

# Mayo Anesthesiology Alumni Newsletter

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## **Mayo Anesthesiology: Into the Future**

**Mark Warner, M.D.**

Those of you who graduated from the department more than ten years ago would find it far different today. During that period we have grown from 65 to 107 anesthesiologists, increased our annual number of anesthetics from 62,000 to nearly 94,000, added two more intensive care units, developed a robust preoperative clinic in which we see 60 patients per day, and augmented our pain medicine activities to see 40 patients in our Pain Clinic and another 60 patients each day in the hospitals. Clearly, the department is growing . . . and a department that grows also thrives.

More changes are coming. In the upcoming decade, we need to respond as a department and as a specialty to the innovations and opportunities presented by, for example, changing healthcare demographics, the Human Genome project, and society's need for cost-effective healthcare delivery. These changes will require that our department continues to transition itself from one that primarily provides intraoperative care into one that provides an ever-broadening spectrum of perioperative services. Our patients deserve nothing less.

The highlight of my professional life has been to serve as chair of the Mayo Clinic Department of Anesthesiology. It has been a tremendous honor, and one that I have tried to take very seriously. I consider us to have the very best academic anesthesiology department in the country. We are very fortunate to have many enthusiastic young anesthesiologists, educators, and investigators on our staff who will make the department even better in the coming years.

By early September, the institution will have named my replacement. I am absolutely certain that my successor will bring more skills, better judgment, and greater success to our department. I thank all of you for being part of a terrific department and for the contributions you have made to its tradition of excellence.

## Editor's Note

**Peter Southorn, M.D.**

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I am personally grateful for the support Mark Warner has given this newsletter. Mark's enthusiasm, drive, and intelligence have been tremendous assets for our department. I suspect these attributes explain both his appointment to our institution's Board of Governors and why the ASA president asked him to give this year's Rovenstine Lecture at the ASA Annual Meeting. The title of his lecture, "Who Better Than Anesthesiologists?" sounds like vintage Mark Warner. I promise you will not be disappointed if you can attend.

This year marks the centenary of the ASA's existence. As such, the Lewis H. Wright Memorial Lecture at the annual conference established by the Wood Library-Museum assumes added significance. We are

particularly pleased that our colleague, Doug Bacon, has been honored by being invited to give this lecture. Doug, in addition to being a contributor to this newsletter, is the editor of the ASA Newsletter, a noted historian, and a fine lecturer. I am sure you will be rewarded as well as have a sense of pride in our department if you attend both lectures at the ASA.

As always, we are extremely grateful to the contributors to this issue of the newsletter. Without their efforts, the newsletter would not be as interesting or worthwhile. Please keep the correspondence coming so that we can continue to provide you with a valuable publication. Thank you.

## RMH North Division of Anesthesia: Clinical Practice and Collaboration

**James Hebl, M.D.**

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Orthopedic anesthesia has a long and rich tradition at the Mayo Clinic dating back to Dr. Labat, whom, while working at the University of Paris, was recruited in 1920 by Charles H. Mayo to teach regional anesthesia to the Clinic's surgeons, produce an American textbook of regional anesthesia, and head the Section of Regional Anesthetics at the Mayo Clinic. Since that time, the Section of Regional Anesthetics has undergone multiple transformations and reconfigurations. However, many would argue that the current North Division of Anesthesia at Rochester Methodist Hospital (RMH) is a direct descendant of the original Section of Regional Anesthesia.

The North Division was most recently reconfigured in May, 2003, when it became the Division of Orthopedic, Urologic, and Obstetric Anesthesia. Currently, the division staffs

16 operating rooms (12 orthopedic and 4 urologic), a regional-block suite (5 beds), the orthopedic cast room, and Labor and Delivery. In addition, the North Division provides weekday coverage of the Acute Pain Service at RMH. Clearly, the most dominant surgical practice within the division is orthopedic surgery with 26 orthopedic surgeons performing over 7000 cases annually. Commonly performed procedures include total joint arthroplasty (hip, knee, shoulder, elbow, and wrist/hand), arthroscopy (hip, knee, ankle, shoulder, elbow, and wrist), rotator cuff repair, anterior cruciate ligament (ACL) reconstruction, orthopedic oncology (hemipelvectomy, sacrectomy, osteosarcoma resection, soft tissue lesions), hand and wrist procedures, and foot and ankle surgery. Total joint arthroplasties are performed using a



Front Row (left to right): Paula Craigo (Medical Director, Obstetric Anesthesia), Sandra Kopp, Steven Rettke, Terese Horlocker.  
Back Row (left to right): John Dilger, James Hebl (Chair, North Division), Laurence Torsher, Thomas Jurrens, Kenneth Scott, David Byer. Absent: Edward Frie, Michelle Kinney, Robert Lennon, Jack Wilson.

variety of surgical techniques including minimally invasive surgery and mini-incision techniques as well as traditional surgical approaches.

