00470 Modified Positioning Technique for Oblique Foot Radiographs (Trauma Patients)

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Aims:
- To develop a modified positioning technique for an oblique foot xray (Trauma patients)
- To reduce the number of distorted oblique foot radiographs by 50%

Methodology: With a trial and error approach, numerous x-ray shots were performed on a phantom to determine the correct angulation of the factors (x-ray tube, patient's foot and detector) involved in achieving a non-distorted oblique foot radiograph. Subsequently, a presentation and posters were done to correct the radiographers on their current techniques. Before and after the implementation, 2 periods of data were collected retrospectively. They were Period 1 (August to September 2017) before the implementation and Period 2 (November to December 2017) after the implementation. No data was collected for October 2017 as it was the intervention month where radiographers were corrected on their techniques and given time to be familiar with the modified one. The data was analyzed by 2 radiographers. Inter-rater reliability was measured using cohen's kappa (k).

Result: Between August to September 2017, 1056 radiographs were analyzed. A total of 40 were found to be distorted by radiographer A and 44 by radiographer B (k = 0.93). Between November to December 2017, 1026 radiographs were analyzed. A total of 17 were found to be distorted by radiographer A and 21 by radiographer B (k = 0.89). Based on each radiographer's analysis, there is a drop of distorted oblique foot radiographs by 55% and 52% respectively.

Conclusion: The modified technique is a success as seen from the decrease in number of distorted oblique foot radiographs. The aim of reduction by 50% has been met.