From the Editor’s Desk

I hope that you enjoy the new quarterly format of AONA News. This issue again includes clinical content submitted by a member of AOSpine North America. In upcoming issues we plan to highlight clinical cases from AOCMF and AOTrauma. If you have an interesting case I’d encourage you to share it in AONA News. With your support we hope eventually to be able to include different cases from each specialty in every edition.

Included in this issue’s “Faculty Development Corner” is an article from AO Education describing the Learning Assessment Toolkit. I would also encourage members to contribute to this section designed to improve our skills as educators at AONA courses.

Also included in this issue is an article from our podiatric colleagues which outlines their AO history and course offerings. There are many other articles too, which I hope that you find informative and interesting.

I look forward to your continuing member contributions for future issues of AONA News. Please submit your story ideas and suggestions to editor@aona.org.

David J. Hak, MD, MBA
Editor-in-Chief

Your Voice Counts; Your Opinion Matters

Call for Clinical Content

Have an interesting case to share? One that went well, or even one that did not go so well but illustrates an important learning point? Develop a novel approach to a difficult or common problem? Have a really unique case that no one else will ever see? If so, we’d like to feature it in future editions of AONA News. Not sure whether your case is what we are looking to publish? Just send us a quick note, and we’ll review it with you. Please send your cases to editor@aona.org.

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Modern surgical education is evolving with changes in the academic environment. Surgeons, surgical educators, and administrative associations need to know what to teach, how to do it, and whether it has succeeded. Whereas surgeons have many tools to help them to see what is needed for better patient care and to measure patient progress, surgical education is just beginning to develop techniques of interpreting the needs of students and to assess outcomes of learning in their practice\textsuperscript{1,2}. The absence of surgical education assessment techniques has made it necessary to guess what is needed to improve education. We have estimated the success or failure of teaching by attempting to score faculty performance rather than on obtaining more valid data. This has led surgical educators to use mistaken assumptions based on their personal experience or reasoning without evidence\textsuperscript{3}.

Surgical education should be based on needs assessment, efficient program planning, and a strong curriculum. The motivation of learners should be high, and the learners’ needs should be met. This is dependent on measurable outcomes with objective data demonstrating knowledge acquisition that meets the needs of surgical learners\textsuperscript{4}.

In the last ten years, the providers of educational resources—governments, training boards, charitable foundations, and commercial companies—have been increasingly interested in whether surgical education, as it is delivered, has had a measurable effect\textsuperscript{5-7}.

Through a series of pilot-tested steps, we developed a set of instruments, providing insights into the effectiveness of surgical education in the field of orthopaedic trauma. We termed the instrument the Learning Assessment Toolkit. It was developed to supplement the judgment of surgical educators before and after a teaching event with real evidence of need, motivation, and outcomes of educational programs in orthopaedic trauma surgery.

The primary goal of this report is to outline the elements of the Learning Assessment Toolkit and its developmental steps. A secondary goal is to show how its use can change the nature and content of surgical educational events to improve learning outcomes. This report also suggests what further instruments are necessary to achieve the desired end result: education that substantially improves patient care.

How the Learning Assessment Toolkit Works (Table II)

Precourse Assessment
Two weeks before the educational event, course participants were contacted online. They were presented with the fourteen key competencies and were asked two questions about each competency. The first question was: “How important is this competency to you in your daily practice?” Participants were asked to score from 1 to 5 (with 5 indicating the highest importance) on a Likert scale. They were then asked to evaluate their own ability relating to the individual competencies using the same scoring system.

Materials and Methods
The educational event used to design and test the assessment toolkit is a fracture course based on the AO principles of operative fracture management. The course is aimed at residents in their first few years of training. The participant groups are homogeneous in North America and Western Europe but heterogeneous in the developing world in terms of their needs and experience. The course has evolved over the past forty nine years, but it has been taught in a standardized form for the past decade.

The “key competencies” guide the development of the Learning Assessment Toolkit, and the teaching and learning in the course (Table I). A key competency was defined as a piece of knowledge and/or skill that educators expected the course participants must know or be able to do after the course\textsuperscript{4-5}. Key competencies are statements describing what behaviors are necessary to address problems related to successfully providing the gold standard for patient care. These responses were collected from three experienced course chairmen, all with greater than ten years of teaching experience acting as a panel of experts.
Three pieces of information were obtained from this survey, passed on to the faculty of the course, and fed back to the individual course participants.

