The first and only IV formulation of acetaminophen available in the US

Improved pain relief, reduced opioid consumption

**Significant pain relief**

- OFIRMEV 1 g + patient-controlled analgesia (PCA) morphine demonstrated significant pain relief vs placebo + PCA morphine (P<0.05 over 6 h)
- OFIRMEV 1 g + PCA morphine showed greater reduction in pain intensity over 24 h (SPID24) compared to placebo + PCA morphine (P<0.001)

**Reduced opioid consumption**

- OFIRMEV 1 g + PCA morphine significantly reduced morphine consumption vs placebo + PCA morphine (–46% over 6 h, P<0.01; –33% over 24 h, P<0.01)
- The clinical benefit of reduced opioid consumption was not demonstrated

**Indication**

OFIRMEV is indicated for the management of mild to moderate pain; the management of moderate to severe pain with adjunctive opioid analgesics; and the reduction of fever.

**Important Safety Information**

OFIRMEV is contraindicated in patients with severe hepatic impairment, severe active liver disease or with known hypersensitivity to acetaminophen or to any of the excipients in the formulation.

Aceatinophen should be used with caution in patients with the following conditions: hepatic impairment or active hepatic disease, alcoholism, chronic malnutrition, severe hypovolemia, or severe renal impairment.

Do not exceed the maximum recommended daily dose of acetaminophen. Administration of acetaminophen by any route in doses higher than recommended may result in hepatic injury, including the risk of severe hepatotoxicity and death.

OFIRMEV should be administered only as a 15-minute intravenous infusion.

Discontinue OFIRMEV immediately if symptoms associated with allergy or hypersensitivity occur. Do not use in patients with acetaminophen allergy.

The most common adverse reactions in patients treated with OFIRMEV were nausea, vomiting, headache, and insomnia in adult patients and nausea, vomiting, constipation, pruritus, agitation, and atelectasis in pediatric patients.

The antipyretic effects of OFIRMEV may mask fever in patients treated for post-surgical pain.

Please see Brief Summary of Prescribing Information on adjacent page or full Prescribing Information at OFIRMEV.com.

*Randomized, double-blind, placebo-controlled, single- and repeated-dose 24-h study (n=101). Patients received OFIRMEV 1 g + PCA morphine or placebo + PCA morphine the morning following total hip or knee replacement surgery. Primary endpoint: pain relief measured on a 5-point verbal scale over 6 h. Morphine rescue was administered as needed. SPID24=sum of pain intensity differences, based on VAS score, from baseline, at 0 to 24 h.

**References:**


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INDICATIONS AND USAGE
ORFIMEV® (acetaminophen) injection is indicated for:
- the management of mild to moderate pain
- the management of moderate to severe pain with adjunctive opioid analgesics
- the reduction of fever.

CONTRAINDICATIONS
Acetaminophen is contraindicated:
- in patients with known hypersensitivity to acetaminophen or to any of the excipients in the intravenous formulation.
- in patients with severe hepatic impairment or severe active liver disease.

WARNINGS AND PRECAUTIONS
Hepatic Injury
Administration of acetaminophen in doses higher than recommended may result in hepatic injury, including the risk of severe hepatotoxicity and death. Do not exceed the maximum recommended daily dose of acetaminophen.

Use caution when administering acetaminophen in patients with the following conditions: hepatic impairment or active hepatic disease, alcoholism, chronic malnutrition, severe hypoxemia (e.g., due to dehydration or blood loss), or severe renal impairment (creatinine clearance ≤ 30 mL/min).

Allergy and Hypersensitivity
There have been post-marketing reports of hypersensitivity and anaphylaxis associated with the use of acetaminophen. Clinical signs included swelling of the face, mouth, and throat, respiratory distress, urticaria, rash, and pruritus. There were also instances of life-threatening anaphylaxis requiring emergent medical attention. Discontinue ORFIMEV immediately if symptoms associated with allergy or hypersensitivity occur. Do not use ORFIMEV in patients with acetaminophen allergy.

ADVERSE REACTIONS
The following serious adverse reactions are discussed elsewhere in the labeling:
- Hepatic Injury
- Allergy and Hypersensitivity

Clinical Trial Experience
Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed cannot be directly compared to rates in other clinical trials and may not reflect the rates observed in practice.

Adult Population
A total of 1,620 adult patients have received ORFIMEV in clinical trials, including 37.6% (n=380) who received 5 or more doses, and 17.6% (n=173) who received more than 10 doses. Most patients were treated with ORFIMEV 1000 mg every 6 hours. A total of 13.1% (n=134) received ORFIMEV 650 mg every 4 hours.

All adverse reactions that occurred in adult patients treated with ORFIMEV or placebo in repeated dose, placebo-controlled clinical trials at an incidence ≥ 3% and at a greater frequency than placebo are listed in Table 1. The most common adverse events in adult patients treated with ORFIMEV (incidence ≥ 3% and greater than placebo) were rashes, vomiting, headache, and insomnia.

Table 1. Treatment-Emergent Adverse Reactions Occurring ≥ 3% in ORFIMEV and at a Greater Frequency than Placebo in Placebo-Controlled, Repeated Dose Studies

<table>
<thead>
<tr>
<th>System Organ Class – Preferred Term</th>
<th>ORFIMEV (N=482) n (%)</th>
<th>Placebo (N=370) n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastrointestinal Disorders</td>
<td>118 (24)</td>
<td>119 (11)</td>
</tr>
<tr>
<td>Nausea</td>
<td>62 (15)</td>
<td>52 (14)</td>
</tr>
<tr>
<td>Vomiting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Disorders and Administration Site Conditions</td>
<td>22 (5)</td>
<td>52 (14)</td>
</tr>
<tr>
<td>Pyrexia*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nervous System Disorders</td>
<td>39 (10)</td>
<td>33 (9)</td>
</tr>
<tr>
<td>Headache</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychiatric Disorders</td>
<td>36 (7)</td>
<td>21 (5)</td>
</tr>
<tr>
<td>Insomnia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Pyrexia adverse reaction frequency data is included in order to alert healthcare practitioners that the antipyretic effects of ORFIMEV may mask fever.

Other Adverse Reactions Observed During Clinical Studies of ORFIMEV in Adults
The following additional treatment-emergent adverse reactions were reported by adult subjects treated with ORFIMEV in all clinical trials (n=1020) that occurred with an incidence of at least 1% and at a frequency greater than placebo (n=525):

- Blood and lymphatic system disorders: anemia

General disorders and administration site conditions: fatigue, infusion site pain, edema peripheral

Investigations: aspartate aminotransferase increased, blood sounds abnormal

Metabolism and nutrition disorders: hypokalemia

Musculoskeletal and connective tissue disorders: muscle spasm, trismus

Psychiatric disorders: anxiety

Regulatory, thoracic and mediastinal disorders: dyspnea

Vascular disorders: hypertension, hypotension

Pediatric population
A total of 355 pediatric patients (47 neonates, 64 infants, 171 children, and 73 adolescents) have received ORFIMEV in active-controlled (n=250) and open-label clinical trials (n=225), including 59.2% (n=121) who received 5 or more doses and 43.1% (n=55) who received more than 10 doses. Pediatric patients received ORFIMEV doses up to 15 mg/kg on every 4 hours, every 6 hours, or every 8 hours schedule. The maximum exposure was 5.7, 6.4, 6.8, and 7.1 days in neonates, infants, children, and adolescents, respectively.

The most common adverse events (incidence ≥ 5%) in pediatric patients treated with ORFIMEV were nausea, vomiting, constipation, pruritus, agitation, and asthenia.

Other Adverse Reactions Observed During Clinical Studies of ORFIMEV in Pediatrics
The following additional treatment-emergent adverse reactions were reported by pediatric subjects treated with ORFIMEV (n=355) that occurred with an incidence of at least 1%:

- Blood and lymphatic system disorders: anemia

Cardiovascular disorders: tachycardia

Gastrointestinal disorders: abdominal pain, diarrhea

General disorders and administration site conditions: injection site pain, edema peripheral, pyrexia

Investigations: hepatic enzyme increase

Metabolism and nutrition disorders: hypocalcemia, hypokalemia, hyponatremia, hyperphosphatemia, hyperuricemia

Musculoskeletal and connective tissue disorders: muscle spasm, pain in extremity

Nervous system disorders: headache

Psychiatric disorders: insomnia

Reproductive and urinary disorders: oliguria

Respiratory, thoracic and mediastinal disorders: pulmonary edema, hypoxia, pleural effusion, stridor, wheezing

Skin and subcutaneous tissue disorders: periorbital edema, rash

Vascular disorders: hypertension, hypotension

DRUG INTERACTIONS
Effects of other Substances on Acetaminophen
Substances that induce or regulate hepatic cytochrome enzyme CYP2E1 may alter the metabolism of acetaminophen and increase its hepatotoxic potential. The clinical consequences of these effects have not been established. Effects of ethanol are complex, because excessive alcohol usage can induce hepatic cytochromes, but ethanol also acts as a competitive inhibitor of the metabolism of acetaminophen.

Anticoagulants
Chronic oral acetaminophen use at a dose of 4000 mg/day has been shown to cause an increase in international normalized ratio (INR) in some patients who have been stabilized on warfarin as an anticoagulant. As no studies have been performed evaluating the short-term use of ORFIMEV in patients on oral anticoagulants, more frequent assessment of INR may be appropriate in such circumstances.

USE IN SPECIFIC POPULATIONS
Pregnancy
Pregnancy Category C. There are no studies of intravenous acetaminophen in pregnant women; however, epidemiological data on oral acetaminophen use in pregnant women show no increased risk of major congenital malformations. Animal reproduction studies have not been conducted with IV acetaminophen, and it is not known whether ORFIMEV can cause fetal harm when administered to a pregnant woman. ORFIMEV should be given to a pregnant woman only if clearly needed.

The results from a large population-based prospective cohort, including data from 26,474 women with live-born singletons who were exposed to oral acetaminophen during the first trimester, indicate no increased risk for congenital malformations, compared to a control group of unexposed children. The rate of congenital malformations (4.3%) was similar to the rate in the general population. A population-based, case-control study from the National Birth Defects Prevention Study showed that 11,610 children with prenatal exposure to acetaminophen during the first trimester had no increased risk of major birth defects compared to 4,500 children in the control
group. Other epidemiological data showed similar results.

While animal reproduction studies have not been conducted with intravenous acetaminophen, studies in pregnant rats that received oral acetaminophen during organogenesis at doses up to 0.85 times the maximum human daily dose (MHDD = 4 grams/day, based on a body surface area comparison) showed evidence of fetotoxicity (reduced fetal weight and length) and a dose-related increase in bone variations (reduced ossification and rudimentary rib changes). Offspring had no evidence of external, visceral, or skeletal malformations. When pregnant rats received oral acetaminophen throughout gestation at doses of 1.2 times the MHDD (based on a body surface area comparison), areas of necrosis occurred in both the liver and kidney of pregnant rats and fetuses.

In a continuous breeding study, pregnant mice received 0.25, 0.5, or 1.0% acetaminophen via the diet (337.7, 715, or 1450 mg/kg/day). These doses are approximately 0.43, 0.87, and 1.7 times the MHDD, respectively, based on a body surface area comparison. A dose-related increase in body weights of fourth and fifth litters offspring of the treated mating pair occurred during lactation and post-weaning at all doses. Animals in the high dose group had a reduced number of litters per mating pair, male offspring with an increased percentage of abnormal sperm, and reduced birth weights in the next generation pups.

Labor and Delivery

There are no adequate and well-controlled studies with OFIRMV during labor and delivery. Therefore, it should be used in such settings only after a careful benefit-risk assessment.

Nursing Mothers

While studies with OFIRMV have not been conducted, acetaminophen is secreted in human milk in small quantities after oral administration. Based on data from more than 15 nursing mothers, the calculated infant daily dose of acetaminophen is approximately 1 – 2% of the maternal dose. There is one well-documented report of a rash in a breast-fed infant that resolved when the mother stopped acetaminophen use and recurred when she resumed acetaminophen use. Caution should be exercised when OFIRMV is administered to a nursing woman.

Pediatric Use

The safety and effectiveness of OFIRMV for the treatment of acute pain and fever in pediatric patients 2 years and older is supported by evidence from adequate and well-controlled studies of OFIRMV in adults. Additional safety and pharmacokinetic data were collected in 355 patients across the full pediatric age strata, from premature neonates (≤ 32 weeks post-menstrual age) to adolescents. The effectiveness of OFIRMV for the treatment of acute pain and fever has not been studied in pediatric patients ≥ 2 years of age.

Geiatric Use

Of the total number of subjects in clinical studies of OFIRMV, 15% were age 65 or over, while 5% were age 75 or over. No overall differences in safety or effectiveness were observed between these subjects and younger subjects, and other reported clinical experience has not identified differences in responses between the elderly and younger patients, but greater sensitivity of some older individuals cannot be ruled out.

Patients with Hepatic Impairment

Acetaminophen is contraindicated in patients with severe hepatic impairment or severe active liver disease and should be used with caution in patients with hepatic impairment or active liver disease. A reduced total daily dose of acetaminophen may be warranted.

Patients with Renal Impairment

In cases of severe renal impairment (creatinine clearance ≤ 30 mL/min), longer dosing intervals and a reduced total daily dose of acetaminophen may be warranted.

OVERDOSAGE

Signs and Symptoms

In acute acetaminophen overdose, dose-dependent, potentially fatal hepatic necrosis is the most serious adverse effect. Renal tubular necrosis, hypoglycemic coma, and thrombocytopenia may also occur. Plasma acetaminophen levels > 300 mcg/mL at 4 hours after oral ingestion were associated with hepatic damage in 90% of patients; minimal hepatic damage is anticipated if plasma levels at 4 hours are ≤ 150 mcg/mL or < 37.5 mcg/mL at 12 hours after ingestion. Early symptoms following a potentially hepatotoxic overdose may include: nausea, vomiting, diaphoresis, and general malaise. Clinical and laboratory evidence of hepatic toxicity may not be apparent until 48 to 72 hours post-ingestion.

PHARMACOKINETICS

The pharmacokinetics of OFIRMV have been studied in patients and healthy subjects from premature neonates up to adults 60 years old. The pharmacokinetic profile of OFIRMV has been demonstrated to be dose proportional in adults following administration of single doses of 500, 650, and 1000 mg.

The maximum concentration (Cmax) occurs at the end of the 15 minute intravenous infusion of OFIRMV. Compared to the same dose of oral acetaminophen, the Cmax following administration of OFIRMV is up to 70% higher, while overall exposure [area under the concentration time curve (AUC)] is very similar.

The pharmacokinetic exposure of OFIRMV observed in children and adolescents is similar to adults, but higher in neonates and infants. Dosing simulations from pharmacokinetic data in infants and neonates suggest that dose reductions of 33% in infants 1 month to < 2 years of age, and 50% in neonates up to 28 days, with a minimum dosing interval of 6 hours, will produce a pharmacokinetic exposure similar to that observed in children age 2 years and older.

NONCLINICAL TOXICOLOGY

Cardiogenic

Long-term studies in mice and rats have been completed by the National Toxicology Program to evaluate the carcinogenic potential of acetaminophen. In 2-year feeding studies, F344/N rats and B6C3F1 mice were fed a diet containing acetaminophen up to 6000 ppm. Female rats demonstrated equivocal evidence of carcinogenic activity based on increased incidences of mononuclear cell leukemia at 0.8 times the maximum human daily dose (MHDD) of 4 grams/day, based on a body surface area comparison. In contrast, there was no evidence of carcinogenic activity in male rats (0.7 times) or mice (1.3-1.4 times the MHDD, based on a body surface area comparison).

Mutagenesis

Acetaminophen was not mutagenic in the bacterial reverse mutation assay (Ames test). In contrast, acetaminophen tested positive in the in vitro mouse lymphoma assay and the in vitro chromosomal aberration assay using human lymphocytes. In the published literature, acetaminophen has been reported to be clastogenic when administered a dose of 1500 mg/kg/day to the rat model (0.6 times the MHDD, based on a body surface area comparison). In contrast, no clastogenicity was noted at a dose of 750 mg/kg/day (1.8 times the MHDD, based on a body surface area comparison), suggesting a threshold effect.

Impairment of fertility

In studies conducted by the National Toxicology Program, fertility assessments have been completed in Swiss mice via a continuous breeding study. There were no effects on fertility parameters in mice consuming up to 1.7 times the MHDD of acetaminophen, based on a body surface area comparison. Although there was no effect on sperm motility or sperm density in the epididymis, there was a significant increase in the percentage of abnormal sperm in mice consuming 1.7 times the MHDD (based on a body surface area comparison) and there was a reduction in the number of mating pairs producing a fifth litter at this dose, suggesting the potential for cumulative toxicity with chronic administration of acetaminophen near the upper limit of daily dosing.

Published studies in rodents report that oral acetaminophen treatment of male animals at doses that are 1.2 times the MHDD and greater (based on a body surface area comparison) result in decreased testicular weights, reduced spermatogenesis, reduced fertility, and reduced implantation sites in females given the same doses. These effects appear to increase with the duration of treatment. The clinical significance of these findings is not known.

OFIRMV (acetaminophen) injection

Manufactured by:
Cadeo Pharmaceuticals, Inc.
San Diego, CA 92130
Revised 11/2010
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U.S. PATENT NUMBER: 6,282,222; 6,992,218

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2

CSA Bulletin
# Table of Contents

5 Editor’s Notes  Sleepwalking But Not Well  Stephen Jackson, M.D.

10 President’s Page  Compelling Storytelling  Kenneth Y. Pauker, M.D.

16 ASA Director’s Report  “Advancing the Practice and Securing the Future” (How Do We Actually Do This?)  Mark Singleton, M.D.

19 On the Clock

26 Peering Over the Ether Screen  Checklists: How a Good Idea Gets a Bad Name  Karen S. Sibert, M.D.

29 On Your Behalf, Legislative and Practice Affairs

- Web Publishing: Legislative Reporting for the 21st Century  William E. Barnaby III, Esq., CSA Legislative Counsel
- Manipulating Scope-of-Practice Laws  William E. Barnaby, Esq., CSA Legislative Counsel
- Report from the Legislative and Practice Affairs Division (LPAD)  Paul Yost, M.D.
- Report on the CSA’s Opt-out Litigation  Kenneth Y. Pauker, M.D.

42 The Music and Mind of Beethoven: Chords of Disquiet  Bryan Maxwell, M.D.

46 Anesthesiologist Leads Negro Leagues Baseball Grave Marker Project

47 2012 CSA Winter Hawaiian Seminar and Annual Meeting Brochures

51 The End of Education As We Know It  Andrew J. Patterson, M.D., Ph.D., and Suzi Novak, M.A.

55 How a Surfing, Kite-boarding, Civic-minded Anesthesiologist Became Mayor of Seal Beach  Paul Yost, M.D.

58 If Not Us, Then Who?  Perry G. Fine, M.D.

60 Anesthesia Technologists: The Time Is Now  Thelma Z. Korpman, M.D., MBA

62 District Director Reports: September 2011

79 “Talking Gas with the Residents”  Nikan H. Khatibi, M.D.

83 CSA Website Update  Linda B. Hertzberg, M.D., and Karen S. Sibert, M.D.

85 From the CEO  Medicare Physician Fee Schedule—2012 and Beyond  Barbara Baldwin, MPH, CAE

87 OB Anesthesiology: What’s New, What’s Old and What’s Standard? How to Avoid Conflict and Achieve Good Outcomes  Mark Zakowski, M.D.
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Editor’s Notes

Sleepwalking But Not Well*

By Stephen Jackson, M.D., Editor

Physician impairment comes in all sizes, shapes and colors. The term does not, as we in our specialty might commonly believe, only imply chemical dependence or substance abuse. It also does not necessarily refer to the behavioral excesses or disruptive behavior that we all have experienced and been pressured to endure, at least until recent corrective actions were taken by medical staffs in response to mandates from The Joint Commission. Moreover, when we do consider physical impairment, most of us think in terms of physical diseases preventing physicians from practicing safely. However, there is one form of physical impairment that continues to plague our specialty, like a strange kind of tradition, and is largely unabated and poorly addressed: sleep deprivation and its consequent physical and mental fatigue. Although now addressed at the internship and residency levels by the Accreditation Council for Graduate Medical Education (see the article “On the Clock,” pages 19–24), sleep deprivation and associated fatigue still loom as major considerations in diminishing safety and quality in medical care. Unfortunately, beyond the specific ongoing discussions related to internship and residency training, little has been done to effectively deal with this festering malady that pervades the physician workforce. Indeed, from a practical standpoint, how can sleep deprivation be addressed without further depleting the already inadequate national physician workforce? Let’s look at two hypothetical-but-plausible scenarios from private practice.

First, a seasoned anesthesiologist at a small hospital in a rural resort community starts his 72-hour vacation-season call weekend with a labor epidural at 7 a.m. and soon is faced with a succession of typical “emergency” surgical cases on mostly otherwise healthy patients, punctuated by another two labor epidurals. Now, at 5 a.m. the next day, the final case is an appendectomy, and the anesthesiologist, despite several cups of coffee throughout the night, is exhausted and is having difficulty remaining awake. He recognizes this, and is somewhat embarrassed and annoyed by the realization, but he understands that his ethical obligation to his patients is to be well enough to care for them safely.

* This editorial is liberally drawn from two recent articles1,2 by Stanford’s Steven Howard, M.D., who has researched sleep deprivation and its adverse consequences on physician performance and patient safety.

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He knows that he was similarly fatigued before administering the previous anesthetic, and in fact, he had briefly fallen asleep several times during that case. He informs the surgeon that he believes that he cannot safely proceed with the appendectomy without first taking a 30-minute nap or—better still—he will try to find a colleague who can replace him. The surgeon, who has also worked most of the day and night and whose demeanor usually is calm and understanding, becomes angry and abusive. The anesthesiologist nonetheless contacts his only colleague who is in town. However, because the colleague was not on call, he had been imbibing alcohol at a party and states that he is not yet sober enough to work.

Next, a young anesthesiologist at a tertiary care/trauma hospital, who recently joined a large group immediately upon completion of her residency, begins her first 48-hour call weekend with a series of challenging cases involving ASA III and IV patients. The cases continue throughout the night and until 5 a.m. with almost no breaks. By this time she is exhausted both mentally and physically and is having trouble staying awake and thinking clearly. She literally is falling asleep on her feet. She knows, as she was taught in her residency, that she should consider herself unsafe to administer anesthesia and that she should not be permitted to do so. However, now she is informed that the emergency room just admitted a leaking abdominal aortic aneurysm that soon will be brought to the operating room. She is hesitant to contact the second call anesthesiologist, whom she doesn’t know, and is concerned that her reputation among her colleagues may be harmed if she doesn’t fulfill her call duty, regardless of her fatigue. Perhaps several cups of coffee might help her to safely care for this next patient.

