Can You Make the Diagnosis?

Medics were dispatched to the scene of a 25-year-old male who sustained a single stab wound to his left mid back, midscapular line at approximately the 10th or 11th rib. Police at the scene recovered a chef’s knife with a 5-inch blade that had “blood half way up the blade.”

The patient complained of moderate pain but no respiratory distress. Assessment noted no JVD, tracheal displacement, or absent breath sounds. His VS: P 90; R 20; BP 120/60; SpO2 98%. What are your thoughts about his immediate or potential life-threatening injuries?

Upon arrival to the ER, the patient was now mildly tachypneic and in moderate distress. His blood pressure had decreased to 90/60, pulse still at 90, and a SpO2 of 96% with 3L NC. Neck assessment remained unremarkable for tracheal shift or JVD. His lung sounds were now diminished on the left and he had a moderate sized hematoma at the SW site. He also had tenderness of his LUQ on abdominal exam. An immediate portable CXR obtained noted a moderate sized hemothorax on the left without a pneumothorax (Figure 1 arrows).

Based on his mechanism of injury and presentation, the patient was sent for a CT of his chest, abdomen, and pelvis. Chest CT revealed a moderate left hemothorax but no pneumothorax or mediastinal injury (Figure 2).

Abdomen and pelvis CT noted a laceration of the superior aspect of his left kidney (Figure 3, top right arrow), evidence of active extravasation (Figure 3, 2nd right arrow), and perirenal and posterior renal hematoma (Figure 3, left 2 arrows and 3 arrows, respectively).

Upon return from CT, the patient had a 36-French chest tube inserted in his left chest by the trauma surgeon, with an initial 100 ml of blood output. During this period, the patient had become hypotensive that responded to NS boluses and then, subsequently, to blood products. Because of his renal laceration with active bleeding, the patient had a urology and interventional radiology consult. It was decided to obtain...
Can You Make the Diagnosis?  

Continued from Page 1

an angiogram for possible coiling and embolization. Figure 4 shows the active bleeding of the superior kidney (arrows). Figure 5 shows the coil with no further active bleeding.

The patient was subsequently admitted to the ICU. There he again became hypoten-

cive with respiratory distress. Repeat CXR revealed a large hemothorax (Figure 6). He went for a thoracotomy to evacuate the left hemithorax and subsequently did well post-operatively.

Chest trauma is the third most common anatomic site of injury in the U.S. after head and extremity trauma, and is one of the leading causes of death. Penetrating thoracic trauma, most commonly from gunshot and stab wounds, is less common than blunt trauma but also more deadly.

Penetrating trauma to the chest can result in severe injuries to the lungs, great vessels, tracheobronchial tree, heart, diaphragm, spinal cord, and vertebra. An entry point below the nipples anteriorly or inferior scapula posteriorly should be considered an entry point for a missile or stabbing implement to penetrate the intra-abdominal cavity, either intra-peritoneal or retroperitoneal. 10-15% of trauma patients with abdominal injuries have GU involvement. Knowing the size of the stabbing weapon or the caliber of the gun and distance it was discharged aids in the assessment.

The kidneys, pelvicaliceal system and ureters comprise the upper GU system, and are well protected by the rib cage and vertebral column. In patients with GU trauma, symptoms are nonspecific and may be masked by other injuries. Indeed, in penetrating trauma the trajectory of the bullet or the penetrating object helps indicate the possibility of renal injury.

Field assessment and treatment should rely on the ITLS patient assessment with the purpose of the Primary Survey to determine if immediate life-threatening conditions exist, and to identify those patients who require immediate transport to the hospital. The new 7th edition has added that serious external hemorrhage should be noted in the general impression and control of bleeding must be immediately delegated (C-A-B-C concept). Also, treatment initiated in the field or en-route is based on the “Fix It” process. (See Page 4 for more about this.)

Embolization has been refined since the early 1990s and has many applications in trauma, GI bleeding, epistaxis, hemoptysis, and post-partum hemorrhage. The coils are made from stainless steel, platinum, or titanium wire. Microcoils allow embolization of smaller vessels. Finally, particulate embolic agents such as gelatin sponge also aid in stopping acute hemorrhage.