1. Which competencies were rated as being the more important from the participants’ point of view—an indication of where they thought they ought to be in their practice?
2. How capable did the participants believe they actually were in each competency?
3. What was the difference between these two measures for each key competency, i.e., the gap score? This is an indication of the difference between where the participants thought they were and where they ought to be in their practice.

The gap score is a reasonable measure of the motivation of the course participants to learn at the course. Discomfort over the perception of where adult learners believe they are and where they believe they ought to be, as indicated in this case by the measure of the importance of a given competency, creates discomfort in the learner and spurs the drive to learn and change.

At the same time that the course participants were contacted online with regard to their needs assessment, they were also given two multiple-choice questions relating to each key competency. The multiple-choice test questions were developed by the surgical educators through an expert panel consisting of existing experienced faculty members and a small group of senior North American orthopaedic surgical residents following best practice guidelines of multiple-choice question writing (Fig. 1).
The test questions were placed into assessment software (Questionmark Perception; Questionmark, Norwalk, Connecticut) for online pilot testing to collect statistical data as to how the learners were answering the individual questions. After pilot testing these questions in three courses, the expert panel was reassembled to study the data obtained and to eliminate or refine questions that were too easy, too hard, or too confusing. Following further pilot testing of the adapted questions, they were reviewed again and became part of a library of test questions. The response patterns for each pilot have been continually assessed to build up evidence as to the validity and discriminatory capacity of each individual test item.

The objective assessment enables the faculty to have insight into whether the course participants’ assessment of their current performance was or was not accurate and enables learners to have an understanding as to their true level of knowledge. Previous studies have shown that a doctor’s perception of his or her own level of knowledge or skill is not accurate, with a tendency for doctors to overestimate their own abilities.12-14

**Evaluation During the Course**

The course participants were asked to evaluate each presentation—lecture, discussion group, or practical skill session. The evaluation system for each presentation was on a 5-point Likert scale with use of an audience response system. Two questions were asked:

1. How relevant is the presentation to your daily practice?
2. How effectively was the presentation given?

The course participant rating was collected electronically after each session, with participation rates in excess of 80%. To ensure validity as to whether the course participants’ assessment of faculty performance was or was not accurate, two faculty members were also assigned to assess each presentation on the basis of a group of ten criteria that had been agreed on by the faculty before the educational event and that were supported by the available literature.15-17

**Postcourse Assessment**

Two weeks after the course, the participants were contacted online. They were asked to repeat the online questionnaire. They were also given two multiple-choice questions for each competency. The set of questions was new to each individual participant but had been asked before the course to the other half of the course participants. Four questions (A, B, C, and D) were allocated to each course. Half of the course participants answered questions A and B before the course and answered C and D afterward. Half of the participants answered questions C and D before the course and answered A and B afterward. Participants were not asked the same questions before and after the course to avoid test-retest bias of their answers, which would have tended to improve their scores after the course, giving a false impression about knowledge transfer occurring as a result of the course.

**Source of Funding**

This project was funded entirely by the AO Foundation, Davos, Switzerland.

**Results**

The Learning Assessment Toolkit has been used in twenty courses in eight countries involving 1812 participants originating from forty-seven countries. However, only data collected from courses that took place after finalization of the assessment questions are presented—eleven courses in six countries involving 912 participants from forty-six countries. Response rates ranged from 41% to 98%, with an average of 62% for the assessments before the course and 51% for the assessments after the course.

**Precourse Subjective Needs Assessment**

Overall gap scores were large for an educational event.16 The average gap score was 2.25, with a fairly narrow range between 1.9 and 2.4. Certain competencies were consistently ranked as being more important than others, and this pattern was independent of the geographical location of the course. The “emergency management of a hemodynamically unstable patient with a pelvic fracture” was consistently identified as the highest need by the course participants.

Large gap scores can occur in one of two ways—either the participant ranks the competency to be very important or the participant believes that his or her ability is poor for the competency tested. Similarly, a small gap score can be explained in two ways—either the participant thinks that the competency is not important for his or her practice or that his or her ability is reasonable for the competency tested. Those competencies, which consistently showed large and small gap scores, are listed in Table III.

**Precourse Knowledge Assessment**

The level of knowledge of the course participants varied from course to course. On the average, the questions were answered correctly by 59% (range,
The correlation between knowledge, as measured by objective testing and by self-assessment, was variable. In three courses, participants who rated their need to learn about compartment syndrome as low because they believed they had good existing abilities with regard to that subject were incorrect in their self-assessment as they had low scores on their objective assessment. In two courses, participants rated their need to learn about compartment syndrome as low because of good existing abilities, and objective testing showed them to be correct.