Not surprisingly, regional techniques play a major role in the anesthetic management of patients within the North Division. Last year, over 3400 spinal anesthetics, 1900 epidurals, and 3600 peripheral nerve blocks were performed by division members. This includes 1100 posterior lumbar plexus (psoas compartment) blocks/catheters, 900 femoral nerve blocks/catheters, 900 sciatic nerve blocks, 300 interscalene blocks, and 200 axillary blocks. Clearly, the division's enthusiasm for regional techniques and our tremendous orthopedic surgical volume provide a unique and unparalleled learning environment for residents and fellows alike. Very few training institutions within the U.S. can boast the regional anesthesia experience of our residents. In fact, our Regional Anesthesia Fellowship is now recognized as one of the premier programs in the country. National and international applicants are now seeking fellowship positions for the 2006-2007 academic year. Our current fellow,

Dr. Christopher Duncan, is a recent Mayo graduate who is completing a combined Regional Anesthesia/Masters in Clinical Research Fellowship within the North Division.

#### **Total Joint Regional Anesthesia Clinical Pathway**

One of the most recent and exciting practice changes in the North Division has been the development and implementation of the *total joint regional anesthesia (TJRA) clinical pathway* for patients undergoing total hip and total knee arthroplasty. In June, 2003, several members of the division entered a collaborative endeavor with the Department of Orthopedic Surgery to improve the overall perioperative care of patients undergoing joint replacement surgery. Traditionally, postoperative analgesia after joint replacement has been provided by either intravenous opioids or epidural analgesia. However, each of these techniques is associated with distinct disadvantages. For example, parenteral opioids do not consistently provide adequate pain relief and often cause sedation, nausea and vomiting, pruritus, and constipation. In contrast, epidural analgesia may be associated

with adverse side effects such as hypotension, urinary retention, prolonged motor blockade, or spinal hematoma secondary to postoperative anticoagulation. Importantly, failure to provide adequate analgesia and/or the presence of excessive side effects prevents patients from aggressively participating in physical therapy and rehabilitation resulting in limited joint range-of-motion and prolonged hospital stays. Therefore, based upon our past clinical experience—as well as growing support from the literature—it was concluded that these traditional modalities of postoperative pain management needed to be abandoned, or at a minimum, significantly modified. As a result, the North Division of Anesthesia and the Department of Orthopedic Surgery developed a multimodal perioperative analgesic regimen with an emphasis on peripheral nerve blockade. The clinical pathway has undergone several modifications since its first inception but is now widely accepted by both surgeons and anesthesiologists alike as a critical component of our clinical practice.

*The TJRA clinical pathway* includes the preoperative administration of controlled-release oxycodone (Oxycontin®) and celecoxib (Celebrex®) within the preoperative holding area to all patients scheduled for joint replacement surgery. Patients are then taken to the Pre-Procedural Regional Block Suite where either a posterior lumbar plexus catheter (total hip arthroplasty patients) or combined femoral catheter/sciatic nerve block (total knee arthroplasty patients) is performed. Intraoperative management includes either a spinal or general anesthetic, depending upon the patient's medical co-morbidities and individual preferences. Postoperatively within the recovery room, each patient's peripheral nerve catheter is re-bolused with local anesthetic and an infusion started. Peripheral nerve catheter infusions are continued for 36-48 hours postoperatively and do not interfere with physical therapy or rehabilitative sessions. Additionally, most patients will receive controlled-release oxycodone (Oxycontin®), ketorolac

(Toradol®), and acetaminophen during the postoperative period with immediate-release oxycodone being used for break-through pain. Importantly, intravenous opioids and/or sedatives are generally avoided throughout the patient's perioperative course in an effort to minimize the adverse side-effects commonly associated with these agents.

The clinical outcomes of our collaborative effort with the Department of Orthopedic Surgery have been extremely positive. Patients enrolled in the *TJRA clinical pathway* have a significant reduction in verbal analog pain scores (VAS), opioid requirements, side effects (nausea, vomiting), postoperative ileus and cognitive dysfunction, and hospital length-of-stay when compared to traditional postoperative analgesic techniques. Furthermore, because of improved postoperative analgesia and more aggressive physical therapy, we have also demonstrated a significant improvement in joint range-of-motion at the time of hospital dismissal. Additional clinical details, practical considerations, and educational vignettes regarding the *TJRA clinical pathway* can be found in a recently completed text by Drs. Robert L. Lennon and Terese T. Horlocker. The text, entitled, *Mayo Clinic Analgesic Pathway: Peripheral Nerve Blockade for Major Orthopedic Surgery*, will be available from Mayo Clinic Scientific Press in October, 2005.

