



Society for Ambulatory Anesthesia

Ambulatory AnesthesiaSM

PRESIDENT'S MESSAGE

SAMBA's 'Waters' Still Run Deep

By Kathryn E. McGoldrick, M.D.
2004-05 SAMBA President

It is indeed a privilege to serve as President of SAMBA. I have the honor of succeeding Frances Chung, M.D., who has worked indefatigably to foster major contributions in the domains of research and education that have advanced this Society. Dr. Chung is the most recent in a series of presidents who have provided astute leadership and unwavering direction to enhance the status of SAMBA as the pre-eminent organization representing ambulatory anesthesiology in the United States and internationally. We are profoundly grateful for her efforts in continuing the tradition of excellence that has characterized SAMBA since its inception almost two decades ago.

During the last 20 years, ambulatory anesthesiology has matured and expanded. So has SAMBA. Indeed the continued growth of our organization is a reflection of the ever-increas-

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ing importance of ambulatory anesthesiology as a subspecialty area to the extent that it has become indisputably the dominant mode of surgical practice in North America, if not in many of the world's other developed nations. Certainly the strength of any organization is derived from the commitment and energy of its members, and we in leadership roles must con-

tinuously develop the Society through the members' participation. To this end, the committee appointments that were made for the coming year are intended to meld the strengths of the past and the promise of the future.

One of my many heroes in anesthesiology is the late Ralph M. Waters, M.D., who arrived at the University of Wisconsin in Madison in 1927 to direct anesthesia services. No American physician deserves greater commendation than he for elevating anesthesiology from a technical exercise to a medical specialty. Arguably his most important contribution was the development of professionalism in anesthesiology. Dr. Waters accomplished this by insisting on proper training programs for residents, emphasizing research that encompassed both the basic and clinical sciences and articulating the necessity of organizing appropriate bodies to establish and implement standards of education and

practice. The sine qua non of professionalism, according to Dr. Waters, was uncompromising dedication to the service of the public. He firmly believed that this philosophy was most clearly executed and communicated by always placing the needs of the patient above any other consideration.

Dr. Waters was both an intrepid pioneer and an astute visionary. It is



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gratifying, for example, to realize that his second published paper highlighted ambulatory anesthesia.¹ Moreover Dr. Waters was a master at networking with like-minded individuals, including Francis H. McMechan, M.D., Arthur Guedel, M.D., and Emery A. Rovenstine, M.D., to accomplish his goals of elevating anesthesiology to the status of a medical specialty and its practitioners to the rank of esteemed professionals. And, of course, he cast a wide net. Countries represented among the cohesive group of residents trained by Dr. Waters included Argentina, Brazil, Great Britain, China, Finland, India, Mexico, Peru, Sweden and Uruguay.

During the next several months, SAMBA will continue to follow the example of Ralph Milton Waters by emphasizing its ongoing commitment to patient safety by presenting

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SAMBA Needs Your Involvement

The 19th Annual Meeting was held April 30-May 2, 2004, in Seattle, Washington, and was a great success. President-Elect **Lucinda L. Everett, M.D.**, Seattle, Washington, and **Tong J. Gan, M.D.**, Durham, North Carolina, must be congratulated for their hard work in making this meeting not only educational but also entertaining. The program included topics of current interest related to anesthesiology practice as well as management issues.

Under the leadership of Immediate Past President **Frances Chung, M.D.**, Toronto, Ontario, Canada, a long-range planning meeting of the Board of Directors and committee chairs was organized on April 29, 2004, a day prior to the SAMBA Annual Meeting. The participants reviewed and refined SAMBA's mission statement, which now states that "SAMBA is the professional Society dedicated to advancing the highest quality of science, education and patient care in the specialty of ambulatory anesthesia." In addition the participants also discussed finances, new services and "branding" for our organization. The ultimate aim of SAMBA is to expand services to its

members and thus improve the value of SAMBA membership while maintaining fiscal balance. Of note, due to the efforts of **Walter G. Maurer, M.D.**, Cleveland, Ohio, and **Jeffrey B. Brand, M.D.**, Marblehead, Massachusetts, and the Committee on Budget and Finance, SAMBA has adequate reserves to fund outcomes research grants.

Incoming SAMBA President **Kathryn E. McGoldrick, M.D.**, Valhalla, New York, has established several new committees to implement the plans developed at the Strategic Planning Session. **Mary Ann Vann, M.D.**, Boston, Massachusetts, is responsible for coordinating the committees that explore "new services," and I will coordinate the committees exploring "branding and membership development." If you are interested in participating in any of the committees, please do not hesitate to contact Dr. McGoldrick. For a complete list of SAMBA committees, see <www.sambahq.org/professional-info/committees.html>.

In this issue of Ambulatory Anesthesia, **Stephen A. Cohen, M.D.**, Boston, Massachusetts, provides us with an overview of the session on



Girish P. Joshi, M.D.

"The Problem Patient," which was presented at the SAMBA 2004 Annual Meeting. **Babatunde O. Ogunnaike, M.D.**, Dallas, Texas, and **Uma Munnur, M.D.**, Houston, Texas, review the panel discussion on "Expertise in Ambulatory Anesthesia."

One highlight of the 2004 Annual Meeting was the presentation of the \$150,000 Outcomes Research Award

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'Problems, Problems, Problems All Day Long ...'

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So sang the Everly Brothers in their 1958 hit song, which might have aptly opened "The Problem Patient" session at the SAMBA 2004 Annual Meeting moderated by SAMBA President **Kathryn E. McGoldrick, M.D.**, Valhalla, New York. Speakers focused on three of the major problems encountered in ambulatory surgery, namely postoperative nausea and vomiting (PONV), effective pain management and assessing and treating postoperative urinary retention.

