

## AbstractID: 7677 Title: Can Colour Aid in the Detection of Subtle Abnormalities in Digitized Abnormalities?

Generally speaking there are 3 steps by which a clinical diagnosis is rendered on a conventional radiograph: detection, localization and classification. In the case of subtle abnormalities such as small lung nodules or foreign bodies in chest radiographs, there are several factors which may impede the first step of the diagnostic method, the detection process.

An experiment was designed to first demonstrate the effectiveness of adding a colour algorithm to pseudo-isochromatic images. Given the 69% improvement in visualization, the second step was to apply the same colour algorithm to digitized pediatric radiographs with known foreign bodies. An 8% improvement was noted.

We are now developing the third phase of this study which will examine a larger database set of digitized radiographs, have greater intra-observer reliability checks and the use of more specific subtle abnormalities.