### **Obstetric Anesthesia Practice**

The Obstetric Anesthesia practice is yet another exciting and rapidly growing component of the North Division. With the addition of several new Obstetric and Maternal Fetal Medicine Consultants, the OB practice continues to grow at an impressive rate. In 2004, over 2000 infants were born at Rochester Methodist Hospital. In fact, we recently experienced our busiest month ever in Labor and Delivery with 201 deliveries and 210 births reflecting a stable multiple gestation rate of about 5%. RMH is the only hospital in the region providing obstetric care for vaginal birth after cesarean (VBAC) because of its ability to meet American College of Obstetrics

and Gynecology (ACOG) guidelines and recommendations for 24-hour capabilities to rapidly manage uterine rupture. In addition, many patients within the region experiencing preterm labor are transferred to RMH for delivery because of our Neonatal Intensive Care Unit (NICU) support and capabilities. The number of high-risk patients transferred to Mayo are expected to increase as the Division of Maternal-Fetal Medicine (MFM) continues to expand. Currently, three consultants staff the Division with a fourth expected to begin later this fall. To accommodate these more complex and high-risk patients, outpatient prenatal consultation by obstetric anesthesia personnel is now available by appointment. Furthermore, dedicated OB coverage by a North Division Consultant without additional operative responsibilities now allows greater continuity of care, improved resident education and supervision, and a quicker response time to emergencies. Currently, 16 anesthesia consultants (12 from the North Division) cover the obstetric anesthesia service during nights and weekends.

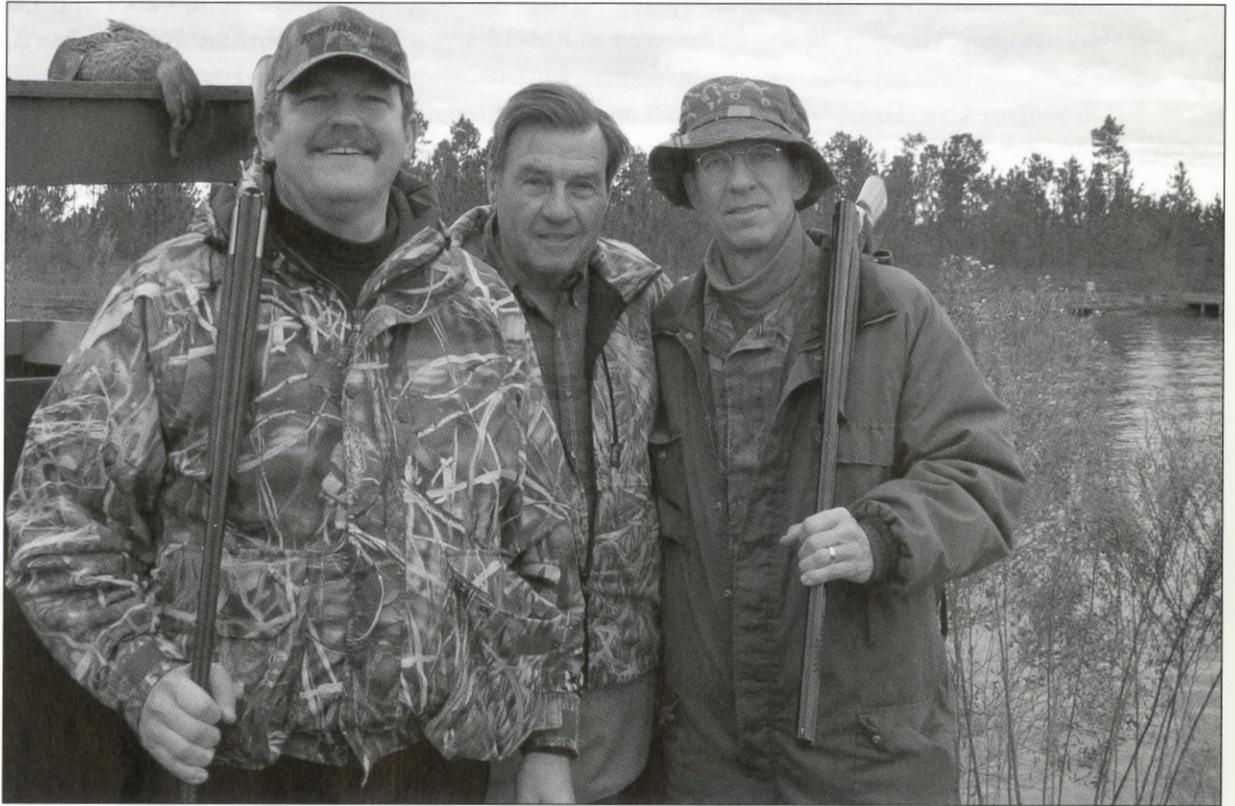
In addition to a rapidly growing obstetric anesthesia practice, there have also been several new facility changes within Labor and Delivery. Recent remodeling projects have included a newly relocated obstetric anesthesia workroom with improved and increased workspace, computer facilities, and medical supply storage to accommodate consultant, resident, CRNA, and SRNA needs. Improvement in computer capabilities was critical to rapidly and efficiently retrieve any and all necessary OB anesthesia documentation from the fully implemented electronic medical record. The paperless medical record enables rapid access to prenatal work-ups in the event of an emergent or unexpected admission as well as prior anesthesia records, laboratory data, and radiographic/ultrasound studies. In addition, the anesthesia workroom now includes a computerized *Labor Monitoring System* which allows anesthesia personnel to observe