Believable scenarios? Well, I do not mean to suggest that physicians who do these long shifts all become “zombies,” but I am attempting to portray a state resembling something more akin to sleepwalking (somnambulism). In fact, our “normal” state of being often is likely to be abnormal because many of us rarely, if ever, give ourselves the opportunity to get adequate sleep and rest. One even might conclude that our chronic sleep- and rest-deprivation effects a perceived normalization of a chronic physiologic deviance.

Some assert that anesthesiologists have the most onerous on-call workload of all physicians, and I would not try to refute this, although there may well be other specialties that would challenge this unpleasant and inconvenient truth. There is, however, no refuting the scientific evidence that sleep deprivation and fatigue (both physical and intellectual/mental) adversely affect our performance as clinicians, not to mention our personality and general well-being. Although interns and residents are protected from such potential self- and patient-abusive behavior, their attendings certainly are not, and, indeed, most anesthesiology practices are not “shackled” with regulations regarding sleep. Practicing in a
Given the reality that sleep deprivation and fatigue do arise in our practices, consider the ethical obligations that anesthesiologists are obliged to fulfill. The American Medical Association (AMA) Principles of Medical Ethics begin, quite simply, with the statement that “a physician shall be dedicated to providing competent medical care.” Assuredly, impairment of any kind would preclude sufficient competency. Likewise, the ASA Guidelines for the Ethical Practice of Anesthesiology (which incorporate the AMA’s Principles), the only document to which all ASA members are bound (and to which we agree to adhere annually when we renew our ASA membership—read the front of your membership card), begin with the declaration that “anesthesiologists have ethical responsibilities to their patients… that include placing the patient’s interests foremost, faithfully caring for the patient and being truthful” (Section I.1). Additionally, these guidelines state: “The practice of quality anesthesia care requires that anesthesiologists maintain their physical and mental health and special sensory capabilities. If in doubt about their health, then… during this period… anesthesiologists should modify or cease their practice” (Section IV.2). These and other related ethical responsibilities are succinctly covered by Steven Howard, M.D., in his chapter in Clinical Ethics in Anesthesiology.

In fact, with respect to a physician’s sleep-deprived impairment, Nurok has raised the question as to whether informed consent should include that specific piece of information, but this also would assume that physicians understand the likelihood of their underestimating their own level of physiologic sleepiness (and accompanying impairment). Of course, to be entirely realistic, there also are numerous practical and situational factors (such as economic, workforce and institutional exigencies) that need to be plugged into this “equation,” ones that necessarily force their intrusion into this messy conundrum, but all of these ultimately must be reconsidered if we (and our colleagues in other specialties) are to continue to hold ourselves out as professionals whose primary focus is the best interests of our patients.

Sleep is a reversible behavioral condition of perceptual disengagement from—and unresponsiveness to—the environment. Indeed, sleep is a basic human physiologic need that must be met or it becomes a relentless pressure. How many of you actually routinely achieve eight hours of sleep, the average requirement for an adult (the range of six to 10 is genetically determined) and an amount that cannot be “trained” nor one that is altered with age? The fatigue resultant from sleep deprivation will slow cognition, increase performance variability, decrease motivation, and impede memory and learning
of new information. In such a state, our contract with society, our promise to our patients to hold their best interests foremost, and our commitment to provide continuous vigilance over their well-being all cannot be upheld: our lack of well-being can have a harmful impact on their well-being.

With respect to some of the avenues of resolution potentially open to the anesthesiologist in our first scenario, we should look at the “sobering” comparison of sleep deprivation to ethanol consumption, his colleague’s excuse for not covering the last case. In fact, the two physicians may well have been equivalently impaired even though the former had not imbibed. The literature shows a correlation between sleep deprivation and alcohol consumption in terms of the impairing effects of sleep deprivation compared with those of actual blood alcohol levels. Several experiments have determined that wakefulness of 17 to 24 hours effects a diminished performance on various tasks equivalent to a blood alcohol level of 0.05–1.0 percent, the legal limit in California being 0.08 percent! How can we ethically and morally justify working under a sleep-deprived impairment equivalent to being legally intoxicated, which, if discovered while caring for a patient, most likely would result in loss of one's medical license? Yet, we do so routinely, perhaps largely facilitated by the fact that there is no scientific study relating impairment of performance to morbidity and/or mortality.

And what of the anesthesiologist who has struggled through a prolonged period of sleep deprivation while on call and then must begin yet another day of an elective schedule? How does one manage a situation in which there is no apparent alternative but to forge forward and get the work done? What of the sleep-deprived physician who now is at increased risk of inadvertent percutaneous injury at work or of an accident when driving home in an impaired state? (Hospitals or anesthesia groups might be liable for sleep-deprived practitioners who have accidents in the hospital or on their drive home. Note that in New Jersey, “Maggie’s Law” labels a sleepy driver—one who has not slept for more than 24 hours—as reckless and susceptible to conviction for vehicular homicide!) None of these situations is easily confronted or resolved, and yet they are all too common and largely devoid of planning and forethought by colleagues and institutions. A perfect solution may not be at hand, but this topic is in dire need of serious consideration and should be introduced in medical school curricula.

As for possible solutions to the scenarios presented above, perhaps most effective would be “power napping” or “strategic napping.” When I was in college and medical school, I discovered that the best way for me to prepare for class, papers and exams—to “defeat” sleep deprivation—was to give in to my overwhelming sleep-deprived physiology and take a nap for 20 minutes
Editor's Notes (cont’d)

(with a small alarm clock right next to my ear to assure that I would wake up on cue). I would awake newly energized, perhaps accruing advantage both physiologically and psychologically, at least until the need arose for my next “power nap” later on.

The strategic use of caffeine will enhance alertness, but the chronic use of this drug results in tolerance. Thus, it is most useful for someone who does not imbibe routinely. It is most effective during circadian low points (2–6 a.m. and p.m.), has an onset of a quarter to half an hour, and lasts as long as three to four hours. Coffee is the obvious vehicle for caffeine self-administration, but there are also caplets (No-Doz or other commercial preparation), which contain 200 mg caffeine, the equivalent of one cup of coffee without the added fluid intake. Of course, caffeine would antagonize any opportunity for napping that might arise during the three to four hours.

As a fourth-year medical student, I was part of a small group of students meeting at the Massachusetts General Hospital at 6 a.m. for a series of informal mini-lectures by an eminent pediatric surgeon. Despite emerging from my circadian nadir, I inevitably would fall asleep (from both sleep deprivation and boredom) within minutes of the commencement of the lectures. After my napping through his first three lectures, Dr. Hardy Hendren began his fourth class by pulling a box of No-Doz from his pocket, tossing it to me, and telling me to take one so that I might actually hear more than the first couple of minutes of his talk! Shocked and shaken to my boots, red-faced and embarrassed, I took one to the thunderous laughter and amusement of my classmates and Dr. Hendren (also affectionately known as “Hardly Human,” but that’s another story). Whatever the mechanism might have been for remaining awake for the lecture that morning, it worked! A couple of years later, as an anesthesiology resident, I had the pleasure of working with Dr. Hendren on numerous occasions, and that embarrassing and shocking episode commenced a long and mutually respectful professional relationship and friendship. But neither of us, to my knowledge, has previously revealed how that happened.

References

3. American Society of Anesthesiologists. Guidelines for the Ethical Practice of Anesthesiology. http://www.asahq.org/For-Members/Clinical-Information/~media/For%2520Members/documents/Standards%2520Guidelines%2520Practice%2520Ethical%2520of%2520Consent
President’s Page
Compelling Storytelling

By Kenneth Y. Pauker, M.D., President

If you don’t tell your own story, there are only two possible consequences: someone will tell it for you in a way that you might not like, or it will remain untold. Storytelling is a powerful means of communicating, as ancient as cave art and as modern as “blogging.” I believe it’s time for anesthesiologists to go public and tell our own, individual stories about what we stand for and what we do as physicians. Here’s why.

Leaders in the CSA and the ASA have argued for years that it is critical for anesthesiologists to find more effective methods to communicate what it is that we do. So many diverse people and different interest groups consider themselves to be stakeholders in anesthesia care—even “owners” in a strange sociopolitical kind of way—and yet most have only the most superficial understanding of who we are, what standards of care we uphold, and how indispensable anesthesiology is to the perioperative engine that powers so much of medical care. Last year, the American Medical Association’s Scope of Practice Partnership “Truth in Advertising” survey found that 19 percent of respondents did not even know (an additional 3 percent were not sure) that an anesthesiologist is a medical doctor.¹

Understanding What We Do
As physicians, for each specific patient and sometimes in the face of conflicting priorities, we must tailor a coherent anesthetic plan. First, we determine a balance among complex co-morbidities shaping the probabilities of various outcomes, sometimes influenced by the choice of anesthetic technique. For example, we might care for a geriatric patient, scheduled to have a revision of a total knee replacement, who has emphysema, severe aortic stenosis, and trifascicular heart block without a pacemaker in place. Should this patient have a general, neuraxial or regional anesthetic?

On another level, superimposed on the first, we consider an individual patient’s personal attitudes, cultural background and preferences for anesthetic technique. A patient presenting for an elective cesarean delivery may be morbidly obese and speak only Spanish, may have chronic low back pain, and may have grown up in a country where spinal anesthesia is known and feared as “arachia,” a Mexican slang term for a painful “spinal tap” that is believed to cause paralysis.
Should she have a spinal, versus a general that could require awake intubation? What kind of explanation or informed consent can be achieved with the available resources for translation?

Finally, individual patients have diverse priorities with regard to their own health, and have differing levels of risk aversion. One patient with indwelling spinal instrumentation might be willing to accept a small risk of infection or of a failed spinal anesthetic in order to avoid a general anesthetic and its potential for postoperative confusion and nausea, while a similar patient would never want to risk infecting spinal hardware and would insist upon a general anesthetic. These patients rank the potential outcomes differently.

**When Others Tell Our Story**

We are conversant with best practices and guidelines written by experts in our field, as well as with practice parameters that are based upon expert *opinion* because definitive scientific evidence simply does not exist. Our care is nuanced, and represents high-level judgment—risks and benefits that are weighed according to our training, education and experience. *Administrative* data—abstracted from billing codes and completely unadjusted for risk because it is not *clinical* data—do not tell our story. Rather, others use this kind of data inappropriately—and occasionally disingenuously—to measure how we practice and the so-called “quality” of our care.²

Beyond the unreliable pseudoscience of abstracted administrative data being used to measure performance, some in government have so misunderstood or misrepresented what we do that they even have inserted federal civil rights antidiscrimination clauses into the Patient Protection and Affordability Care Act. Indeed, they are working to foist antitrust considerations into ongoing scope-of-practice battles. For example, the Federal Trade Commission (FTC) cautioned the Alabama Board of Medicine not to promulgate regulations declaring that chronic pain management is the practice of medicine. The FTC said that doing so might be an antitrust violation because it could deny non-physician anesthesia care extenders, who claim the expertise to care for such patients, the ability to practice independently. The ASA, in turn, cautioned the FTC.³ This is all about politics.

If this novel aspect of government activity is news to you, you may find it hard to believe that there could be such intrusion into the very fabric of our profession. Sadly, this irresponsible and disingenuous campaign by the executive and legislative branches of government to “cut our profession down to size” is by no means a joke.
**Whom to Educate**

The long list of those who would benefit from a better understanding and appreciation of what we do and why we do it includes state and federal regulators, the Centers for Medicare and Medicaid Services (CMS), other governmental agencies, legislators, payers, health advocacy groups, journalists, commentators, both plaintiff and defense lawyers, other physicians—as expected, mainly primary care physicians—and, most important, our patients and their families.

The CMS, insurers, payers, and business purchasers want value—to pay less for more and better care—as they struggle to define quality, but their motivations are colored by the nature of their business model and overriding financial considerations. Although they call for quality, and even broadly assert that it’s not primarily about the money, their jargon translates into: it is mostly about the money and the bottom line.

Health advocacy groups, many physicians, and patients stand more at the quality end of the value equation. There are health-related organizations and entrepreneurs that extract administrative data from billing information and then proceed to interpret outcomes without the ability to adjust for risk. It’s very difficult to obtain large-scale clinical data that can be scientifically adjusted for risk and would yield true information about outcomes and quality of care.

**The Power of Our Stories**

What then is in play to increase reliable and credible information? We have the substantial resources of the ASA brought to bear to create the Lifeline to Modern Medicine campaign,4 a fabulous resource for informing patients and others about what happens and what to expect with anesthesia. We also have substantial ASA informational campaigns in Michigan5 and Iowa,6 intending to address potential misinformation as Michigan considers an opt-out and Iowa considers opting back in. Within the CSA, we have a new public relations effort under development jointly by the Committee on Professional and Public Communication and the Division of Legislative and Practice Affairs, and we have the Bulletin and the website, including “Online First” blogs.7
So, this brings me—in a somewhat roundabout, but really poetic license, or even President’s license, kind of way—to the power of storytelling, the anecdotal answer to garbage science.

It occurs to me that there is something more we can all do, and should do. Let’s come together to tell stories that illuminate our unique accomplishments as physicians. We should construct a repository of stories. Now some might declare that anecdotes really should count for nothing. Well, they seem to me to be far more useful than administrative data, unadjusted for risk. Stories are the currency of human communication; they remind us of what happened to us or to those we know. And the human tendency is to listen to those stories. Stories move legislators and the public to consider new information, and potentially to change their opinions in matters that are important to them. Positive stories should not diminish others and what they do, but they can clearly demonstrate the outstanding medical care that is in jeopardy if society marginalizes us and fails to understand anesthesiologists’ invaluable contributions to patient safety.

**My Own Story**

Everyone loves a good story, and learns from it. I’ll be the first to tell one, but *all of you need to write your own stories*, and submit them to the CSA (email to sjackson@csahq.org). Selected informative stories will be published in the *Bulletin*, and authors will be rewarded with a year’s free membership to the CSA. Now that’s something to “write home” about!

So here is a story that shows what can happen in a busy practice when care is fragmented, and how the vigilance of one anesthesiologist can change the outcome for the better.

A patient presents for an elective exploratory laparotomy for recurrent small bowel obstruction (SBO). Over time, she has become less able to eat, eventually needing total parenteral nutrition. She originally had been scheduled for this surgery months earlier, but the surgeon was away on maternity leave. In the interim, the patient developed another SBO, and during that hospitalization was found to have a deep venous thrombosis (DVT) in her legs. She was treated with warfarin and discharged to continue her therapy. However, because of the upcoming surgery, her primary care physician incorrectly advised her to stop taking her anticoagulant.

Upon returning from maternity leave, the surgeon first re-encountered the patient (who was well known to her) on the morning of surgery. The surgeon was unaware of the interim DVT. The anesthesiologist had evaluated the patient, and all seemed in order (phone call the night before, review of the electronic record remotely, appropriate physical examination just before the
surgery). However, the anesthesiologist also uncovered in the patient’s medication list a notation about previous warfarin therapy, and realized that a well-documented DVT had been inadequately treated. Discussion with the surgeon led to appropriate cancellation of the surgery. The anesthesiologist had recognized the medical issue and was able to halt the momentum to proceed. Elective abdominal surgery in the setting of a known and undertreated DVT would have exposed the patient to a substantial risk of clot propagation and pulmonary embolus in the perioperative period.

This story is illustrative of an anesthesiologist preventing probable perioperative morbidity and/or mortality, a value added that would not appear in any administrative data, nor would be captured in any kind of quality metric in current use. The patient was “protected” by a physician advocating for that individual patient and causing all involved to pause while the patient’s best interests were being addressed.

This watchdog activity and patient advocacy by anesthesiologists happens all the time. You tell your own story. Let’s have at it. We’ll all be listening.

References
4 http://www.lifelinetomodernmedicine.com/
6 https://docs.google.com/viewer?a=v&pid=gmail&attid=0.1&thid=130c3b64a36cad91&mimeType=application/vnd.openxmlformats-officedocument.wordprocessingml.document&url=https://mail.google.com/mail/?ui=3D2%26ik=3De4cb3902fb%26view%3Datt%26th=3D130c3b64a36cad91%26attid=3D0.1%26disp=3Dsafe%26zw=3E&sig=AHIETh5q040nH0Cj0NblkmmSEzdm7FLg (Editor’s note: to access this document, you need to have an account with Google.)
7 http://members.csahq.org/blog
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The Doctors Company
The phrase above is the mission statement of the ASA. Making it a reality requires the dedication of volunteer members as well as the work of the ASA’s talented staff. It all happens on a yearly cycle culminating each year with the annual October meeting of the House of Delegates (HOD), our ultimate policy-setting body. The yearly cycle also contains two meetings of the Board of Directors (BOD), in March and August, where many of the ideas, projects, initiatives and ongoing work of the ASA’s many committees and task forces are presented and discussed before all of it goes to the HOD for final determination. Any ASA member can attend the meetings of the BOD and HOD; especially worthwhile are the debate and testimony that occur at the review and reference committees.

The ASA BOD met in Chicago Aug. 20 and 21, 2011. In addition to myself, Drs. Ken Pauker, Narendra Trivedi, Johnathan Pregler, Linda Hertzberg, Jim Moore, Peter Sybert, Paul Yost, and Zeev Kain attended from the CSA BOD. Our ASA Assistant Secretary Linda Mason, ASAPAC Board Member and Alternate Director Michael Champeau, ASA Committee on Economics Chair Stan Stead, and our CSA CEO Barbara Baldwin completed the well-represented California group.

**Governance Structure and Administrative Organization**

Among the items of business before the ASA Board, continuing from the March interim meeting, are overarching questions of governance structure and administrative organization. I previously reported that at the March ASA BOD meeting, a proposal from President Mark Warner, M.D., was adopted, based on an external consultant’s recommendation to eliminate the current dual Executive Vice President (EVP) structure (one in Park Ridge and one in Washington), consolidating administrative oversight and authority in one chief administrator in Park Ridge. Many have held misgivings about the workability of the two-EVP arrangement since it began several years ago. There has been continuing discussion about defining the new administrative position (chief executive officer versus chief staff officer) and its associated duties, and particularly...
whether John A. Thorner, EVP Park Ridge, should continue in this position or whether a national search should take place now or at some time in the future. These questions are beginning to be resolved, yet there seem to be strong opinions, and it surely will be a topic of debate at the annual HOD.

“Medical Home,” Meet “Surgical Home”

Dr. Warner's report to the BOD highlighted a concept that is finding significant interest among national leaders in health care reform, and that aligns with the “medical home” concept promoted in the Patient Protection and Affordable Care Act, namely that of a “surgical home,” the logical domain of anesthesiologists. The reform effort seeks to coordinate and optimize the care of individual patients by oversight and management, recognizing that patients often receive care from a variety of physicians and other health care providers, who don't necessarily communicate effectively for the benefit of the patient, the utilization of services, and even to prevent harm. Like the “medical home” model for primary care, in which a patient's complete medical care is coordinated by a physician, clinic, or other responsible party (insurance plan?!), the “surgical home” would achieve the same for surgical care. Who better than us? The answer is clear and easily understood by policy makers with whom this concept has been discussed because they understand this is what we are trained to do. In an era of increasing compartmentalization of care, which has often resulted in waste and mistakes, we are at the center of a patient's surgical care, and best able to improve it.

Among other items of an administrative nature, the BOD approved increased support to state component societies seeking to advance the practice of anesthesiologist assistants. As I have reported previously, the ASA has established an Advisory Group on Health Policy whose directive is to develop and recommend goals and strategies for the ASA to pursue on a national level. The BOD discussed where this advisory group will fit into the governance structure of the ASA.

Focus on Quality and Clinical Care

The growing importance of performance and outcomes measures in the national health policy arena, particularly within the Center for Medicare and Medicaid Services, was highlighted at the Saturday educational session by an entertaining and enlightening presentation from our CSA President Ken Pauker, who is also a member of the ASA Committee on Performance and Outcomes Measures (CPOM). Ken emphasized the importance of organized anesthesiology's ownership and control of scientifically validated measures directed toward improvement in clinical care. Although the reminders of “pay for performance” still linger, the proactive stance of the CPOM and Anesthesia
Quality Institute help to insure that we will be able to determine the clinical goals and methodology upon which we will measure ourselves.

Three measures were put forward at the board meeting and will come before the HOD in October for approval:

1. Post-Anesthetic Transfer of Care Measure: Procedure Room to Intensive Care Unit
2. Preoperative Use of Aspirin for Patients with Drug-Eluting Coronary Artery Stents
3. Registry Participation Measure

An additional measure, not yet proposed but currently in development, concerns Tobacco Use Screening and Cessation Intervention.

The Committee on Quality Management and Departmental Administration (QMDA) was tasked by President Warner, with BOD approval, to develop an educational product and curriculum outline for non-anesthesiologist physicians providing deep sedation. The committee, under the leadership of Beverly Phillip, has made significant progress, yet the nuances and underlying philosophical challenges of this endeavor continue to be debated. This will be another intensely discussed topic at the HOD. Another product of the QMDA known as the “Seal of Quality” program has had a warm reception after an initial trial at several hospital anesthesia departments around the country. This program, which will be expanded under guidelines proposed by the ad hoc committee responsible for its development, seeks to recognize anesthesia departments meeting exemplary standards. The Committee on Pediatric Anesthesia proposed official approval of an updated revision of its Practice Recommendations for Pediatric Anesthesia, which has been an unofficial work product of the committee for the past decade. This document is similar to the CSA’s long-standing Statement on Pediatric Perioperative Care, and adds the additional recommendation for a reporting requirement of clinical experience when applying for categories of privileges in pediatric anesthesia.

In closing, I am pleased to announce that our nominee, Dr. Andrew Patterson from Stanford, who organized the outstanding educational program for the last CSA Annual Meeting and the October 2011 Hawaii meeting, has been accepted as the most recent board member of the American Board of Anesthesiology. And, last but most certainly not least, we can share great pride in the honor of the ASA’s Rovenstine Lecturer for 2011, our own Dr. Patricia Kapur, chair of the anesthesiology department at the University of California, Los Angeles, who has been a friend and mentor to many of us.
On the Clock

In a Dec. 26, 2007, letter to The Journal of the American Medical Association (JAMA), Bertand Bell, M.D., who chaired a 1987 New York State commission on residency training, described the startlingly offhand calculation used to decide how long residents could work without endangering patients or themselves. The Bell Commission had been created in the wake of the death of a young woman in a New York City hospital, under the care of two unsupervised and apparently overworked residents. The commission’s recommendation of an 80-hour workweek not only became state law in 1989, but in 2003 also formed the basis of national rules mandated by the Accreditation Council for Graduate Medical Education (ACGME).

“The specific ‘80-hour week’ was determined by a colleague on my porch,” Bell wrote in his letter to JAMA, “and was based on the following informal reasoning: There are 168 hours in a week. It is reasonable for residents to work a 10-hour day for five days a week. It is humane for people to work every fourth night. If you subtract the 50-hour workweek from 168 hours, you end up with 118 hours. If you then divide 118 by four (every fourth night), it equals 30. If you then add 50 to 30, then eureka, an 80-hour week.”

