reconstruction has become more complex, the need for advanced techniques such as component separation, myocutaneous flaps, and state-of-the-art imaging has necessitated the collaboration of plastic surgeons, general surgeons, and radiologists. The Robert E. Condon, MD Hernia Institute at the Medical College of Wisconsin was founded on the premise that these complex cases can be repaired by utilizing all of the resources of an academic medical center to give our patients the best outcomes. On the third Friday of each month, from 7:00 a.m. until 8:30 a.m. in the Robert E. Condon Conference Room (room 3509) of Froedtert Hospital, the most complex hernia cases are discussed and reviewed as a way to improve patient care.

One example of a typical scenario is that of a 49-year-old woman with Type 2 diabetes mellitus, morbid obesity, and hypertension who had undergone multiple abdominal operations and attempts at incisional hernia repairs. Unfortunately, her most recent repair with synthetic mesh resulted in a wound infection which ultimately led to a chronically draining sinus and a recurrent hernia (Figure 1). In addition, the patient had a

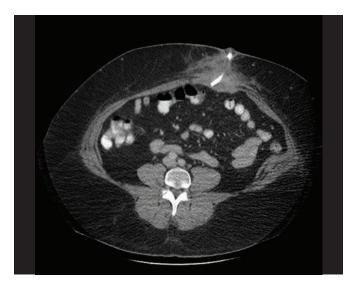


FIGURE 1— Chronic mesh infection with a drain into the abscess cavity around the mesh.



FIGURE 2—Significant subcutaneous edema demonstrating the inflammation within the patient's pannis.

significantly large panniculus with ongoing issues of panniculitis (Figure 2). Her case was presented at the Multidisciplinary Hernia Conference and it was felt that due to her obesity and diabetes, she would be at significant risk for further wound complications. However, since she had a chronically infected mesh with active panniculitis, she did not have the luxury of waiting to attempt weight reduction before surgery.

She presented for a combined procedure with general and plastic surgery to excise her infected mesh and debride the abscess cavity. In addition, she underwent the retro-rectus placement of an absorbable synthetic mesh, which is less likely to become infected compared to permanent synthetic mesh. In order to allow a tension-free repair, a bilateral transversus abdominis components separation was also performed. Finally, the inflamed and pendulous panniculus was excised by plastic surgery. The patient did well and had an uneventful recovery. She is currently five months out from her surgery without any signs of recurrent hernia or infection.

This case is an example of how the Multidisciplinary Hernia Conference allowed experts in soft tissue repair and imaging to review the clinical picture and merge that with the latest research and clinically available treatment options to give the best possible patient outcome. As the science of complex abdominal wall reconstruction continues to evolve, our patients benefit greatly from the educational value of this conference. •

FOR ADDITIONAL INFORMATION visit mcw.edu/surgery, or contact Dr. Goldblatt at 414-805-5727, mgoldbla@mcw.edu. To add a patient for discussion at conference, please contact Staci Cantillon at 414-805-5714; scantillon@mcw.edu.

Multidisciplinary Care and the Breast



AMANDA L. KONG, MD, MS Division of Surgical Oncology



ADAM CURREY, MDDepartment of Radiation Oncology



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The majority of breast cancer care in the United States remains decentralized. However, the treatment of breast cancer is becoming increasingly complex with the addition of new targeted therapies and genomic profiling, requiring the coordination of multiple specialities. There is a growing body of evidence that coordinated multidisciplinary treatment results in improved outcomes and less invasive treatments for breast cancer patients. ²

The Froedtert and Medical College of Wisconsin Multidisciplinary Breast Cancer Care Conference is one of the longest standing multidisciplinary tumor conferences at our institution. It is comprised of radiologists, surgeons, medical oncologists, radiation oncologists, pathologists, plastic and reconstructive surgeons, nurses, genetics counselors, research staff, social workers, and other support staff. It is the policy of the Breast Program to present all patients pre- and post-operatively to ensure they are receiving optimal, coordinated care and to determine if they are candidates for any of the multiple clinical trials that we have open. This coordinated care is particularly important in the treatment of locally advanced cancers where detailed treatment planning and timing of therapies is essential and communication between specialties is necessary.

A 61-year-old woman presented with a right breast mass which she self-palpated. She subsequently underwent a mammogram and ultrasound and was ultimately found to have biopsy proven invasive lobular carcinoma. She was then referred for a second opinion to our institution to discuss treatment options besides a mastectomy. Upon physical exam, she had a palpable 3 cm mass in the 10 o'clock position as well as a 3 cm palpable axillary lymph node. Her films were reviewed by our radiologists and an MRI—as well as an ultrasound-guided biopsy of her axillary lymph node—were recommended (Figure 1A). She was found to have a 3.3 cm tumor by ultrasound in her right breast and a

4.3 cm lymph node in the axilla which was positive for metastatic disease. A staging work-up was negative for any further distant disease.

