Abstract

Patients who suffer minor brain injuries experience unnecessary ionizing radiation in the form of a non-contrast head CT scan despite the dearth of evidence supporting standard CT scans for all brain injuries. Exposure to ionizing radiation increases the incidence of certain types of cancer. This evidence-based practice change project assesses the attitude of clinicians towards evidence-based clinical decision support tools, specifically the Canadian CT head rule. The use of highly sensitive clinical decision support tools is supported in the literature to help healthcare providers mitigate the risk associated with unnecessary use of CT scan imaging studies. The project was conducted in an academic medical center in the Northeast, utilizing healthcare providers caring for adult patients admitted to the hospital who sustained a minor brain injury due to a fall during their inpatient stay. The standard practice at this institution was to evaluate patients with minor brain injuries with non-contrast head CT scan. The Evidence-Based Practice Attitude Scale was utilized in conjunction with one-on-one instruction regarding the Canadian CT Head Rule. Participants were asked to complete a pre-test comprised of four clinical scenarios regarding patients with minor brain injuries according to what they believed to be standard practice. Subsequently, they were asked to complete the same clinical scenario questions by applying the clinical decision tool. Analysis utilized descriptive statistics, correlations of attitude domains, and knowledge increase. The healthcare provider's attitude towards innovation is an antecedent toward the likelihood of adopting evidence-based practices guidelines into clinical practice, and there was an increase in knowledge regarding the use of clinical decision support tools.

Keywords: clinical decision support; Canadian CT Head Rule; Head CT Scan; minor brain injury