— Art Proust, MD, FACEP  
ITLS Illinois Chapter Medical Director
Updated 7th Edition Provider Course Materials Released to Instructors

ITLS is pleased to announce the 7th edition instructor materials are now available:

- PowerPoint slides covering the Provider course material
- Instructor Guide for the 7th edition text
- All-new exams, including pre-tests and post-tests for Basic and Advanced-level students

As with the 6th edition, these materials are free. To get access to the instructor materials, please contact Illinois Chapter Coordinator Sue McDonough at suem@icep.org or 630.495.6400, ext. 201. Sue will provide links to download each set of materials. Note that the exams will be given to course coordinators only. Instructors have access to the slide set and Instructor Guide.

Notes About the Materials
The exams are provided in Word document format so course coordinators may rearrange or “scramble” the post-test questions to create re-tests. A standard re-test has not been created for the 7th edition.

As the materials are used, ITLS has been notified of minor issues that are corrected on a continuous basis. If you downloaded the materials before December 12, we recommend that you re-download the materials. The same links you have been given now provide the most current materials.

The cost of the program is $25 per instructor. Instructors who complete the update will receive 1 hour of CECBEMS credit.

The Instructor Update Online is intended for current ITLS instructors ONLY. It is not for initial instructor certification. If you have questions about whether the Instructor Update Online is appropriate for you, please contact Chapter Coordinator Sue McDonough at suem@icep.org or 630.495.6400, ext. 201, before registering for the update.

Why is ITLS mandating an Instructor Update online for the 7th edition?

CONSISTENCY:
- Ensures all ITLS instructors are updated to the same standards for the new book

CONVENIENCE:
- Brief and accessible any time; no need to take off work time or travel to attend a course
- Minimizes efforts Chapters have to take to update their instructors

The ITLS Board of Directors and Editorial Board have set a policy that all Chapters are required to use the Instructor Update Online plus any Chapter-specific teaching requirements as the criteria for instructor recertification eligibility. Chapters may not require any additional didactic requirements.

The Instructor Update Online is comprehensive and authored by the ITLS Editorial Board to ensure all pertinent material is covered. A 30-question quiz at the completion of the program ensures a minimum standard of learning has been met. A passing score of 80% is required; the quiz may be retaken until a passing score is achieved.

Register for 7th Edition Instructor Update Online now at: www.regonline.com/ITLS7eInstructorUpdate

Instructor Course
The ITLS Editorial Board continues to work on an updated PowerPoint for the ITLS Instructor course. In the interim, course coordinators must incorporate the 7e changes into the Instructor course agenda and should add the material to the Instructor course slides. Therefore, anyone teaching the Instructor Course MUST have completed the Instructor Update Online. All faculty at the course must be updated, including completion of the quiz, before teaching.

The seventh edition of the ITLS textbook, *International Trauma Life Support for Emergency Care Providers*, has been updated and refined to reflect the latest and most effective approaches to the care of the trauma patient. The text also has been made to conform to the newest AHA guidelines for artificial ventilation and CPR.

Other general changes include the addition of key terms, new case presentations for all chapters, updated bibliographies, new photos, and redrawings of many illustrations for a more up-to-date look. There is now also an all new student and instructor resource website, called Resource Central.

Access to Resource Central is included with your purchase of the ITLS textbook. Students will find quizzes, additional web links, games, videos, and more to supplement classroom learning. Through Resource Central, the text also offers instructors a full complement of online supplemental teaching materials, including a bank of review questions (separate from the ITLS exams) and more.

Important chapter-by-chapter changes found in the 7th edition are as follows:

- In the Introduction it is explained why the concept of the “Golden Period” has replaced the “Golden Hour.”
- In Chapter 1, scene safety has been expanded with comments on blast scenes. The discussion of personal watercraft injuries has been updated and expanded. The blast injuries section has been updated to include new terminology.
- In Chapter 2, minor changes have been made in the assessment sequence to make it more practical. Also added is the concept that serious external hemorrhage should be noted in the general impression and control of bleeding must be immediately delegated. The concept of “Fix-It” has been introduced. As the leader performs the assessment, he or she will delegate responses to abnormalities found in the assessment. This is to reinforce the rule that the leader must not interrupt the assessment to deal with problems but must delegate the needed actions to team members. That emphasizes the team concept and keeps on-scene time at a minimum. The order of presentation of the three assessments (ITLS Primary Survey, ITLS Ongoing Exam, and ITLS Secondary Survey) has been changed. The ITLS Ongoing Exam is performed before the ITLS Secondary Survey, a more common situation, and may replace it. The use of finger-stick serum lactate levels and prehospital abdominal ultrasound exams are mentioned as areas of current study to better identify patients that may be in early shock.
- Chapter 3 reflects the changes in Chapter 2.
- In Chapter 4, capnography is stressed as the standard for confirming and monitoring the position of the endotracheal tube. Use of ELM (external larynx manipulation) is introduced as a means of improving the visualization of the vocal chords.
- In Chapter 5, the fact that cyanide poisoning will make a pulse oximeter reading unreliable has been added. Use of ELM is mentioned. Face-to-face intubation is briefly discussed. Fiber optic and video intubation are also mentioned.
- In Chapter 6, a discussion of blast injuries has been added.
- In Chapter 7, recent studies on chest wall thickness and the current controversy over which site to use to decompress a tension pneumothorax are discussed. A procedure for decompression by the lateral approach was added. Also added is that the decompression needle should be at least 6 cm long and that several needles in this length should be available.
- In Chapter 8, the discussion of hemorrhagic shock has been updated with the experience of the military during the recent conflicts. A description of the use of capnography to monitor shock was also added.
- In Chapter 9, insertion of an IO needle by use of the EZ-IO system was added.
- In Chapter 11, recent studies are discussed that suggest with penetrating injuries to the trunk, taking time to do spinal motion restriction (SMR) doubles the death rate.
- In Chapter 12, the procedure for use of a short backboard was moved to Resource Central, but photo scans of performing SMR for standing patients were added. Photos were updated.
- In Chapter 13, the use of finger-stick serum lactate levels and the use of prehospital abdominal ultrasound exams are mentioned.
- In Chapter 14, the discussion of management of bleeding from extremity injuries has been expanded.
- In Chapter 15, procedures for use of a tourniquet and use of hemostatic

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The 2011 International Trauma conference on October 25-28 in Nashville, Tennessee, was a success, attracting 245 physicians, nurses, physician assistants, and EMS personnel from 18 countries and territories worldwide.

Representatives from Australia, Brazil, Canada, China, Hong Kong, Ireland, Italy, Japan, Nigeria, Oman, Palestine, Puerto Rico, Slovenia, South Africa, Spain, Switzerland, United States, and U.S. Virgin Islands were in attendance.

Illinois was well represented with 17 providers, instructors, affiliate faculty and medical directors in attendance at the conference. Nine delegates represented Illinois at the Business Sessions and elected members to the Board of Directors.

**Board of Directors Members Elected**

The three members of the Board of Directors elected to three-year terms during the 2011 Business Sessions in Nashville were:

- Sabina Braithwaite, MD, MPH, FACEP, NREMT-P (Kansas)
- Youta Kanesaki, EMT-P (Japan)
- Peter Macintyre, ACP (Ontario, Canada)

Dr. Braithwaite is EMS System Medical Director for Wichita-Sedgwick County EMS System in Wichita, Kansas.

Mr. Kanesaki is the Japan Chapter Coordinator and a firefighter, paramedic, and EMS commander for KHF Osaka Fire Department in Osaka, Japan.

Mr. Macintyre has just retired as EMS Program Manager for Toronto EMS in Toronto, Ontario, Canada.

Board officers were also selected for 2011-2012:

- Dr. Braithwaite — Chair
- Neil Christen, MD, FACEP (Alabama) — Vice Chair
- Pete Gianas, MD (Florida) — Past Chair
- Jonathan Epstein, MEMS, NREMT-P (Massachusetts) — Secretary Treasurer
- Amy K. Boise, NREMT-P, FP-C (Arizona) — Member-at-Large

Continuing to serve as President is:

- John Campbell, MD, FACEP (Alabama)

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John Mohler, RN completed his term on the Board. Dr. Braithwaite thanked Mr. Mohler for his service to the Board and the organization.