PONV Risk

Tong J. Gan, M.D., Durham, North Carolina, discussed the "Cost-Effective Management of PONV-Prone Patients." Dr. Gan noted that nausea and vomiting rank among the top five undesirable outcomes that patients wish to avoid. In determining patients who may develop PONV, Dr. Gan identified three risk factor classes.

First, patient-specific factors include female sex, prior history of PONV or motion sickness, and being a non-smoker. Younger children also are at higher risk for PONV, but often only vomiting gets evaluated.

Second, anesthetic-related risks include the use of inhaled anesthetics, N₂O and opioids. The type of intravenous (I.V.) fluids used during major intra-abdominal surgery is important because crystalloids more likely produce gastrointestinal edema and subsequent PONV.

Third, surgical factors include the duration of the procedure; each 30-minute increment in case length increases the risk of PONV by 59 percent. Some surgeries, including laparoscopic, otolaryngologic, neuro-

surgical, breast, strabismus, plastic and laparotomy procedures increase the risk of PONV.

Dr. Gan debunked two common misconceptions about PONV. First, he stated that gastric suction not only does not appear to affect the incidence of PONV in humans, it also increases its likelihood in rat models. Second, obesity, per se, does not increase the incidence of PONV.

Dr. Gan reviewed antiemetic therapy regimens. Studies have focused on both early (0-6 hours postoperatively) and late (0-24 hours postoperatively) PONV events. Investigators have measured efficacy by calculating the number needed to treat (NNT) nausea or vomiting. The NNT represents the number of patients needed to receive a therapy to prevent one emetic event without such medication.

For example, for late events, the best working drug is droperidol (NNT = 2-3), followed by ondansetron (NNT = 6-7), then metoclopramide (NNT > 10). Dr. Gan noted that three currently marketed 5-HT₃ receptor antagonists display similar efficacy but have different dose and cost properties. If an appropriate dose of such a drug has been used within six to eight hours, data indicate that repeat treatment with the same drug provides little beneficial effect.

Dr. Gan also discussed some of the older antiemetic drugs and therapies, including scopolamine. Unfortunately scopolamine may produce undesirable side effects such as dry mouth and double vision. Acupuncture, using the pericardial 6th meridian point (P6), may be as effective as ondansetron. Other treatments reported include low-dose, continuous infusion of naloxone and continuous propofol administration throughout surgery for patients at high risk for PONV.

Dr. Gan also discussed Alvimopan, a new peripheral opioid receptor antagonist that has antiemetic properties. It is not absorbed from the bowel and is currently in phase III clinical trials. Preliminary studies also indi-



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cate that a neurokinin-1 antagonist, when combined with ondansetron, may markedly reduce the incidence of PONV.

Investigators have addressed the synergistic effect of using more than one type of antiemetic because the chemoreceptive trigger zone possesses multiple receptor systems, and single antiemetics display only 60 percent to 70 percent efficacy. Dexamethasone and ondansetron, for example, produce a significantly greater antiemetic action than either alone. Utilizing a combination of antiemetics, propofol anesthesia, adequate hydration and good pain management is superior to single-agent therapy.

Dr. Gan suggested that the value of PONV therapy often exceeds its cost. Value equals quality/cost. In comparing the cost of, say, treatments A versus B, one must calculate the incremental cost-effectiveness ratio (ICER) correctly, which is $ICER = (\text{cost of A} - \text{cost of B}) / (\text{success of A} - \text{success of B})$. Cost-effective care for high-risk patients dictates using expensive antiemetics prophylactically rather than treating a resultant PONV.

In his talk, Dr. Gan said that droperidol would be a consensus panel's first choice for PONV prophylaxis if there was not a Food and Drug

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Administration (FDA) "black box" warning against its use because it, like many drugs, can produce prolongation of the QTc segment of the electrocardiogram. Debate with the FDA to approve small doses of droperidol for PONV outside of the black box continues.

Dr. Gan recommended evaluating each specific patient's PONV risk. If found to be low risk, no prophylaxis should be administered. If the risk is moderate or high, one should implement a PONV-reduction strategy, including regional anesthesia, adequate hydration, avoiding N₂O, using a high FiO₂ and prophylactic antiemetics. For the highest risk patients, he recommended adding total intravenous propofol anesthesia.

Pain Management

The panel's next speaker, **Girish P. Joshi, M.D.**, Dallas, Texas, addressed "Preoperative to Postdischarge Techniques for Pain Management After Ambulatory Surgery." The consequences of unrelieved pain include delayed recovery, need for medical attention and/or hospitalization, prolonged rehabilitation, delayed return to activities of daily living and increased costs. Pain control is the most common cause for readmission after ambulatory surgery.

Dr. Joshi next discussed physiologic mechanisms of pain, particularly those accompanying unrelieved pain. He noted that prolonged noxious stimuli could produce changes in the function, chemical composition and structure of neurons and lead to a decreased threshold for the activation of pain receptors, which may augment a person's sensitivity to pain (peripheral and central sensitization).

He emphasized that inadequate treatment of surgical pain can lead to the development of chronic pain at a rate varying between 2 percent and 83 percent for operations such as limb amputation, breast, gallbladder, lung

and inguinal hernia surgery. One predictor of chronic pain development included the intensity of pain experienced in the immediate postoperative period. Hence, one must treat postoperative pain aggressively.