tocodynamometry and fetal heart rate tracings in all patients being monitored whether they're in the Patient Receiving Unit (PRU), Antepartum, Labor and Delivery, or Postpartum units. Labor and Delivery includes 3 triage rooms, 8 labor suites, 3 operating rooms, and a fully equipped post anesthesia care unit (PACU). The majority of deliveries (approximately 80%) receive epidural analgesia during labor. Current analgesic techniques include continuous lumbar epidurals (with PCEA capabilities), combined spinal-epidural techniques, and systemic opioids including patient controlled analgesia (PCA). Most cesarean deliveries receive single-injection spinal anesthesia with local anesthetic and opioids, though a previously placed epidural catheter may also be used. Although the frequency of general anesthesia is declining, a significant minority of patients still receive general anesthesia during emergent situations. Future challenges for the obstetric anesthesia practice include an increasing use of anticoagulants—particularly low molecular weight heparin—during high-risk pregnancies. This frequently complicates the timing and advisability of several regional anesthetic techniques. In addition, a growing Somalian and Cambodian population within Southern Minnesota has also introduced several clinical challenges. Many of these women have little or no prenatal care, as well as untreated conditions such as rheumatic heart disease and tuberculosis, which further complicate their care and anesthetic management.

In summary, the North Division of Anesthesia at RMH is a clinically active and educationally vibrant division that is clearly advancing the field of obstetric and regional anesthesia. Several recent practice changes have enhanced the care we provide our patients as well as promote an unprecedented collaborative spirit with our surgical colleagues. We are truly fortunate to have such a talented staff of bright and enthusiastic clinicians, educators, and investigators who are so dedicated and committed to building upon the foundations and rich traditions of their predecessors.

## A Sporting Life

**William Lanier, M.D.**



*Bill Lanier and friends, Billy Crider and George Bartley, take a break from the morning activities in a south Georgia duck blind. Dr. Bartley, CEO of Mayo Clinic Jacksonville, is a new initiate to the shooting sports, and this was his first trip pursuing ducks.*

I grew up fishing and hunting. I was introduced to the former by my grandmother, Audrey, who began taking me fishing with her when I was 3 years old. We would sit in her pond boat in the hot Georgia sun for hours at a time, searching mostly for panfish, and she would implore me to sit still and not talk, lest we "scare the fish." From this, I learned patience. By age 6, farm employees taught me to hunt with a rifle and, by age 10, I began hunting birds with a shotgun.

During my childhood, young gentlemen of the Deep South were typically introduced to shotgun shooting in the dove fields. Neighbors and relatives would get together in fields of freshly harvested peanuts or grains and wait for the birds to arrive for their

afternoon feedings. This style of hunting is known as pass shooting since you shoot at the birds as they pass overhead. Instruction typically consisted of a lesson in gun safety, admonishment to shoot in front of the bird, and posting the stationary young hunter far away from others so that he would not be able to shoot another hunter. This geographic isolation would persist until, perhaps influenced by divine inspiration, the initiate would acquire an appreciation for safety and "get the hang of" hitting birds in flight.

Young gentlemen who demonstrated proper etiquette and some skill might, in subsequent years, be invited to hunt quail, a sport that involved walking behind hunting dogs who would point the birds and later retrieve any

kills. Quail hunts involved shooting in close quarters within feet of other hunters and the highly valued pointing dogs; hence, awareness of surroundings and concern for safety were requisites for any participant.

By the time I reached high school, I had become quite handy at shooting doves (and also ducks), where one can see the birds coming from some distance and can mentally and physically prepare for a shot. In contrast, quail were my nemesis. They typically flushed in large groups (called covies) very near the hunters and would weave amongst each other on their way to the nearest cover. For reasons that are still not clear to me, shooting one's scattergun amongst the cove is universally fruitless and will result in a clear miss. Instead, one must pick out a single bird and shoot at it. This requires considerable focus and skill. When hunting in thick timber, the entire process from flush to eventual disappearance of the birds could be over in the blink of an eye.

Not surprisingly, my childhood thoughts of dove hunting are filled with remembrances of impressive shots made; my thoughts of quail hunting are of misses. These memories became progressively etched in my mind during a 15-year absence from bird hunting coinciding with residency training and the early years of developing a career in academic medicine.

With this as background, I had mixed emotions when, a half-dozen years ago, I was invited to shoot quail in Georgia with an acquaintance, and soon-to-be dear friend, Billy Crider. "You should let me take you hunting sometime," he said. On the opening morning of our first hunt in the tall pine timber of south Georgia, Billy lent me a beautiful, prominent-brand shotgun to shoot, and I began by missing the first 13 birds.

My awareness of failure was enhanced when I heard the dog-handler quietly tell Billy, "Some fella missed 23 in a row last week." I feared that I might provide the fodder for the conversation the next week.

After a few hours, I got the hang of the shooting, but just did not perform as I hoped I might. The outdoor experience and fellowship were outstanding, but the sub-par shooting left much to be desired. This performance persisted during my hunt with Billy the next year when, in the middle of the morning's hunt, he said, "I don't think your gun fits you." I was not aware of this concept, but soon learned that while one aims a rifle and uses sights to ensure it is directed toward a target, one points a shotgun, much as you might point a finger at a plane passing overhead. When shotgunning, pointing should be accomplished by looking intensely at the target with little thought directed to the gun itself. If the gun fits properly, it will shoot where the hunter looks and will result in a proper connection with the target. If the gun does not fit, there often is insufficient time to look at the target, look at the gun, aim the gun, and hit the target. Billy, who is about my size, then let me shoot a gun that had been fitted for him, and I shot the next dozen quail with a proficiency unlike anything I had ever experienced.

