Any surgical procedure involving wrong site, wrong patient or wrong procedure is unacceptable, and yet, these events still occur. The article "Wrong-Site and Wrong-Patient Procedures in the Universal Protocol Era," written by Philip F. Stahel and colleagues and published in *Archives of Surgery*, October 2010 issue, was designed to analyze the frequency, root causes and outcomes of wrong-site and wrong-patient procedures performed throughout the state of Colorado.

This analysis was performed on 27,370 physician self-reported adverse events from the Colorado Physician Insurance Company (COPIC) database between January 1, 2002 and June 1, 2008. A total of 25 wrong-patient, and 107 wrong-site procedures were identified. Five of the wrong-patient procedures, and 38 of the wrong-site procedures resulted in significant harm to the patient. One patient died secondary to a wrong-site procedure.

The two main causes leading to wrong patient procedures were errors in diagnosis and errors in communication. Wrong-site occurrences were related to errors in judgment and lack of performing a “time-out” to verify patient and procedure. Shockingly, nonsurgical disciplines equally contribute to patient injuries related to wrong-site procedures. These findings emphasize a continuing and concerning occurrence of wrong-site and wrong-patient procedures leading to frequent patient harm and even patient death.

The results were not taken lightly as this study received national and international attention and was featured in both *The Denver Post* and *The New York Times*. Wrong-site, wrong-patient procedures are called “never events” because such mistakes should never happen. A strict adherence to the Universal Protocol must be expanded to non-surgical specialties to achieve a zero-tolerance philosophy for these preventable incidents.
Case of the Month

A right hand dominant 56-year-old male was involved in an altercation eight months prior to presenting to the Denver Health Orthopaedic Clinic complaining of constant pain and difficulty using his arm.

He demonstrated normal sensory and motor function at the hand, wrist, and elbow, but was unable to forward flex his arm beyond 45 degrees.

He would not tolerate any attempts at rotation of the shoulder. His strength at resisting internal and external rotation forces was rated at 3+/5. He was diagnosed with a chronic anterior glenohumeral dislocation with a greater tuberosity malunion. On CT scan there did not appear to be any glenoid insufficiency anteriorly, nor was there a significant Hill Sach’s defect. It was felt that an attempt to reduce the shoulder and maintain his own joint surfaces would provide the most durable shoulder function with the least risk for long term problems.

Open anterior surgery via a deltopectoral approach with a coracoid osteotomy was performed. The superior, tendinous portion of the subscapularis was ruptured, and an extensive posterior capsular release had to be performed along with osteotomy and repair of the greater tuberosity malunion in order to reduce the glenohumeral joint.

The coracoid was transferred and secured to the anterior inferior glenoid, and the subscapularis tendon was repaired to the lesser tuberosity. A conservative rehabilitation program ensued and as of his eight week follow-up he described minimal discomfort at rest and was able to actively forward elevate to 90 degrees and externally rotate to 30 degrees with minimal discomfort.

8 week post-operative x-rays.
See outside of mailer for preoperative x-rays.
A Colorado native, Dr. Todd VanderHeiden, M.D., Orthopaedic Surgeon, began his Denver Health career as a volunteer in 1997, while working toward his Bachelor of Arts in Molecular, Cellular, Developmental Biology and Biochemistry. His passion for science led him to attend the University of Colorado School of Medicine followed by an internship in General Surgery and residency in Orthopaedics at The University of Colorado Hospital. Subsequent to his residency, Dr. VanderHeiden completed a Spinal Surgery Fellowship at the Panorama Orthopaedics and Spine Center in Golden, Colorado.

As the newest addition to the renowned Orthopaedic team at Denver Health, Dr. VanderHeiden is dedicated to working with the spine, particularly in the treatment of degenerative spine disorders, spine trauma, and spinal deformities.

A member of Denver Health’s Level I Trauma center, Dr. VanderHeiden is highly trained and capable of treating the most severe and complex injuries. “It’s an indescribable feeling to be able to call on my training and know-how to restore function in a patient and positively impact their lives. I feel very lucky and blessed to be in this position – this is my calling in life,” says Dr. VanderHeiden.

### Current Publications

How would you approach this problem?

Please e-mail clinical comments and thoughts to Jarrod.King@dhha.org.

Look inside to see how we restored mobility to this patient.

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