Informal reasoning, indeed. Yet now, in a further attempt to safeguard patients and residents, ACGME is instituting additional limits. This July, new standards for the nation’s 114,115 physicians-in-training went into effect, restricting the number of consecutive hours that interns (“first-year residents”) may work without sleep, from the customary 30 hours to 16 hours. Meanwhile, more experienced residents will be limited to 24-hour shifts, and they’ll be urged to pursue “strategic napping.”

How these tighter restrictions will affect the many teaching hospitals that depend on residents as a vital resource remains to be seen. “I don’t think that anyone would argue against the notion that well-rested trainees can and will provide better care,” says John Co, director of graduate medical education at Partners HealthCare, which has more than 1,200 residents and clinical fellows at the Massachusetts General Hospital (MGH) and Brigham and Women’s Hospital in Boston. “But, the question is, how do you implement that in practical terms?”

Perhaps more crucial, medical educators worry that the reduced shifts will provide an insufficient educational experience. “I’m concerned whether residents will see enough patients,” says Craig Brater, dean of the Indiana
On the Clock (cont’d)

University School of Medicine, which has more than 1,000 residents. “Will residencies need to be longer?”

Others are worried that shorter hours might even increase medical errors if the change results in patients being handed off more frequently from one resident to another. And so far, there has been little conclusive evidence to validate Bell’s on-the-porch estimate or to gauge the impact of the 2003 reforms. “We’re making a very big, expensive change in residency programs, and the problem is we don’t have enough high-quality data from real residency programs to know how to do this and improve outcomes,” says Vineet Arora, associate professor at the Pritzker School of Medicine of the University of Chicago.

For soon-to-be residents, that adds up to an uncomfortable level of uncertainty. “If I’m in the hospital less, I’m afraid I’m going to learn less,” says Celine Goetz, new resident at New York-Presbyterian Hospital/Weill Cornell Medical Center. “Every institution seems to have a different philosophy about the changes, and no one really knows what the impact will be for medical education. My class is going to be the guinea pigs.”

Since the early 20th century, when U.S. medical school graduates began competing for a scarce number of positions that offered a year or two of living and working in hospitals as “house pupils,” there has been little question about what residency would hold: a rite of passage notorious for hard work and extreme hours. After the First World War, this system of medical apprenticeship evolved into a hospital-based educational program with conferences, clinical rounds, lectures and other types of formal and informal instruction, according to Kenneth Ludmerer, a physician and professor of medical history at Washington University in St. Louis. As medical specialties established themselves, they spawned residencies that could last as long as seven years. Medical schools looked upon this additional training as an essential complement to what they provided, while hospitals saw residents as inexpensive providers of up-to-date care for a growing patient population. “That has been the tension from the very beginning, the fact that hospitals have benefited from residents versus the needs of residents to have a genuine educational experience.” Before long, residents were regularly working 36-hour shifts and 120-hour weeks, in what most physicians considered apt, if grueling, preparation for the realities of professional practice. “I remember being an intern and not having a single day off during 50 weeks and being so tired I couldn’t examine a patient,” says Ludmerer. Although concerns about resident burnout arose as early as the 1950s, it was several decades before anything was done to address the issue.

It took a “confluence of forces”—including the patient safety movement, advances in data collection, and the rise of medical consumerism—to raise
public awareness of residency issues. But it was the death of Libby Zion in 1984 that really made people think something had to be done. When Zion, 18, was admitted to New York Hospital with a 103-degree fever, there was no attending physician on duty. An intern and a second-year resident, working 36-hour shifts, were unable to come up with a diagnosis, and they prescribed an analgesic and a sedative. Zion’s temperature ultimately spiked to 108 degrees, and she died within hours. Zion’s father, a prominent New York journalist, launched a campaign for greater resident supervision and brought charges against the hospital and residents. Then came the Bell Commission and the Bell Regulations, the rules requiring that residents in New York state work no more than an average of 80 hours a week, that shifts be a maximum of 24 hours, and that residents be supervised by senior physicians present at the hospital. New York became the first (and still is the only) state to regulate residents’ hours.

On the national front, pressure for reform began mounting as well. In 2001, Public Citizen, a consumer advocacy group, led a coalition that petitioned the U.S. Occupational Safety and Health Administration (OSHA) to regulate resident work hours, and congressional legislation mandating work-hour limits was introduced the same year. OSHA, aware that ACGME was working on new rules, turned down the petition in 2002. In 2003, ACGME announced regulations that restricted interns to 80-hour workweeks (averaged over four weeks) with one full day off each week (averaged over four weeks), and no single shift exceeding 30 hours (maximum shift of 24 hours with six additional hours for education and patient handoffs).

Hospitals struggled to adapt, redrawing work schedules and hiring additional staff to make up for the missing resident hours. However, although residents worked shorter shifts, their workloads typically didn’t decline in terms of the number of patients they admitted or managed. Compliance with the rules was hardly universal. In 2006 and 2007, 16 percent of sponsoring institutions had racked up at least one duty-hour violation, and by academic year 2010–2011, 56 residency programs were on probation with ACGME for work-hour violations and similar issues. Despite attempts to comply with the 2003 regulations, evidence mounted that long residency shifts continued to bring the risk of serious medical error. In a 2006 study by the Harvard Work Hours Health and Safety Group, for example, one in five residents acknowledged making a fatigue-related error that harmed a patient, and one in 20 said such a mistake had led to a patient’s death. A separate 2006 study by the same group found that residents who worked more than 20 hours at a stretch were 73 percent more likely to injure themselves with a needle or scalpel than those whose shifts lasted 12 hours.
Upon request by a subcommittee of the U.S. House of Representatives Committee on Energy and Commerce investigating medical errors, the Institute of Medicine (IOM) determined in 2008 that 30-hour shifts “promote conditions for fatigue-related errors that pose risks to both patients and residents.” The report recommended that residents be restricted to working just 16 hours—or, if doing 30-hour shifts, that they be given five hours of “protected” time for sleep in the hospital after 16 hours of work, and that they not be allowed to admit new patients during the second portion of such shifts. Moreover, the report also said that residents should get a 24-hour period away from the hospital once every seven days and a 48-hour break once a month.

In September 2010, ACGME published a final version of new rules that included some modifications of the IOM recommendations. In particular, it chose to focus on interns, limiting these first-year residents to 16-hour shifts (with eight hours off between shifts). More experienced residents, by contrast, can stay four hours beyond their 24-hour shifts to facilitate the transfer of a patient to another physician’s care as well as for education. And, in “unusual circumstances,” residents may delay their exit to care for a single patient when there are clinical, academic or humanitarian reasons to do so. Other changes to the requirements act on IOM recommendations regarding on-site supervision for interns and providing residents with more time for rest, but the ACGME rejected such measures as granting residents a weekend off each month.

All of these changes come even though research evaluating the effects of the 2003 duty-hour limitations on patient safety and mortality hasn’t been conclusive. One study found that shorter shifts for residents at the most teaching-intensive Veterans Health Administration hospitals were associated with lower mortality rates in patients with acute myocardial infarction, gastrointestinal bleeding or stroke. However, a second study showed that the reduced hours neither worsened nor improved mortality for Medicare patients during the first two years of implementation of the 2003 rules.

Meanwhile, the science of determining how long residents should work seems incomplete. The IOM report equates the impairment of being awake more than 16 hours to a blood alcohol level of 0.05–0.10 percent. The IOM also considered such studies as one showing that among interns in intensive care, those working traditional 24-hour shifts made more than five times as many serious diagnostic mistakes as those on the job no more than 16 hours. But Dr. Arora says that there’s scant evidence suggesting that 16 hours is the optimal shift length. “The magic number is one in which residents are well rested and also have an optimal clinical experience,” she notes. “From the data we’ve looked at, based mostly on three small studies, 16 doesn’t seem to be that number. We really need to study this further.”
What’s already clear is that the latest changes are putting severe pressure, financial and otherwise, on hospitals. In its report, the IOM estimated that U.S. teaching hospitals may need to pay as much as $1.7 billion more in labor costs to cover new hiring because of the rule shift, while in a separate report, ACGME’s estimates range from $400 million to $1+ billion, depending on how hospitals reallocate staff. Although advocates say these costs pale in comparison to the financial and ethical costs of preventable medical errors, hospitals are getting no help from the federal government to pay for implementing the changes.

Among a handful of specialties, standards have already evolved to cap residents’ hours at levels that fall within the new rules. But programs in such disciplines as internal medicine, pediatrics, surgery and psychiatry are implementing strategies to achieve compliance with the new rules while maintaining educational quality. Among the steps are discontinuing nonessential training; hiring nurse practitioners, physician’s assistants and physicians to pick up clinical duties; shifting patient care to more senior residents and faculty (without increasing their work hours); and switching patients to nonteaching units (eliminating the need for residents to staff the units and faculty members to oversee them).

“Safety net” hospitals, which serve poor and uninsured patients, are particularly dependent on interns and residents as a low-cost labor source. And with public funding already severely compromised, the new ACGME rules pose special challenges for such organizations as Los Angeles County/University of Southern California Medical Center. The system employs 836 residents, most of them county employees. “The county of Los Angeles and the state of California are facing a severe budget crisis, so we’re not expecting much new funding to fill in for lost service time by residents,” says Lawrence Opas, associate dean at the Keck School of Medicine at USC.

To comply with the new rules, MGH’s surgical residency has been hiring more physician’s assistants and nurse practitioners, as well as revising elements of how residents are trained. Because of necessary hour cuts, general surgical residents can no longer rotate through neurosurgery, urology, orthopedics and anesthesia. Andrew Warshaw, former surgeon-in-chief at MGH, worries that restricting resident hours could mean that surgical residencies have to be extended beyond the current five to seven years. “There’s an exploding universe of knowledge in medicine, and with more to learn in less time, a lot of residents are finding they can’t get everything they need,” he says. A 2008 poll of chief surgery residents (the first whose entire residencies had been run with the 2003 duty-hour restrictions in place) showed that nearly two thirds were entering fellowships to further their training—adding more cost to their education and slowing the physician pipeline.
Physicians already in practice worry that the U.S. system could be moving away from a tradition of taking individual responsibility for patients. “None of us can picture practicing as they do in other countries, where there’s a 48-hour-per-week limit and physicians basically say, ‘My shift is over,’ ” says Joanne Conroy, chief health officer for the Association of American Medical Colleges. She notes that Europe’s duty-hour limits have contributed to physician shortages and longer training periods and have spurred concerns about continuity and mastery of skills. Yet there’s little likelihood that hospitals will find the funding to create the additional 8,247 residency positions that the IOM report said would be needed to pick up the slack.

Although advocates for stricter rules and a federal role cite lax enforcement by ACGME, that body has disciplined many residency programs. In coming years, research may help establish just how long residents can safely work. A study under way at the University of Pennsylvania (UoP) will evaluate how much sleep residents obtain at work and when they’re off duty, both before and after implementation of the 2011 rules, according to David Dinges, chief of sleep and chronobiology at the UoP, who served on the committee for the IOM report. “We need to further our understanding of how sleep makes a difference.” He also notes that there’s no evidence that trainees take advantage of shorter work hours to sleep more. “Residents must prioritize sleep,” he says. “What residents do in their discretionary time has to be part of the solution.”
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Proud to support the California Society of Anesthesiologists.
I’m a loyal supporter of the hospital where I work, and I think that we take excellent care of our patients. But when our administrators decided to put in place a checklist for operating room safety, they didn’t get the concept quite right.

We have a multicolored, cluttered form in our operating rooms that is referred to—not affectionately—as the “rainbow form.” It was implemented a year or so ago in an attempt to prevent wrong-side or -site surgery, retained foreign objects in surgical wounds, and other “never” events that could draw the wrath of the Centers for Medicare & Medicaid Services (CMS), state health officials, and The Joint Commission. It has checklists for things that should be done in surgery at different stages: before the patient enters the OR, at the time-out before surgery begins, during the process for counting sponges and instruments, and at the final sign-out before the patient can leave the operating room. All this sounds perfectly reasonable.

But has the “rainbow form” prevented errors? No, it hasn’t. For one thing, it’s just too long. It has more than 30 different items, and each is supposed to be carefully considered, verbally confirmed, and checked off. Practically speaking, I doubt this happens very often. Sometimes, the form gets signed before the patient ever goes into the operating room. Not long ago, everyone had signed off on the form, and a patient nonetheless was wheeled into the operating room without having signed consent for surgery.

So where did the “rainbow form” take a wrong turn?

The concept behind checklists is soundly based on lessons that have been learned in aviation and other industries where errors can lead to catastrophic results. Humans are fallible, and they need all the help they can get. The more complex the process, the more we can use checklists to help us not to forget important details.

When I was a new anesthesiology resident, senior residents taught me the checklist they used to make sure that the anesthesia machine was in order and that they had everything they needed to start a case safely. I still use the same checklist when I set up for my cases every day. No matter how tired or rushed I might be, I have the comforting sense that I won’t forget something vital like suction equipment, a backup oxygen tank, or a functioning laryngoscope.
This was the idea behind the World Health Organization’s (WHO) basic surgical checklist. No matter where in the world surgery is done, every operation needs certain key elements to assure patient safety: identification of the patient and procedure; certainty that essential equipment and supplies are available; accurate labeling and disposition of specimens; and accurate completion of sponge, instrument and needle counts. Consistent utilization of a checklist for these key elements of patient safety has been proven to save lives.

But to modern American hospitals, this checklist may appear simplistic. In the case of my hospital, someone—or some committee—clearly took the WHO checklist and decided to make it better. They added many more fields than could reasonably be verified verbally and completed in a timely fashion. Some of the fields refer to completion of paperwork—not a major safety goal. One field asks the pre-op nurse and the circulating nurse to verify that I’ve assessed the patient’s airway, which they know would be redundant (and insulting), so they don’t. The result was a form that is little more than a nuisance.

Dr. Atul Gawande defines a bad checklist clearly in his book The Checklist Manifesto. Bad checklists “are too long; they are hard to use; they are impractical,” writes Dr. Gawande. “They are made by desk jockeys with no awareness of the situations in which they are to be deployed. They treat the people using the tools as dumb and try to spell out every single step.”

Good checklists, in contrast, “provide reminders of only the most critical and important steps—the ones that even the highly skilled professionals using them could miss. Good checklists are, above all, practical,” according to Dr. Gawande. “The checklist cannot be lengthy. A rule of thumb some use is to keep it to between five and nine items.” The list should focus on “the killer items—the steps that are most dangerous to skip and sometimes overlooked nonetheless.” Any checklist has to be tested in the real world, and changed until it works consistently.

In his superb Leffingwell lecture at the CSA Annual Meeting in May 2011, Dr. Stephen Barker asked, “Should anesthesiologists use checklists? I think so. I think we could use more checklists for a lot more things than we do.” However, as he took pains to point out, “The checklist is not a protocol; it’s not a cookbook. It’s there to help you not forget stuff.” According to Dr. Barker, who is an airplane pilot and a professor of aerospace and mechanical engineering in addition to being an anesthesiologist, it’s just as important to know when to deviate from the checklist as when to follow it.

“When an emergency occurs,” Dr. Barker said, “follow the checklist and do all the usual stuff, but if that doesn’t work, innovate, improvise, do something different. Don’t just fly the airplane into the ground.” In other words, the
checklist is not there to prevent you from critical thinking. Its purpose is to help you cover the basics quickly and safely so that you can move on to further action.

What would really be helpful in the OR is for checklists to be set up in a procedure-specific fashion. If there had been a good checklist in place, then it's possible that the heart and lungs with the wrong blood type would not have been transplanted with fatal consequences into the 17-year-old girl at Duke University Medical Center in 2003. It's important to make sure that you have the right implant on hand before you begin a total joint replacement or breast reconstruction. When multiple orthopedic cases or lung surgeries are being done in the same operating room on the same day, it's critical to have a protocol in place to make sure whether you mean to operate on the right or left side. But you don't need a check for laterality when your case is a Whipple, or a check for cross-matched blood when your task is to pin a finger fracture.

In the case of the patient who came into our operating room without having signed her consent, the system actually worked fine. The nurses made sure that she knew what surgery she was to have. (Maybe, if the “rainbow form” hadn't distracted them, someone might have noticed the consent wasn't signed.) The surgeon marked the correct side of her chest where the lung mass would be biopsied. The anesthesiologist confirmed which side the lung mass was on and selected the proper double-lumen tube. The correct X rays were displayed in the operating room, and the appropriate antibiotic was given. The “time-out” confirmed all these steps. The patient received excellent clinical care not because of the “rainbow form,” but because these people knew their jobs and took responsibility for their patient.

Checklists shouldn't be used as a management tool to make sure that paperwork is done, and they mustn't interfere with work flow. If that happens, then they'll just be ignored. The purpose of a checklist is not to remind you to get a driver's license or start the car—you'll do that anyway—but to remind you to check that you have gasoline in the tank and air in the tires before you start your trip.

Checklists should help us not to forget critical steps—having the appropriate heart valve on hand before a valve replacement begins, giving prophylactic antibiotics, making sure we know which side we're operating on, and having the right blood type cross-matched and ready. Maybe the next generation of anesthesia machines will even have checklists or decision algorithms that will appear in the case of hypoxia, hypercarbia, or other clinical crises, just as they do in airplane cockpits. If we use checklists as they were intended, then we can save ourselves time and trouble. More important, we can save our patients from avoidable and potentially deadly harm.
Web Publishing: Legislative Reporting for the 21st Century

By William E. Barnaby III, Esq., CSA Legislative Counsel

As Dr. Yost reports below, the CSA Grassroots Network went live just prior to the 2011 Annual Meeting and House of Delegates in San Jose last May. This new communications medium—found in the “Advocacy” area of the CSA website—mirrors the technological advances people have become accustomed to and the real-time mode of communication many of us rely upon. Another new feature in the “Advocacy” area of the CSA website is web publishing.

The term “web publishing” refers to a continuously updated status report on all state legislation relevant to the CSA. The impetus behind it came from Dr. Yost’s request that legislative information be provided (1) with as much advance notice as possible, and (2) in real time, if possible. Research led us to the web publishing feature offered by CapitolTrack, the provider of our legislative tracking service. Web publishing can be accessed by clicking on the “State Legislative and Regulatory Issues” tab under the “Advocacy” menu.

The description of each bill (in the “Memo” field) is monitored by our office daily and updated every time (1) a bill is amended, or (2) the CSA’s interest in a bill changes. All other information available via the link is updated in real time. Therefore you can connect to all the pertinent information:

1. all versions of a bill, in PDF and html
2. the author of the bill, and links to information about the author
3. the status of the bill
4. the location of the bill in the legislative process
5. all analyses of the bill
6. all votes cast on the bill
7. a calendar of when the bill will be heard in committee or on the floor

In our view, the synopsis we draft for each bill—that is, the description in the “Memo” field—will be most useful to CSA members. It covers each bill’s
provisions with a focus on the CSA’s points of interest. It also includes the measure’s political context, supporters, opponents, issue history where relevant, and other pertinent factors.

A lot of time and effort on the part of CSA leadership, headquarters, and our office have been invested in both the Grassroots Network and web publishing. These 21st-century, cutting-edge technological tools should make advocacy easier and more effective for the membership at large.

Let’s hope that our membership begins to use these valuable advocacy tools effectively, comfortably, and often.

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**Manipulating Scope-of-Practice Laws**

*By William E. Barnaby, Esq., CSA Legislative Counsel*

The controversy over Chiropractic Manipulation Under Anesthesia (MUA) was in the news again recently. Perhaps noticed only by the most perspicacious health policy wonks, it revived suspicions about other past state regulatory actions that adversely affected anesthesiologists. And it further blemished the legacy of ex-Gov. Arnold Schwarzenegger (GAS, as he was referred to within his administration).

**Fired for Helping Law Enforcement**

Included in routine announcements of new state laws was a “claims” bill, of which there are a number each year, appropriating $600,000 to pay the stipulated settlement of a lawsuit, *Catherine Hayes v. State Board of Chiropractic Examiners* (BCE). Hayes’ cooperation, while she was serving as Executive Officer of the BCE, with a criminal investigation of chiropractors using MUA caused this “wrongful termination of employment” case. A Senate committee staff analysis described the facts of the case:

Hayes had alleged the board (BCE) retaliated against her, terminating her employment as a result of (1) her testimony and cooperation in criminal investigations and prosecutions of chiropractors in the County of San Joaquin relating to the practice of manipulation under anesthesia; (2) conspiring to affect the outcome of criminal
prosecutions by voting to recognize manipulation under anesthesia as falling within the chiropractic scope of practice; (3) intimidating witnesses called to testify in the criminal proceedings; (4) her reprimand of board members for presumptively violating the Bagley-Keene Open Meetings Act through serial communications outside the board meetings.

Arnold’s Pals Named as Defendants—a Legacy of Ex-GAS Appointees

It should be of interest that two former GAS pals were named as defendants in the lawsuit. A *Sacramento Bee* editorial (7/28/11) noted:

A former bodybuilder, Schwarzenegger swept into office with an inordinate focus on all things chiropractic. He quickly appointed Franco Columbu, a former Mr. Olympia who starred with Schwarzenegger in the film “Pumping Iron,” and Richard Tyler, one of Schwarzenegger’s earliest U.S. friends, to this state board (BCE). They quickly made a mess of their perches, running roughshod over open-meeting laws, personnel rules and their obligation to put patients first.

Much of the legacy of any governor is influenced by the competence and bias of his or her appointees. This certainly holds for appointees of GAS.

The CSA Fights Chiropractic Board Legalization of MUA

Shortly after GAS took office in 2003, the BCE tried to give legal blessing to MUA by adopting an administrative rule “interpreting” the underlying scope statute, the Chiropractic Initiative Act approved by state voters in 1922. To say the CSA was in the forefront of fighting the Board’s MUA push would be an understatement. The CSA took the lead for reasons of patient safety and legal objections to the BCE’s twisting of the scope law to justify its rule change. The California Medical Association (CMA), the Osteopathic Physicians and Surgeons of California, and others also opposed the proposal, but even a quick look at the rule-making record reveals the CSA’s forceful and unrelenting opposition during the five-year battle.

The BCE’s First MUA Proposed Rule Rejected

With a majority of GAS appointees on the BCE, its initial MUA rule-making proposal was launched in 2004. Through written and verbal testimony, opposition was registered by numerous interested parties, including the CMA, with the CSA’s objections at the top of the list. Once approved in final form by the BCE, its MUA proposal was submitted to the final authority, the Office of Administrative Law (OAL), where it was *disapproved* in October 2005.
Legislative & Practice Affairs (cont’d)

The BCE Renews MUA Legalization Effort
With GAS’s pal Tyler installed as chairman, the BCE restarted its struggle to lift MUA into legal standing. This time, its justification was bulked up with an internal legal opinion of the Department of Consumer Affairs (DCA) Office of Legal Counsel. This internal opinion bore considerable resemblance to an analysis by a private attorney for the California Chiropractic Association (CCA). When presented at a BCE public meeting, the BCE found the CCA opinion just what was needed to revive the MUA initiative. A deputy state attorney general, who was present to maintain legal order, cautioned against the “troubling” appearance of embracing a legal opinion it had only just received. When the DCA opinion later surfaced, it was dated exactly one year and a day later than the CCA document and it massaged the same rationale into the same result. Again, the BCE’s protracted rule-making process was played out, but this time approval was granted by an OAL executive director appointed by (how did you guess?) GAS.