When I returned to Rochester, I began a formal study of shotguns and shotgun shooting. I learned that the development of modern shotguns began more than 350 years ago and was heavily influenced by the British and their Worshipful Company of Gunmakers, chartered in 1637. In Britain, the approach to shotgunning was treated much like affluent Americans would introduce a young person to golf. One would begin by getting equipment properly fitted to the sportsman, then follow this with significant professional instruction and practice before formally engaging "the

game." Until recently, such standards have eluded Americans, where trial and error have long been considered an adequate teacher, and most shotguns are mass produced and proportioned for a man of modest build, 5 feet 6 inches tall and 160 pounds. Not surprisingly, given my considerably larger dimensions, every shotgun I try off-the-shelf tends to shoot high and to the left of where my eyes are looking.

I mentioned my experiences with Billy Crider and newly found knowledge to Beth Fieck, CRNA, with whom I work at Saint Marys Hospital. Beth knew about gunfitting and proper instruction and referred me to Michael Murphy, a gunfitter and coach in Augusta, KS. Mike, his son, Marc, and their collaborating gunsmith, Jim Greenwood, have collectively adjusted guns to fit approximately 10,000 shooters. Mike has also coached 31 national, international, and Olympic shotgun champions. Mike and his team fitted me for a couple of shotguns in the spring of 2003. They then sent me home with practice instructions and an instructional video. I have been back to Kansas for more instruction in 2004 and 2005. Added to this, I have now read some 2 dozen books and innumerable magazine articles and watched a dozen instructional videos on shooting. I have additionally taken lessons with Marty Fischer, a friend of Billy Crider and famed instructor who has long had a nationally televised show on shooting and hunting.

According to Mike Murphy, success at shooting requires properly fitted equipment plus practice, professional instruction, and reading. I have dived head first into all of these. In addition to the above-mentioned activities, I have --in the past 2.5 years-- shot more than 18,000 practice rounds at clay targets and gone on hunting trips to Georgia, Minnesota, Arkansas, North Dakota, Mexico, and (soon) South Dakota. These trips have involved the pursuit of doves, quail, pheasants, Hungarian partridges, grouse, ducks, and geese. Throughout, I have met some of the most wonderful sportsmen: folks who are very much interested in promoting their sport and improving habitat for the game they hunt. We have shared hunting activities, stories of past hunts, and recipes for the harvested game. The activity has allowed me to restore relationships with old friends, strike up relationships with new friends, and create a lifetime worth of memories.

And it all began with a phone call from my friend, Billy Crider, saying, "You should let me take you hunting sometime."

## Mayo Anesthesia's Most Famous Alumnus?

**Douglas Bacon, M.D., M.A.**

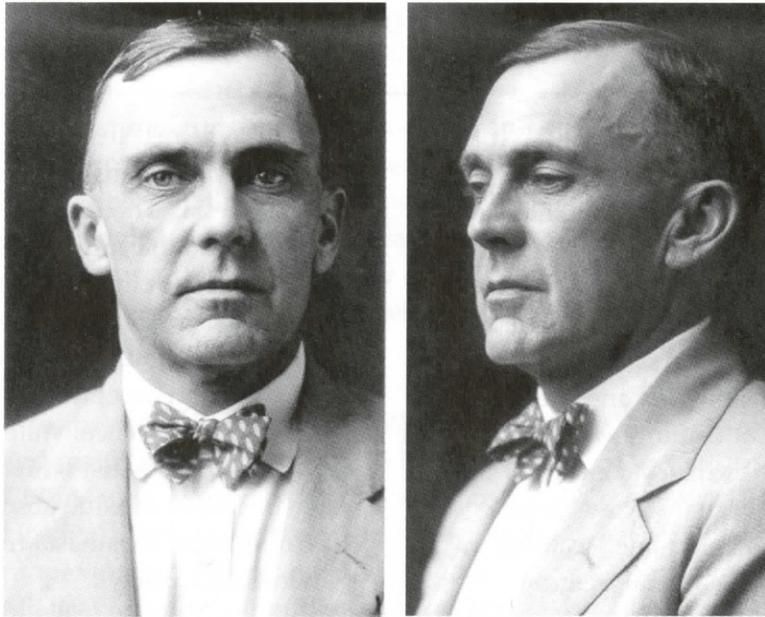
What does it mean to be a resident? At first thought, the images of long hours on call come to mind, followed by those intense "learning experience" days when one first tried to become proficient at placing lines and endotracheal tubes. In terms of curriculum, and time of training, things today are very well defined. Becoming an anesthesiologist requires a four-year commitment, a fact that is known when the residency contract is signed. It has not always been this way. Before 1920, there was no "graduate" training in anesthesiology, and national training requirements were nonexistent. Who was a resident, as well as how long a person needed to train, was undefined. What follows is a short narrative on one individual who came for "graduate" training at Mayo and went on to make a very significant contribution to anesthesiology.