The patient desired breast-conserving surgery. By National Comprehensive Care Network (NCCN) Guidelines, she was also eligible for neoadjuvant chemotherapy for her locally advanced cancer. Prior to initiating therapy, her case was reviewed at our weekly multidisciplinary breast cancer conference (12:00 p.m. each Monday in Conference Room M in the Froedtert/MCW Clinical Cancer Center). It was felt by the surgical team that she would have a poor cosmetic outcome due to her current tumor size if she were to pursue immediate breast conserving surgery. Neoadjuvant chemotherapy would reduce both her breast and axillary nodal tumor burden, making her more amenable to breast conserving surgery. The oncologists agreed that a neoadjuvant approach would be beneficial not only to down-stage her tumor, but to also provide information about tumor response to chemotherapy *in-vivo*. The radiation oncologists concurred that she would require both breast and axillary irradiation.

At the completion of her chemotherapy, she underwent post-treatment/ pre-operative evaluation at our multidisciplinary conference. She was found to have an excellent response to therapy with a significant decrease in her breast and axillary tumor burden (Figure 1B). At that time, it was felt that she would have a reasonable cosmetic outcome with breast-conserving surgery. The patient was brought to the operating room for a lumpectomy and axillary node dissection. Her case was reviewed post-operatively and it was confirmed that she would need radiation to both the breast and regional lymph nodes. She was also deemed to be a good candidate for a clinical trial of a vaccine that prevents recurrence in early-stage, node-positive breast cancer patients.

This case highlights the coordination that is necessary in the care of many breast cancer patients, particularly with the increasing use of neoadjuvant chemotherapy. With the group consensus for treatment

Cancer Patient

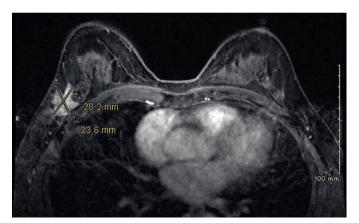


FIGURE 1A— Initial scans show that the patient had a 3.3 cm tumor in her right breast and a 4.3 cm lymph node in the axilla, which was positive for metastatic disease.

to include neoadjuvant chemotherapy in an effort to allow for breast conserving surgery, multidisciplinary care was essential to ensure that each detailed treatment was followed in the correct sequence in an appropriate time frame. Other members of the conference such as a genetics counselor and research coordinator also played important roles in her care. She ultimately consented to participate in a clinical trial that was available through our breast cancer program.

Our conference allows for the discussion of the latest clinical trials and treatment guidelines, emphasizing the practice of evidence-based medicine. It is an opportunity for us, not only to provide coordinated care, but to also educate our peers in other specialties as well as students and residents. With new sophisticated treatments, genomics, and individualized treatment,

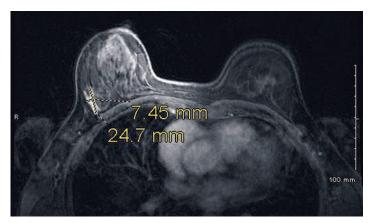


FIGURE 1B— Scan taken at the completion of the patient's chemotherapy. The patient demonstrated an excellent response to therapy with a significant decrease in her breast and axillary tumor burden.

the multidisciplinary team approach is more important than ever in the care of the breast cancer patient. ullet

FOR ADDITIONAL INFORMATION on this topic, see references, visit mcw.edu/surgery, or contact Dr. Kong at 414-805-5815, akong@mcw.edu.

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- 2. Tripathy DL Multidisciplinary care for breast cancer: Barriers and solutions. *Breast J* 2003;9:60–63.

Cutting-Edge Technologies

JOHNNY C. HONG, MD

Mark B. Adams Chair in Surgery; Chief, Division of Transplant Surgery; Director, Solid Organ Transplantation Joint Program at Medical College of Wisconsin-Froedtert Health-Children's Hospital of Wisconsin-Blood Center of Wisconsin



The transplant team is photographed during the first live liver donation in December 2013.