The CSA Contests the Nursing Board’s View of the CRNA Scope of Practice
The CSA also challenged extra-legal “interpretations” of the Certified Registered Nurse Anesthetist (CRNA) scope-of-practice law by the Board of Registered Nursing (BRN). Fact: The BRN never proposed administrative regulations for its interpretations, the course required of government agencies to “implement, interpret, or make specific the law” (California Government Code 11342.600) that they are charged with administering. Instead, the BRN issued numerous analyses and advisories to inquiring nurses, physicians and hospital administrators, plus occasional postings on its official website: the message essentially was that physician supervision of CRNAs is not required because the word “supervise” is absent from a key provision of the California Nursing Practice Act. Ignored by the BRN were synonyms such as “order” and “direct” in that same statute, as well as court decisions and attorney general opinions to the contrary. Many of the BRN communications were outside of public view and came to the CSA’s attention through publication by third parties or by happenstance. Their full volume and intensity only came to light, however, when disclosure was forced by CSA and CMA public-records demands at the time during which the opt-out litigation was initiated. A review of hundreds of documents failed to find a single BRN acknowledgment that physician supervision was required by federal regulation for decades until the GAS opt-out. Again, the public record is replete with the CSA’s vigorous objections.

The BRN Withdraws CRNA Scope Statement
A December 2004 posting on the BRN website entitled “Practice of the Certified Registered Nurse Anesthetist” brought new visibility to the board’s
expansive view of the parameters of CRNA lawful practice. Because voluminous correspondence and meetings with officials of the BRN and its parent agency, the DCA, had been tried with little effect, the CSA sued. The lawsuit, CSA v. BRN, resulted in the March 2005 BRN removal of the offensive document from its website along with the following statement: “No reliance should be placed on the December 2004 version of NPR-B-10.”

GAS Opts California Out of Physician Supervision of CRNA Rule

By letter of June 10, 2009, GAS requested that California opt out of the federal Medicare condition of participation that requires physician supervision of CRNAs. While this is a Medicare rule, it applies to all patients in every hospital that accepts Medicare funding. Receipt of the letter by the Centers for Medicare and Medicaid Services (CMS) was acknowledged on July 20, 2009, and the opt-out was effective that date. The CSA and the CMA promptly protested the move as contrary to California law and the preconditions necessary for a state to opt out and formally filed the lawsuit, presently on appeal, CSA and CMA v. Schwarzenegger.

Central Role of GAS Staffer in Opt-out

In a formal declaration offered as evidence in the opt-out lawsuit, a GAS deputy legislative secretary, Jennifer Kent, claimed she “collected and analyzed information in order to assist in the determination whether Governor Schwarzenegger should request an exemption from the federal supervision requirement.” Before assuming this position in the Schwarzenegger administration, Kent had been a legislative liaison in the Health and Human Services Agency (HHSA) and, earlier, a top government relations officer for the California Optometric Association (COA). At the HHSA, she spearheaded an effort to replace the system of medical board oversight of privately accredited outpatient surgical sites (mainly physician offices) with formal and cumbersome licensure by the Department of Public Health. At the COA, she was heavily involved in optometrists’ efforts to expand into the physician scope of ophthalmologists. In short, her negative track record on scope and licensing issues important to medicine was clear. Just before his term ended, GAS nominated Kent to the Medical Board of California (MBC). The nomination was withdrawn by Gov. Jerry Brown shortly after he took office.

Patient Safeguards Through Licensing of Health Professionals

The top priority of California’s health professional licensing boards is stated repeatedly in the Business and Professions (“B&PP”) Code and proclaimed on their websites.
Legislative & Practice Affairs (cont’d)

For the MBC, B&P Section 2001.1 states:

Protection of the public shall be the highest priority for the Medical Board of California in exercising its licensing, regulatory, and disciplinary functions. Whenever the protection of the public is inconsistent with other interests sought to be promoted, the protection of the public shall be paramount.

For the BRN, B&P Code Section 2708.1 states:

Protection of the public shall be the highest priority for the Board of Registered Nursing in exercising its licensing, regulatory, and disciplinary functions. Whenever the protection of the public is inconsistent with other interests sought to be promoted, the protection of the public shall be paramount.

For the BCE, there is no comparable provision in the B&P Code because the enabling statute was adopted by a voter initiative in 1922 and can be amended only by another voter-approved ballot measure. Nevertheless, the BCE Mission Statement, presented on its website and in literature, states:

The Board of Chiropractic Examiners’ paramount responsibility is to protect California consumers from the fraudulent, negligent, or incompetent practice of Chiropractic care.

All these high-minded, well-intentioned statements of law and policy would seem to be more than a rhetorical nod to the taxpaying public. But what is the reality?

Regulators (the BRN and the BCE) Switch Into Advocates

The parallel occurrence of two regulated health professions, chiropractors and nurse anesthetists, expanding their practices without changes in their respective scope statutes is disturbing. These two groups seemed to have achieved what they wanted by avoiding the legislative process, which is supposed to control scope-of-practice issues. They likely were quite aware that organized medicine has been largely successful in stopping scope expansions by non-physicians in the Legislature. While some may view health professionals’ scope laws as merely protecting turf, these statutory requirements are intended to protect the public from incompetence or unsafe and unproven therapies. Snake oil salesmen were stopped by the regulation of pharmaceutical products. Barbers no longer perform surgery because of the medical practice reforms initiated 100 years ago by Abraham Flexner.
The rule of scope law sometimes has been replaced by favors for friends and expansion into fields where licensees see prospects of more lucrative business. Earning a lawful scope of practice through education in applicable science, objective testing, and proctored training helps assure adequate public safeguards are in place. But when the process is circumvented through political manipulation, basic patient protections are impaired and impeded. Indeed, the BCE and the BRN have seemed more active in finding ways to promote practice horizons for their licensees than in regulating their competence and conduct.

When the BCE’s executive director cooperated with a criminal investigation involving chiropractic MUA and insurance claims, she was fired. License fees of chiropractors will be used to pay the resulting $600,000 stipulated settlement. With approximately 15,000 licensees, the settlement’s cost per chiropractor is vastly outweighed by the MUA fees collected from patients.

At the same time that GAS was seeking to opt California out of the federal requirement of physician supervision of CRNAs, the Los Angeles Times published a series of investigative articles documenting lax BRN regulation that failed to discipline misbehaving and incompetent nurses for serious patient harm, even deaths. In fact, while the GAS letter was sitting in a CMS in-basket, the Times declared:

> It is no secret that nurses played a central role in the collapse of Martin Luther King Jr./Drew Medical Center. At the troubled hospital near Watts, registered nurses gave the wrong medications, ignored patients in distress, falsified records, slept on the job and turned down alarms on critically ill patients’ vital sign monitors.

The piece went on to note that Los Angeles County suspended or fired many of those involved:

> Yet, in some cases, California’s Board of Registered Nursing has taken no action, leaving the nurses free to work elsewhere.

(Tracy Weber and Charles Orenstein, Los Angeles Times, July 12, 2009)

The BRN Remiss Again With Epileptic Schoolchildren

For the BRN, public protection again took a back seat to nursing turf in recent days. This time, it was epileptic schoolchildren who suffer from life-threatening seizures and are at risk due to the BRN insistence that only nurses can legally administer the drug Diastat (a rectal gel form of diazepam). Moreover, the BRN maintains that a nurse who teaches someone else how to give the drug may be subject “to discipline for aiding and abetting the unlicensed practice of nursing.”
The issue surfaced in SB 161, authored by Sen. Bob Huff (R-Diamond Bar), to allow non-nursing school personnel to volunteer for training in the use of Diastat and to administer it in emergency situations to children whose parents have consented to the practice. The measure would recognize a voluntary approach that has worked in some communities and encourage its wider use. For backers of the bill, it is necessary to allow an epileptic student in the grip of a potentially fatal seizure to get the medicine within five minutes. To the CMA, the nonprofit organizations Disability Rights California and Epilepsy California, and a number of elected school boards, the basic issue is the life-or-death possibility for a child. For the BRN, the California Nurses Association and a bunch of labor unions, it seemingly is more about job protection. Last year, a similar bill was defeated due to the unyielding opposition of nursing and labor. This year, concerns about children thankfully became paramount and SB 161 has passed and been sent to the governor.

The Medical Board of California
In contrast, the MBC generally adheres to its task of regulating medical doctors. It often has been reluctant to engage in politically defending the physician scope from inroads by ancillary health practitioners. When CSA representatives appeared before the MBC to seek more assertive advocacy for physician supervision in response to the CRNA opt-out, the MBC President, Barbara Yaroslavsky, was quick to stamp her perspective on the issue. “Remember who appointed you,” she admonished her fellow board members, all of whom were, you guessed it once again, GAS appointees!

Report from the Legislative and Practice Affairs Division (LPAD)

By Paul Yost, M.D., Chair, Legislative and Practice Affairs Division

California Issues
The state of California is mired in yet another budget crisis. In early August, State Controller John Chiang reported that California missed its budget target by $539 million (roughly 10 percent). This shortfall raises the concern that even deeper cuts will be on the agenda for health care services in California. It appears that the state budget, passed only two months ago, is based on what re-run Gov. Jerry Brown said he would not do: balance
the budget on gimmicks, smoke and mirrors. It took less than 60 days for the gimmicks to fall apart.

In a related matter, the U.S. Supreme Court will be taking up the question of whether or not Californians can sue the state of California in federal court over Medi-Cal cuts. The federal government has a law requiring states to provide their residents with adequate access to health care. The last time California tried to slash Medi-Cal payments to doctors, the CMA and others successfully sued the state in federal court on the basis that cutting Medi-Cal rates would harm access to care. The Schwarzenegger administration appealed, challenging the right of state residents, Medi-Cal patients and providers to sue in federal court. This issue should be heard by the U.S. Supreme Court in the fall. Of note to CSA members: several U.S. congressmen—including Henry Waxman of California, a Grassroots contact of LPAD Vice Chair Dr. Mark Zakowski, President-elect Dr. Johnathan Pregler, and longtime CSA leader Dr. Norm Levin—filed an amicus brief supporting the CMA position.

Federal Issues
Speaking of budget issues, we all witnessed the surrealistic Roman circus that was the congressional debate over the debt limit, tax revenues, and our level of spending. With an economy that is sputtering along, a Wall Street that resembles a roller coaster ride, and a European Union that is plugging holes in bankrupt economies, it is no wonder the American public is getting a little anxious. The end result of the latest debate is the creation of a 12-person “super committee” to identify a little over $2 trillion in cuts. One member is California’s own Xavier Becerra, a key contact of CSA Secretary Earl Strum. Earlier this year, at the legislative conference in Washington, D.C., Dr. Strum introduced Congressman Becerra to the ASA legislative conference, where the congressman gave a very informative and entertaining speech. If this super committee is unable to come up with $2 trillion or so in budget savings, and/or Congress is
unable to pass the budget savings, cuts to defense and domestic spending will be automatic. Medicare cuts undoubtedly would be near the top of the list.

**Legislative Advocacy**

The CSA has gone live with our **CSA Grassroots Network**. Through this site any member can easily identify and contact his/her elected California state assemblyperson or senator. When legislative issues of concern to anesthesiologists arise, we can issue action alerts to the entire CSA membership. An action alert allows our members to easily contact their legislators and discuss the CSA’s position on the issue. The CSA Grassroots Network supplies talking points on the issues and makes it incredibly easy for members to be a part of the political process. So far we have issued two action alerts.

The site also allows us at the CSA to support and assist CSA members who want to become **key contacts** to legislators. We encourage all of our members to get to know their legislators. It is much easier to establish a relationship when you do not need to ask them to support or oppose a piece of legislation. Ideally, we would like our members to establish a relationship of trust with their legislators so that when issues of concern arise, it is easier to educate them as to why a piece of legislation is good or bad for our patients and our specialty.

In August we activated web publishing, a new section of the CSA Grassroots Network that allows our members to follow legislation of interest to the CSA in real time (see preceding report). Many thanks to our lobbyists, the father-and-son team of Bill and Bill Barnaby, and CSA staffer Merrin McGregor, for making the CSA Grassroots Network a success. Issues come up quickly in Sacramento, and our Grassroots Network gives us our best chance to represent the interests of our patients and our specialty—the greatest medical specialty, anesthesiology.

**Messaging and Marketing**

Much of politics is messaging and marketing. The Legislative and Practice Affairs Committee and the Committee on Professional and Public Communications have teamed up to work on marketing and messaging for the CSA. A recent survey by the American Medical Association revealed that over 20 percent of patients do not think (or are unsure) that an anesthesiologist is a medical doctor! According to the same survey, 38 percent of patients think that a “doctor of nursing” is a medical doctor, while 25 are unsure! These amazing statistics tell us that we need to do a better job of educating the public about who we are: medical doctors—that is, physicians, doctors of medicine. And we need to do a better job telling people what we do: keep sick patients alive, safe and comfortable before, during and after surgery. The ASA and the CSA are committed to doing this in several ways: with marketing, with public relations, and legislatively.
It is clear that patients lack information about the training and credentials of people who work in health care. The ASA authored HR 451, the “Healthcare Truth and Transparency Act of 2011,” a bill in the House of Representatives that requires health care practitioners to clearly state on their badge whether they are medical doctors (physicians), nurses, physician assistants, or some other category of health care practitioner. Forty-five members of Congress—an ASA record—have signed on as co-sponsors of this legislation. Please visit the ASA Grassroots Network advocacy site for updates and more information about this important bill. Note that at this time the ASA and CSA Grassroots Networks are independent of each other and not linked, so if you seek national information or want to contact your congressperson or Senators Feinstein or Boxer, then it is the ASA Grassroots Network that must be deployed.

The ASA has improved its public outreach campaign with the launch and support of the “LifelineToModernMedicine.com” website, which has the express purpose of educating the public and our colleagues about what we do. If you have not been to the site, please take a look. There are links on the front page to information about the training and expertise of different types of anesthesia providers, as well as extremely well written sections on types of anesthesia, what patients should expect, and patient stories about their anesthetic experience. When your patients have questions about anesthesia, the LifelineToModernMedicine is a wonderful resource.

The CSA also has updated its website, and we are embarking on a marketing and public relations campaign to let the people of California know who we are and what we do. Stay tuned to Gasline and the CSA website. However, our best marketing tool is you, the physician anesthesiologist. Please get involved in your medical staff activities, surgery center administration, and medical society. Share your experience and expertise with your colleagues and represent your profession. In some ways, we are victims of our own success. We like to make the most difficult, challenging, stressful case look easy and smooth. We are so good at what we do that sometimes it is difficult to let our colleagues and the public know just how important it is to have a physician at the head of table when their loved one is under the knife.

Practice Affairs
In keeping with our efforts to make the lives of California anesthesiologists easier, we are expanding the resources in the Practice Resources portion of the CSA website. Dr. Mark Zakowski and Dr. Linda Hertzberg, along with Merrin McGregor, have been organizing standards, guidelines and statements from various organizations along with significant points for members. Currently there are several pediatric and obstetric anesthesia summaries and documents
available. Dr. Zakowski obtained permission from American College of Obstetrics and Gynecology (ACOG) to make available to our members a couple of the most important ACOG documents that normally are available only to members. It is of great benefit to CSA members to have original documents organized on the CSA website, as well as analyses and summaries. There are also open groups on the membership site with discussion threads on issues important to members, including recent queries pertaining to The Joint Commission. Please join these open groups to help facilitate and disseminate discussions of regulatory and practice issues.

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**Update on the CSA’s Opt-out Litigation**

_by Kenneth Y. Pauker, M.D., President_

This is an update as of Aug. 25, 2011, on our opt-out litigation, _CSA and CMA v. Schwarzenegger_, filed Feb. 1, 2011. You can always find up-to-date information on the CSA website under “Publications and News.”

In response to our initial brief filed on April 8, both the governor and the California Association of Nurse Anesthetists (CANA) filed their briefs on July 28, 20 days after their deadline of July 8, with the court’s permission.

I have looked over their briefs, and they appear to me to be without apparent new arguments, a conclusion with which Curtis Cole, our lead attorney, agrees after studying them in detail. They did also request to make certain documents part of their case, in response to the new argument we made about trauma regulations requiring supervision. These requests are tangential and related to nursing regulations and scope of practice. To me they appear to be intended to promote “independent” nursing practice without actually using that word. Mr. Cole advises that we not spend a lot of time on these requests but rather wait for his appellate reply brief, which he is drafting with the help of Long Do (CMA), Francisco Silva (CMA), and Tom French (Hassard Bonnigton, CSA). When completed, this brief will be circulated to senior CSA leaders for review and comments.
Because the other side employed what seems to be a tactical delay to push our filing deadline back and well into the summer vacation season, it's been somewhat problematic scheduling conferences with the rest of our legal team and those filing amici briefs. Therefore, we requested and were granted an extension to file our own reply brief until Sept. 16, 2011. Amici briefs must be filed within 30 days of that date. After amici file their briefs, the opposing parties have 30 days to file answers to the amici briefs. It is likely that the other side will again delay beyond that time frame.

At present, our amici are the AMA and the ASA combined; their brief is being written by Greg Abrams (AMA) and Brian Jiang, a lawyer/anesthesiologist/professor from San Diego. There remains a small chance that a very well known plaintiff attorney might write an amicus brief, to dispute CANA assertions of equivalence of care. True to its history, the California Hospital Association (CHA) disappointingly was an amicus for the other side in Superior Court, but so far has not filed an amicus brief in the appellate case. If the CHA does not, one might speculate as to why. One notion is that the CHA, upon reflection, could be concerned about their “deep pocket” liability exposure if nurse anesthetists pursue independent practice in large numbers.

Our case has been assigned to Division 4 of the 4th Appellate Court. Sixty days after our response brief is filed (therefore, around Nov. 16), and after amici briefs and answers to amici are filed, Court of Appeal staff attorneys will work up the case, and their tentative decision will be given to a panel consisting of three of the four judges in that appellate division. This staff process in years past took up to a year, but the Court of Appeal addressed this issue to such a point that this should take only a few months. Next, the judges will confer amongst themselves, and then set a date for oral argument (one day, for an hour or two, in San Francisco). Unfortunately, the state budget issues have resulted in a second “furlough day” each month for state employees, and this is beginning to produce some judicial delays. Not to mention the other side’s proclivity to seek delays; they may even ask to push back the date for oral arguments. Mr. Cole now estimates that oral arguments may actually take place in late spring 2012. We will get approximately 60 days’ notice of the date, and interested parties can attend. The court will announce a decision within 90 days thereafter, so it may not be until summer 2012 that there is a decision.

Thus, we need to be patient. The appellate process is long and at times tedious. I am confident in the skills and judgment of our legal team. We hope that at the end of this long road we will have a victory that, as an appellate decision, sets a judicial precedent.
The Music and Mind of Beethoven: Chords of Disquiet

By Bryan Maxwell, M.D.

Without madness, would the world have fewer great works of art? It is an old question, and a controversial one. Most would say that there seems to be some connection between artistic creativity and disorders of the mind, but much disagreement exists as to whether madness contributes directly to creative genius. Dr. Richard Kogan has a unique perspective on the matter because he is both a Juilliard-trained classical pianist and a practicing psychiatrist in New York City. He also serves as artistic director for the Music and Medicine program at Weill Cornell Medical College.

On April 12, 2011, Kogan gave the keynote address at the 10th annual “Medicine and the Muse,” a Stanford University symposium on arts and humanities in medicine. The symposium was coordinated by Audrey Shafer, who is professor of anesthesia at Stanford, a staff anesthesiologist at the VA Palo Alto Health Care System, and a faculty member at the Stanford Center for Biomedical Ethics. She co-directs a program that offers Stanford medical students a scholarly concentration in biomedical ethics and medical humanities. Shafer, herself an author and poet, is a passionate advocate for efforts to claim a place for the humanities within the realm of medical practice and thought.

Kogan’s talk, “The Mind and Music of Beethoven,” combined a psychiatrist’s insights into the music history and biography of Beethoven with live performance of several of Beethoven’s piano sonatas. Kogan brings a historian’s perspective and a physician’s keenness for observation and diagnostic interpretation to the music of great composers.

Kogan moved with great facility through the biographic highlights of Beethoven’s life, discussing how hearing loss and its psychological consequences affected his art in constructive and destructive ways. Kogan cautions against being too flippant with postmortem psychoanalysis, but demonstrates the richer appreciation that can come from understanding the personal context in which a composer worked, with a particular eye to possible mental illness.

Working at the interface of psychiatry and music, Kogan has examined the lives and works of numerous composers, including Rachmaninoff, Mozart, Gershwin, Tchaikovsky and Schumann. For many scholars, the pattern of Schumann’s bipolar disorder helps explain the stormy contours of his musical career. Kogan has recorded a DVD on Schumann1 with a similar presentation format as that of his keynote address on Beethoven—a biographical look at the link between
the manic and depressive fluctuations in Schumann’s mood and his creativity combined with Kogan’s performances of various Schumann pieces. This examination is more fully possible for Schumann than for Beethoven or other composers because Schumann kept a diary with extensive written detail on his mood and daily life, which is available to scholars who have come to see him as perhaps the most vivid illustration of the bittersweet link between mental illness and artistic genius.

Other psychologists and academics have attempted to generalize beyond the level of individual biography in believing that madness and genius relate in a strong association, perhaps even a causal one. In ancient Greece, Plato reportedly claimed, “All the good poets are not in their right mind when they make their beautiful songs.” Aristotle is widely quoted as saying, “No great genius has ever existed without some touch of madness.” But at times, this conceptualization may have gone too far, particularly in 19th-century romantic conceptions of the mad genius as hero.

Some psychiatrists and psychologists working earlier in this century concluded that artists have a substantially higher risk of mental illness, and came to see this connection as essential. Some of this work resulted in broad statements in textbooks such as: “Bipolar disorder is especially common among creative artists.” Subsequent critics have noted that their original studies often consisted of anecdotal, subjective interviews with a small number of artists and used criteria that were not standardized or replicable. Posthumous efforts to make psychiatric diagnoses based on the biographies of artists are fraught with potential bias and error.

But at the level of the individual artist or composer, the nexus between mental illness and creativity represents a powerful area for critical attention. Here is a passage from Kogan’s presentation on the arc of Beethoven’s career and the connection between his illness and his genius:

The tale is often told that Ludwig van Beethoven, upon becoming completely deaf, sawed the legs off his piano so he could feel its vibrations through the floorboards as he composed. We can easily imagine him sitting at that keyboard: unruly hair, wild eyes, fingers pounding the keys so forcefully that the strings broke.

