

With the advancement of new Digital Portable x-ray machines in digital/Pacs environment while the dose reduction is obvious, other clinical and technical issues need to be addressed. To understand it better, this study will evaluate Film-screen, CR and DR using abdomen pelvic phantom images made with grid and non-grid techniques. This study will evaluate the necessity of using a grid with a DR portable in Trauma situations. Further, positioning issues using a grid with DR portables will be explored. It will also address whether quality is sacrificed in case of Hip, Pelvis or AP spine portable examinations using a DR portable with and without a grid. Clinically significant detail, contrast and over-all density will be evaluated by clinicians. Medical physicist will evaluate the technique factors. In conclusion the practical and useful nature of the study will determine the positioning issues, scatter issues and technical factor issues that everyone must be aware of while using the digital portable x-ray equipments.