The ultimate goal of the Solid Organ Transplantation (SOT) Joint Program at the Medical College of Wisconsin-Froedtert Hospital-Children's Hospital of Wisconsin-BloodCenter of Wisconsin is to provide successful treatment options for all patients in need of organ transplantation. Incompatible organ (liver and kidney) transplantation is a proven lifesaving treatment modality for a select group of patients who suffer from end-stage organ failure. These types of transplantations provide an intervention that converts highly immunological sensitized (untransplantable) patients to a transplantable status. In collaboration with the BloodCenter of Wisconsin, the program will develop personalized treatment protocols for highly sensitized patients that involve complex human leukocyte antigen (HLA) and antibody sensitization laboratory testing as well as pheresis therapy. The Incompatible Organ Transplantation Program will provide a state-of-the-art treatment for our patients; patients who otherwise would not receive a life-saving transplant. This program is currently available at very few academic centers in the world—for more information on HLA and antibody sensitization testing as well as other exciting developments in solid organ transplantation, please contact Dr. Hong at 414-955-6920. •

Trauma Tuesday Conference



JOHN WEIGELT, MD, DVM, MMA Chief, Division of Trauma/Critical Care

Every Tuesday morning from 6:45–8:30 a.m., the trauma, acute care surgery, surgical ICU, and orthopaedic trauma services meet to discuss cases from the previous week. Lists of admissions and patient contacts are submitted by each service on Monday and the moderator of the conference plans the discussion for Tuesday. Besides the services mentioned above, we are fortunate to also have faculty representatives from anesthesia and radiology. All residents and students from the four services are required to attend the conference. Advanced Practice providers from the services also attend as do the Trauma Program quality improvement personnel.

The format of this long-standing conference is to review cases between the three services representing the Division of Trauma/Critical Care, along with orthopaedics and anesthesia. Treatment plans are discussed and any case that requires review by all services is presented first. These discussions often address initial management of a hypotensive, injured patient that involves decision-making between all services. At times, we find that cooperation between specialties has been excellent and, in other cases, we find opportunities for improving communication and planning between services.

The rest of the morning is dedicated to discussing any case that appears on the list. Each case has a faculty and resident listed. The resident

is responsible for case presentation from the podium using images and lab data. This also allows the resident to rehearse a case presentation that will be delivered at the Department M&M Conference the following day. Questions about the case can be asked of any resident present at the conference making everyone a potential participant. The goal of these presentations is to assess the residents' knowledge of the clinical situation being presented. Many times, supporting literature is presented and posted on our electronic chat board for future reference.

The approach that the moderator uses is really a Socratic approach. The Socratic Method is named after the Greek philosopher Socrates. It is founded in inquiry and discussion among individuals. A goal is to stimulate critical thinking about the topic or clinical situation. It has often been compared to the oral board exam that is part of the certification process for the American Board of Surgery.

A more recent development for the Tuesday conference is to review quality and safety issues that occur on any of the services. This allows faculty and residents to review these cases and offer explanations as well as identify how things could be done differently. These discussions offer the residents the opportunity to discuss system-based practice concepts as well as develop an infrastructure for their own performance improvement. •

FOR ADDITIONAL INFORMATION, contact Dr. Weigelt at 414-805-8636, jweigelt@mcw.edu. Although anything more than standing room is rarely available, interested physicians are welcome each Tuesday at 6:45 a.m. in Bridge Building Conference Room H. This conference has great tradition and unmatched educational value.

MARK YOUR CALENDARS

April 18, 2014: Acute Care Surgery: Trauma, Critical Care, and Emergency General Surgery Symposium

This day-long educational activity will provide updates and general information regarding the practice of emergency general surgery, surgical critical care, and trauma care.

April 25, 2014: Complex Abdominal Hernia Symposium

This educational activity is designed to educate the community general and plastic surgeon about the latest techniques for complex abdominal wall reconstruction. Attendees will also have the opportunity to practice their advanced laparoscopic skills in an optional animal lab.

May 15, 2014: Vascular Access Symposium

This half-day seminar will focus on the creation of optimal vascular access and present the latest techniques for preservation of vascular access. Special emphasis will be placed on the critical role of dialysis nurses in these areas.

May 30–31, 2014: Medical College of Wisconsin and University of Texas M. D. Anderson Cancer Center Endocrine Surgery Symposium

The 2014 Endocrine Symposium will highlight current issues in the management of disorders of the thyroid, parathyroid, and adrenal glands through didactic lectures, panel discussions, and case presentations. Invited speakers include well-known academic surgeons who are extensively published in their respective fields and who will provide up-to-date summaries of the topics.

Please contact Dana Schmidman (dschmidm@mcw.edu) for more information on any of these events.