**Course Evaluation**

Electronic evaluation of faculty performance by the course participants was carried out in four courses. The other courses were evaluated with use of a paper-based system. A total of 45,600 responses were analyzed. There was a very strong correlation between the participants' perception of the relevance of the presentation to their practice (average score, 4.04; range, 3.88 to 4.21) and to their perception of faculty performance (average score, 3.99; range, 3.77 to 4.17). When presentations were given about the same subject to different audiences by different faculty, there was a wide variation in the participants' assessment of performance. The participants' perception of relevance also changed following the change in performance perception. Therefore, basing changes in curriculum on an analysis of perception of relevance in isolation from faculty performance may be invalid.

The evaluation of faculty performance by a trained faculty assessor on the basis of agreed-on criteria correlated very weakly with the participants' evaluations of either relevance or performance (Pearson correlation coefficient, r = 0.54; p = 0.0001). On those occasions when the performance and relevance scores were not closely related, the faculty assessment closely followed the gap between the two different evaluation criteria. For example, a presentation ranked very effective by the faculty evaluator was very likely to have a performance score considerably higher than the relevance score.

**Postcourse Object Subjective Evaluation**

All courses evaluated showed marked decreases in the gap scores measured two weeks after the course (average, 1.17; range, 0.55 to 1.645). The gap scores of all competencies declined, with the biggest decreases occurring in the competencies that had had the highest needs before the course. These figures reflect the belief that the course participants believed that they had learned as a result of the course. The learners' highest residual needs varied from course to course, but the "management of open fractures" and "the emergency management of a hemodynamically unstable patient with a pelvic fracture" were the most common areas of residual perceived need.

**Discussion**

With accreditation changes, continuing education for surgeons must meet new requirements. In addition to having well-prepared faculty who present information in a thoughtful and organized manner, new standards for the accreditation of continuing medical education specify that programs must be based on learner gaps in knowledge, performance, or patient health status. Course administrators must document the assessment of these outcomes. This presents a formidable challenge because tools for assessing needs, motivation, and outcomes in terms of gaps in knowledge and performance have not been available. The Learning Assessment Toolkit provides a short practical system for discovering objective and self-assessed gaps in performance of key competencies before and after educational programs.

The toolkit data are designed to provide accurate information related to level of competency for surgeon performance by using case-based multiple-choice questions to test clinical judgment and decision making. Objective evidence and perception together provide feedback to the learners and teachers with regard to the learners' level of motivation and their gaps in knowledge and skill before and after a learning experience. With these kinds of data, educators can understand the level of motivation before and after instruction and also assess gaps in knowledge and skill related to solving clinical problems before and after instruction. The educator learns how learners perceive themselves, how accurate these perceptions are, and to what extent an educational activity has changed perceptions and actual knowledge.
This information can help learners to correct their self-assessed weaknesses and guide them in self-directed learning activities. After the educational experience, learners are given personal data with regard to their perceptions and their individual scores on objective questions related to clinical cases. This improves the accuracy of their self-assessment and can help them to plan for future participation in continuing medical education events.

The education of doctors has one major purpose: to produce changes in knowledge that result in improved patient care. The Learning Assessment Toolkit provides objective evidence as to the success or failure of an educational event in producing improved levels of knowledge. It provides information to educators as to the strengths and weaknesses of their program and provides evidence on which effective future changes can be made.

This evaluation system provides a useful guide to enable educators to design appropriate educational offerings to meet the needs of surgeons. However, if individuals learn knowledge and skills in an education event but cannot put their skills into practice after the event, then the event clearly has not been successful. Assessment of the barriers to knowledge implementation after a course is therefore critical. We are presently conducting a study to identify barriers that are encountered by doctors in implementing what they have learned at courses and how educators can help them to overcome these barriers.

A Learning Assessment Toolkit can be used by any group of educators. All that is required is the creation of a list of competencies for the educational event and the test questions designed to test knowledge of these competencies. Many software packages exist to allow online testing. The assessment toolkit described in this paper is not subject to copyright, and the authors would be pleased to assist any groups interested in setting up their own assessment program.

NOTE: The authors thank Dr. Laurent Audigé, DVM, PhD, Manager, Methodology, AO Clinical Investigation and Documentation, for his invaluable help in the statistical analysis within this paper.


