

Abstract

A concussion is a form of Traumatic Brain Injury (TBI) and today a leading cause of morbidity and mortality in the United States (CDC, 2014). Concussion in sport is highest in boys' football and girls' soccer. Effective treatment requires proper early identification of concussive symptoms. Unfortunately, primary care providers often lack the necessary training to manage concussion routinely and to provide early interventions. Telemedicine, first developed in the United States in 1973, is a potential opportunity tool for evaluating concussions and has been shown to be as effective as office visits for some types of care. This telemedicine concussion quality improvement project used HIPAA-compliant video technology in Western Washington to address care inequity, patient safety, timeliness to care and provider satisfaction. The project involved one nurse practitioner and twenty-six athletic trainers. The project showed that a telemedicine consultation for concussion provided significant benefits including the elimination of travel for the athlete and their family, initiation of care as early as the day of injury, facilitation of a team approach to care (athlete, athletic trainer and specialist) and provided specialty care regardless of geographic location. The results are reported using the SQUIRE 2.0 guidelines. Telemedicine is one innovative method of care for concussion management with many possibilities.

Keywords: *concussion, telemedicine, nurse practitioner, SQUIRE, quality improvement, athletic trainer*