At the clinic there was a strong tradition of regional anesthesia administered only by physicians. Started by Gaston Labat at the request of Charles H. Mayo, the regional anesthetics training course was aimed at the surgical fellows. Labat's classic textbook, *Regional Anesthesia: Its Technique and Clinical Application*, was largely produced at the clinic and was part of the original agreement that brought Labat to Mayo in 1920. Four years later, there was an established course in regional anesthesia which Lundy took prior to assuming responsibility for anesthesia<sup>1</sup>.

Lundy remained frustrated by a lack of graduate physicians who wished to specialize in anesthesia. The regional anesthesia course was given to the surgical fellows in an effort to train them in the rudiments of regional anesthesia. Yet, in 1926, there was one exception. A volunteer resident position was offered to and accepted by Ralph Waters. In their correspondence, Waters, an established physician anesthetist with a reputation in the area of carbon dioxide absorbance, came to learn regional anesthesia from Lundy and Charles McCuskey<sup>1</sup>.

Waters studied at the Mayo Clinic from July 5 until September 15, 1926. He did abdominal, caudal, transsacral, and field blocks. Interestingly, his records indicate that he only performed a total of 17 blocks during the three months he was in Rochester. Finally, Waters received a grade for his rotation. A permanent file on his graduate educational experience is housed within the Mayo Foundation Archives and includes the two application photographs (Figures 1 and 2)<sup>2</sup>.

There remain some interesting outcomes to Waters' training at Mayo. First, and perhaps most importantly, it cemented the friendship between Waters and Lundy. Following Waters becoming chair of anesthesia at Madison, Wisconsin, in 1927, Lundy and he had a steady correspondence, visited each other, and sent trainees to each other's programs. This friendship would be critical to the establishment of the American Board of Anesthesiology and the rise of the American Society of Anesthesiologists as the preeminent group of American specialists in anesthesiology<sup>3</sup>.



*Application photographs of Dr. Ralph Waters*

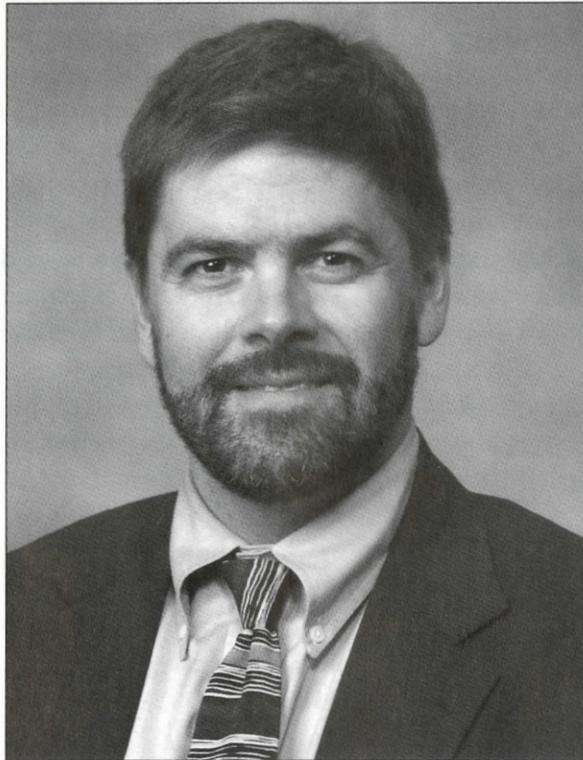
Finally, Waters' three months residency at Mayo, done when he had to shut down his practice for three months and consequently lacked income for the period while supporting his wife and four children, remains an ideal for dedication to continuing medical education. Waters knew Lundy had something unique in anesthesiology, and rather than just come and observe for a couple of days, he underwent rigorous training by a much younger individual. Waters subsequently employed some of this knowledge into the curriculum he devised in Madison. Regional anesthesia, through the efforts of these two men and others, became an important part of residency curriculum and part of the definition of what it means to be an anesthesiologist<sup>4</sup>.

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## I'm an Aging Anesthesiologist – Are You?

**Christopher Jankowski, M.D.**



*Christopher Jankowski, M.D.*

News reports that the population is aging come as no surprise in the surgical suite. While it used to be unusual for octa- and nonagenarians to undergo major surgery, the presence of the very old in the preoperative holding area is certainly not unusual today. And it will become even more common in the future. Those over 85 years old are the fastest growing segment of the population and will number more than 20 million in the United States by 2050. Like it or not, we are all becoming geriatric anesthesiologists.

This demographic shift is important to our specialty because older patients present unique challenges in the perioperative period. First, they have more co-morbidities than younger patients. This, in addition to the physiological changes associated with aging, makes the elderly less able to tolerate the stress of anesthesia and surgery. Therefore, older patients require meticulous perioperative care.

Even with appropriate treatment, older patients have more perioperative complications than the young. Along with traditional postoperative complications, there are problems specific to the elderly. Postoperative delirium and cognitive dysfunction are examples that are associated with a variety of adverse outcomes. Although postoperative cognitive changes have gained attention recently, these problems are not well-understood, and the impact of anesthetic management on them is unclear. However, research is ongoing (see below).

