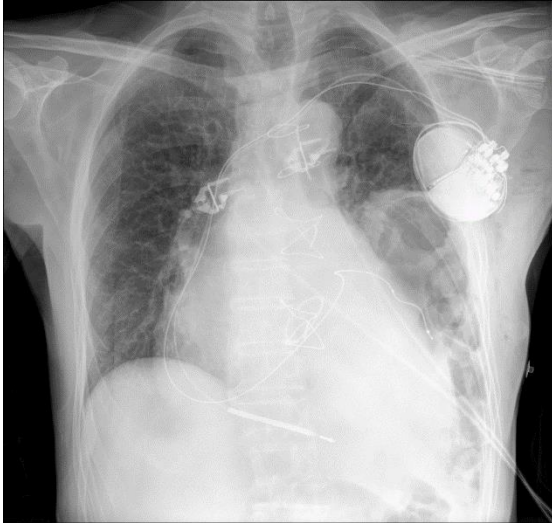


Boost Lines

Boost Lines is an image-processing application to enhance the visibility of tubes and lines in chest radiographs, giving a better information about their positions and placement.



Chest X-ray image without
Boost Lines algorithm



Chest X-ray image with
Boost Lines algorithm

Reading efficiency for radiologists may be limited by factors as lighting conditions, low resolution monitors or other critical circumstances, thus challenging the localization of tubes and catheters. This may be relevant especially for ICU (Intense Unit Care) context and in general for bedridden patients.

For example, a chest X-ray taken with a portable system could provide an image suitable for diagnostics, but not for catheters placement which could still be difficult.

The effect of unfavorable ambient condition could in principle be reduced and compensated by means of window/level adjustment. However, it remains a time-consuming post-processing to be performed manually by clinicians.

Boost Lines algorithm, developed by Digitec, offers a post-processing solution addressing this

issue, without additional X-ray exposure and requiring minimal interaction by the operator.

Post-processing application

Boost lines algorithm is applied to a standard chest X-ray as a post-processing solution.

The conspicuity of tube and catheter structures is significantly amplified through a new specialized image processing. After a standard acquisition, the image acquired is processed through the default processing setting, the Boost Lines algorithm can be directly applied and an additional enhanced image will be obtained as an output.

The additional image alone is not suitable for specific diagnostic purposes, but it aims to enhance the visualization of tube and catheter



structures and thus, giving a better information about their positions and placement.

Both images can be delivered to PACS for further interpretation by radiologist.

Features and advantages:

- Enhancement and better visualization of tubes and lines structures
- Reading efficiency improvement
- Post-processing application with no impact on standard workflow
- Ease of use
- Original image remains always available for diagnostic purposes