Beethoven has long evoked the image of a tortured, mad genius. He had an intense, tempestuous personality, and he could slip from rage to raucous laughter to serenity within minutes. His hearing loss, which began while he was in his late twenties, became the central torment of his life. Deafness can be a hardship for anyone; for a musician, it’s a catastrophe.
When Beethoven lost his hearing, he contemplated suicide. But then he decided to seek salvation in the music he could no longer hear. With his career as a virtuoso pianist now ended, he dedicated himself anew to composing.

Once Beethoven locked himself into the silent world of his imagination, his musical genius blossomed. Unable to hear the music of his contemporaries, he conjured a world of sound different from anything previously conceived. Much of his music reflected struggle and the attempt to achieve transcendence over that struggle. And his music, with its sudden shifts and enormous unpredictability, mirrored his emotional volatility. Beethoven was capable of translating melancholy and ecstasy into musical terms with unmatched virtuosity.

One result of this inner unleashing was the Ninth Symphony, one of his most celebrated works. Poignantly, during the Vienna premiere of the work, Beethoven, in his first onstage performance in a dozen years, hovered alongside the conductor, offering tempos to an orchestra that for him was silent. Following the symphony’s conclusion, the contralto gently turned Beethoven around so he could witness the audience’s thunderous applause.

In 1812, the collapse of a romance with a woman known as the Immortal Beloved convinced Beethoven he would never experience marriage or a conventional family life. The emotional fallout led to an extended period in which his productivity dropped precipitously. After his brother’s death, he directed his energy toward the aggressive pursuit of sole custody of his 9-year-old nephew. He became overtly psychotic during this custody battle, accusing the boy’s mother of poisoning her husband and insisting against all evidence that he was the actual biological father of the child.

After bitter and protracted legal wrangling, Beethoven was eventually awarded guardianship of the child. The creative floodgates opened after his victory, and the glorious final phase of his career commenced. The rages he had expressed as a younger man softened and his music became more spiritual and ethereal than anything he had previously composed.

Centuries later, the composer still provides one of the greatest examples of the sublimation of suffering into the creation of masterpieces. His moods, he once wrote, “…sound, and roar and storm about me until I have set them down in notes.” Fittingly, Beethoven died amid the thunderclaps of a savage spring storm.6

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6 Beethoven (cont’d)
Would Beethoven have written his masterpieces if he had not gone deaf, locked in the isolation of silence to imagine a sound and style that had not existed before? Without his inner turmoil and psychic angst, would his later works have had the same fire, drama, volatility and passion? Would he have composed at all?

This line of imagination can lead to ethical discomfort for those who enjoy classical music, or any art form that relies on the creativity that may be tied to mental suffering. Is it voyeuristic or cruel to celebrate such accomplishment, if the cost was another's profound anguish and despair? What are the implications for contemporary treatment decisions? Should we have reservations about treating artists with mood disorders if doing so involves the use of psychotropic medications that may blunt emotional intensity and artistic creativity?

References
3 Most influential among these were Nancy Andreasen, Arnold Ludwig and Kay Redfield Jamison.
Anesthesiologist Leads Negro Leagues Baseball Grave Marker Project*

Jeremy L. Krock, D.O., a Peoria, Ill., anesthesiologist, has founded the Negro Leagues Baseball Grave Marker Project. This humanitarian effort recognizes the talented baseball players who necessarily played in a segregated national pastime until the color barrier was broken in 1947, when the Brooklyn Dodgers brought Jackie Robinson to play in the major leagues. Before then, African American baseball players had to compete in their own Negro leagues.

After their careers ended, many of even the greatest Negro players had to take menial jobs with minimum wages and, being impoverished, were buried in unmarked graves and without fanfare. Eight years ago, Dr. Krock embarked upon a crusade to change that segment of history when he discovered that one of his heroes, John William Crutchfield, “the most famous guy” from Ardmore, Mo., a small mining town where Krock's great-grandparents lived, was forgotten in death.

Mr. Crutchfield had been a coal miner who later played as a star in the Negro leagues. When Dr. Krock went to pay him homage by visiting his gravesite in Burr Oak Cemetery in Chicago, he was stunned to find an unmarked grave. He decided to correct this injustice by dedicating a grave marker for Mr. Crutchfield. “They played in anonymity, and I don't want to see them buried forever in anonymity.” Indeed, they were “denied proper recognition in life, but then suffered from a final indignity in death: an unmarked grave,” according to Phil Taylor, Sports Illustrated columnist.

Dr. Krock’s project has added 22 more gravesite memorials for other past Negro league stars, and he anticipates many more to come. Larry Lester, chairman of the Negro League Committee for the Society of American Baseball Research, has ably aided his mission. Historians consider these players to have served as pioneers of the civil rights movement. Dr. Krock, who previously hadn’t been particularly interested in baseball history, now does extensive research to uncover the information leading to the memorials, helps raise money for the headstones, collaborates on their design, and often travels great distances to be present at the installations. “We’re never going to get everybody,” but that will not weaken Dr. Krock’s passion and determination to fulfill the project’s goal of “respect, redemption and recognition.” Anesthesia—as well as baseball—caps off to Jeremy Krock!

California Society of Anesthesiologists
Winter Hawaiian Seminar
January 23–27, 2012
Hyatt Regency Maui Resort & Spa
Ka’anapali Beach, Maui

Topics Include:
• Obstetric Hemorrhage: Systems, Transfusions, and Drugs
• ACLS 2012
• Perioperative Beta Blockade and Glycemic Control: Can we please have a consensus?
• The Changing Risks and Benefits of Blood Transfusion
• Neurologic Complications of Regional Anesthesia
• Understanding Modern Mechanical Ventilation
… and much more!

Educational Information
The California Society of Anesthesiologists is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians. The California Society of Anesthesiologists Educational Programs Division designates this educational activity for a maximum of 20 AMA PRA Category 1 Credits™. Physicians should only claim credits commensurate with the extent of their participation in the activity.

Hotel Information
CSA rates based upon single or double occupancy (not including tax):

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Island of Maui

The second largest Hawaiian island, Maui features long, sandy beaches, tropical rainforests, and spectacular rocky cliffs. Activities include snorkeling, scuba, sailing, whale watching and golf. The naturalist can hike Maui’s forested trails and view native plant species and rare birds. Maui’s hotel and restaurant chefs are among the best in the country.

Family Fun at the Hyatt Regency Maui

Located on 40 acres of oceanfront property, the Hyatt Regency Maui offers six tennis courts, a half-acre pool, five restaurants, six bar/lounges and an outdoor dinner theater/luau area to take advantage of the Maui evenings. The Hyatt is home to Spa Moana, featuring 15 treatment rooms, a full-service beauty salon, sauna and steam rooms. Two golf courses are adjacent to the hotel; four others are a short distance away. The kids will love Camp Hyatt—a daily supervised activity program for children ages 5 to 12 operating 9 a.m. to 3 p.m. and 6 p.m. to 10 p.m.

FACULTY

CSA Winter Hawaiian Seminar, 2012

Michael A. Gropper, M.D., Ph.D., Program Chair
University of California, San Francisco

Dean B. Andropoulous, M.D., M.H.C.M.
Baylor College of Medicine

Terese Horlocker, M.D.
Mayo Clinic

Kevin C. Thornton, M.D.
University of California, San Francisco

Cynthia A. Wong, M.D.
Northwestern University
Feinberg School of Medicine

Register online at www.csahq.org.
California Society of Anesthesiologists
Annual Meeting
April 19–22, 2012
The Ritz-Carlton
Laguna Niguel, California

Topics Include:
• Current Controversies in Obstetric Anesthesia
• Emergency Airway Management
• Strategies to Reduce Cardiac Risk for Non-Cardiac Surgery
• Pediatric Anesthesia Outside the Operating Room
• Maternal Morbidity and Mortality—Anesthetic Causes
• The Physiology of Cerebral Blood Flow Autoregulation
• Errors Made by Anesthesiologists: How Can They Be Eliminated?
    ….and much more!

Educational Information
The California Society of Anesthesiologists is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians.

The California Society of Anesthesiologists designates this educational activity for a maximum of 17 AMA PRA Category 1 Credits™. Physicians should only claim credits commensurate with the extent of their participation in the activity.

Faculty members have provided learning objectives for each lecture, which will be included in the conference syllabus and can be found online by visiting www.csahq.org/CMEevents. You may also call the CSA office at 800-345-3691 to have the objectives sent to you.

Hotel Information
The Ritz-Carlton offers a special CSA rate of $275 per night, based upon single or double occupancy (not including tax). The resort fee of $25 per day has been waived for CSA guests.

Call the Ritz-Carlton, Laguna Niguel, at 949-240-2000. For the group rate, make your reservation under the California Society of Anesthesiologists meeting. The cutoff date for the CSA group rate is March 28, 2012.
Discover Orange County

Dana Point is a beach town in southern Orange County, halfway between Los Angeles and San Diego. At Dana Point Harbor you can find activities for every interest, including fishing charters; sail, yacht and powerboat rentals; whale watching excursions, and personal watercraft. You can also catch the Catalina Express for a 90-minute boat ride to beautiful Catalina Island. Landlubbers will find plenty to do as well, including in-line skating, hiking, bike riding, shopping and fine dining.

Dana Harbor is home to the Ocean Institute, which houses the Pilgrim, a full-size replica of the ship immortalized in Richard Henry Dana's classic novel, Two Years Before the Mast. Take the Pacific Coast Highway north to Laguna Beach, home to dozens of galleries featuring the works of local artists.

Experience genuine renewal at The Ritz-Carlton

Situated atop a 150-foot bluff, The Ritz-Carlton, Laguna Niguel, is a peaceful sanctuary which complements its refined elegance and graceful atmosphere with impeccable service. Located halfway between Los Angeles and San Diego, this luxury hotel in Laguna Beach has catered to the world's most discriminating guests for 27 years. Discover a time-honored haven, which has raised the traditional standard of hotel service to an entirely new level, blending unexpected luxuries with the timeless elegance of the sea.

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Joy Hawkins, M.D.
University of Colorado

Aman Mahajan, M.D.
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UCLA Medical Center

J. Prince Neelankavil, M.D.
TEE Workshop Co-Chair
UCLA Medical Center

Register online at www.csahq.org.

CSA Bulletin
Captivating the Audience

“Dinner’s ready,” my wife says as she shuttles between the kitchen and the dining room. “Can you get the kids? They’re playing a game on the computer.” “Sure,” I reply. “Dinner’s ready,” I shout, ducking my head into the playroom. My son looks up briefly, as if an insect landed on his arm and he needs to brush it off quickly. My daughter doesn’t even flinch. Five minutes later my wife stomps into the playroom and turns off the game. The protests begin. “We didn’t know!” shouts my daughter. “Why didn’t someone tell us dinner was ready?” Clearly, video game designers have perfected the art of captivating their audience.

The “Tipping Point”

In his 2002 best-seller, Malcolm Gladwell described the “tipping point” as the dramatic moment in an epidemic when everything changes. The authors of this article believe that medical education has reached a “tipping point.” During the next five years, technology will transform medical education, resulting in enhanced learning efficiency, greater student satisfaction, and more effective communication of information and ideas.

Gladwell suggested that tipping points happen when technology exceeds certain thresholds, when critical masses embrace new things, and when needs become excessive. As my children demonstrated, computer technology has now achieved the status of being remarkably engaging. In many cases, the graphics are lifelike. The medium is entertaining. As we enter the second decade of the 21st century, an increasing number of students and health care workers are proficient in the use of computers. In addition, mobile computing and miniaturized digital devices are making the exchange of information fast and easy. As a consequence, large health care networks are adopting computer-aided communication and learning to improve the quality of care they deliver.

Although advances in technology and greater familiarity with digital devices are allowing the transformation of medical education, it is the information explosion that is making this transformation necessary. In a 2006 Dartmouth Medicine article, former Medical School Dean Dr. Stephen P. Spielberg commented that “biomedical knowledge continues to grow exponentially, but the time students can spend in class cannot expand indefinitely.” Similarly, the amount of information that practicing physicians must absorb to keep current is expanding rapidly, but the time that clinicians can devote to learning
The End of Education (cont’d)

is becoming more limited. Indeed, we have reached a point where more efficient and effective learning tools are a necessity for medical practitioners.

Revolutionizing Medical Education

Dr. Larry Chu is a Stanford University professor who directs the AIM (Anesthesia Informatics and Media) Laboratory for the department of anesthesia. An expert in the field of education technology, Dr. Chu was asked what five things are most likely to revolutionize medical education in the near future. His response: “Lecture capture, mobile computing, immersive simulation-based learning, high-quality video, and social networking technologies (i.e., Web 2.0).”

Elaborating on the first two items, Chu said, “Lecture capture will allow didactic lectures to be accessible anytime, anywhere. Mobile computing will bring educational content to the point of care, which is especially appealing to Millennials (i.e., those born between 1975 and 2000), who gravitate toward ‘just-in-time’ learning.” So, for example, clinicians will be able to review protocols and images at the bedside immediately prior to performing procedures like fiberoptic intubation or ultrasound-guided regional anesthetic placement.

Captivating the Audience, Part II

Chu then told us something that made me think about my kids. “By the time today’s Millennials graduate college, each will have spent about 5,000 hours reading books. However, each will have spent over 10,000 hours playing video games.” Chu explained that many of today’s students learn best by experiencing and doing. Consequently, more and more educators are incorporating video game technologies into their teaching. The result is immersion of learners in simulated scenarios, which could be particularly beneficial for anesthesia training and lifelong learning. One system, for example, allows learners to perform clinical procedures and manage crises using point-of-view cameras (which show what subjects are looking at). This technology is not only engaging; there is reason to believe that it is highly effective for teaching clinical skills.

Social Networking

Chu went on to explain that “Millennials are social creatures and prefer to work in groups to solve problems. Social media technologies attract these team-oriented learners because the technologies allow them to connect rapidly to their peers to share advice and knowledge.” According to Chu, “Web 2.0 and social technologies will revolutionize medical learning by changing the traditional educational paradigm. These technologies will enable peer-to-peer learning in ways that have never been possible before.” Residents, for example,
will be able to request and receive advice from other residents using specialized social media faster than they might receive assistance from their attending physicians using pagers.

**Lifelong Learning and Documenting Proficiency**

In a 2010 commentary in the *American Journal of Neuroradiology*, Dr. R.D. Zimmerman pointed out that institutions, payers and the government are increasingly looking for documentation of continuing education activity and clinical skills as a means of ensuring quality and safety. For many anesthesiologists, the pressure to appease these entities comes at a time when funds to support nonclinical activities are on the decline. Technology might help solve this problem if convenient, effective and inexpensive tools can be developed and validated for learning and demonstrating proficiencies.

**Teaching Teachers to Teach (with New Technologies)**

Of course, new technologies do not simply arrive and become integrated into education systems. First, the teachers need to learn to use them. To understand how this process works, we spoke to Dr. Alex Macario, the residency director for Stanford’s anesthesia department, who has encouraged use of new technologies by creating faculty education programs. One such program is the Teaching Scholars project, which each year affords six individuals the time and resources to advance their skills. The results are impressive. Thanks to Dr. Macario and several Stanford faculty who embraced new technologies, interns entering anesthesiology now use an effective 10-month on-line anesthesia and virtual mentorship program called Successful Transition to Anesthesia Residency Training (also known as START). A multiyear immersive learning and simulation program known as MY MILESTONES has also been launched. In addition, the Center for Immersive and Simulation-based Learning designed by Stanford’s Dr. David Gaba is being used routinely to teach fundamental principles of obstetrics anesthesia, pediatric anesthesia, crisis management, difficult airway management, resuscitation and even echocardiography.

**Downsides of the End of Education As We Know It**

There will be downsides to the end of education as we know it. Patients are not avatars whose needs can be deferred at the convenience of the game operator. Real-life mistakes cannot be deleted. And there will always be decisions and diagnoses made on the basis of clinical acumen and experience from one-on-one patient interactions. Moreover, neither computers, nor simulators, nor lightning-fast communication devices will be able to teach physicians the humanistic elements of medicine that heretofore traditionally have been
honored as integral to the calling of our profession: to be kind, compassionate, and committed to the welfare and best interests of patients. Nonetheless, medical education must change if it is to prepare learners for the increasing demands of clinical practice.

**Medicine 2.0**

Given anesthesiologists' history of embracing new technologies and using them to improve patient safety, it would be surprising if we didn’t lead the way in transforming medical education. Indeed, Sept. 16–18 a three-day conference, entitled “Medicine 2.0” and directed by Dr. Chu, took place in Palo Alto, Calif. The event was designed to provide physicians with useful information about emerging technologies and the potential to revolutionize the practice of medicine. Thought leaders from around the world participated as the program offered attendees an opportunity to become a part of the force reshaping medical education.

Dr. Andrew Patterson is an associate professor in the department of anesthesia at Stanford University. Suzi Novak recently retired after 35 years as a high school teacher and administrator. Dr. Patterson was one of her students.

**References**


CMA Physician’s Confidential Assistance Line

650-756-7787 or 213-383-2691
How a Surfing, Kite-boarding, Civic-minded Anesthesiologist Became Mayor of Seal Beach

By Paul Yost, M.D., Chair, CSA Division of Legislative and Practice Affairs

So, how did I become mayor of Seal Beach?

It started with a bike ride and some very noisy, ugly power lines.

In 1994, my wife, kids and I were living in a house in Seal Beach, three blocks from the best kite-boarding beach along the Southern California coast. Behind our house ran high-voltage power lines that would crackle, snap, and even buzz in the moist marine air, adding a very unwelcome auditory cacaphony to the mellifluous tones of crashing waves and fog horns. One day, I climbed onto my bicycle and followed the power lines—which, I discovered, didn’t seem to supply any power service at all to our residential beach community. I was more than a little surprised to discover that this noisy intrusion into our quaint little beach town was actually just passing through on its way to another destination. The high-voltage lines (66,000 volts instead of the usual 13,000-volt lines that course through most neighborhoods) started at the power plant on Studebaker near Westminster Boulevard (see map) and ran straight toward the ocean, coming to within a few hundred yards of the beach. Then they made a 270-degree hairpin turn and set off through the residential section, including numerous backyards, to Seal Beach Boulevard, which they followed to their termination at the Rockwell Industrial space and aeronautics facility on the edge of Seal Beach. The high-voltage lines meandered about 5 miles to end up barely 300 yards from the power plant where they began!

Armed with this knowledge, I became a kind of local activist lobbying for the removal of the power lines. One of my neighbors and I started our
own newsletter, “The Power Line News.” We contacted the City of Seal Beach, Rockwell, Southern California Edison, and anybody who might listen to us. The great breakthrough came about a year later when Rockwell realized that the power lines were really only a backup for its industrial facility, and that Southern California Edison was charging it $10,000 each month for the use of the line! Rockwell calculated it could transition to diesel generation for backup power at an expense of a mere $100,000. After 10 months, Rockwell would recoup its investment, and every month thereafter add $10,000 to its bottom line. Ah, Rockwell and us, we were a match made in heaven. Rockwell told Southern California Edison that they no longer needed the lines, and Edison was stuck with a very high-voltage line and no customer to charge for maintaining it. In 1995 the lines started coming down. Edison was forced to do the right thing, but not because of political pressure, noise, aesthetics or public safety. It was the almighty dollar that tipped the scales our way.

After this success with the power lines, in 1996 the mayor put me on the Planning Commission. My father was a civil engineer, so the concepts of zoning, planning, conditional use permits, and variances were vaguely familiar. The Planning Commission in Seal Beach is a very closely watched, politically charged position. Any developer wanting to change the character of this quaint little beach town must first pass through the Seal Beach Planning Commission. This commission also handles all of the conditional use permits for alcohol sales in the city. In spite of the fact that Seal Beach boasts four Irish bars in one block of Main Street, the commission really does try to limit the number of alcohol-serving establishments, or at least the new ones.

After I had served two years on the Planning Commission, the city council representative for my district, who had served the town well for eight years, ran into term limits and was forced to retire. As her term was winding down, her campaign team asked me if I would consider running for her seat. With an experienced campaign team and a popular incumbent’s backing, running for office seemed like an interesting and inviting idea.

Seal Beach is a small community with a population of 27,000 residents. My political district consists of the Hill area, the northern section of Old Town, the Seal Beach Naval Weapons station, and Seal Beach National Wildlife Refuge. With a veteran campaign team, I felt pretty confident about my chances in the election—that is, until I realized against whom I would be running. My opponent was a man who was endorsed by the local newspaper, which stated that he “bleeds Seal Beach.” Born in Seal Beach, he had lived his whole life in town, and to top that off, his father had been both a councilman and mayor of Seal Beach! My opponent coached youth sports and rode in “big” cars in the Christmas Parade. I now was worried. However, he also owned a sports bar/restaurant
in town and often could be seen wearing a sweatshirt proudly proclaiming the name of his establishment. The fact that the sweatshirt was from the last decade and a little worse for wear didn’t seem to faze him; however, I do believe that it was noticed by the voters. I began to feel a little better.

While my opponent was a very visible, successful and popular businessman, he really represented and embodied the business community. I was a resident in town, with a history of removing power lines and making the town a nicer place to live. Although businesses and business owners tend to be visible, the majority of voters are residents, and residents have a different set of interests than those in business. Most of my time during the campaign was spent knocking on doors and getting to know people and their concerns about their community. Because my opponent was well known and liked, I did not want to resort to attacking him, much to the chagrin of my campaign team who wanted to “take no prisoners” and leave a smoldering shell of a man where a candidate once stood. Indeed, I retained control of the direction of my campaign and demanded that it was to focus on the positive things that I had achieved. In the end, we won the election easily by a 2-to-1 margin.

However, on the day of election, I made my first political blunder. Before the votes were even counted, I stuck my big foot in my big mouth! I decided to have a “chat” with the editor of the local paper that had endorsed my opponent. Perhaps coincidentally, perhaps not, my opponent had a long history of purchasing advertising for his sports bar/restaurant from that newspaper. When the endorsement was announced, the newspaper had mistakenly listed our election as being in Council District #2 instead of the correct District #3. When my 7-year-old read the local paper, she said: “Daddy, I think you win, because it says here that your opponent is running in District #2, and you are in District #3.” After chatting with the editor about his endorsement of someone who owns a bar, and who advertises in his paper, I ended the conversation by telling him about my 7-year-old recognizing his error, and I even told him, “If you ever need someone to edit your political copy, my 7-year-old is available.” However, the editor got the last laugh: over the next year, he twice put me in diapers in political cartoons. The lesson for this novice politician: try not to antagonize someone who buys their ink by the barrel.