Dr. Joshi distinguished two pain responses to a surgical injury: the incision response and the inflammatory response that it begets. Investigators have discovered recently that effective pain management must control not only the incisional response but also inflammatory response. Dr. Joshi described the "sensitizing soup" of mediators provoked by the inflammatory response, which includes changes in various tissue constituents such as H⁺, noradrenaline, bradykinin, histamine, K⁺, purines, cytokines, 5-HT₃, leukotrienes and nerve growth factors.

Prostanoids (prostaglandins) and cyclooxygenase (COX)-2 also play an important role. Tissue injury induces COX-2 expression and increases prostaglandin synthesis at the peripheral site and also leads to the expression of COX-2 in the central nervous system (CNS), which is mediated by the increased neuronal activity of the sensory fibers innervating the inflamed area and the humoral response triggered by a signal molecule, probably interleukin (IL)-6. This trigger molecule crosses the blood-brain barrier, elevates another cytokine, IL-1b, and serves as a major inducer of CNS COX-2 expression.

Hence, in addition to regional or local anesthesia, one can achieve better postoperative analgesia by administering an anti-inflammatory drug such as a nonsteroidal anti-inflammatory drug (NSAID) or COX-2 specific inhibitor to block prostanoid action.

Dr. Joshi stressed that postoperative pain management should include aggressive multimodal analgesic techniques. To prevent sensitization, one should administer anti-inflammatory analgesics prior to the surgical incision and continue such use throughout the duration of the inflammatory response, which may last for more

than the traditional duration of analgesia (e.g., 7-10 days).

Reviewing analgesic options, Dr. Joshi focused on the use of local anesthetic techniques. These not only provide better movement-evoked pain relief than opioids but also allow the reduction of intraoperative anesthetic and opioid administration, thus promoting faster recovery, better mobilization and quicker return to activities of normal daily living. Local anesthetic infusions using catheters can prolong the duration of beneficial effects. A variety of mechanical devices allow for such application to be continued at home. One also should add an anti-inflammatory drug such as an NSAID or COX-2 specific inhibitor. In addition dexamethasone not only diminishes PONV but also ameliorates postoperative pain. Other adjuvants such as ketamine, clonidine, dexmedetomidine or gabapentin also may assist in the management of pain.

Dr. Joshi also noted that the usefulness of opioids is limited by their side effects: nausea, vomiting, sedation, dizziness, constipation and pruritus. Studies also indicate that opioids perform better for rest pain than for dynamic pain.

Multimodal analgesic techniques can improve several clinically important outcomes as well. For example, Dr. Joshi cited a recent study of patients undergoing total knee replacement (TKR) and receiving either rofecoxib or placebo before and after TKR. The rofecoxib group displayed less epidural analgesic requirement, less opioid use, lower pain scores, less vomiting and sleep disturbance, better patient satisfaction and, most importantly, better functional recovery at discharge and one month later than the placebo group.

Dr. Joshi also cited his own recent study comparing the use of I.V. parecoxib followed by oral valdecoxib to standard-of-care controls in laparoscopic cholecystectomy surgery. He declared that the parecoxib/valdecoxib group had less pain, shorter

postanesthesia care unit length of stay, less opioid requirement, decreased PONV and an earlier return to activities than the placebo group.

In summary Dr. Joshi stated that the ideal pain management technique should include local anesthesia application (if possible) continuously for 48 to 72 hours, preoperative and postoperative NSAIDs/COX-2 inhibitors during the period of the active inflammatory response and opioids as needed for breakthrough pain. He advised that current unimodal analgesic techniques are outmoded by multimodal analgesic methods.

Urinary Retention

Finally **D. Janet Pavlin, M.D.**, Seattle, Washington, discussed "Bladder Function After Anesthesia." According to Dr. Pavlin, the inability to void ranks high among the causes delaying patient discharge after surgery. Dr. Pavlin reviewed the neurophysiology of voiding at the beginning of her discussion. She explained that the sensation of bladder fullness leads to bladder contraction and the reflex inhibition of the sympathetic nervous system, which permits the voluntary relaxation of the urinary sphincter. The pontine micturition center coordinates control over these lower neural circuits. Without such coordination, people cannot void. Many anesthetics interfere with voiding. Neuraxial local anesthesia, for example, affects all steps in the process. Opioids and anticholinergics as well as pain and

bladder distention can affect normal voiding.

Dr. Pavlin defined urinary retention as the inability to void despite having a full bladder (500-600 ml). If retention occurs, the bladder overdistends, and hypoxia or ischemia of the bladder wall may damage permanently the organ's endothelium and intrinsic parasympathetic nervous system. Animal studies have shown that after three to four hours of distention, damage can occur to visceral afferents, intercellular junctions stretch, collagen deposition occurs, epithelial cells proliferate and the bladder may rupture. The few human studies reported indicate that an overnight bladder catheter reduces the frequency of subsequent retention episodes and that overdistention (600-1,200 ml) for only one to two hours does not impair bladder function.

The functional changes that can occur from urinary retention include the inability to empty the bladder fully, hesitancy, a weak stream, frequent small voiding, straining or catheterization required to void and an overall "unstable bladder." Dr. Pavlin examined how to manage at-risk patients. She noted that certain patients at a higher risk of developing urinary retention include those undergoing gynecologic, pelvic, urologic or groin surgery and patients having spinal or epidural anesthesia, a prior history of urinary retention or spinal cord disease. Other contributing factors include recumbence, urethral obstruction secondary to dis-

ease, instrumentation or radiation, autonomic dysfunction, psychological factors or anticholinergics.

