

## **Musculoskeletal Injury Visits at a University Health Center after the Formation of a Sports Medicine Clinic**

Aysha Ahmad, DO

PGY 3 Resident, McGaw Family Medicine at Lake Forest

### **Abstract:**

**Purpose:** University based health centers are used by students as both primary care offices and urgent care centers given their ease of access. Our study is aimed at evaluating the variety and percentage of musculoskeletal injury visits at a university based sports medicine clinic between the first year (2013-2014 academic year) and fifth year (2017-2018 academic year) of its creation.

**Methods:** Study design: Retrospective chart review. Setting: Sports medicine clinic (NU Health Service) at Northwestern University in Evanston, IL. Source of data: Point N Click (PnC) electronic health record system. Method: Using PnC, a search of the clinical database was conducted to obtain diagnoses of patients seen at the sports medicine clinic for musculoskeletal injuries. Inclusion criteria: Patients enrolled as undergraduate or graduate students at Northwestern University, Evanston Campus, who were seen in the sports medicine clinic at any time during the 2013-2014 academic year (September 1, 2013 through August 31, 2014) and the 2017-2018 academic year (September 1, 2017 through August 31, 2018). Exclusion criteria: patients who were varsity student athletes at the time of their visit, subsequent clinic visits for the same musculoskeletal injury, clinical encounters for reasons other than a musculoskeletal injury. Demographics included the patient age range, median and average age, race, and sex. Descriptive statistics were performed for distribution of musculoskeletal injuries anatomical location and specific diagnoses.

**Results:** During the 2013-2014 academic year, there were 1,549 unique patient encounters for new musculoskeletal injuries or conditions. Patient age ranged from 16 to 65 with a median of 22 years and mean of 24.21 years and 45.1% identified as female while 54.9% identified as male. Ankle/foot (28.0%), knee (16.3%), wrist/hand (14.4%), and shoulder injuries (9.6%) were seen with the highest frequency. During the 2017-2018 academic year, there were 2,080 unique patient encounters for musculoskeletal injuries or conditions. Patient age ranged from 18 to 64 with a median of 24 years and a mean of 24.80 years and 49.3% identified as female, 50.5% identified as male, and 0.1% were listed as unknown sex. Ankle/foot (23.3%), back (17.0%), knee (13.9%), and wrist/hand (12.8%) injuries were seen with the highest frequency.

**Conclusions:** Between the 2013- 2014 academic year and the 2017- 2018 academic year, both the number of unique patient encounters for musculoskeletal injuries and the percentage of female patients increased, while the age range and mean remained similar between the two years. In addition, three of the top four diagnoses by injury location for both years included: ankle/foot, knee, and wrist/hand. This data describes the frequency and types of musculoskeletal injuries seen at a university health center, which may lead to improved knowledge and treatment strategies for health care providers practicing in similar clinical settings.