In Seal Beach, the mayor is selected by the five City Council members. When the sitting mayor was elected to a seat on a local college board, he was forced to vacate his position. He endorsed me to fulfill the remaining nine months of his mayoral term. A majority of the other Council Members agreed, and, lo and behold, in January of 1999, I became the mayor of Seal Beach! I was mayor again in 2000 and 2005 and then, having served the maximum number of terms allowed, I retired from Seal Beach City politics in 2006.
If Not Us, Then Who?

By Perry G. Fine, M.D., Professor of Anesthesiology, Pain Research Center, University of Utah School of Medicine, and President, American Academy of Pain Medicine

“If not you, then who?” These words were spoken to me by a wise and deeply concerned mentor during a time of extreme doubt that I was experiencing as a medical intern. I was wondering whether I had anything of value at all to offer the patients under my care who were dying from far-advanced cancer. This simple but profound rhetorical rejoinder to my expressed sense of inadequacy turned me on my heel, actually and metaphorically, to return and attend to my patients as they lay dying, with conviction no longer to be demoralized by the absence of my ability to prescribe a cure, but rather to be motivated to help reduce the burden imposed by their disease.

Several years later, and seemingly a world apart from that linoleum-lined county hospital, I was sitting in an oak and gilded board room of a prestigious cancer center at a meeting to discuss cancer care. Upper-echelon directors of the center were proudly reviewing the latest data demonstrating small but notable increases in five-year survival rates for patients treated there with certain solid tumors. Ebullience and congratulations were plentiful…until someone asked: “What happens to the other 48.3 percent of patients who don't live five years, and the ones who live longer than five years, but still succumb to their disease?” Whatever the opposite of “ebullience” is, it was, at that moment, positively palpable. A stunned and way-post-dates-pregnant silence gave into a deftly managed change in subject by our host, and the conversation meandered elsewhere. No one dared allude to, no less mention, the “d” word again.

More than 30 years have passed since I witnessed my first cancer death as a health care worker. Yes, wonderful progress in the treatment of several malignancies has occurred, but metastatic disease still takes a terrible toll. I still am haunted by the images of that first experience and the many more that followed. It is not the physical ravages of this terrible group of diseases we subsume under the singular and terrifying term “cancer” that make me shiver as I conjure up these memories. I was amply prepared for the sights, the smells, the sounds of cancer; although they are not easy to get used to, we quickly adapt and we also learn quite effectively to pretend not to be bothered. We learn to parry the worst of what disease and trauma bring so that we can get past the revulsion and do what needs to be done. The latent image that refuses to be extinguished in my mind’s eye is that pathognomonic look of desperate loneliness embedded in the actual eyes of those patients as they lay dying—that, and more so, the realization that we unintentionally but no...
less actually contribute to it. We come and go and perform our duties, but we rarely connect, and it is connection that is so desperately needed. Our methods change and protocols become updated, but outside of hospice and palliative care settings, that outcome largely remains the same. We are taught to effectively manage our own horror by mastering the treatment imperative: focus on the disease; fight the disease. And, even in the face of overwhelmingly irrefutable evidence of progressive and irreversible disease, we promote the delusion of cure and equate this misdirected posturing with “hope.”

Early on, before cancer has spread, these warrior-like devices and noble aspirations may have great value and virtue. But in far-advanced metastatic cancer, the seemingly polar but equally fearsome forms of neglect, consisting of either highly aggressive and persistent “anti-cancer” treatment or “I have nothing further to offer” dismissiveness, are nothing more or less than cynicisms disguised as expertise. Osler recognized this temptation when he stated, “To accept a great group of maladies, against which we have never had and can scarcely ever hope to have curative measures, makes some men as sensitive as though we were ourselves responsible for their existence. These very cases are ‘rocks of offence’ to many good fellows whose moral decline dates from the rash promise to cure. We work by wit and not by witchcraft, and while patients have our tenderest care, and we must do what is best for the relief of their sufferings, we should not bring the art of medicine into disrepute by quack-like promises to heal, or by wire-drawn attempts at cure, adding ‘continue and inexorable maladies.’”

The misapprehension that acknowledging mortality, even imminent death, is somehow tantamount to acquiescing to disease, or inviting a premature death, opens the door to excessive suffering on one or both of these two all-too-common fronts: burdensome—and even torturous—treatments without likely therapeutic benefit, and abandonment. Grief can take a terrible toll, and the denial of death—as vibrant a cultural norm today as it was when the book of the same name was written a generation ago—fuels and protracts the paralyzing response to loss. In his seminal work, Ernest Becker observes: “As long as man is an ambiguous creature he can never banish anxiety; what he can do instead is to use anxiety as an eternal spring for growth into new dimensions of thought and trust.”

But this cannot occur while symptoms are overwhelming the mind’s ability to gain clarity. That is where we enter, we physicians of all stripes, who can use not just the tools of our particular specialty to reduce the physical torments of pain in advanced medical illness, but our insights into the human condition and our empathy to connect with others’ suffering—to relieve it. If not us, then who?

References

Anesthesia Technologists: The Time Is Now

By Thelma Z. Korpman, M.D., MBA

Several years ago, Victoria Reyes was a high-functioning certified anesthesia technician working under the department leadership of Dr. Narendra Trivedi, CSA Immediate Past President, at Kaiser Permanente (KP) Baldwin Park, where the concept of training technicians to the level of an allied health professional was regularly promoted. Dr. Trivedi understood the importance of competent technicians serving as members of the anesthesia care team (ACT), given the ever-growing complexity of computerized monitoring and the highly technical equipment now standard for many anesthetics. The regional chiefs of anesthesia of Southern California Permanente Medical Group sought more certified anesthesia technicians like Ms. Reyes, but, realizing the paucity of training programs within the United States, developed their own program.

Michael Boytim, CRNA, Ed.D., assistant director of the Kaiser Permanente School of Anesthesia, took on the project of creating a KP Anesthesia Technician/Technologist Program. He began by partnering the KP School of Anesthesia with Pasadena City College (PCC), with the result that PCC students would receive an Associate of Science (AS) degree and a Certificate of Achievement in Anesthesia Technology upon completion of the program. I was selected to serve as the physician advisor to this new program and have worked with Michael Boytim and Victoria Reyes, who, as an anesthesia technologist certified by the American Society of Anesthesia Technologists and Technicians (ASATT), now is a full-time faculty member of the KP Anesthesia Technician/Technologist Program.

One might ask, why was there a need for an anesthesia technician/technologist program? Three recurrent issues had fueled the need:
• It was difficult to hire quality anesthesia technicians.
• It was hard to find consistently trained existing technicians.
• It had become increasingly challenging to find technicians who possessed the expertise and training to deal with complex computerized monitoring and highly technical anesthesia equipment.

Currently, core-trained anesthesia technicians are certified by ASATT, which also offers certification as an anesthesia technologist, a higher level that requires additional amounts of training and experience.

As anesthesia technicians and technologists become increasingly involved with our patients, it is helpful to understand the differences between their education/training/delivery levels according to ASATT.
Anesthesia Technicians (cont’d)

Anesthesia Technicians:
- Function as support personnel by maintaining anesthesia carts and anesthesia workroom equipment and performing anesthesia turnover.
- Have knowledge of anesthesia and monitoring equipment with some ability to troubleshoot equipment issues.
- Have Basic Life Support training.
- Generally enter practice through on-the-job-training (OJT).
- Are eligible to take the ASATT certification exam after two years of experience working within the anesthesia department.

Anesthesia Technologists:
- Function as an integral part of the ACT at an advanced level.
- Support anesthesia providers with patient care.
- Have expertise in anesthesia equipment and can troubleshoot and provide first-line repair of anesthesia equipment.
- Have Advanced Cardiac Life Support and IV certification.
- Assist anesthesia providers before, during and after surgery and are trained to anticipate the needs of the anesthesia provider and the patient.
- May take the technologist exam with OJT if they are already certified technicians; however, by July 2015 the technology exam may be taken only after successful completion of formal education such as the KP/PCC program.
- Will graduate with an AS degree and must meet a minimum number of clinical hours of training.

During the current transition period toward increased formalization and training for this anesthesia technology role, there are two exams/levels of certification available: anesthesia technician and certified anesthesia technologist. Beginning July 15, 2015, only the certified anesthesia technologist exam will continue to be available. Technologists will need to graduate from an associate degree program in order to be eligible to take the exam. All existing certified technicians will be able to maintain their certification as long as they renew with the appropriate continuing education. New entrants will be technologists, as this will be the continuing standard. The goal of ASATT is for the American Society of Anesthesiologists (ASA) to support anesthesia technology as a health care sciences discipline and therefore assist in establishing standards and formalized national educational programs through the community college network, based upon curriculum supplied by the ASATT. With the ASA’s advice and support, the certified technologist will become an important contributor in enhancing the care, quality and efficacy of the ACT.

Seven students graduated from the KP/PCC program in June 2011, and the next class has begun with more than twice that number. The training sites include KP Southern California Medical Centers as well as University of California, Irvine, and Children's Hospital of Los Angeles. Anesthesia practitioners at all levels should look forward to welcoming the certified technicians/technologists as integral members of the ACT.
Gregory M. Gullahorn, M.D.—
District 1
(San Diego and Imperial counties)

Hospital rebuilding and expansion continue in full swing in San Diego, despite the prolonged downturn in the global economy, government budget shortfalls, and increased scrutiny of health care expenditures. In recent years, both Sharp Memorial and Rady Children’s Hospital have expanded and/or opened new facilities, partly as the fruition of plans to meet tightening seismic standards. This year the University of California, San Diego (UCSD), opened the Sulpizio Cardiovascular Center on its La Jolla medical campus, and Scripps Health broke ground on its new Prebys Cardiovascular Institution on its Scripps Memorial La Jolla campus.

Both of these centers hold great promise for patients from San Diego and elsewhere, as well as for advancement in research, development and education. I do find some irony, however, in the parallel development of subspecialty cardiovascular centers essentially next door to each other. There is ample room for different perspectives on regional development and allocation of resources. Perhaps, in a time when many resources and funds are relatively more scarce or more closely held than in recent years, one might consider whether the development of centers of excellence in various specialties using geography and population as a guide might increase efficiencies—and perhaps safety and quality.

Should all medical centers electively pursue all medical specialties? Is this “duplication of effort” or opportunity for differing strategies? I do not profess any special insight. On the other hand, does the development of “competing” centers spur improvements and innovation—if not competition in a pure market economics mode, then influenced by its principles? Academic, technical and quality rivalry can be positive. As accountable care organizations form, and we see health care “evolution” unfold, could it be that this approach is mandatory?

The $227 million UCSD Sulpizio Family Cardiovascular Center was planned to open in April. However, permissions from regulatory agencies were held up by investigation of “deficiencies” at both UCSD’s Hillcrest and
Thornton Emergency Departments. Patients began being transferred from Thornton on July 31, and the center officially opened to the public on Aug. 8. According to UCSD’s website, Sulpizio will consolidate specialists, care, education and research for cardiac, pulmonary and vascular diseases.

**Building Facts:**
- 128,000 square feet
- 4 stories (2 with full interstitial floors)
- Construction start: May 2008
- Construction complete: December 2010
- Open to public in 2011
- Noninvasive cardiology
- Outpatient clinics
- 4 smart ORs (combining full surgical and catheterization capabilities)
- 4 catheterization labs
- 22 daybeds
- 12 ICU
- 15 IMU
- 27 acute care beds
- Includes new expanded emergency department with 14 small treatment rooms, 4 large treatment rooms (with double capacity in event of a disaster), and expanded imaging area

**Scripps’ new Prebys Cardiovascular Institute** is scheduled to open in 2015. The $456 million facility will combine the cardiac and thoracic programs of Scripps Memorial and Scripps Clinic/Green Hospital, cardiology, cardiovascular and thoracic care; in addition, it will serve as a center for research, clinical trials and graduate medical education. Plans for the center, obtained from the Scripps Health website, call for:
- 383,000 square feet
- 7 stories
- 108 private in-patient beds
- 60 intensive care beds
- 6 state-of-the-art operating rooms, at least 2 of which are hybrids
- 6 cardiac catheterization labs

Scripps Health and Kaiser Permanente recently concluded an agreement extending for 10 more years a 30-year partnership under which Scripps provides all interventional cardiology and cardiac surgery care for the half-million Kaiser members in San Diego County.

Sharp HealthCare continues to have a very active cardiovascular and cardiac surgery program, including heart transplant and ventricular assist devices.
In July, The Desert Sun ran a front-page article with photo featuring Doriana Cosgrove, M.D., and a volunteer medical team that went to Nicaragua. Dr. Cosgrove, a staff anesthesiologist at Desert Regional Medical Center (DRMC) in Palm Springs, is also the owner of the Desert Medical Aesthetics spa-like skin care center.

Thomas Schares, M.D., MBA, has recently become the chief of the anesthesiology department at DRMC. Affiliated with Somnia Inc. at Kern Medical Center when Somnia took over the anesthesia services contract there, Dr. Schares has led the transition at DRMC following the award of its anesthesia services contracts to Somnia, which has used the anesthesia care team model in many facilities.

Atalanta Olito, D.O., is the chair of the department of anesthesiology of the recently opened 106-bed Loma Linda Murrieta Hospital. Various surgical services have begun; cardiac surgery is planned for this fall.

Despite the housing slowdown, Temecula is starting construction on another new hospital. The area continues to provide a real growth area for medical practices.

Changes have occurred at Corona Regional Medical Center. On March 7, 2011, the anesthesia contract was awarded to California Anesthesia Providers. Denise Hamilton, M.D., is the current medical director for the Corona anesthesia group.

California Anesthesia Providers has an interesting corporate structure. Emergency Medical Services Corp. (NYSE: EMS) operates two business segments: American Medical Response, or AMR—which many of us know as the ambulance company—and Emcare, which provides facility-based ER and anesthesia physicians to hospitals. Reports indicate that they hold contracts for anesthesia services at the hospitals in Barstow and Palmdale. The corporate bar on medical practice results in creative ways to comply, including foundations and corporate entities that hold contracts for physician services.
Wayne Kaufman, M.D.—
District 3
(Northeastern Los Angeles County)

In May, Dr. Earl Strum, CSA Secretary; Dr. Kyle Poffenberger, a CA-3 resident in anesthesiology at the Keck School of Medicine (recently graduated); and I spent an afternoon in the offices of U.S. Rep. Adam Schiff. Representative Schiff represents an area that largely covers the hospitals and physicians who work in District 3. While there were a whole host of issues we wanted to bring to the attention of Representative Schiff, we chose to focus on two.

The first was the continuing problem of sudden drug shortages, which have direct impacts on our ability to provide patient care. Recently at USC University Hospital we had a neostigmine shortage that required searching the hospital for hidden drug vials and dispersing them according to need. We also have acute shortages of propofol and succinylcholine, as well as other important anesthesia medications. Representative Schiff seemed honestly concerned with this problem, telling us about his father, who was hospitalized and unable to get his medication due to a drug shortage. He told us that he would work with the ASA and the CSA on potential solutions.

The second issue concerned protecting patients by making it easier for them to be informed of the licensure/qualifications of the person caring for them. The “Healthcare Truth and Transparency Act of 2011” is a bill that, if passed, would ensure that when a provider attends to a patient, the patient can tell if that provider is a physician, nurse, or physician’s assistant. The patient would be protected from a Ph.D. claiming to be a medical doctor. Although Representative Schiff seemed less interested in this issue, he listened politely and did not rush us out despite the fact that we overstayed our meeting time by about 20 minutes.

I would like to ask all members of my district to take some time and meet, call or email your representative. With all the challenges facing health care today, it is important to reach out and let your elected representative know how you feel about the issues. It is not that hard, especially now that we have the CSA and ASA website vehicles to let our legislators know what we think. If they do not hear from us, then they will not take us into account.

On July 6, District 3 had a meeting at the Arroyo Parkway Grill. After a discussion of some of the statewide issues on which the CSA was working, Dr. Jack Berger lectured on “The Future of Regional Anesthesia: What We
Know and What We Don’t Know.” I would like to thank I-Flow for sponsoring the meeting and helping to make it a success.

On Aug. 26, several CSA members from our district and some from District 10 participated in “The 19th Annual Congressman Xavier Becerra Golf Classic.” Congressman Becerra has for a long time been a friend of the ASA, in particular helping to correct the teaching rule for anesthesia departments. Because he is a member of Congress’s “Super Committee” working on solutions to the federal budget problems, it is important for us to be able to discuss with Rep. Becerra our concerns, including cuts to Medicare that would reduce access for patients.

John G. Brock-Utne, M.D., Ph.D.—
District 4
(Southern San Mateo, Santa Clara, Santa Cruz, San Benito and Monterey counties)

I would like to start by stating that it is a great pleasure for me to represent District 4. But my success as director will depend largely on District 4 members. Their input, suggestions and advice are imperative in order for me to serve them better.

In May, I sent out a questionnaire to all the district members, asking if anyone was interested in an unsponsored dinner/meeting. I can find a speaker at no cost, and after the talk we can discuss CSA issues and concerns. Our district has over 350 members, but only 30 replied; of them, only four thought it a good idea. The large majority would like dinners to be sponsored.

On June 16, we had a district dinner/meeting, sponsored by Anesthesia Billing Consultants. A vice president of the company gave an excellent talk on “Customer Service in Anesthesia: Why It Is No Longer Enough Just to Have Good Outcomes.” The meeting was fully subscribed within 48 hours and over 40 doctors attended. After the talk Drs. Bill Feaster and Mark Singleton, and CSA CEO Barbara Baldwin, gave us an update on various CSA issues, including the status of our legal battle regarding the opt-out.

The big news in our district is that, on June 6, the Palo Alto City Council gave the green light to build a new hospital at Stanford, after four years and nearly 100 public meetings. Under this plan Stanford Hospital will be rebuilt and Lucile Packard Children’s Hospital expanded, to assure capacity and meet state-mandated safety standards. Utility improvements and related work were to begin in July. Construction of the new facilities will take about seven years.
I believe that burnout and depression are potentially serious problems for all anesthesiologists, and the CSA (Physician Health and Well Being Committee) and/or ASA (Occupational Health Committee) should look into this issue.

Clifton O. Van Putten, M.D.—
District 5
(Kern, Tulare, Kings, Fresno, Madera, Merced, Mariposa, Stanislaus and Tuolumne counties)

Access to adequate health care services remains a chronic problem endemic to the Central San Joaquin Valley. That is one of the reasons a new medical school is eventually planned for the 10th and most recently formed campus of the University of California System, UC Merced. However, until a fully accredited medical school can be launched, the UC Merced San Joaquin Valley Program in Medical Education (PRIME) has been developed, born out of a partnership program between the University of California, Davis, and the Fresno facility of the University of California, San Francisco. Starting this year, students will spend their first two years at UC Davis. Their last two years will be spent working in clinics and hospitals in the Valley. Funding for this program is enriched by a $5 million grant from the United Health Foundation. The five inaugural medical students participating in PRIME hail from two major agricultural regions of the state: the Salinas and San Joaquin valleys.

An interesting situation has arisen at Kaweah Delta Medical Center (KDMC) a 454-bed Level 3 trauma center in Visalia. KDMC’s current exclusive service agreement with Visalia Anesthesia Medical Associates (VAMA) included provision of coverage for cardiac and general OR anesthesia utilizing all-M.D. providers, with one CRNA to assist with OB coverage. This contract was set to expire in December 2011, so in February of this year, VAMA began to lay the groundwork for renegotiation of the contract. In the spring, members of the group were taken aback by a communication from the hospital administration that KDMC was going to release a Request for Proposal (RFP) for anesthesia services, and that they had every intention of going with a CRNA-based staffing model. So, the stage was set for a three-way competition for the contract amongst Premier Anesthesia, Somnia, and VAMA. VAMA duly hired the requisite expensive consultants and submitted a proposal to retain their contract. Sources in VAMA maintain that their proposal contained proprietary group information with regards to provider production and anesthesia unit values. To nobody’s surprise, a Somnia-managed entity was awarded the contract, effective Dec. 13, 2011. A concern allegedly was raised as to whether VAMA’s proprietary information could have been “leaked” to Somnia to assist
them in generating a competitive bid. Additionally, there are questions as to whether the RFP process was a fair one and also whether it was conducted in violation of the hospital’s own code of conduct.

Somnia’s contract with KDMC is said to be a capped guarantee against collections agreement hinging upon Somnia’s ability to provide 12 anesthesiologists and nine CRNAs to cover a service that is currently covered using 20 anesthesiologists and one CRNA. The compensation scheme for the providers will be changed to a salaried one from VAMA’s current fee-for-service blended unit value model. It has been speculated that there aren’t enough dollars in the contract to attract and retain quality anesthesiologists and make a profit for Somnia. Moreover, there appears to be significant resistance at the medical staff level for changing the current service model to an ACT one. So obviously, this story is not done yet. Stay tuned for further developments.

On a different note, Saint Agnes Medical Center decided not to purchase a controlling interest in the Fresno Surgical Hospital, which had been anticipated to be a completed transaction by March 31, 2011. The current CEO of Saint Agnes, Nancy Hollingsworth, RN, MSN, MBA, announced this decision to the medical staffs of both facilities.

Lee-lynn Chen, M.D.—
District 6
(Northern San Mateo and San Francisco counties)

Part of the success of our organization is the continued participation of our membership. Over the past year, District 6 has been able to maintain our base and increase the number of active members. Furthermore, we also have increased representation of the future leaders of our field—the current anesthesia residents—with complete participation of all of the available residents. Positive momentum is on our side. More of our members are now interested in taking an active role in the CSA.

At a district meeting in June, we updated our members on both the ongoing CSA political/legal efforts and our CME events.

As a continuation of my pledge to provide CME activities for our members, I want to let our members know about free CME credits at UCSF’s Saturday Grand Rounds and other UCSF anesthesia courses. For more information, please check our website: http://anesthesia.ucsf.edu/extranet/cme_events/index.php.
District Director Reports (cont’d)

Jeffrey A. Poage, M.D.—
District 7
(Alameda and Contra Costa counties)

District 7 includes the East Bay cities of Oakland, Berkeley, Walnut Creek, Castro Valley, San Leandro, Hayward, Fremont, San Ramon, Pleasanton, Dublin and Livermore. As of May of last year, our district has 209 active members and 50 retired members.

Kaiser Permanente has a major presence in the East Bay. Health care pundits speculate that Kaiser has made gains in market share recently. This may be partly related to the increasing gap in cost between Kaiser and private insurers. For some consumers the difference in premiums has gone from less than $100 to over $300 per month. This price differential in a down economy can have an effect on patient enrollment. Thus insurers who have chosen to raise their premiums disproportionately in recent years have negatively impacted non-Kaiser facilities.

Sutter Health facilities in our district include Alta Bates Summit Medical Center (Berkeley and Oakland), Eden Medical Center (Castro Valley) and Sutter Delta Medical Center (Antioch). Last July, the Oakland City Council voted to approve a development project for Sutter’s Oakland campus. Warren Kirk, at that time CEO of Alta Bates Summit Medical Center, said that Sutter Health is committed to spending $350 million to upgrade the facility and enhance services.