Clinicians can best determine bladder volume at the bedside using an ultrasound bladder scan. Most low-risk patients void spontaneously, usually within 80 minutes after surgery. Using the ultrasound device, studies show that gynecologic patients void at low volumes but may take a longer time to void because the surgeon evacuated the bladder. Contrariwise, spinal anesthesia patients have large bladder volumes. Dr. Pavlin stated that patients given more fluids might not void faster. The time to void remains the same, but the bladder volume becomes larger. The patients' sensation and nurses' assessments of bladder volumes prove wrong about half the time. Therefore objectively measuring residual volumes is important.

Dr. Pavlin concluded her presentation by recommending that all patients empty their bladders before surgery. She cautioned that voiding does not guarantee an empty bladder and that ultrasound is one of the ways to determine residuals and bladder function. Low-risk patients can go home without voiding. High-risk patients should void and display a residual volume less than 300 ml or be catheterized if bladder volume is > 500 to 600 ml for one hour as measured by ultrasound. Finally, discharge instructions should require all patients to return to a hospital if not voiding in eight to 10 hours. 

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contemporary topics of major clinical importance at all our educational offerings. Additionally SAMBA will be proactive in its networking and outreach projects to develop ambulatory anesthesia care in our global "neighborhood." Extending its sphere of influence during the past year, SAMBA

completed its first Spanish version of the monthly electronic newsletter "SAMBA Talks" under the guidance of the Committee on Latin American Relations. Eventually the Society hopes to host educational programs in Latin America.

Again I thank you for the opportunity to serve you and the Society. During the next several months, I look

forward to receiving any suggestions that might enable SAMBA to better serve your needs.

Reference:

1. Waters RM. The down-town anesthesia clinic. *Am J Surg.* (anesthesia suppl) 1991; 33:71-73. 

Any Patient Can Be an Outpatient

By *Babatunde O. Ogunnaike, M.D.*
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During the SAMBA 2004 Annual Meeting in Seattle, Washington, the session on "Expertise in Ambulatory Anesthesia" was moderated by SAMBA President **Frances Chung, M.D.**, Toronto, Ontario, Canada. The first speaker, **Lydia A. Conlay, M.D., Ph.D.**, Houston, Texas, presented the topic "Any Patient Can Be an Outpatient." Dr. Conlay discussed the characteristics of outpatients 10 years ago and contrasted them to the present day. She reiterated that sicker, older patients and patients with increasing comorbidities are now being considered candidates for outpatient surgeries. Furthermore extensive and complicated procedures, which were once performed on an inpatient basis, are now performed on an outpatient basis. Also technological advances are affecting our patients and clinical practices. She emphasized that third-party payers are drastically trying to affect medical necessity and define where a surgical procedure is performed. Along these lines, Dr. Conlay quoted two colleagues: **Walter G. Maurer, M.D.**, Cleveland, Ohio, who asked, "How much surgery can be done on the same day on the same outpatient anyway?" and **Ronald Wender, M.D.**, Los Angeles, California, who stated that "no woman is too sick or too old to be beautiful." Dr. Conlay noted that, at one point, Dr. Wender had not yet inserted a Swan-Ganz catheter for a facelift, but it was his personal objective to do so.

Dr. Conlay emphasized that ambulatory surgery is very safe even in patients over 70 years of age as long as anesthesia is appropriately planned according to their medical, physical and social conditions. Warner et al.¹ evaluated the incidence and time sequence of major morbidity and mortality within one month of ambulatory surgery in more than 38,000 adult pa-

tients undergoing more than 45,000 consecutive anesthetics. Their main outcome measures were incidences of myocardial infarction, central nervous system deficit, pulmonary embolism and respiratory failure. Overall morbidity and mortality rates were very low, however. There were only four deaths (two of them from automobile accidents) and 31 major morbidities. More than one-third of major morbidity occurred 48 hours after surgery.

In a more recent study² of 1,647 elderly patients 70 years or older, 40 percent of them underwent general anesthesia; the rest underwent regional or local anesthesia. The overall admission rate, which was the primary outcome measure, was 1.6 percent. Twelve and one-half percent were classified as ASA Physical Status 3. Reasons for patient admission included general anesthesia (only 3.3 percent), inability to mobilize, change in surgery to more than originally planned and unstable home circumstances. This suggests that, with a properly chosen plan, ambulatory surgery is very safe in elderly patients.

Fleisher et al.³ performed a five-year retrospective analysis of more than 500,000 elderly (>65 years) Medicare beneficiaries undergoing various surgical procedures. The hypothesis was that surgery at different outpatient care locations in the higher-risk elderly population is associated with similar rates of inpatient hospital admission and death. Outcome measures included death rate, emergency department visits and admission to an inpatient hospital within seven days of outpatient surgery. Statistically significant predictors of death within seven days of outpatient surgery were found to be age over 85 years, female gender, having surgery initially performed in an outpatient hospital and prior inpatient admissions. The absolute rate of inpatient hospital admission, emergency department visits and death within seven days of outpatient surgery in this study was approximately 0.1 percent.