Liver Multidisciplinary Conference



T. CLARK GAMBLIN, MD, MSStuart D. Wilson Professor of Surgery
Chief, Division of Surgical Oncology

The mission of the multidisciplinary, comprehensive Liver Cancer Program is to provide state-of-the-art clinical care, novel research and focused education to the region and country regarding liver cancer management.

In order to fulfill this mission, a weekly multidisciplinary meeting is essential. With specialists discussing cases, presenting options, and challenging one another, the conference enhances multidisciplinary management of liver cancer.

Liver cancer is complex and includes primary cancers in addition to metastatic disease. These two groups present unique challenges and options. The background liver in hepatocellular carcinoma, for instance, represents a second disease if cirrhosis exists. The complex nature of cirrhosis coupled with the multiple treatment options rely on the coordination of hepatology, surgery, radiology, as well as medical and radiation oncology. Others involved in the program include genetic counselors, palliative care physicians, social workers, dieticians, and complementary medicine specialists. In metastatic disease, coordination may allow for the primary site and liver resection to occur simultaneously, thus only requiring one operation. This approach safely provides a substantial increase in quality of life by combining therapies and decreasing cost.

Patients enter the Froedtert and Medical College of Wisconsin system by many different routes. Most of the patients with liver cancer enter the program via the Clinical Cancer Center, where the goal is to see all specialists in a single day, if possible. Other patients enter our system from gastroenterology, hepatology, interventional radiology, or as previous inpatient consults. The multidisciplinary conference provides a designated time to review patients from each of these entry points. In addition, patients seen at the Zablocki VA Medical Center also are discussed. The liver program offers a dedicated Second Opinion Program and the weekly conference is the cornerstone of this unique opportunity.

Patient cases are discussed every Monday at 7:00 a.m. in the Froedtert/ MCW Clinical Cancer Center's Conference Room M. Not only are treatment plans developed, but outside imaging is also reviewed and patients are screened for possible clinical trials. The conference provides timely communication to the referring doctors and primary care physicians, allowing the entire team to understand where the patient is in their cancer journey. Some complex liver issues may involve benign or premalignant lesions. The conference utilizes the expertise present to consider options and management in these scenarios as well.

Patients discussed at this conference are also part of a quality improvement process for the liver cancer program. Metrics recently

examined focused on hepatocellular carcinoma and queried the screening of hepatitis, referral for possible transplant evaluation, as well as the use of timely dedicated cross sectional imaging.

In addition to liver cancer, gallbladder and bile duct cancers are discussed and often require complex treatment planning. Systemic chemotherapy is commonly coordinated with local physicians and clear lines of communication provide seamless scheduling and management. •

FOR ADDITIONAL INFORMATION, please go to www.froedtert.com/liver-pancreas-bile-duct-cancer and YouTube search "Liver Cancer FAQs." These sites include videos of several physicians discussing common topics in liver cancer. Additional information is also available at mcw.edu/surgicaloncology, MCW Surgical Oncology (Facebook) and MCW SurgicalOncology (Twitter).

NEW FACULTY



Please welcome

Dr. Chris Rokkas, Associate

Professor of Cardiothoracic

Surgery, as the newest

member of the MCW Division
of Cardiothoracic Surgery.

Dr. Rokkas completed his Cardiothoracic
Surgery residency at MCW in 1997; he then
went on to complete an advanced fellowship with
Dr. Kouchoukos in Cardiac and Aortic Surgery at
Missouri Baptist Hospital in St. Louis, MO. Since
that time, he has been practicing in Greece, most
recently at Attikon University where he served
as Director and Chief of Cardiothoracic Surgery.
Dr. Rokkas returned to MCW in November 2013.

Solid Organ Transplantation Multidisciplinary Conference



ABBEY KRUPER, PsyD Director, Transplantation Mental Health Division of Transplant Surgery



JOHNNY C. HONG, MD Mark B. Adams Chair in Surgery Chief, Division of Transplant Surgery Director, Solid Organ Transplantation Joint Program at Medical College of Wisconsin-Froedtert Health-Children's Hospital of Wisconsin-Blood Center of Wisconsin

rgan transplantation is a durable and the definitive life-saving treatment modality for patients suffering from irreversible organ failure. Each year, thousands of patients receive solid organ transplants, but the limited organ supply remains a reality and many patients are not as fortunate. It is paramount that patients listed for transplant receive not only the best possible care, but also experience the best possible outcomes. Furthermore, it is incumbent upon the transplant specialists to provide stewardship of a scarce resource. With that, the United Network for Organ Sharing (UNOS) set forth certain medical and psychosocial guidelines to ensure patients meet the minimal listing criteria.