References

With a handful of spinal cord clinical trials underway in North America and more to come in the next few years, there is an urgent need to build bridges among researchers and pave the way for accelerated progress in the development of effective treatments for spinal cord injury (SCI). The North American Clinical Trials Network for the Treatment of Spinal Cord Injury (NACTN), created in 2004 by the Christopher & Dana Reeve Foundation, brings together a consortium of university hospital neurosurgical and neurorehabilitation teams to bring promising therapies out of the laboratory and into clinical trials by facilitating educational exchanges and clinical collaboration among a global network of scientists from North American and Europe. NACTN’s lead investigator, Robert G. Grossman, MD (The Methodist Hospital, Houston), explains that given the complexity of SCI and the exorbitant cost of mounting clinical trials, “there can be no progress without partnerships, without collaborations, without alliance-building. Spinal cord injury is too difficult and too expensive to go-it-alone and there is no room for failure due to ill-conceived planning.” NACTN is supported by the Reeve Foundation and the Department of Defense, Telemedicine and Advanced Technology Research Center (TATRC), United States Army Medical Research and Materiel Command (USAMRMC).

Recently, NACTN partnered with AOSpine North America to publish a special Journal of Neurosurgery – Spine supplement issue on traumatic and non-traumatic spinal cord injury (SCI). Michael G. Fehlings, MD, PhD, (University of Toronto) member of NACTN and AOSpine, past chairman of the editorial board of JNS Spine and current special topics editor, further explains that “this focus issue presents cutting edge research performed by members of NACTN and AOSpine related to traumatic spinal cord injury and non-traumatic SCI (particularly the paper showing the cost effectiveness of surgery for cervical spondylotic myelopathy).” Other highlights of this issue include a description of the Phase I Riluzole trial in acute spinal cord injury, a clinical prediction rule that predicts complications after spinal cord injury and a novel outcome measure (GRASSP) to assess hand and upper extremity function.

The Journal of Neurosurgery — Spine issue sets the stage for a future collaboration between AOSpine North America and NACTN to run a major randomized double blind controlled trial for the sodium channel blocker, Riluzole, in acute traumatic spinal cord injury.

The AOVETNA Board is pleased to announce that Dr. Steven Budsberg has been elected AOVETNA Community Development Committee Representative. Dr. Budsberg is a Professor in the Department of Small Animal Medicine & Surgery at the University of Georgia in Athens, Georgia and has been an active faculty member of AOVET North America, since 2005.

Dr. Budsberg replaces Dr. Brian Beale, whose term ended May 31, 2012. The AOVETNA Board and AOVET Faculty are grateful to Dr. Beale, who worked tirelessly along with Dr. Mike Kowaleski to organize the Community Development Committee.

Dr. Budsberg will serve a three-year term, beginning September 2012. Some of Dr. Budsberg’s responsibilities include:
- Ensuring a smooth interface between the community development objectives of AOVET and AONA
- Achieving the objectives of the Committee within North American and the community development objectives of the AOVETNA Board
- Supervising the implementation of Committee resolutions and actions within the North American region
- Ensuring collaboration and cooperation with other AO bodies and approved industrial partners
- Overseeing the content of all community development programs
- Ensuring compliance of AOVET community development activities with the binding AOF rules, regulations, contractual obligations and statutory rules within AOF and North America

When asked about his desire to serve as Chair, Dr. Budsberg indicated, “I am hoping I can give back to AOVET for all it has done for my career. While I have been an active faculty member for years and I have held a few positions in AOVET, I feel it is time for me to increase my commitment to the organization.”

Dr. Budsberg added, “I have watched AOVET do a very good job of expansion over the last few years and make significant strides in becoming more relevant to veterinary orthopaedic surgeons worldwide.” Dr. Budsberg also noted that there is a need to encourage surgeons to becoming the next generation of educators, thus giving back to the specialty and the profession.
With all the changes going on in AO, many people may not be aware of the development and growth of AO Podiatry. The involvement of podiatric surgeons with the AO movement began when small groups of podiatrists attended AO courses in Davos during the 1970’s. These surgeons brought back AO techniques and philosophy to the podiatric community in North America. They applied these techniques and the AO philosophy to not only trauma but also elective procedures. In the early 1980’s a few podiatric courses sponsored by AO were held in the United States. These early courses spread the message of AO and helped to develop a nucleus of faculty for the future.