Finally, relevant outcomes are different for the elderly than for the general adult population. For example, functional status – the ability to perform activities associated with independent living – is arguably more pertinent in this population than traditional medical outcomes because it influences quality of life and long-term healthcare costs. Thus, functional status determines whether patients can be discharged to home or should be sent to a skilled care facility. It is not surprising that older patients often say that maintaining or improving functional status is an even more important outcome for them than death.

The Mayo Clinic Department of Anesthesiology has a legacy of leadership in the care of geriatric surgical patients. Mark Warner's Olmsted County epidemiological studies in the 1980s demonstrated that even the extremely aged can have surgery safely.

As president of the Foundation for Anesthesia Education and Research (FAER), Alan Sessler has worked with leaders of the American Geriatrics Society to increase collaboration across surgical specialties involved in the care of older patients. Part of that effort was the commission of a Research Agenda Setting Project to identify and prioritize key geriatric research questions for ten surgical specialties. David Cook was the primary author for the anesthesiology portion of the project.

Nationally, there are a number of ongoing studies whose roots can be traced to that project.

In addition, Alan has convened a FAER Geriatrics Research Council comprised of national leaders in geriatric anesthesiology to encourage and provide guidance for geriatric research within our specialty. Finally, members of our department have been on the board of the Society for the Advancement of Geriatric Anesthesia (SAGA) since its inception.

There are several ongoing projects in our department whose aim is to improve our understanding and care of geriatric patients.

Members of the Anesthesia Clinical Research Unit are completing a FAER-funded study examining the predictors and long-term consequences of postoperative delirium in elderly orthopedic surgical patients. Preliminary results indicate that even subtly reduced cognitive or functional status before surgery predicts postoperative delirium and that the mode of postoperative analgesic management may influence the incidence of delirium, findings that have not been previously reported.

Second, our department has played a key role in the recent implementation of routine formalized delirium screening for nearly all adult inpatients on the Rochester campus. This is the first such program in the country and will improve the identification of delirium at Saint Marys and Rochester Methodist Hospitals. More importantly, it will be a powerful research tool for improving understanding of the risk factors for and consequences of delirium in a variety of patient populations and, ultimately, will facilitate trials of interventions to prevent and treat postoperative delirium.

Finally, our department is participating in a large multicenter, NIH-funded study examining the effect of intraoperative beta-adrenergic blockade on long-term functional outcomes in elderly patients having non-cardiac surgery. Data from this project will further define the proper role of perioperative beta-blockers.

Geriatric patients present a unique set of challenges to both anesthesiologists and society. An aging population means that the elderly will occupy an ever-increasing proportion of our practice. Much more research is needed to improve our understanding of how aging affects perioperative outcome and management. In addition, there needs to be work to identify interventions that will improve outcomes in aged surgical patients. The Mayo Clinic Department of Anesthesiology has long been a leader in this field and is well-positioned to continue to do so.

## Anesthesiology Residency News

**Steven Rose, M.D.**

The 2005 Department of Anesthesiology Awards Banquet was a resounding success. We filled the hall (with over 180 persons registered) to recognize and thank our graduating residents and fellows and to welcome those who are joining us as we begin a new academic year. The Class of 2005 set a high standard for those who follow. We are fortunate to have many talented residents we are confident can maintain and build upon our traditions.

Several awards were presented including the following:

Awards Selected by Staff were Distinguished Clinicians - **Dr. Timothy Long** and **Dr. Gregory Schears**, Distinguished Educator - **Dr. Kent Rehfeldt**, and Distinguished Resident - **Dr. D.J. Kor**. Awards Selected by Residents were Distinguished Clinician - **Dr. Daniel Brown**, Distinguished Educator - **Dr. Steven Rose**, and Distinguished Resident - **Dr. D.J. Kor**. Academic Awards were In-Training Examination Award - **Dr. D.J. Kor**. Research Awards were Richard A. Theye Award - **Dr. Thomas Comfere**: Angiotensin System inhibitors in a General Surgical Population, and Duane K. Rorie Award - **Dr. Sandra Soares**: Role of the Second-Messenger Cyclic-Adenosine 5'-Diphosphate-Ribose on Adrenocorticotropin Secretion from Pituitary Cells. A First-Place Midwest Anesthesiology Residents Conference (MARC) Award was **Dr. William Hartman**, General Session III: Impact of Pulmonary Hypertension on the Outcomes of Noncardiac Surgery: Predictors of Perioperative Morbidity and Mortality

We would also like to recognize the Mayo Fellows' Association Teacher of the Year in Anesthesiology, **Dr. Christopher Burkle**; the Critical Care Medicine Distinguished Clinician, **Dr. Mark Keegan**; and the Critical Care Medicine Distinguished Educator, **Dr. Daniel Brown**.

Thirteen of our 16 graduating residents will enter fellowship training or have accepted positions in academic medicine. The remaining three residents all secured positions in desirable private practice groups. Several will be working with alumni of our program. Four of our graduates will be entering fellowship training in Critical Care Medicine at Mayo. We are confident this great group will make significant contributions to their patients, hospitals, and communities for many years to come.