**Toronto Team Takes First Place in TLS Competition**
The Toronto team was selected as the winners of the 2011 ITLS Competition during the International Trauma Conference in Nashville, Tennessee. Toronto has competed yearly since the competition began nearly 10 years ago.

Representing Toronto were Shamez Kassam, Lorne Burns, and Martin Johnston. Congratulations to the team!

The Toronto team competed against six other teams, from Niagara, Ontario; North Carolina; Japan; Slovenia; Tennessee; and Alabama.

The Niagara team placed second. It was the first time they competed at ITLS. Team members were: Brock Browett, Tracey Groszeibl, Shane Eickman, and alternate Hal Klassen.

The North Carolina team, defending champions for two years in a row, placed third. Team members were: Roger Horton, Barry McMillian, and Robert Coleson.

For photos from the Competition, check out the album on Facebook at: www.facebook.com/ITLStrauma

**ITLS Awards Recognize Commitment, Leadership**
ITLS presented its annual awards at the 2011 International Trauma Conference to honor three individuals for their ongoing commitment to ITLS.

James Creel, MD, ITLS Tennessee Medical Director, was honored for his outstanding medical direction of courses and ITLS leadership with the John Campbell Medical Director of the Year Award. Dr. Creel is one of the earliest founders of the ITLS/BTLS program and was one of the original authors of the BTLS textbook with Dr. Campbell. Dr. Creel is a longtime medical director for ITLS, now in Tennessee and previously in Georgia. He served as the Course Medical Director for the first BTLS course at Erlanger Hospital in 1986 and remains actively involved with ITLS Tennessee today.

Glenn MacDonald, ITLS New Jersey Chapter Coordinator, was presented with the Pat Gandy Coordinator of the Year Award. As a coordinator and educator at Hackensack University Medical Center, Mr. MacDonald has worked diligently over the past year to reorganize the New Jersey chapter and continue its training mission. His hard work and perseverance have resulted in a busy, cohesive chapter training nearly 1,300 students in the past 2 years.

The Ray Fowler Instructor of the Year Award was awarded to Florian Kuehl, EMT-P of Germany, for his excellence in teaching and innovation in ITLS programs. Mr. Kuehl has traveled to bring training to developing ITLS chapters including Denmark, and served as the Chapter Coordinator for ITLS Germany from its inception in 2006 through 2010. The Germany chapter recently felt the loss of one of its most dedicated and energetic instructors, as Mr. Kuehl is relocating to Australia.

Unfortunately, neither Mr. MacDonald nor Mr. Kuehl could be present at the 2011 conference to accept their awards in person.

For more photos from the 2011 ITLS International Trauma Conference, please check out the ITLS Facebook page: www.facebook.com/ITLStrauma.

As another well-received conference concludes, ITLS is already looking forward to next year. 2012 will mark the 30-year anniversary of ITLS, and the conference will celebrate the organization’s growth and development since 1982. The 2012 ITLS International Trauma Conference will be held at the WALT DISNEY WORLD® Resort in Florida on November 8-11.
ICEP Executive Director Honored at Conference

Ginny Kennedy Palys, Executive Director for both the Illinois College of Emergency Physicians and International Trauma Life Support, was recognized at the 2011 ITLS International Trauma Conference for her dedication and leadership over the past 20 years.

At the conference’s Awards Presentation, Donna Hastings, chair of the Editorial Board who has worked closely with Ginny for many years, presented Ginny with a commemorative plaque in appreciation.

John Campbell, MD, FACEP and the ITLS Editorial Board also dedicated the 7th edition ITLS for Emergency Care Providers text to Ginny.

As executive director, Ginny oversees the operations and management of both organizations. As part of her role under ICEP, she staffs the ITLS Illinois Advisory Committee and provides leadership and oversight for the Chapter. Art Proust, MD, FACEP also recognized Ginny’s role at the most recent Advisory Committee meeting in December, thanking her for all that she does for the Chapter.

Ginny Kennedy Palys

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In Chapter 16, the application of antimicrobial sheets to a burn if there is to be a very long transport is mentioned. The concept of escharotomy not being a prehospital procedure is clarified.

In Chapter 17, the fact that the laryngeal mask airway and King LT airway are available in pediatric sizes and can be used for rescue airways has been added.