In 1993, the first of many ongoing AO courses was held in Baltimore chaired by Chuck Gudas, Kieran Mahan and John Ruch. Early support by AONA’s Joan Rousseau and Jim Gerry were critical in getting the early courses started. This Basic Course became the first in a continuing series of courses. The success of the course, which used the traditional AO model of lectures, labs, and fireside discussions, was great and soon there was additional demand to have more courses. The Basic Course became an annual event. The Basic Course contained material on bone healing, metallurgy, lag effect and other principles, foot and ankle trauma, and elective procedures such as hallux valgus and foot and ankle fusions. Lab exercises focused on various hallux valgus osteotomies, midfoot fusions, foot and ankle trauma and rearfoot and ankle fusions. This model continues with a greater emphasis on discussion groups and the lab instruction that has made AO so successful. The Basic Course is supplemented by a comprehensive step by step lab workbook that accompanies the exercises and supports the video introduction.

Two years later, when another Chairman, Jack Schuberth joined the original guiding group, an Advanced Course was added to the schedule. The highly successful Advanced Course focused on more complex foot and ankle trauma, external fixation, revisional surgery and other, more complex procedures. Due to the success of the courses, a Basic and an Advanced Course were held each year. Jordan Grossman was also added to the guiding group.

After one successful “double” (Basic and Advanced Courses held at the same time), the double formula became permanent in 2010 twice per year in response to the demand for courses. Even with doubling the number of courses, the current courses fill within days of the opening of registration.

The success of the courses has been attributable to the outstanding faculty who have been attracted to the AO philosophy of education and practice, and the hard work of the AONA staff who have brought their dedication to excellence to our courses. The podiatric profession is relatively small, only about 15,000 in the United States. Already, over 2,000 individuals have participated in twenty Basic Courses and another 1200 have taken fifteen Advanced Courses.
We have benefited as a group from AO orthopedic faculty who have visited with us over the years as faculty and/or observers including Jim Kellam, former President of AO Foundation. The camaraderie and insight of these individuals has been a great help to the growth and development of our group.

This past year we introduced our first Master’s level course, which focused on minimal incisional approaches toward trauma. This cadaver based course will be succeeded this year by another Masters course focused on reconstructive surgical techniques, also based on cadaver instruction.

As we look forward to our future, we have developed a more formal structure under the formula of AONA with a guiding Education Committee. Brian Carpenter and Mary Crawford have joined and we meet twice a year to assess our progress and plan modifications to the courses. Course Chairs and a course director are appointed by the Committee. Under the direction of the committee, we have engaged in faculty development. Lisa Hatfield-Law came to one of our LaJolla courses and Brian Carpenter was able to participate in the AONA faculty education program (FEP). I had the opportunity to participate in the AO International Chairman’s course this past year, an exciting opportunity to interact with new course chairs in different disciplines from North and South America.

As with other disciplines, the camaraderie among the faculty and dedication to education is what has made the AO podiatric courses so successful. The faculty dinner is always an opportunity to renew friendships or make new acquaintances. Although many of the AONA staff have helped us along the way, Joan Rousseau and her successor Andrea McClimon have been with us all the way, helping us to deliver an educational product that has become so popular and vital to our profession. We look forward with confidence to continuing to promote the AO philosophy.
A 17-year-old female was brought to our trauma center following a motor vehicle collision. She was hemodynamically stable, but complaining of back pain. On examination, she was tender to palpation in the upper lumbar spine, but was neurologically intact. A comprehensive evaluation revealed an isolated injury to the lumbar spine. A CT scan showed a fracture dislocation at L1, L2, or an AO Type C injury (reference 1). The fracture involved both the vertebral body and the posterior elements of L2 (Figure 1).

An MRI scan showed the expected complete disruption of all the bony and ligamentous stabilizing structures of the spine at the region of the dislocation, but also considerable narrowing of the spinal canal. (Figure 2)
As a result of the highly unstable nature of this injury, emergent surgery was recommended. The goals of the procedure were to preserve neurologic function, reduce the dislocation, stabilize the spine and ultimately fuse the dislocated motion segments. This was accomplished through a posterior approach. First, the patient was positioned supine on the operating table and after induction of anesthesia, neuromonitoring leads were applied to measure somatosensory evoked potentials (SSEPs), motor evoked potentials (MEPs) and lumbar root EMG activity. After baseline neurologic signals were shown to be normal, the patient was then positioned prone with no change in her neuromonitoring signals. A posterior approach to the thoracolumbar spine was then performed, exposing the posterior elements of T12, L1, L2, L3 and L4. A traumatic cerebrospinal fluid (CSF) leak was evident at the level of the dislocation. This was directly repaired. Monoaxial pedicle screws were then placed bilaterally at T12, L1, L3 and L4. Thus, screws were placed in two vertebrae above and two vertebrae below the dislocated segment. Screws could not be placed in L2 due to the fracture at this level. Then, with direct observation of the neural elements, the dislocation was reduced. Following reduction, neuromonitoring was unchanged. Rods were placed to restore lordosis and a fusion was performed at L1 L2, or the dislocated segment only, using cancellous allograft bone graft.

