

Infection Control in Interscholastic Athletic Training Rooms Post COVID-19

Problem

COVID-19 has caused our entire population to re-evaluate how we react and relate to each other's physical space, and how this impacts our collective hygiene and health in order to minimize the transmission of fungal, viral or bacterial disease. We are now more conscious of our proximity with one another, and who or what we do, or do not, touch.

Personal hand hygiene, personal distancing, and the clean dis-infected status of objects or surfaces we commonly touch are now everyday considerations. As individuals, we expect the professionals and clinical sites providing us with our health care to maintain the highest standards of cleanliness and infection control possible to minimize our risk. These standards must also be maintained at the location where athletes commonly seek assistance on a daily basis during the school year, the athletic training room. The ability of the professional staff to meet these standards is often severely challenged based upon the volume of athletes they need to assist in a specific time period, the physical location and size of the athletic training room and school cleaning standards.

Background

Interscholastic athletic injuries are usually musculoskeletal in nature and the health care issue most commonly presented by middle and high school athletes to athletic training rooms.¹⁻³ However, athletic trainers also commonly work with athletes who have non-musculoskeletal related illnesses and infections on an acute and sub-acute basis. These issues typically have revolved around skin infections, include multidrug-resistant organisms, such as vancomycin-resistant enterococcus (VRE) and methicillin-resistant staphylococcus aureus (MRSA), from close contact associated with some sports and ill-defined cleaning standards.⁴⁻⁹

Though commonly thought of as being associated only with skin lesions and infections, MRSA can be a potential source of bacterial wound infections, pneumonia, and urinary tract infections. Any of these MRSA based infections may have a high morbidity that can require hospitalization and antibiotic therapy. Athletes with other types of viral and fungal infections may also be evaluated and triaged by athletic trainers and then referred on to other health care professionals, such as the school nurse, team physician, school physician, or athletes' personal physicians. The 2020 development, presence and prevalence of COVID-19 throughout the country and the significant health care concerns associated with COVID-19 have heightened the need for vigilance in maintaining optimal infection control standards in any athletic health care area.

The typical high school athletic training room is usually a small space that is a shared environment. This shared environment is most often the primary athletic health care clinical environment for the injured or ill athlete. Unfortunately, this area is all too often also commonly used for the storage of supplies, coolers, ice machines, and other equipment. This shared environment and tight space often facilitates the close contact between surfaces and objects, multiple individual athletes, and groups of athletes all seeking the attention of the athletic trainer for their specific needs during a short time period as they get ready for practice or games. As a shared environment, the athletic training room can act as a source for the spread of infection especially in the presence of poor

hygiene and contamination.¹⁰ Due to limitations of space and funding, most high school athletic training rooms have difficulty meeting standards suggested for optimal provision of athletic health care needs and infection control.¹¹⁻¹⁴

Studies have demonstrated that the establishment and adherence to appropriate infection control policies and procedures, the education of staff, coaches, parent and students, and the utilization of the appropriate products can specifically reduce bacterial and viral burdens (including multi-drug resistant organisms).^{4,6,7,10} Greater attention and detail to improve infection control and facility standards are necessary to assure the health of all athletes and minimize the transmission of communicable disease in this COVID and Post COVID-19 environment.

Solution

Establish and maintain partnership between the school and Brigham Health Care Department of Orthopedics and Sports Medicine Service for the provision of the Athletic Health Care needs of the school's student athletes.

Brigham Health Care is required by licensure to adhere to the highest infection control standards for all services provided. Through partnership with Brigham Health Care and the contractual provision of athletic health care services, the following would be initiated:

1. Identifying and assigning a team physician and certified athletic trainer responsible for oversight of all athletic health care needs of the school's athletes in collaboration with other school health providers, including the school physician, school nurse, and other school health providers associated with the school.
2. Collaborative development of policies and procedures that meet commonly accepted medical and professional standards for infection control in the athletic training room, such as:
 - a. Infection control and cleaning standards within, and in the immediate adjacent area to, the training room;
 - b. Cleaning and storage standards for athletic health care equipment and supplies;
 - c. Review and recommendations for physical space associated with athletic training room to enhance ability to meet infection control standards, policies and procedures based upon BOC Facility Principles and NATA Appropriate Medical Care Standards; and
 - d. Development of an educational program for athletic department staff, coaches, parents and athletes regarding need for appropriate hygiene and infection control standards to minimize exposure to athletes.

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Developed By:

Jim Zachazewski, ATC, PT, DPT

Athletic Trainer

Department of Orthopedic Surgery – Sports Medicine

Brigham and Women's Hospital

Boston, MA

jzachazewski@partners.org

Michael Belanger, ATC, PT

Clinical Supervisor of Athletic Training

Department of Orthopedic Surgery – Sports Medicine

Brigham and Women's Hospital

Boston, MA

mjbelanger@bwh.harvard.edu