Dr. Conlay also discussed the suitability of various surgical procedures



Babatunde O. Ogunnaike, M.D.

such as bilateral knee arthroscopy, laparoscopic cholecystectomy, open cholecystectomy (minilaparotomy), endovascular surgery, transurethral resection of prostate (TURP), lumbar microdiscectomy, mastectomy and Zenker's diverticulotomy as outpatient procedures. Furthermore she discussed the predictors of admission, complications and success rate of these procedures in an outpatient setting by presenting the results of some recent studies. Knee arthroscopy was described as a "bread and butter" procedure for anesthesiologists. Bilateral knee arthroscopies, however, are now being performed on an outpatient basis. Kulkarni et al.⁴ audited for suitability of bilateral knee arthroscopy (n = 100) as a day-case procedure and found that in 31 percent of minor complications, most had postoperative pain related to significant incidence of bilateral knee arthritis. About 2.5 percent had major complications, including severe pain, hemarthrosis, infection and limitation of joint movement requiring admission. Almost two-thirds (68 percent) were able to leave the hospital with no walking canes, about one-third (31 percent) required crutches, and 1 percent required a walking cane. Complication rate of bilateral knee arthroscopy is similar to unilateral arthroscopy.

The study concluded that with careful patient selection, bilateral knee arthroscopies could be performed on an outpatient basis.

Dr. Conlay went on to talk about what she described as best practices for “envelope” procedures in ambulatory anesthesiology. She noted that laparoscopic cholecystectomy, an envelope procedure, is now being done as an outpatient rather than a 23-hour procedure. Simpson et al.⁵ looked at the predictors of hospital admission in 126 patients after outpatient laparoscopic cholecystectomy. They found that the single most significant predictive factor for admission was preoperative surgical diagnosis (acute cholecystitis or biliary pancreatitis). Interestingly ASA Physical Status and age (>60 years) were not significant predictors of admission, although they tended to predict which patients would need more time in the recovery room. They questioned whether these patients should have procedures performed in a freestanding facility as opposed to an attached facility or one that allows a 23-hour or overnight stay.

Voitk et al.⁶ prospectively studied 100 consecutive high-risk patients (age >70, ASA Physical Status 3 or greater) scheduled for outpatient laparoscopy (cholecystectomy and inguinal hernia repair). Incidences of hospital admission and conversion to open cholecystectomy were significantly higher for higher risk patients. Other parameters such as rates of readmission, complications, acute cholecystitis and length of hospital stay were statistically similar. Despite the higher admission rate for high-risk patients, any instability in these patients occurred within the initial six-hour postoperative period. Therefore patients who are initially stable may not decompensate later, suggesting that routine outpatient surgery is safe in the high-risk elderly patient.

In another study,⁷ patients were more carefully selected (ASA Physical Status 3 and 4 and those with common bile duct stones were excluded) and best practices were followed, includ-

ing prophylaxis with metoclopramide and ketoprofen, adequate opioid use (fentanyl 0.1-0.15 mg at induction and as necessary thereafter) and propofol infusion for maintenance. They reported that bupivacaine instilled into the right subphrenic area did not always adequately control pain if there was bleeding into the subphrenic area; therefore, minimal intraoperative bleeding was a prerequisite for outpatient management. They found that more than 90 percent of patients could be discharged home. Life-threatening complications such as bleeding, respiratory problems and embolism were observed very early. Recovery time to resume normal activity or work in this study was an impressive 11 days.

... patients should not be discharged into a “black hole,” particularly in patients with comorbidities.

As best practices allow us to continue to perform laparoscopic cholecystectomy on an ambulatory procedure, some are using these techniques for day-case open cholecystectomy. Thomas et al.⁸ studied 30 patients undergoing open cholecystectomy. Patients were encouraged postoperatively to be ambulant, start oral fluids and void urine. About 77 percent of patients were actually discharged within 24 hours, and most remarkably, 83 percent approved of the care they had received.

Dr. Conlay noted that endovascular surgical procedures are becoming day-case procedures. In general up to 75 percent of patients with chronic limb ischemia requiring endovascular procedures (e.g., balloon angioplasties or angioplasties with stents) may be amenable to outpatient care; the predictors of admission were unstable medical risk factors, in particular, coro-

nary artery disease as well as longer operative times and complex revascularizations.^{9,10} Interestingly age and comorbidity did not determine the need for admission if the patient’s illness was stable.^{9,10}

A recent study¹¹ evaluated 212 patients undergoing ambulatory lumbar microdiscectomy. They found that only two factors (workers’ compensation status and patient age) negatively affected outcome. The negative effect of patient age was linear with increasing age between 25 and 56 years. However, 75 percent to 80 percent of patients could be discharged the same day and most (65 percent) returned to their normal daily activities with only a slightly lower percentage (61 percent) returning to normal work.

Outpatient complete mastectomy is another procedure that has changed significantly over time. Case et al.¹² looked at the influence of payer and state on the use of outpatient services for complete mastectomy in light of length-of-stay legislation by state and federal managed care agencies. Between 1993 and 1996, outpatient complete mastectomy increased from an average of 1 percent to 2 percent in all states to up to 22 percent in Colorado and 30 percent in New York. The one predictive factor for a patient to have outpatient complete mastectomy was the presence of a health maintenance organization. In contrast women with Medicaid, Medicare or private insurance were less likely to receive outpatient complete mastectomy.

Chander et al.¹³ looked at the feasibility of TURP as catheter-free, day-case surgery with tightly controlled patient selection criteria (i.e., younger patients, no comorbidities, moderate-sized prostate [< 50 ml]) and spinal anesthesia, which was believed to reduce the incidence of bladder spasms. Ninety-eight percent of patients were able to remove the catheter within 10 hours and were discharged within 23 hours with a clear catheter effluent.¹⁴

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Any Patient Can Be an Outpatient

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The feasibility of ambulatory endoscopic Zenker's diverticulotomy was examined by Gross et al.¹⁵ They noted 20 percent complications, 12.5 percent of which were intraoperative (7.5 percent mucosal ulceration and 5 percent iatrogenic tooth fracture) and 7.5 percent postoperative of which 2.5 percent experienced myocardial infarction. The remaining patients received oral feeds and were discharged home the same day.