Postoperative radiographs showed anatomic alignment of the lumbar spine with restoration of normal lordosis (Figure 3). The patient then recovered uneventfully, returning to full activities at 6 months. At 12 months following the injury, after CT scanning showed a solid fusion at the dislocated segment, the instrumentation was removed in order to regain motion at the lumbar motion segments that were instrumented but not fused. (Figure 4). The patient has now returned to normal activity with minimal pain.

This case illustrates the basic tenets of the recently developed AOspine Curriculum, which describes four foundations of proper spine management: Stability-Alignment-Biology-Function. In this case, stability was restored by achieving fixation in two vertebral levels above and below the area of injury. This was necessary due to the severity of the instability at the dislocated segment, which is the hallmark of an AO Type C injury (reference 1). Following reduction, normal alignment of the spine was restored through manipulation of the instrumented vertebrae and contouring of the rod placed between the pedicle screws. In order to assure long-term stability of the dislocated segment, or L1 L2, a fusion here was performed. While many options are available for bone grafting material, the biologic healing potential of a 17-year-old allows the use of allograft bone, which reduces OR time and the potential morbidity of other autogenous or alternative bone grafting techniques (reference 2). Finally, to maximize the long-term function of the patient’s lumbar spine, the instrumentation was removed when healing was complete. This allowed the restoration of motion in the lumbar spine at the motion segments that were included in the instrumentation, for initial stability purposes, but not fused. Thus, by adhering to established AOspine principles of management, this young patient, despite a severe, potentially devastating injury, was able to obtain an optimal treatment result.

References
At 64, Surgeon Heading for War
Mindful of price paid by son, UB orthopedist eager for Afghan duty

At a time in life when most people are looking forward to retirement, Lawrence B. Bone is heading off to war.

The 64-year-old orthopaedic surgeon has joined the Army Reserve and leaves for Afghanistan in July. The reason he joined the military so late in life is to help wounded service members, and he knows personally why his skills are needed. His son, Christian B. Bone, now 33, suffered a severe combat wound in Iraq in 2006. When his son returned home, the father-surgeon witnessed firsthand the price he had paid. “He was injured in a Humvee when an improvised explosive device went off,” said Larry Bone, Chairman of the Orthopaedic Department at the University at Buffalo School of Medicine and Biomedical Sciences. “When he returned to the States, I oversaw the physical therapy on his right shoulder.”

Bone later learned that 75 percent of war wounds require the skilled hands of an orthopedist, and he soon realized he could not sit back and look toward the comfort and security of retirement without first making a stand himself. In 2009, Bone was at a military reception during a national orthopaedic trauma meeting in Salt Lake City. “We could use your services,” he was told. “I’m too old,” Bone responded. “We have an age waiver for areas of critical need,” came the reply. Orthopaedic surgeons were among the most in demand for war duty.

The Orchard Park resident said that he returned home from the conference and after discussing his intentions with “a very supportive family,” he drove to the Army Reserve medical office in Amherst.

“I said ‘I want to volunteer.’ Normally, 56 years old is the cutoff age for enlisting as a surgeon,” Bone said. But he persisted, and 20 months later, he was commissioned as a lieutenant colonel in the Army Reserve. A member of the 865th Combat Support Hospital at Niagara Falls Air Reserve Station, he is due to arrive in the war zone July 27 and can hardly wait to save lives.

“I’m very, very excited to go and get over there. Our young men and women are still being injured, and after 30 years of treating civilian trauma victims, I’m honored to have this opportunity to treat our military,” he said.

Officials at the Niagara Falls base say they are thrilled to have him on board.

“We sent him to fill a critical shortage with our deploying 624th Forward Surgical Team at the Army Trauma Training Center in Miami last February, and he was well received by the unit and ATTC staff,” Lt. Col. Dawn T. Flynn said at the Niagara Falls base. “He was able to share his experience with them.”

Although he is older, Bone says, he anticipates he will be able to handle the rigors of serving in a war zone because he is in excellent physical condition. At 5-feet-7 and 155 pounds, he says, he feels more like 40 than 64. “I’ve completed personal physical training and two courses in military trauma training,” Bone said of his preparation.

Flynn added that Bone is not bragging when he says he is in top-notch physical condition.

“Our maximum score for the physical fitness test is 300, and Larry consistently scores between 340 and 360,” Flynn said.