A January Chronicle-Bloomberg Business News press release reported that Children’s Hospital Oakland (CHO) and Lucille Packard Children’s Hospital in Palo Alto were in the midst of talks regarding a “strategic alliance.” The article stated that CHO “has had some problems in recent years. Its previous CEO, Frank Tiedemann, ‘departed’ in August 2009, having presided over $60 million in losses and write-downs in 2008, and abruptly laying off 84 doctors, nurses and clinical workers the previous month. While things have stabilized under its current chief, Dr. Bertram Lubin, the hospital … is losing $10 million a year, said one of the sources. ‘It’s still limping along,’ he said.” CHO’s financial strains have been caused by a number of factors, including poor reimbursement and the economic downturn. “The pediatric healthcare system is broken and rather than being rewarded for our commitment to children, we are being financially penalized.” The press release states that the 20-year-old Packard Children’s Hospital, on the other hand, has $1.5 billion in assets, and revenues exceeded costs by $41.6 million, according their 2008 annual report.
On a related note, an Aug. 4 article in *The San Francisco Chronicle* stated:

The Legislature passed, and Gov. Jerry Brown signed, AB97, which includes a 10 percent reduction in Medi-Cal payment rates to physicians, hospitals, nursing homes and other providers, patient co-payments ($50 per emergency room visit, $5 per physician visit, $100 per day in the hospital), and a limit of seven physician office visits per year. If these cuts are allowed to take place, Medi-Cal would pay doctors just $11 per patient visit, just a fraction of what it would cost to take your dog to the veterinarian. … Cuts in reimbursement rates force physicians to reduce the number of Medi-Cal patients they can see, and now more than half of all Medi-Cal patients say they can't find a doctor. Currently, Medi-Cal is the source of health care for 1 in 5 Californians (about 7 million). With the implementation of health care reform right around the corner, 3 million more uninsured will soon be added to the state's Medi-Cal program. … California already ranks last in Medicaid payment rates per enrollee.

Also in the news, the City of San Leandro filed a brief this month with the California State Court of Appeal in the matter of *Eden Township Healthcare District vs. Sutter Health*. According to an Aug. 8 press release, “Sutter Health holds control of San Leandro Hospital and has proposed to close full-service hospital functions at the hospital in five years, converting the facility to an acute care rehabilitation hospital.” A suit was filed against Sutter Health last year to invalidate the proposal. “If Sutter Health is allowed to proceed with its announced proposal, San Leandro will lose the hospital's full-service acute care and emergency services facility resulting in a devastating loss of vital healthcare services to the community.”

John Muir Health in Contra Costa County recently finished a billion-dollar expansion. A five-story, 380,000-square-foot tower opened in March at the Walnut Creek Campus. A new cardiac institute opened at the Concord Campus last year. Calvin “Cal” Knight became the new president and CEO in April. Mr. Knight is the former CEO of Swedish Health Services, one of the leading health care systems in the Pacific Northwest.
In my last report I talked about all the medical buildings that were in the process of being built. Work at Sutter and Mercy in Sacramento continues. The University of California, Davis, Medical Center (UCDMC) opened its Emergency and Operating Room Pavilion last year, and it is in full swing. Meanwhile, construction of the extensions to the Cancer Center and Telemedicine buildings is ongoing.

I also mentioned the perception that anesthesia job openings had perhaps tightened up, maybe because of the economy. Recently we have seen hiring in the private practice groups in Sacramento as well as UCDMC. The Kaiser hospital in Vacaville was built some years ago but its opening was delayed. It is now gradually opening its doors to more and more patients. Family medicine is in full swing and expanding, surgeries have started, and there are plans to open a labor and delivery department. They are in the process of deciding the level at which the ER will work. So there is life in the medical economy of at least part of the Central Valley, even as the mainstream economy remains weak.

The fact that jobs are opening up while the general economy remains depressed is an indication that medical jobs are more tied to the medical economy, which, as we have seen in previous recessions, is often more resilient than the economy as a whole. As the new health care legislation is implemented, mostly in 2014, there will be many preparatory changes; we will see if this keeps the medical economy buoyant or not. There are certainly major challenges for hospitals, as well as anesthesiologists. One of the roles of the CSA will be to help members understand the changes coming, as best we can interpret them, and to be a resource for members struggling to understand the new regulations. The other challenge will be keeping up with events as they happen, and keeping a close eye on the lawsuits over the new legislation.
Rumors of the death of District 9 have been greatly exaggerated. Like the phoenix rising from the ashes, District 9 flourishes, from Marin County to Healdsburg, Chico to Humboldt and Del Norte counties, to Redding. Phew, this is a big district, and for its new District Director, a fairly large area and variety of practices to get a handle on. We have everything, including salaried physicians, fee-for-service, combination of the two, CRNA team model, CRNA nonsupervised, M.D. backup and no M.D. backup—pretty much the entire variety of practice models (except for anesthesia assistants). It is important to note that the “CRNA model” encountered here in northern California private practice is not the standard anesthesia care team model. Most private practices are physician-only, but in cash-strapped hospitals in smaller communities, which abound in my district, CRNAs may be used for nonprofitable services such as obstetrics. In such situations, the CRNA may work under the direction of the obstetrician—or, since the opt-out manifesto, on his/her own. There even are situations where the CRNAs will do a surgical case when all the anesthesiologists are encumbered. The CRNAs also may cover night call at a facility, and situations exist in which there are concomitant call schedules from which the surgeon has the ability to choose whom to contact. With this latter situation, the surgeons can request anesthesiologists for the complex patients and the CRNAs for the straightforward ones.

Fortunately, the district members are very cooperative, and even excited about getting back into the CSA fray and having their voices and opinions heard. For our first district education dinner meeting Sept. 20 in Petaluma, we were exceptionally lucky to have Dr. Ed Mariano talk to us about continuous peripheral nerve blocks. In addition, I am planning to visit the wide variety of areas in which we practice, and have some type of get-together or meeting in a geographically reasonable location.

For this report, I will concentrate on my particular area and the hospitals and practices in Marin County. Marin County has three hospitals—Marin General (MGH—a full-service community hospital and trauma center); Novato Community Hospital, a Sutter facility that is a smaller, true community facility; and Kaiser, a medium-sized community hospital.
My group (ACM—Anesthesiology Consultants of Marin, Inc.) works at MGH, which now once again is a California health district hospital, therefore owned by the citizens of the Marin HealthCare District. A district board elected every two years oversees this asset from a non-day-to-day perspective. The board hires and approves a hospital board and executive team to deal with the day-to-day issues.

As you may recall, MGH was a Sutter facility until a year ago, when we transitioned away from that system to become a stand-alone facility—something a bit risky, which we were told by many would fail. It has not only not failed, it has become busier in general, the OR in particular. There are a myriad of reasons MGH is doing well, most of them very complicated and having to do with local politics, personal egos (surprise!) and personal agendas, but much of it has to do with new surgeons who joined a local medical group (PRIMA) sponsored by the local independent physicians association.

The bottom line for our anesthesia group is that we are busier than ever, and have (at least as of the second of this writing) a good relationship with our hospital administration. However, do not be misled—competition is always out there. Just recently our CMO had a call from North American Partners in Anesthesia (NAPA) soliciting a change in providers. He politely deferred, but do not think for a minute he did not listen to their pitch, and made sure we were meeting the same criteria as NAPA—organized, relatively disciplined, cooperative, excellent outcomes, cost-effective and efficient, with the ability to prove all the above. I would suggest everyone download the white papers from Somnia and NAPA—you will get a nice eyeful about what those national companies use to sell their services (in addition to lower costs).

MGH is the only full-service hospital in Marin County, providing all the usual cases plus cardiac, neurosurgery, complex spine, trauma, neurosurgical trauma, OB and pediatrics. ACM consists of 18 board-certified physicians, and at MGH we are a physician-only model. We provide a 24/7 in-house physician for trauma and OB (<1,700 deliveries per year, including VBACs without limitation—which requires an occasional second anesthesiologist backup) as well as an available cardiac anesthesiologist. Staffing is a challenge for us, in that—as for many of you—the complexity of cases requires a high level of skill that comes with a high level of reimbursement. Recruitment and retention are always issues. We are fortunate to work in a facility that understands that situation and is quite cooperative. And it is Marin County—a very pretty place to live…
I will close with one general observation from watching my district. There is a frenzy of activity related to alliances, partnerships, associations and relationships among groups and people who previously would generally have no reason to talk to each other. This is clearly a direct response to whatever it is that is coming down from the Center for Medicare and Medicaid Services—and while even they are not clear what that will be, it is clear it is aimed at eliminating the solo practitioner or small group.

The interesting and good side effect of all this is the production of the one thing that will save medicine and medical care: physician unity. It is true: no matter what the peripheral issue (the division of money, academic hierarchy, private practice hierarchy, you name it), we all come together exactly on one thing: when the patient enters our operating room, we all want that patient to leave better than when he/she came in—and we will do everything in our power to make that happen. And for physicians, that is the strongest unifying concept there is—patient outcome. As we are forced into larger organizations, but all with the same thought (excellent anesthetic care and outcome), we become a very strong voice and force as medicine changes. So despite “the sky is falling” medical economic changes, this oncoming system is forcing development of unified physicians. We just need to take full advantage of this as we morph into this unstoppable force.

Samuel H. Wald, M.D.— District 11 (Western Los Angeles County)

I am pleased to report that at Santa Monica-UCLA Hospital there will be a new outpatient surgery center opening in December 2011. The UCLA Department of Anesthesiology will be hosting its Anesthesiology Update 2011 on Saturday, Nov. 19. Information can be found at http://www.cme.ucla.edu/courses/event-description?event%5fid=1988700.

At Kaiser Sunset, construction of an additional tower is underway; this will lead to 100 additional beds. They report an increase in volume both in the operating room and in “out-of-OR” locations. Some of this has been due to an increase in the transfer of cases to this institution. Additionally, there has been a success in their initiative on achieving all Surgical Care Improvement Project measures. Additional anesthesiologists were hired to this practice this past year.
St. John’s reports that its surgery center is open as of Aug. 15, 2011. A slowdown in volume was recently noted, which is of concern as there are no obvious discernable trends. In general, there have been initiatives in safety, staff interaction, and the reduction of medical errors. The Medicaid Recovery Audit Contractor programs, and their impact on the anesthesiology practice, have also been an area of focus. Everyone is waiting with bated breath to see what is coming down the line with the new health care environment.

The Cedars-Sinai anesthesia group is expanding. They have hired four more critical care physicians to meet the needs of the cardiac surgical intensive care unit, which is expanding to 24 beds, a closed anesthesia-run unit. There are now over 120 anesthesiologists at Cedars-Sinai, which will expand with the opening of the new building in 2013 adding 24 operating rooms. The residency program has doubled to eight residents per year with 13 fellows in cardiac, pain, obstetrics and liver transplantation. Further expansion of the educational program is planned. On the research side, Paul White, M.D., Ph.D., the former Endowed Chair at University of Texas Southwestern, has joined the group as director of research.

John S. McDonald, M.D.—
District 12
(Southeastern Los Angeles County)

Hospital construction of the completely new emergency room and operating room addition to our hospital dominates the entire campus here at Harbor-UCLA Medical Center in Los Angeles. We will have the pleasure of getting access to 16 new operating rooms, and a huge expansion of the emergency room to 48 exam room areas. We are hopeful that we will be able to occupy our new surgery and emergency services area in the next two years. It will be a welcome and needed addition to our hospital, which was built in the early 1960s. One of our biggest benefits is to have access to modern-day radiologic, cardiothoracic and neurosurgical areas.

Our hospital has been engrossed with development of a completely new Pyxis unit for use in the operating rooms. It is amazing how much time we must spend now to make sure all drugs are accounted for, all syringes are correctly labeled, and all medications accounted for at the beginning, in the middle, and at the end of the operative procedures. We anesthesiologists are making sure that all these issues are above board and correctly handled—making sure that, again, the patient is protected and safe, and no drugs are left behind at any time.
We continue to do well in regard to finding anesthesia positions for our graduating residents in the city and surrounding areas.

We were hoping to have a district meeting to bring some of our local anesthesia physicians together for a relaxing social evening, but we got entangled with the problem of having the meal and the presentation linked together in an appropriate fashion. We hope to be able to facilitate such a social evening in the late fall.

On a personal note, I serve as head of the committee on conscious sedation for our hospital. Many hours and days were spent on putting together a logical approach to this issue in order to provide safety for the patient.

Dennis M. O’Connor, M.D.—
District 13
(Orange County)

District 13 opened the year with a dinner meeting on Sept. 20, 2011, at Maggiano’s in Costa Mesa. Underwritten by McKesson, it provided a venue for social and professional interaction at a local level.

We would like to thank Dr. Hsieh for his service during this past year. He stepped in and did an outstanding job in assuming the position that had been held previously by Drs. Pauker and Yost.

For those of you whom I have not met, a little background. I have been a CSA member since the mid-1980s and a district delegate for most of the last decade. Prior to that, I was a pediatrician practicing in southern Orange County. I had a long career with the University of California, Irvine, practicing both general and pediatric anesthesia, and recently retired as a clinical professor of anesthesiaology. During that time, I held the positions of director of pediatric anesthesia, clinical director, and vice chair for clinical affairs. I have lived in Irvine on the campus of UCI for 17 of the last 21 years and now enjoy my practice at the Long Beach Veterans Affairs Medical Center.
Mitchell H. Katz, M.D., director of the LA County Department of Health Services (LADHS), has assembled his senior leadership team. Their role will be the overhaul of the LADHS in preparation for the health care reform 2014 infrastructure waiver (1115). Patients will need access to specialty health care. The LADHS will have to facilitate interactions between primary care and specialty providers, while focusing on integrating health information technology. With the continued economic slowdown, more patients seek care in the safety net hospitals, adding challenges to the LADHS.

The new accountable care organizations will result in a changing role for the physician in assisting with productivity and accountability. As anesthesiologists, we will have an important role in health care reform, including responsibilities for some of the Surgical Care Improvement Project measures. Additionally, we must take a more active role in leadership throughout the hospital. We will be charged with implementing strategies for improving care coordination and patient outcomes.

Anesthesia departments continue to grapple with the oversight of conscious sedation throughout the hospital. Many diverse services within a hospital will be providing conscious sedation, and our role will be that of leadership and oversight.

The Motion Picture and Television Fund (MPTF) has operated its hospital in Woodland Hills since the 1940s. This has been the retirement home for many famed actors. Just two years ago it was announced that the hospital would have to be closed. However, there is a plan for Providence Health & Services California to step in and expand health care services to the entertainment industry and the community on this storied campus in Woodland Hills. This will enable the MPTF to continue providing long-term care services.

Holy Cross Hospital, Mission Hills, has just recently opened a new south wing. This includes a new surgical suite, gastroenterology lab and Women’s Pavilion. Holy Cross now has 377 beds.
Nicholas Tsu, M.D.—
District 15
(CSA Residents)

District 15 of the CSA has several unique challenges when compared to the other CSA districts. Comprising only residents, it is the only district not based on a geographic region. Apart from the major annual conferences and a few regional conferences, residents have very little interaction with CSA members outside of their own programs. Add to this isolation the fact that many residents, with busy work schedules, feel they don’t have enough time to eat, sleep and read, let alone participate in an organization like the CSA. Thus, when asked whether or not they had opened an email from the CSA or visited the CSA website within the last month, over 90 percent of residents polled said they had done neither. A majority of the residents polled felt that the information on the CSA website and in the CSA emails was important, but didn’t always apply to them. Over 70 percent of the residents polled said they would not read an article on drug shortages, but over 80 percent polled said they would be very interested in reading the article on how Medicare cuts could affect funding for teaching hospitals.

When the same residents were asked if they had accessed their Facebook page that day, over 90 percent of those polled said they had. From this informal survey came the idea to use the social network to bring District 15 closer together, as well as to get more anesthesia residents involved with the CSA. A special CSA District 15 Facebook page has been made and invitations are slowly going out to the anesthesia residents in California. The goal of the page is threefold: 1) bring the district closer together by facilitating interaction among the residency programs; 2) serve as a message board for organizing resident CSA events in all areas of the state; 3) repost resident-relevant CSA articles and events.

Have You Changed Your Email Address Lately?

Please send the CSA an email with your new email address or go online at the CSA website, www.csahq.org, to update your profile if you wish to receive up-to-date information. The monthly Gasline newsletter is now sent by email only.
Welcome to the first issue of “Talking Gas with the Residents.” I have been appointed as the resident representative to the Editorial Board, so I’ll be your moderator for this newly energized section of our Bulletin. My goal is to facilitate an open dialogue among the hundreds of anesthesiology residents across California. My expectations are high: to provide you with educational, humorous and beneficial information about fellowship opportunities as well as news and events from residency departments, and to generate a sense of collegiality among residents throughout this great state. I’m always open to comments and, quite frankly, I am expecting them. In the meantime, if there is anything I can do to help facilitate an agenda, please do not hesitate to let me know at NKhatibi@llu.edu.

Applauding Resident Research

One of my favorite segments of a residency application interview session is the question that the attending poses to the medical student about research. It usually goes something like this: “As you know, most residency programs require some degree of research. Are you okay with that?” Although there are the occasional research gurus that come back with an extraordinary answer describing their projects throughout medical school, most applicants would agree that the generic answer—something akin to “Although I don’t have much research experience [i.e., none], I am enthusiastic about the possibility of engaging in research projects while in residency”—probably is the most practical response. And as I move forward in my residency career, I find more and more residents are in fact following through with their initial commitments to participate in research, looking at it as an opportunity to fine-tune their clinical skills and judgments while feeding their inner desire for new knowledge. This is happening not just here in California, but with anesthesiology residents across America who are choosing to step up to the plate and develop real, meaningful research projects.

The change that has occurred over the years is in part due to the discussions that first started earlier this decade. It was 2004 when the Accreditation Council for Graduate Medical Education (ACGME) and the Resident Review Committee for Anesthesiology (RRC) made it clear regarding research in our field: “There is a significant issue with scholarly activity and publication in our specialty that
threatens its long-term health.” In response in 2006, Drs. Schwinn and Basler (then distinguished faculty members at, respectively, Duke and Vanderbilt universities) published a thought-provoking article in Anesthesiology titled “Anesthesiology Physician Scientists in Academic Medicine: A Wake-up Call,” which proposed options to increase the number of physicians who would wish to pursue clinical or basic science training during their residency and fellowship time. And as we approach the later part of 2011, both what the ACGME/RRC originally said and the suggestions made by Drs. Schwinn and Basler have been translated into concrete change.

Resident Research at the State and National Levels

Since May, I have been fortunate enough, thanks to a supportive department, to attend and participate in four well-organized medical conferences, including the Western Anesthesia Resident Competition (WARC), which was hosted by the University of Arizona under the chairmanship of Dr. Steven Barker; International Anesthesia Research Society (IARS) hosted in Vancouver, Canada; the CSA’s Annual Meeting in San Jose; and the AMA’s Research Symposium in Chicago.

What I encountered at these conferences was “jaw-dropping” for me. What do I mean? Well, prior to attending these meetings, I expected to find a handful of resident physicians who simply were happy to get a few days of reprieve from OR duty. I already was aware of the articles mentioned above, and I also had listened to the woes of residency program directors about the lack of resident physician involvement in research and public policy matters. But when I first stepped into that hotel in Tucson to attend the 2011 WARC, I was blown away not just by the sheer number of residents participating, but also by the caliber of research projects designed and executed. Indeed, what I previously had anticipated was far from reality. In fact, according to the reports, WARC this year reached a record-hitting 338 abstracts accepted for oral and poster presentations by residents and fellows. Even more promising was the number of attendees—including chairs and program and fellowship directors—on hand to show their support.

The story was similar at the CSA Annual Meeting, where I met my fellow resident research-award recipients (Dr. Matthew Jolley and Dr. Wendy Yan), and at the IARS, where I mingled with a vast number of residents and distinguished faculty from all over the world. The time of focusing solely on clinical skills is in the past; today’s generation of resident physicians is led by a scholarly group of academic physicians who also are concerned about research innovation and design, and, of course, clinical inquiry.
What Motivated These Residents to Do Research?

As I walked around and talked to residents and faculty alike, one question continued to lurk in the back of my mind: What was the motivation for these residents to do research? Why here and why now? I came up with these two reasons.

1. A proactive attitude about strengthening, diversifying and building our specialty as a whole.
   Deciding which specialty to pursue while in medical school can be challenging. A lot of thought goes into whether or not one prefers a procedure-based specialty, problem solving versus hands-on medicine, and even the type of lifestyle one can expect. The fact is that anesthesiology does consider research to be an essential part of its future despite its offering fellowships that don’t require research in addition to clinical fellow training. Indeed, although this type of training can prevent attracting top-tier physician scientists, the academic leaders in our specialty do emphasize and value research as a means to preserve and promote the field of anesthesiology.

2. Support from the department and faculty mentors.
   A supportive group of expert faculty mentors plays a vital role in generating and nurturing a resident’s enthusiasm and ultimate success with research. Moreover, residency programs that offer an early exposure to research find themselves in a better position to succeed with this objective.
With regards to concerns for time provided for clinical training, programs throughout California now have allotted large amounts of time—i.e., anywhere from six months (advanced positions) to eight months (categorical positions)—for the design and execution of research projects. Additionally, for those residents who have an interest in research prior to matching, a number of programs have created five-year anesthesiology physician-scientist pathways that can allow up to 50 percent research time. On the other hand, for those residents who have found a passion for research toward the later part of their residency training, roughly 10 academic anesthesiology departments throughout the U.S. offer National Institutes of Health-funded research fellowship programs—the goal of which is to provide training in scientific investigations—to anesthesiologists who wish to become independent physician scientists.

Final Thoughts

My motivation for writing this article was two-fold. For one thing, I have spent two wonderful years in an anesthesiology residency program that has nurtured and encouraged my early research participation, which I have found to be rewarding and encouraging as a resident physician. However, the second reason is that I personally would like to see our specialty drive and lead innovations in medicine, especially in regard to perioperative care, because that is one of the ways we as forward-thinking anesthesiologists can pave a pathway for tomorrow.

Figure 2: The recipients of this year’s CSA Research Awards, presented to them at the Annual Meeting in San Jose. From left: Dr. Hong Liu, CSA Research Committee Chair; Dr. Wendy Yan, University of California, Davis, second place; Dr. Nikan Khatibi, Loma Linda, first place; Dr. Matthew Jolley, Stanford, third place.
CSA Website Update

By Linda B. Hertzberg, M.D.,
Editor of Electronic Media, and
Karen S. Sibert, M.D., Associate Editor

Work has continued briskly on multiple improvements to the new website, with positive results in terms of website traffic. A Google Analytics report prepared by Merrin McGregor, Manager of Communications & Electronic Media, compared website traffic in the three months between April 27 and July 27, 2011, with the same period in 2010. This report showed that overall visits to the website increased by 46 percent, the number of unique visitors reached nearly 9,500 (up 38 percent), the number of page views by each visitor increased 20 percent, and average time spent on the website per visit grew by 10 percent. In addition, the launch of the new mobile-device version of the website was successful.