Dr. Conlay concluded that almost any patient can be an outpatient as long

as a careful anesthetic plan is formulated based on preoperative evaluation along with "fast tracking" anesthetic techniques, including multimodal postoperative pain control and adequate postoperative nausea and vomiting precautions. She cautioned, however, that patients should not be discharged into a "black hole," particularly in patients with comorbidities. In addition an appropriate follow-up protocol must be in place, and a patient's primary care physician or specialist should have adequate knowledge of the surgery and should be available postoperatively. Furthermore Dr. Conlay questioned

the growth of ambulatory surgery and hinted that we might be "pushing the envelope" too far and that we should always know whether certain practices are benefiting our patients.

The audience was left with a few questions, including: Should just any patient have outpatient surgery? Who benefits from this trend in ambulatory surgery? Has the concept of ambulatory surgery increasingly gone too far and perhaps for the wrong reasons?

References are available on the SAMBA Web site at <www.sambahq.org>. SAMBA



SAMBA 2004 Mid Year Meeting

Mark your calendar now, and plan to attend the SAMBA 2004 Mid Year Meeting on Friday, October 22, 2004, one day prior to the American Society of Anesthesiologists (ASA) Annual Meeting in Las Vegas, Nevada. SAMBA is recognized as the leader in ambulatory anesthesiology educational programs, and the program to be presented at the upcoming Mid Year Meeting confirms this leadership position.

Program Chair **Ronald S. Litman, D.O.**, Philadelphia, Pennsylvania, and the Committee on Mid Year Meeting have assembled an information-packed program that will present in-depth information that you can apply to your practice. The committee has divided the program into five segments for maximum educational impact.

I. Following registration and breakfast, the morning session will begin with a panel on "Ambulatory Anesthesia Research." Topics to be covered during the panel include "Novel Regional Techniques in Ambulatory

Anesthesia," "Antiemetics: New Drugs and New Strategies" and "Analgesics and Outcome After Ambulatory Anesthesia: Is There an Association?"

II. The morning session concludes with a panel on "Office-Based Anesthesia: Update on Patient Eligibility." At this session, members will participate in discussions on "Patients with ICDs and Pacemakers," "Patients With Sleep Apnea," "Obese Patients" and "Patients With Renal Disease."

III. Following the morning program, meeting attendees will be treated to a special luncheon lecture on "Getting Tricked by Medical Software and Devices? Let's See Through the Unintended Magic!"

IV. The afternoon session will begin with a panel on "Regional Anesthesia." This panel will address regional anesthesia group practice in pediatric outpatient settings in France and Canada, adult outpatients in a multi-hospital private practice setting and at the Hospital for Special Surgery in New York. A panel addressing the "Legal Aspects

of Ambulatory Anesthesia" will include topics on "What Can the Ambulatory Anesthesiologist Learn From the Closed-Claims Studies and Other Data?" and "Potential Legal Pitfalls for the Pediatric Ambulatory Anesthesiologist."

V. Rounding out the afternoon session will be a panel on "International Ambulatory Anesthesia," presenting an overseas view of issues and concerns facing the subspecialty.

Registration is available online at <www.sambahq.org>. As a membership benefit, SAMBA members will receive a discount off the regular registration fees. Additional details will be forwarded to SAMBA members in future mailings of the monthly electronic newsletter, "SAMBA Talks." If you are not receiving "SAMBA Talks" and wish to do so, you may subscribe online at the SAMBA Web site at no charge. SAMBA

Expertise in Ambulatory Anesthesia

By Uma Munnur, M.D.
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During the session on "Expertise in Ambulatory Anesthesia," **Thomas W. Cutter, M.D.**, Chicago, Illinois, discussed "The Role of the Medical Director." He emphasized that physicians perform a wide range of tasks in common with managers. He defined the role of the medical director as an overseer of the administrative, medical and financial tasks related to the overall management of the surgical suite. He emphasized that coordination of intradepartmental and interdepartmental communication is an important administrative task of a medical director. Collegiality with surgical team members and the nursing staff is extremely important for improved patient care. Knowledge of economics is integral for both budget preparation and monitoring as well.

Dr. Cutter discussed the two styles of a medical director: authoritarian and advisory. The authoritarian approach invests a significant amount of power and autonomy in the medical director while retaining both responsibility and authority. Conversely, in the advisory style, the medical director has both little authority and responsibility and serves merely as a figurehead. He pointed out that there are many current models of medical directorship, and a problem with these models is that they lead to a *management* style rather than *leadership* style. He emphasized that for people to follow, the director has to lead, not manage. Dr. Cutter also discussed the Gatrell and White management model for physician management. This model divides managers into five broad clusters of capability: contextual awareness, strategic thinking, functional and operational skills and knowledge, interpersonal and team skills and self-management.

Dr. Cutter concluded that the role of the medical director is open to signifi-

cant interpretation and application and that the responsibilities vary depending upon the individuals and institutions involved. Therefore the medical director could serve a role as significant as a "czar" or as nominal as a consultant depending on the degree of involvement and influence.