The journey to war, Bone added, has made him all the more aware of what others in the medical profession have been doing for years, taking time off from their civilian careers and defending the country by
caring for those harmed on the front lines. “Most recently, the 1982nd Forward Surgical Team at Niagara Falls Air Reserve Station was deployed for nine months and was the busiest forward surgical team in Afghanistan during that time,” Bone said.

By serving, he says, he will also have the chance to return the favor of caring for the wounded just as his son was cared for by a military orthopaedic surgeon in Baghdad during the Iraq War.

“It’s a chance for me to help someone else’s son,” he said.

After Christian Bone recovered from his war wounds, he left the military and studied to become a registered nurse. He now works at Buffalo Veterans Affairs Medical Center, attending to wounded veterans, something that makes his father and mother, Paula, a retired teacher, very proud.

As for the doctor’s family, Bone said, “My son and my wife are extremely supportive, though my two daughters sometimes wonder why, but understand their father.”

Part of the reason Bone agreed to tell his story of this late-in-life career move, he said, was to draw attention to the Niagara Falls base, whose future remains in question as the Pentagon considers what bases to close for cost-saving purposes. The local base, Bone said, provides a critical link between the armed forces and citizen soldiers.

Bone is one of the oldest reservists to come out of the base. He’ll turn 65 in October, during his deployment to Afghanistan, and said he has no plans of taking a break to file for Social Security retirement benefits. He says he is not even considering retirement from the Army Reserve or his position at UB.

In fact, he said, “I’m already looking forward to future deployments to Afghanistan.”

Reprinted with permission. Lou Michel, News Staff Writer; At 64, Surgeon Heading for War, BuffaloNews; buffalonews.com; June 29, 2012

AOSpine recently held the first course designed for spine surgeons who are preparing to sit for Part II of the ABOS board certification exam. This one-day workshop took place Saturday, June 23, 2012, at the Marriott at Philadelphia International Airport, Philadelphia, Pennsylvania.

Daniel E. Gelb, MD, Associate Professor, University of Maryland School of Medicine and workshop faculty member explains, “The workshop gave participants the chance to practice presentation of their actual board cases with surgeons who have previously undergone the process, and as such, have real world experience in successfully completing the board certification process. They received practical, real-time feedback concerning both content and presentation style.”

Dr. Gelb adds, “This workshop is unique in that it allows participants to show their cases in a relaxed, friendly environment to experienced physicians across a broad range of geographic locations.”

John G. DeVine, MD, COL, MC, Associate Professor, USUHS, Chief, Spine Surgery, Director, Orthopedic Residency, Eisenhower Army Medical Center and workshop faculty member, describes the most beneficial aspects of the workshop, including, “The case-based format utilizing the participants’ cases that had been selected by ABOS; the faculty giving feedback on presentation content and style, while providing anticipated questions from the ABOS examiners; and faculty were all board certified and veteran AOSpine faculty members.”

Results from the evaluation survey of participants demonstrated the overwhelming success of the workshop. Surgeon attendees feel better prepared to take the exam and how to present their cases effectively as a result of attending the Course.
AO Trauma Principles and Advanced Courses in Operative Fracture Management
Marco Island, Florida USA Course saw a high turnout and positive feedback.

More than 200 residents and fellows attended the AO Trauma North America (AOTNA) Principles and Advances Courses in Operative Fracture Management held at Marco Island, Florida from June 3-8, 2012.

The widely popular Courses offered participants fundamental knowledge of operative treatment of fractures according to the AO principles. Hands-on practical exercises, engaging small group discussions and captivating plenary lectures filled the course program days.

“AOTNA Courses have become a well-groomed operation with expert teaching faculty and a solid support team,” says the Course Chairperson, Pierre Guy. “We have refined the ‘lecture-practical session-small group discussion learning’ model successfully to deliver an excellent education opportunity based on participant evaluation and, more recently, on pre-post Course knowledge questionnaires, where participants improved their score at ‘post’ examination.”

David Barei, Co-Course Chairperson explains: “It has become increasingly important for AOTNA to figure out what participants should know at the end of any given course; whether it is the Principles or Advances Courses, or more complex offerings like the Solutions or Subspeciality Courses. Using needs assessment tools, focus groups and post-course feedback, the Courses continue to be revised and fine-tuned to maximize the educational experience. Finally, the Courses evolve because the educators evolve. Not only is AOTNA interested in teaching the participants, they are interested in teaching the faculty to be better educators.”

Tania Ferguson, AOTNA Faculty added: “The Marco Island Courses really demonstrated AOTNA faculty’s dedication to tailoring the course to our physician learners. AOTNA Courses have evolved to maximize the interactive experience for the learners.”