Specific areas of website modification and improvement include:

- **CSA Online First** Dr. Sibert put forward the concept for this weekly column or “blog” in May, and it has been added to the website as a regular feature. The Editor of Electronic Media solicits pieces, reviews all submissions, and edits those accepted. Featuring short, informal articles with personal opinions and commentary, CSA Online First is “pushed” out to the membership in the form of weekly emails and is credited with driving more reader traffic to the website.

- **Member Groups** This function is seeing greater use as CSA members become more aware of its existence and more familiar with it. There are both closed and open groups. The closed groups permit private discussion among members for each CSA committee, division, task force and district, while the open groups facilitate discussion on areas and issues of interest to the membership at large. The most recent addition is the “District 15” group, specifically for resident members.

- **Hot Topics and Anesthesia in the News** These areas are updated regularly based on information from a variety of sources, including the ASA, our lobbyists, news sources and a survey of recent journal articles.

- **Practice Resources** This section of the website is in the continual process of expansion and update by members of the Committee on Professional and Public Communications and LPAD. It includes CSA and ASA documents, policy statements and guidelines. In addition, there are links to templates the ASA has created for compliance with Centers for Medicare and Medicaid Services and
Joint Commission requirements. In the future we will add links to articles of interest published in the ASA Newsletter over the past several years.

- **CSA Grassroots Network** Modeled after the ASA Grassroots Network, this feature enables CSA members to find the names of their legislators easily, contains links to a number of sites for information about state and local government, and can be easily accessed via a link on the home page.

- **Track Important Legislation** This link is the most recent addition to the CSA’s advocacy tools. Members can find it under “Advocacy,” within “State Legislative and Regulatory Issues.” Enabling members to see the real-time status of legislation important to the CSA, it is updated continuously by the CSA’s legislative counsel, the William Barnabys (see “On Your Behalf,” pages 29–30).

- **Resident Members** In the first iteration of the website, information for residents was difficult to locate. With the creation of this block on the right side of the home page, residents can easily access information about the CSA, their membership status, and other resource links.

We look forward to continuing to add content and making improvements to the website that will help us reach the goal of making www.csahq.org the trusted source for California anesthesiologists for information about the issues affecting our specialty.

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On July 1, 2011, the Center for Medicare and Medicaid Services (CMS) issued the calendar year 2012 Physician Fee Schedule proposed rule. Don Berwick, M.D., administrator of the CMS, posted a letter on the CMS website the same day in which he says, in regard to the projected payment cuts of 29.5 percent due to the sustainable growth rate (SGR):

Today, the Centers for Medicare & Medicaid Services (CMS) issued proposed rules that spell out how this cut is calculated and warned that if Congress does not act in time, doctor fees will be slashed come January 1. We cannot—and will not—let this happen.

If history repeats itself, Dr. Berwick’s prediction will be fulfilled. Odds are that, as in the past six years, Congress will act at the eleventh hour and block the scheduled reduction, which will add an estimated $25 billion to the total of budgeted SGR reductions. That fix for physician payments would add to the country’s deficit, leaving the estimated cost of repealing the SGR at $300 billion.

**The Super Committee**

This year, however, Congress will be distracted by the mandate to act on a proposal (if there is one) of the “super committee” established in the deal that raised the debt ceiling. By the day before Thanksgiving, the Joint Select Committee on Deficit Reduction, comprised of six Democrats and six Republicans, must complete a bipartisan proposal to achieve a $1.5 trillion reduction in the federal deficit over ten years. Congress is required to vote on the plan by Dec. 23. If both houses of Congress do not approve the committee’s plan, automatic reductions in federal spending will go into effect, with cuts applied equally to defense and nondefense spending.

Because there are no limits on what the panel can consider, it could cut funding for Medicare and Medicaid as well as implementation of various parts of the health care reform legislation. According to many pundits, the chances of settling on a bipartisan package that will be approved by Congress are very low.
In the absence of an approved package, automatic spending cuts will go into effect beginning in 2013. Under that scenario Medicare payments will be reduced by 2 percent. Benefits cannot be touched, so the reductions would come mostly in the form of pay cuts to hospitals, physicians and others. The Medicaid program is exempt from any automatic reductions, but reductions could be considered by Congress.

An Uncertain Future

There are many moving parts in health care reform implementation affecting physicians, in addition to the numerous initiatives in process that are unrelated to the reform legislation. Little is predictable beyond the next couple of years, especially since Medicare and Medicaid will be huge campaign issues in the 2012 elections. The experts cite recurring themes, however: higher premiums and out-of-pocket payments for beneficiaries, lower payments to providers and facilities, and the continuing quest to improve quality and efficiency through quantifiable methods.

ABA Numbers for Reporting CME credits!

CSA will report CME credits earned to the American Board of Anesthesiology. These credits will be counted as Lifelong Learning and Self-Assessment activities toward your Maintenance of Certification in Anesthesiology (MOCA) requirement. In order to report these credits, doctors need to provide their ABA number. To obtain an ABA number, visit www.theABA.org and create a personal portal account.
Obstetric Anesthesiology: What’s New, What’s Old and What’s Standard?

How to Avoid Conflict and Achieve Good Outcomes

By Mark Zakowski, M.D.

Medicine is constantly changing. Not only have new treatments and diagnoses been introduced, but how we interact with patients, nurses and other physicians is changing as well. This article will review what national societies have urged or required in their statements, guidelines and standards on obstetric anesthesiology. Note that their effect on communication is particularly important so that as obstetric anesthesiologists, we can interact, perform, and work together with our obstetrician and nursing colleagues to achieve optimal outcomes. In a world of sound bytes, we tend to communicate in short, often vague (and at times cryptic) phrases. Conflicting language use can lead to misunderstanding and errors.

Fetal Heart Rate Monitoring and Terminology

One of the biggest changes in obstetrics has been an overhaul in fetal heart rate (FHR) terminology. Communication between obstetrician, nurse and anesthesiologist is important, especially during times of “fetal distress” and “urgent” or “emergent” clinical decision-making. Everyone must speak and understand the same language. All too often, terminology is used loosely, leading to differing interpretations and subsequent actions, and potentially leading to adverse outcomes. As our obstetrician colleagues have changed much of their key FHR language, we must understand the meaning behind these phrases and their relevance to obstetric anesthesia management.

The term “fetal distress” is dead. It is vague and carries different meanings and significance to different practitioners. In July 2009, the American College of Obstetricians and Gynecologists (ACOG) issued new FHR language and interpretations, replacing the former version released only four years earlier. FHR tracings have been placed into three categories, each with different implications and treatments (Table 1).
### TABLE 1: Categorization of FHR Tracings/Patterns According to Risk for Fetal Compromise

<table>
<thead>
<tr>
<th>Category I (Normal: strongly predictive of normal fetal acid-base status)</th>
</tr>
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<tbody>
<tr>
<td>■ FHR = 110–160 beats per minute (BPM) = normal</td>
</tr>
<tr>
<td>■ Moderate beat-to-beat variability (6–24 BPM) = normal</td>
</tr>
<tr>
<td>■ No variable (nadir variable in relation to peak of uterine contraction) or late (nadir after peak of contraction) decelerations (decrease greater than 15 BPM for 15–120 seconds)</td>
</tr>
<tr>
<td>■ +/- Early (nadir coincides with peak of contraction) decelerations = normal</td>
</tr>
<tr>
<td>■ +/- FHR accelerations (increase 15 BPM for 15–120 seconds) = reassuring</td>
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</tbody>
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<table>
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<tr>
<th>Category II (Indeterminate)</th>
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<tbody>
<tr>
<td>■ Fetal tachycardia (greater than 160 BPM)</td>
</tr>
<tr>
<td>■ Minimal (less than 5 BPM), absent, or marked (greater than 25 BPM) beat-to-beat variability</td>
</tr>
<tr>
<td>■ Variable (nadir variable in relation to peak of contraction) decelerations (decrease greater than 15 BPM for 15–120 seconds)</td>
</tr>
<tr>
<td>■ Late (nadir after peak of contraction) decelerations (decrease greater than 15 BPM for 15–120 seconds)</td>
</tr>
<tr>
<td>■ Absence of accelerations, both spontaneous and induced by fetal stimulation</td>
</tr>
<tr>
<td>■ Periodic or episodic decelerations</td>
</tr>
<tr>
<td>■ Prolonged deceleration (decrease greater than 15 BPM for 2–10 minutes)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Category III (Abnormal: associated with abnormal fetal acid-base status)</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Sinusoidal tracing = sine wave of 3–5 cycles per minute for 20 minutes</td>
</tr>
<tr>
<td>■ Absent beat-to-beat variability with either</td>
</tr>
<tr>
<td>■ Recurrent late (nadir after peak of contraction) or variable (nadir variable in relation to peak contraction) decelerations (decrease greater than 15 BPM for 15–120 seconds) or</td>
</tr>
<tr>
<td>■ Bradycardia (FHR less than 110 BPM for more than 10 minutes)</td>
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</tbody>
</table>
Terminologically, note that all decelerations in Table 1, whether early, variable or late, are defined as a decrease of FHR greater than 15 BPM for 15 to 120 seconds, and therefore, all prolonged decelerations would be defined as a decrease of FHR greater than 15 BPM that lasts two to 10 minutes. The term “fetal bradycardia” (“prolonged fetal bradycardia” no longer is used) is defined as a FHR less than 110 BPM for more than 10 minutes.

Category I tracing is considered normal and is strongly predictive of normal fetal acid-base status, with no action required except continued monitoring of the fetus at regular intervals. Specifically, a Category I tracing is defined by a normal FHR of 110 to 160 BPM with moderate beat-to-beat variability (amplitude 6–25 BPM) and no FHR decelerations (decrease >15 BPM for 15 to 120 seconds), whether late (nadir after peak of uterine contraction) or variable (variable nadir relative to peak of contraction). Early (nadir coincides with peak of contraction) FHR decelerations are normal and may or may not be present. Accelerations (>15 BPM increase of FHR for 15 to 120 seconds), a reassuring fetal sign, can be present or absent.

Category III tracing is “abnormal” and is associated with abnormal fetal acid-base status. Specifically, a Category III tracing consists of a sinusoidal pattern (no variability, sine wave of 3–5 cycles per minute for 20 minutes) or absent fetal heart rate variability and either recurrent (late or variable) FHR decelerations or fetal bradycardia (less than 110 BPM for more than 10 minutes).

A Category II tracing is “indeterminate” and by definition does not fall into either of the other two categories. Category II tracings include fetal tachycardia (>160 BPM), altered (increased, decreased, absent) beat-to-beat variability, absence of accelerations, and periodic or episodic decelerations. Significantly, Category II includes prolonged fetal deceleration (decrease greater than 15 BPM lasting 2 to 10 minutes)! This underlines the complexity of FHR monitoring and why we should be familiar with FHR tracing descriptors. Gone is the terminology that spoke to cesareans for “fetal distress” and “late decelerations,” although you may still encounter those terms.

What Has EFM Accomplished?

How useful is electronic FHR monitoring (EFM)? There has been little proven benefit. Indeed, ACOG notes that compared to intermittent auscultation of the fetal heart rate, EFM increased the relative risk (RR) for cesarean delivery by 1.66 and the RR for detecting abnormal FHR and/or acidosis (fetal scalp pH<7.20) by 2.37. EFM also increased the RR for operative vaginal delivery (forceps or vacuum) by 1.6. On the positive side, EFM did reduce the RR of neonatal seizures by 50 percent, although it did not change the incidence of cerebral palsy.
Obstetric Anesthesiology (cont’d)

Effect of Drugs on FHR

Because FHR is constantly scrutinized, we should be familiar with drugs that affect FHR. Pain relief by parenteral meperidine compared to epidural analgesia with bupivacaine 0.25 percent significantly decreased both beat-to-beat variability and accelerations.² However, combined spinal-epidural was associated with a higher frequency of FHR abnormalities, bradycardia, and emergent cesarean delivery compared to parenteral meperidine.³ Parenteral bupivorphanol was associated with transient sinusoidal FHR pattern.¹ Note that ephedrine, especially in doses of 25 mg or greater, will cross the placenta and can increase the baseline fetal heart rate by 10–20 BPM for approximately 45 minutes. Potent inhalational agents cross the placenta and will reduce the FHR baseline by about 10 BPM and create minimal or no variability in the FHR tracing. Changes in FHR baseline, if not attributed to external medications, can be interpreted as an abnormal finding.

Management of FHR Tracings

In November 2010, ACOG released Practice Bulletin #116, Management of Intrapartum Fetal Heart Rate Tracings,⁴ with the following recommendations:

The management of a Category I tracing is continued monitoring (electronic or intermittent) with review every 30 minutes during the first stage of labor, and then every 15 minutes during the second stage of labor.

Category II tracings require continued monitoring and possible corrective measures based on the individual tracing. In the presence of FHR abnormalities, either FHR accelerations or moderate beat-to-beat variability is highly predictive of normal fetal acid-base status. Variable decelerations may be treated with amnioinfusion for suspected cord compression. Late decelerations are indicative of uteroplacental insufficiency, which may be due to maternal hypotension (possibly related to epidural analgesia) or uterine tachysystole (too frequent contractions: more than 5 uterine contractions in 10 minutes, averaged over 30 minutes). However, late decelerations alone have a low predictive value for fetal acidemia and only qualify for Category II.

Nonetheless, it would seem prudent to initiate general maneuvers for intrauterine resuscitation of the fetus (supplemental oxygen, increased intravenous fluid administration, left- or right-lateral positioning of the parturient, treatment of hypotension if present, and treatment of uterine tachysystole or hypertonus [incomplete uterine relaxation] if present; see Table 2). Tachysystole with FHR decelerations requires decreasing the frequency of uterine contractions with either intravenous or subcutaneous terbutaline 0.25 mg, which may produce maternal tachycardia for 15–45 minutes, or intravenous nitroglycerin
100–200 mcg or sublingual nitroglycerin 400 mcg, which may decrease blood pressure due to vasodilation. Note that the terms “hyperstimulation” and “hypercontractility” have been discontinued.

**Fetal Resuscitation**

<table>
<thead>
<tr>
<th>TABLE 2: Intrauterine Resuscitation of the Fetus</th>
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<tbody>
<tr>
<td>■ Supplemental oxygen</td>
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<td>■ Additional intravenous fluids</td>
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<tr>
<td>■ Left- or right-lateral positioning of parturient</td>
</tr>
<tr>
<td>■ Elevation of maternal blood pressure, if judged to be too low</td>
</tr>
<tr>
<td>■ Pharmacologic relaxation of the uterus, <em>if</em> tachysystole (more than 5 uterine contractions in 10 minutes, averaged over 30 minutes) or hypertonus (incomplete uterine relaxation) is present, with terbutaline or nitroglycerin</td>
</tr>
</tbody>
</table>

If the resuscitative measures fail to improve the FHR tracing, and there is a continued presence of minimal beat-to-beat variability (a non-reassuring sign), and absence of accelerations (a reassuring sign), then fetal acidemia may be present and an “expedited” delivery must be considered (see Table 5).

What about the older concerns with fetal bradycardia? For the presence of fetal bradycardia (less than 110 BPM for more than 10 minutes) *with* absent beat-to-beat variability (Category III), ACOG recommends “prompt” delivery. However, a prolonged deceleration (greater than 15 BPM drop for two to 10 minutes, considered to be Category II) does not by itself require a cesarean delivery. Nonetheless, at five to seven minutes into a deceleration, no one knows whether the deceleration will resolve or continue, turning a prolonged deceleration (Category II) into a fetal bradycardia (Category III). My suggestion is that at about seven minutes into the deceleration, it would be prudent to begin the process of transporting the patient to the operating room, and then once there, recheck the FHR to determine which tracing category is in effect at that moment. This would save valuable minutes (spent worriedly watching the deceleration in the labor room, in full view of the patient and family, until the full ten minutes elapsed) in that it would permit proceeding with an immediate
cesarean delivery if warranted by the situation. Although movement to the operating room at this point may raise concerns in the patient and family, especially if it is then determined that a cesarean is not indicated and the patient is returned to the labor room, ultimately this move may prove to be the most rational course. Keeping the patient and family fully informed of the FHR tracings and their implications in an ongoing manner would lessen any hesitation to make such transportation choices.

Category III tracings are abnormal and may indicate fetal acidosis, with an associated increased risk for neonatal encephalopathy, cerebral palsy, and neonatal acidosis. However, even a Category III tracing does not predict poor neonatal neurologic outcome. Nonetheless, if measures for intrauterine resuscitation of the fetus are not successful, then cesarean delivery is indicated.

The Timing of a Cesarean Delivery

The time frame for starting a cesarean delivery is NOT defined! While still in common use, the “30-minute rule” (decision-to-incision) for an emergent cesarean delivery to be based on an abnormal FHR tracing has little scientific evidence, and therefore now is considered inappropriate and incorrect terminology. In fact, ACOG Practice Bulletin #116 states that “more than 30 percent of the cesarean deliveries began more than 30 minutes after the decision to operate,” yet without an increase of poor neonatal outcomes in those infants! Cesarean delivery for a Category III tracing should be accomplished as “expeditiously” as possible, and decision-to-incision times should be based on maternal and fetal risks and benefits. Maternal stabilization or preparation may be warranted and varies by local institution and practices.

Conflict can arise over the timing of when a patient for a cesarean actually is transferred to the operating room. That many cesareans seem to be “called” before and after office hours as a convenience factor is a different issue. Each cesarean needs to be evaluated based upon the conditions of the mother and the fetus at that time. Confusion arises when conversations are not taking place around the right subject. What does “urgent” or “emergent” mean to you, the nurse, the obstetrician? The real conversation should be centered on the timing of the cesarean. Clearly, it is the obstetrician’s sole responsibility to decide whether to do a cesarean and then how fast to do so. Table 3 lists some of the maternal indications for cesarean delivery; Table 4 lists some of the fetal indications for cesarean delivery.
### TABLE 3: Maternal Indications for Cesarean Delivery

- Bleeding (placenta previa, placenta abruptio, uterine rupture)
- Cardiopulmonary arrest (perimortem cesarean 5 minutes into resuscitation)
- Severe preeclampsia with vaginal delivery unlikely within 24 hours or a lesser time, as determined by the obstetrician

### TABLE 4: Fetal Indications for Cesarean Delivery

- Uterine rupture
- Prolapsed umbilical cord
- Placenta previa, placental abruption, vasa previa
- Failed forceps, failed vacuum, failed vaginal birth after cesarean, failed induction
- Failure to progress, failure to descend, dystocia
- Shoulder dystocia, history of shoulder dystocia with large baby, macrosomia
- Human immunodeficiency virus (HIV) infection with high viral load in maternal blood
- Category III FHR tracing with no response to resuscitative measures
- Category II FHR tracing with no response to resuscitative measure and lack of reassuring signs may be included in this list of indications
- Fetal bradycardia (less than 110 BPM for more than 10 minutes), sinusoidal FHR pattern
- Fetal scalp pH less than 7.20 (no longer a popular test, with pH greater than 7.25 a reassuring sign, but generally has been replaced by the use of vibro-acoustic stimulation to produce accelerations as a reassuring sign)
Obstetric Anesthesiology (cont’d)

The “Modern Zakowski Obstetric Anesthesia Dictionary”

That the shortcomings of terminology can lead to miscommunication or mal-communication highlights a key point: the focus should be on what is most beneficial to maternal/fetal physiology. The real issue is, how much time does mother or fetus have before there are meaningful physiologic changes that threaten their well-being? This brings any such discussions to something we all can quantify (time) and what we all really care about—good outcomes. Tables 5 and 6 may prove helpful in this regard.

<table>
<thead>
<tr>
<th>Term</th>
<th>Time element, suggested translation</th>
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<tr>
<td>Elective</td>
<td>Can be done today or tomorrow</td>
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<tr>
<td>Nonelective</td>
<td>Not elective: needs to be done sometime soon</td>
</tr>
<tr>
<td>Urgent</td>
<td>Can wait 2 hours</td>
</tr>
<tr>
<td>Emergent</td>
<td>Need to go sooner than 2 hours</td>
</tr>
<tr>
<td>Crash/stat</td>
<td>Must go now: mother/baby’s life in immediate danger</td>
</tr>
<tr>
<td>Prompt</td>
<td>Same as “urgent”</td>
</tr>
<tr>
<td>Expedited</td>
<td>Same as “emergent”</td>
</tr>
<tr>
<td>Exeditiously</td>
<td>Same as “emergent”</td>
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<tr>
<td>30-minute-rule</td>
<td>ACOG declares that there is no data to support this rule, and that 30 percent of its members do not adhere to it. Therefore, it no longer is a standard of care as defined by ACOG. Note that standard of care may also be set locally by hospital policy or by accrediting agencies such as The Joint Commission.</td>
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</table>
Note that clinical conditions can change quickly, and generally speaking, sooner may be better than later, unless there is a need to stabilize the mother (e.g., volume replacement) or fetus. Unfortunately, the data supporting some of these time interpretations has not been well studied, but the safest approach is to discuss the timing for delivery using terminology mutually agreed upon (by both anesthesiology and obstetric departments) in that hospital. For instance, if an obstetrician indicates that a cesarean must be done hurriedly, then a clarifying question for the anesthesiologist to ask the obstetrician might be, “Do I have ten minutes in order to give a spinal anesthetic?” if that is deemed to be the appropriate anesthetic management.

### Conclusion

The stakes are never higher than in obstetrical anesthesia, as we are entrusted with two lives—mother and fetus. In spite of frequent changes in terminology, use of sound bytes, and the all too common use of slang and/or outdated verbiage, we need to be able to communicate with our nursing and obstetrical colleagues with accuracy and ease. Many sources, including ACOG, reaffirm
that communication gaps and patient hand-offs are very important causes of medical errors and omissions. By learning the new terminology surrounding FHR tracings, as well as ACOG’s expected management by their member obstetricians, we can prevent the Tower of Babel from occurring in labor and delivery. Even better, we can steer the conversation away from somewhat artificially defined terms, and toward what anesthesiologists have always remained true to—patient physiology and improved patient outcomes.

References


Editor’s note: The ACOG Practice Bulletins #106 and #116 referenced above are available in the “Membership” section of the CSA website, www.csahq.org.
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<tr>
<td>John G. Brock-Utne, MDPhD (12) (<a href="mailto:brockutn@leland.stanford.edu">brockutn@leland.stanford.edu</a>)</td>
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<td>Jonathan Chow, M.D. (12)</td>
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<td></td>
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<td>Lee-lynn Chen, M.D. (13) (<a href="mailto:chenl@anesthesia.ucsf.edu">chenl@anesthesia.ucsf.edu</a>)</td>
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<tr>
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