Douglas G. Merrill, M.D., Seattle, Washington, discussed "Benchmarking in Ambulatory Anesthesia." Dr. Merrill suggested that in order to provide better patient care, one must monitor not only outcomes and costs but also establish goals and maintain a global outlook while "benchmarking" one's own practice. He proposed criteria for choosing an appropriate anesthetic technique, which include safety, side effects, cost, rapid onset of drugs and rapid and controllable departure of both drug effects and patients. By juxtaposing patient concerns with



Uma Munnur, M.D.

care unit stay and postoperative nausea and vomiting rates. A telephone survey was conducted the day after surgery to rate overall patient satisfaction. There was no significant difference in the clin-

...[I]dentification of problems and baseline evaluation of outcomes followed by alterations in procedures and policies could be used to improve anesthetic practice. When these efforts are combined with knowledge of national benchmarks, individuals can have reasonable targets to use as goals for improvement.

provider concerns, Dr. Merrill highlighted that top concerns are different for both groups. While anesthesiologists were most concerned with incisional pain, patients placed nausea at the top of their list.

In collaboration with an anesthesiologist and a programmer, Dr. Merrill used a Microsoft Access program to create a database to monitor the postoperative course. He used this database with data on medication and cost supplies to evaluate a change in his anesthetic practice. He proposed a change in the anesthetic technique at his institution by substituting propofol for opioids and benzodiazepines and measuring average length of postanesthesia

ical outcomes with the change in the anesthetic technique. There was, however, some evidence of an early trend toward improvement in cost.

Dr. Merrill concluded that identification of problems and baseline evaluation of outcomes followed by alterations in procedures and policies could be used to improve anesthetic practice. When these efforts are combined with knowledge of national benchmarks, individuals can have reasonable targets to use as goals for improvement. Therefore all practitioners should begin collecting their own data and "tailor" their anesthetic technique to maximize both cost and patient benefit.

The Role of Dexamethasone and Anesthesia Depth in the Incidence of Postoperative Cognitive Dysfunction: A Factorial Randomized Controlled Trial

Principal Investigator:

Karen C. Nielsen, M.D.

Co-Investigators: Ricardo

Pietrobon, M.D., Ph.D., Susan

M. Steele, M.D., Christian C.

Apfel, M.D., Daniel I. Sessler,

M.D.

Postoperative cognitive dysfunction (POCD) is a common event after surgery and general anesthesia in the elderly,¹ carrying a burden of suffering brought by decreased quality of life. POCD may be manifested as postoperative confusion, which has been reported in up to 44 percent of all elderly patients undergoing surgical fixation of a fractured neck of the femur.² When POCD is evaluated across multiple surgical procedures, the incidence of cognitive deficits has been found to be about 26 percent one week after surgery and approximately 10 percent three months after surgery.³

In spite of its high prevalence, causal mechanisms are poorly understood, and few (if any) preventive therapies are available. POCD has been previously postulated to result from the inflammatory or metabolic stress response associated with surgery.⁴ This association leads to a hypothesis that a decrease in stress response would lead to a decrease in the incidence of POCD, a phenomenon that can be accomplished by preoperative steroids.^{5,6} The same rationale can be applied to other causes of POCD, including postoperative pain and postoperative fatigue.⁷ In addition, preoperative steroids reduce the duration of convalescence

leading to early mobilization and potentially fewer incidences of POCD.⁷

In relation to monitoring of anesthesia depth, previous studies have pointed to anesthesia duration and continued exposure of the central nervous system to anesthetic drugs³ as a direct cause of short-term POCD.⁴ Although no previous study has been conducted to evaluate the role of anesthesia depth on POCD, it is plausible that keeping patients at a higher consciousness level and less exposed to anesthetic drugs would potentially decrease the incidence of POCD.

Although the use of preoperative steroids and monitoring of anesthesia depth (determined by the bispectral index monitor, or BIS) during anesthesia have been previously shown to reduce adverse outcomes that are commonly associated with POCD, the direct effect of these interventions in the reduction of POCD has not been evaluated. Therefore the aim of this multicenter factorial randomized controlled trial is to determine whether combinations of two different levels of depth of consciousness during anesthesia and preoperative intravenous dexamethasone can decrease the incidence of POCD.

Three hundred people above the age of 60 undergoing ambulatory surgery under general anesthesia will be enrolled in this study. The incidence of POCD in young patients is not significant, and they will not be studied. Participants will be randomized to one of four arms: light anesthesia (BIS 50-60) plus dexamethasone (8 mg I.V. two

hours prior to surgery), deep anesthesia (BIS 30-40) plus dexamethasone, light anesthesia plus placebo or deep anesthesia plus placebo. Anesthetic management will be standardized.

Prior to surgery, baseline cognitive function will be evaluated using validated tests (Telephone Cognitive Assessment Battery, Blessed Telephone Information-Memory-Concentration Test). Participants also will be evaluated using a battery of validated cognitive tests measured by telephone and/or the Internet applied at baseline and closely monitored at postoperative 1, 3, 7, 21, 60 and 180 days. Extensive information on potential confounders will be obtained. Additional patient outcomes will be collected, including postoperative pain (Visual Analogue Scale), postoperative nausea and vomiting (Visual Analogue Scale), postoperative fatigue (The Fatigue Self-Rating Scale), depression (Center for Epidemiological Studies Depression Scale-CES-D), quality of life (Sabin-Feldman-36), and social support given by family, friends or significant other (Multidimensional Scale of Perceived Social Support). Evaluation of the role of dexamethasone and level of consciousness during anesthesia on POCD will allow for the assessment of factors that can potentially increase the safety of ambulatory anesthesia improving patient outcomes.

References are available on the SAMBA Web site at <www.sambahq.org>. 

'It Was 20 Years Ago Today ...' Beverly K. Philip, M.D., DSA Winner

The following speech was given by Beverly K. Philip, M.D., on Saturday, May 1, at the SAMBA 2004 Annual Meeting.