A particularly successful practical exercise took place on Friday morning, June 8th, when Dr. Ferguson moderated a practical session where participants were asked to ‘save their table instructor by placing a pelvic sheet or binder for hemorrhage control. Dr. Ferguson explains: “We decided to enhance the hands-on practice aspect of learning by asking participants to apply a sheet to a ‘real patient’ themselves. I attribute the success of the lab to the table instructors who were incredible in getting the participants to perform the skills and tricks of binder application, as well as create discussion of the common mistakes made.” Another major evolution of these Courses, as demonstrated in Marco, is that learning modules now consist of relatively short lectures followed by a half hour of moderated case discussions, using an audience response system to allow participants to interact and answer questions. Ferguson commented on the ‘Relative Stability’ module that she moderated, saying: “The panel discussion generated almost a conversation with the audience that was really interactive. The participants were completely engaged at all times and questioned the panel when they did not understand a concept.”
Special Programs

A number of special programs also took place at the Marco courses, including:

AOTrauma Chairperson Education Program (CEO): This three-day program was attended by faculty from North America and Latin America who are scheduled to chair an upcoming Course in their region. The program was led by Clint Miner PhD; Robert Fox, PhD; Kodi Kojima, MD; and Mark Reilly, MD.

As part of the program, participants observed lectures, small group discussions and practical exercises of the Principles and Advances Courses in Operative Fracture Management being conducted at the same time. Role playing exercises were followed by feedback in the role of chair. The program represents a new approach to Course Chair education. The level of content and the instructional approach is designed at the graduate level and is application focused with theoretical underpinnings. It was intense and challenging, in addition to being tremendously beneficial. It was also a fun way to learn.

Great enthusiasm was shown for the Award-Winning AO Foundation Playground: the AO Foundation made its debut at the Courses. Pierre Guy explains: “Originally conceptualized and realized by AO colleague Emanuel Gautier from Fribourg, Switzerland, these multi-station, hands-on learning sessions aim to deepen participants’ understanding of the physical and biological processes related to fracture care.”

This training ground with a focus on surgical skills is an innovative and clever way to enhance the knowledge about underlying principles through practical hands-on exercises. Urs Schlegel and Peter Däschler greatly contributed to the set-up and support for this exciting learning environment at the Course.

“The attendees immediately recognized the ability of the Playground to help demonstrate some of the physical concepts of fracture management, as well as provide a simulated experience to perform some of the manual skills utilized in surgery,” explains James Krieg, Course Evaluator.

Awards

Voted on by the faculty table instructors, awards were presented to participants with the top pre-operative plans:

Pre-Operative Planning Award Winners

1. Danielle Cross (St Luke’s Hospital, Orthopaedic Surgery Residency, Bethlehem, PA)
2. Savan Patel (McLaren Regional Medical Center, Flint, MI)

Among the winners, Savan Patel says: “This Course definitely offers practical education. I have heard surgeons further in their training than I am say they use the principles learned at the AOTNA Principles Course every day. He adds, “I plan on participating in many future AOTNA educational opportunities.”

Barei concludes by describing what makes AOTNA so unique: “The AOTNA faculty are committed to the mission, the methods and the organization. We’re proud and honored to be part of it. I think it is fair to say that working right alongside our mentors, students and friends is a great experience. That translates into a passionate faculty that loves to teach and help the evolution of the educational offerings progress.”

The Marco Island Courses offered plenty of opportunity to foster professional collaboration, networking and camaraderie among colleagues. Marco Island Courses successfully highlighted that AOTNA continues to set the bar very high for credible, reliable and world-class orthopaedic trauma education.
NEW Resident Research Grant Opportunity

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News

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AO North America has been a partner with AAA Corporate Travel Services since 2009. They offer our faculty members two convenient ways of booking travel: calling in and speaking with an experienced agent or booking on our customized booking tool, Concur. Both are available 24x7x365. AAA services include assistance with not only booking but schedule changes or flight interruption. Instructions for booking travel are given with each course. However, by updating your profile in Concur you are set for any future Courses. This is a great way to have your frequent flyer numbers applied and any other preferences you may have. Airline costs are billed to AO North America and itineraries are emailed directly to you. $200,000 flight insurance is included with every ticket purchased.

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AONA Staff Picnic

Nancy and Rick Holmes hosted the second annual AO North America staff picnic on July 24. Everyone (including four-legged family members) enjoyed a relaxing and fun afternoon together!