The patient populations, therapeutic options, and clinical needs of patients with end-stage organ failure are disparate. In order to provide the highest quality of comprehensive care, a high level of interaction across all specialties is critical for patients and families navigating the challenges and stress of end-stage organ failure and transplantation. Our Solid Organ Transplantation (SOT) Joint Program at the Medical College of Wisconsin, Froedtert Health, Children's Hospital of Wisconsin and the BloodCenter of Wisconsin holds a regular Multidisciplinary Patient Selection Committee Conference for each organ (Liver, Kidney, Pancreas, Heart and Lung). This venue also provides for an in-depth discussion of each patient with the development of a multispecialty treatment plan.

Our SOT Joint Program performs a growing number of solid organ transplants each year. Each organ has its own devoted team of professionals committed to patient care during both the pre- and post-transplant period. The medical team is generally comprised of transplant physicians, surgeons, anesthesiologists, and coordinators. Additional members of the multidisciplinary team include, and are not limited to, social work, psychology, nutrition, pharmacy, administrative leaders, financial liaisons, and database/quality coordinators. Other team members include the operating room team, organ preservationists, organ perfusionists, intensivists, and nurses.

Transplant Evaluation Process

Once a patient has completed the thorough transplant evaluation process, they are presented at the weekly selection meetings for each of the organ types. While the structure of the meetings across the different organs might vary, the function is consistent. Each patient is formally presented to the committee with discussion of the patient's background, pertinent radiological and laboratory tests, results of any medical consultations, and relevant psychosocial history. The results of this presentation allow the medical and surgical team members to evaluate the patient's candidacy for transplant with respect to co-morbid medical conditions or potential risk factors for transplant. Thorough discussion of the patient's history and current medical status occurs. Recommendations to improve the patient's candidacy and promote successful post-transplant outcomes are discussed and outlined.

The committee will determine whether the patient meets listing criteria, needs deferral while risk factors are addressed, or is not an appropriate transplant candidate due to the presence of other comorbidities that preclude organ transplantation. Such discussions are evidence-based with attention paid to every possible detail. Additionally, the transplant selection committees regularly review the current actively listed patients, patients in evaluation for transplant, and patients presently hospitalized. With all members of the team present, relevant information can be exchanged to optimize patient care.

Transplant selection meetings allow for professionals from all areas of expertise to provide in depth clinical input and recommendations to enable transparency in the medical decision-making process as well as formulate a multispecialty treatment plan, offering all treatment options for patients suffering from end-stage organ failure. These meetings ensure the integrity in the field of organ transplantation for the individual patients, the program, the transplant community, and the organ donor. •

FOR ADDITIONAL INFORMATION, visit mcw.edu/surgery, or contact Dr. Hong at 414-955-6920, jhong@mcw.edu.

> Please see page 16/back cover for a listing of Solid Organ Transplantation Joint Program Meetings locations and times.

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Department of Surgery 9200 West Wisconsin Avenue Milwaukee, WI 53226

See story on Solid Organ Transplantation Multidisciplinary Conference on page 14.

SOLID ORGAN TRANSPLANTATION JOINT PROGRAM MEETINGS				
ADULT				
Liver Transplantation Conference	Mondays @ 12:30 p.m., Transplant Conference Room E5385			
Kidney/Pancreas Transplantation Conference	Tumor induced narrowing of > 50% of SMV, PV, or Fridays @ 1:00 p.m., Transplant Conference Room E5385			
Live Donor Liver Transplantation Selection Committee	Third Wednesday of each month @ 11:30 a.m., Transplant Conference Room E5385			
Live Donor Kidney Transplantation Selection Committee	Fridays @ 12:30 p.m., Transplant Conference Room E5385			
Lung Transplantation Conference	Fridays @ 7:15 a.m., GIM Conference Room			
Advanced Heart Failure & Cardiac Transplantation Conference	Thursdays @ 3:30 p.m., Transplant Conference Room E5680			
Heart Valve Conference	Wednesdays @ 5:00 p.m., Conference Room E5680			
PEDIATRICS				
Liver Transplantation Conference	Fourth Thursday of each month @ 7:30 a.m., GI Conference Room, 6 th Floor, Clinics Building, Suite 610			
Kidney Transplantation Conference	Second Monday of each month @ 2:00 p.m. , West 10 Conference Room, West Tower, 10 th Floor			
Heart Transplantation Conference	Second Friday of each month @ 7:00 a.m., Herma Heart Center Conference Room			