It's been an interesting few years with you all. Actually it's been more than a few — exactly 20 years ago. This is the 20th anniversary year of the founding of SAMBA. In 1984, Bernard V. Wetchler, M.D., Burton S. Epstein, M.D., and Surinder K. Kallar, M.D., brought together a group of anesthesiologists interested in ambulatory surgery at the American Society of Anesthesiologists (ASA) 1984 Annual Meeting in New Orleans, Louisiana. Twenty of us met "to discuss the formation of a Society for ambulatory surgery anesthesia." By October 1985, we had a name, "SAMBA," thanks to our warmly remembered colleague Stanley Bresticker, M.D., and we had 161 charter members.

By October 1986, we presented our first educational meeting, published a newsletter and began a strong relationship with ASA as its ambulatory subspecialty organization. From there SAMBA continued to grow steadily under the leadership of presidents Wetchler, Epstein, Kallar and Harry C. Wong, M.D. Then it was my turn to serve as President in 1991-92.

The year I had as president of this organization was one of the real highlights of my professional life. We did a lot together. We expanded our meeting, provided continuing medical education with ASA and published meeting lectures as a journal supplement. Also we began contributing to policy development on the national level, sending a representative to the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) ambulatory advisory group. There is one accomplishment that year that I am especially proud of. During my term as President, under the outstanding leadership of Rebecca S. Twersky, M.D., SAMBA developed educational guidelines for the training of anesthesiology residents and subspecialty fellows. Many



Beverly K. Philip, M.D., and her husband, James H. Philip, M.D., also an anesthesiologist, with the 2004 Distinguished Service Award statue.

other specialty organizations have since followed *our* leadership in educational guidelines for anesthesiology trainees.

And then, after being President, I was "promoted" into that really educational job of Annual Meeting Chair for 1994-95. Executive Director Gary W. Hoormann and I had a few interesting years with those projects. I have had the privilege and the opportunity to serve SAMBA as its representative to the accrediting organizations that help promote safety in our practices, both JCAHO and the Accreditation Association for Ambulatory Health Care, Inc. I also have the privilege to be SAMBA's delegate to ASA.

We grew, but more importantly, we flourished. Many other illustrious individuals have made our organization what it is and gave it the ideas and enthusiasm to grow and flourish. There was the next wave of leaders of our Society up to current President Frances Chung, M.D., and incoming President Kathryn E. McGoldrick.

Where do we go from here with SAMBA? The question has been

asked; now what? Now most of anesthesiology is ambulatory. In 1984 we were the visionaries, and we foresaw that it was *better* not to stay in a hospital for several days for minor procedures. I say that we are continuing to be the visionaries. The future of ambulatory anesthesiology and SAMBA is in more intricate procedures done on sicker patients, addressing more and more of our patients' surgical needs. The future also is an expanded concept of what is ambulatory *surgical* care. We will lead our anesthesiologist colleagues in providing safe anesthesia care for imaging and interventional procedures as those replace most of what is now conventional surgery. We will lead our anesthesiologist colleagues to expand safe care for anesthesia provided in other nonconventional locations such as doctors' offices.

We will lead in directions that are not even on the horizon now. But again, the *real* strength of this organization is its people. The even-further future looks even brighter — I see all the competent and interested individuals who are continuing to step up to the plate to offer enthusiasm and leadership currently working on our committees and leading our committees.

This award is an incredible honor for me. Ambulatory anesthesiology is what I truly care about. I have to thank all the people who laid the groundwork and provided the platform on which I could add my contributions, all the past presidents, all the committee chairs and especially all the committee members who helped me reach the goals I wanted to reach. I stand in a long line of past and future recipients of this prestigious award, including past presidents as well as other notable individuals who have served the specialty of ambulatory anesthesiology. I also want to thank Mr. Hoormann, who has been the Executive Director of our organization since we joined with ASA.

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SAMBA Needs Your Involvement

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to **Karen Nielsen, M.D.**, Durham, North Carolina. An abstract of her study, "The Role of Dexamethasone and Anesthesia Depth in the Incidence of Postoperative Cognitive Dysfunction: A Factorial Randomized Controlled Trial," appears on page 10. Dr. Nielson's grant money will be given over a period of two years.

Each year SAMBA presents its Distinguished Service Award, and this year, **Beverly K. Philip, M.D.**, Boston, Massachusetts, received the award for her service to SAMBA and her extensive contributions to ambulatory anesthesiology. Her acceptance speech is included on page 11.

The next educational program organized by SAMBA will be our Mid Year

Meeting on October 22, just prior to the ASA Annual Meeting in Las Vegas, Nevada. **Ronald S. Litman, D.O.**, Philadelphia, Pennsylvania, has put together an excellent program, and I encourage you to attend what is sure to be an excellent meeting. Thomas W. Cutter, M.D., has organized a SAMBA Breakfast Panel on preoperative process for outpatients at the American Society of Anesthesiologists Annual Meeting.

A lot of time and effort has been put into making SAMBA more prominent and improving the value of membership, but a lot of work still needs to be done. I encourage you to become more involved in our Society.

I look forward to seeing you in Las Vegas! 

Beverly K. Philip, M.D., DSA Winner

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This is also a good time to thank the other individuals who made this possible. In particular I thank my incredibly talented and accomplished husband, Jim Philip. Without his personal support, none of this would be possible for me. I also thank my children, who are both now off on their own medical and

scientific careers. Some of you will remember when they were here at the SAMBA meetings when I was President and Annual Meeting Chair.

And I especially thank SAMBA — all of you — who gave me the opportunity to serve and the opportunity to make a *real* difference in the world. From the bottom of my heart, thank you all. 