In Chapter 21, the chapter has been extensively rewritten by new authors.

In Chapter 22, the chapter has been updated with the latest recommendations for postexposure prophylaxis.

Resource Central

In “Optional Skills,” the use of the PtL airway and use of the FAST1® have been deleted. The procedure for use of the short backboard was added. The term “RSI” was updated to DAI (drug-assisted intubation).

In “Multicasualty Incidents and Triage,” the discussion of various triage schemes has been expanded.

In “Role of the Medical Helicopter,” the data has been updated.

In “Trauma Scoring in the Prehospital Care Setting,” the CDC Trauma Triage Scheme has been added.

In “Tactical EMS,” the bibliography has been updated.

To request a PDF handout of the changes, contact Sue McDonough at suem@icep.org or 630.495.6400, ext. 201.

Community Feels Loss of Friend, Instructor

The ITLS Illinois and EMS communities recently lost a valued member. Captain/Paramedic Kenny Groennert, of Mascoutah, IL, passed away on October 19, 2011, surrounded by his loving family.

Kenny was involved in EMS in Illinois for more than 19 years. He was a captain and acting engineer for the Monarch Fire Protection District in Chesterfield, MO, a lieutenant for the Mascoutah Volunteer Fire Department, a fire science instructor at Southwestern Illinois College, and a retiree from the Mascoutah Volunteer Ambulance Service. Kenny has an AAS degree in Paramedic Technology and AAS degree in Fire Science Technology. He was a certified rope rescue technician, confined space rescue technician, trench rescue technician, structural collapse technician, swift water rescue technician, swift water boat operator technician; also certified in special operations aviation rescue, Advanced Cardiac Life Support (ACLS), Pre Hospital Trauma Life Support (PHTLS), and Pediatric Life Support (PALS); was a CPR Instructor, International Life Support Instructor (ITLS), Missouri Firefighter I and II, Illinois Fire Officer I and II, and Illinois Fire Instructor I and II.

Kenny is survived by his wife of 15 years, and two daughters.
Overview: ITLS IL Courses in 2011-2012

2011 TRAINING RECAP
As of December 15, a total of 116 ITLS courses have run or are scheduled in Illinois for the 2011 calendar year.

ITLS Illinois coordinators have certified a total of 1,643 students (including instructors). Of this total, 1,190 were initial certifications. The remaining 453 were recertifications.

The course totals included 9 instructor courses that certified a total of 36 new instructors.

A final total of training statistics will be available in the next edition of ITLS Illinois News, as some courses for 2011 are still in progress.

UPCOMING COURSES
Many coordinators have not yet entered any upcoming courses in 2012! Please register your courses in CMS as soon as the dates are confirmed.

For the most updated list of upcoming courses in ITLS Illinois, including registration information, please visit http://cms.itrauma.org/CourseSearch.aspx. You do not need to log in to access this page.

To return the most results, enter Illinois as the Chapter and leave other criteria fields blank. This will return all ITLS courses in Illinois currently entered into CMS.

If you need additional help, please contact Chapter Coordinator Sue McDonough at suem@icep.org or 630-495-6400, ext. 201.

Here are a few of the courses that have already been scheduled:

JANUARY 7-8, 2012
Combined Provider Course
Coordinator: Doug Sears
Sauk Valley Community College
Dixon, IL

MARCH 6, 2012
Combined Provider Recert
Coordinator: Dale Tippett
Peoria Area EMS
Peoria, IL

MARCH 7-8, 2012
Combined Provider Course
Coordinator: Dale Tippett
Peoria Area EMS
Peoria, IL

2012 Advisory Committee Dates
The ITLS Illinois Advisory Committee will meet on 3 occasions in 2012. As a reminder, all Affiliate Faculty are required to attend one meeting per year. Attendance at additional meetings is optional.

WEDNESDAY, APRIL 18, 2012
ICEP Office, Downers Grove

FRIDAY, SEPTEMBER 14, 2012
Memorial Hospital, Bellville

WEDNESDAY, DECEMBER 12, 2012
ICEP Office, Downers Grove

Videoconferencing at additional sites will be available for all meetings. Videoconferencing locations for each meeting will be emailed prior to the event.