

A Retrospective Analysis of X-ray and Ultrasound Referrals at a Student-Run Free Clinic

The Brooklyn Free Clinic (BFC) is a student-run free clinic (SRFC) that provides healthcare services to uninsured patients. Given the high prevalence of Ultrasound and X-ray referrals with rapid and accurate differentiation, acquiring on-site imaging technology could promise significant improvements to patient safety and the quality of care offered at SRFCs. This study explores the indications and characterizes the patient demographic that received a referral as well as the impact of the acquired onsite butterfly ultrasound.

A retrospective chart review of patients seen during Jan20-Dec21 at the BFC was conducted. Using data from REDCap, patients who received a referral for either X-ray or ultrasound were characterized. Telehealth impact on frequency of referrals was evaluated.

Out of the 548 analyzed visits, 17 (3.1%) resulted in referrals for X-rays and 8 (1.5%) for ultrasounds. This included 6 telehealth visits (3.4% of all telehealth) and 19 in-person visits (5.1% of all in-person). The difference in the frequency of referrals between telehealth and in-person visits was not significant. Of the 17 referrals for X-ray and 8 for ultrasound, only 1 (5.9%) and 1 (12.5%) were due to an acute complaint, respectively. In 2 of the 25 visits (1 X-ray, 1 ultrasound) an imaging referral was postponed due to lack of insurance. In 2 telehealth visits, patients were scheduled for an in-person visit to warrant a referral.

Telehealth visits resulted in fewer referrals. The use of the butterfly ultrasound at BFC has been limited due to telehealth, requiring more time for its assessment. The majority of referrals (93.1% and 87.5% for X-ray and ultrasound, respectively) were for chronic complaints, explained by the redirection of patients with acute complaints to the ED. At this time, acquisition of an onsite X-ray is not supported. However, closer examination of the time between referrals and follow-up for management may elucidate a potential route for increasing quality of care.