The following is a list of our graduating residents and their plans for the coming year as well as their class photo: **Peggy Allen** - Pediatric Anesthesia Fellowship, Cincinnati Children's Hospital; **James Borowiec** - Pediatric Anesthesia Fellowship, Children's Hospital, Seattle, WA; **Thomas Comfere** - Critical Care Fellowship, Mayo Clinic Rochester; **Timothy Curry** - Staff, Mayo Clinic Rochester; **Daniel Diedrich** - Mayo Foundation Scholar, Critical Care, Mayo Clinic Rochester; **Christopher Duncan** - Mayo Foundation Scholar, Regional Anesthesia, Mayo Clinic Rochester; **James Dyer** - Academic Medicine, Oklahoma University; **Michael Ebbert** - Private Practice, St. Paul, MN; **Susan Kies** - Pediatric Anesthesia Fellowship, Cincinnati Children's Hospital; **Del Kirkpatrick** - Academic Practice, Portland, OR; **D.J. Kor** - Mayo Foundation Scholar, Critical Care, Mayo Clinic Rochester; **Kenyon Kruse** - Private Practice, Bismarck, ND; **Eric Nygren** - Transplant Fellowship, Mayo Clinic Rochester; **Matthew Offerdahl** - Private Practice, Tucson, AZ; **Scott Raffo** - Cardiovascular Anesthesia Fellowship, Mayo Clinic Rochester; **Matthew Ritter** - Mayo Foundation Scholar, Critical Care, Mayo Clinic Rochester.



Front Row (left to right): Drs. Christopher Duncan, Daniel Diedrich, Peggy Allen, Susan Kies, Matthew Ritter, Scott Raffo, and D.J. Kor. Back Row (left to right): Drs. Kenyon Kruse, Matthew Offerdahl, Timothy Curry, Michael Ebbert, Thomas Comfere, James Borowiec, and Del Kirkpatrick. Not Pictured: James Dyer and Eric Nygren.

## ASA-Mayo Reception

**Brian Hall, M.D.**

**Chair, Anesthesia Alumni Liaison Committee**

The Mayo Clinic Department of Anesthesiology is pleased to invite you to its yearly alumni reception in conjunction with the annual meeting of the American Society of Anesthesiologists. The gala event will be held at the Windsor Court Hotel in New Orleans in "La Chinoiserie A." The reception begins at 6:30 p.m. and will offer alumni three hours to reacquaint themselves with old friends and possibly make some new ones while enjoying food and beverage, all with a panoramic view of the beautiful Mississippi River in the background. Please plan to attend this function Saturday night, October 22, 2005.

Mayo Clinic Department of Anesthesiology  
Annual Alumni Reception  
Saturday, October 22, 2005  
6:30 to 9:30 p.m.  
Windsor Court Hotel  
La Chinoiserie A  
New Orleans, LA

## News About People

### Peter Southorn, M.D.

We extend our deep sympathies to the family and friends of **Dr. Keith Reeves** who died on May 27th, 2004. Dr. Reeves received his medical degree from the University of Kentucky and completed his residency training in anesthesiology at Mayo Clinic in 1980. He worked at the Heart Lung Clinic in Bismarck, ND, from 1980 to 1989. Dr. Reeves moved to Texas in 1990 where he was a partner with the North Texas Anesthesia Group in Wichita Falls. During his career, he served as president of the North Dakota Society of Anesthesiologists. Dr. Reeves was a team physician for the Dallas Cowboys at training camp.

**Robert Thomson, CRNA**, died on August 9, 2005. For so many years, he was a true friend and respected colleague in the department. Bob's love and advocacy for his country of origin, Scotland, were legendary. We extend our deepest sympathy to his wife, Elizabeth, also a member of our department, and his family.



Dr. Adam Jacob

**Dr. Adam Jacob** has accepted a position as a Mayo Foundation Scholar in cardiovascular anesthesiology. He will complete his two-year fellowship training in Rochester.



Dr. Katie Arendt

**Dr. Katie Arendt** will also join us as a Mayo Foundation Scholar in the coming year. Dr. Arendt will initially pursue an obstetric anesthesia fellowship outside of our institu-

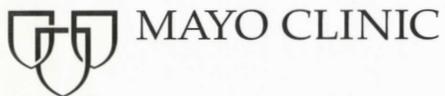
tion and then plans to gain expertise and research experience in the care of parturients who have congenital cardiac disease.

**Dr. Gil Wong** has resigned his position as a Mayo Clinic consultant to become the Associate Director of Clinical Development at ALZA Corporation which is one of the Johnson and Johnson family of companies. We wish him every success in this new appointment.

**50 Years of Heart Surgery** - May, 2005, marked the 50th anniversary of the pioneering work at the Mayo Clinic which led to the development of cardiopulmonary bypass and cardiac surgery. Many distinguished guests attended the celebration to honor this tremendous achievement. The photo shows Drs. Emerson Moffitt and Martin Abel, respectively the first and current head of our department's Cardiovascular Anesthesiology Division at this event.



Drs. Martin Abel (on left) and Emerson Moffitt



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