



Title	Direct Digital Radiography
Agency	MaHTAS, Health Technology Assessment Section, Ministry of Health Malaysia Level 4, Block E1, Parcel E, Presint 1, Federal Government Administrative Center, 62590 Putrajaya, Malaysia; Tel: +60 3 88 83 12 29, Fax: +60 3 88 83 12 30; htamalaysia@moh.gov.my, www.moh.gov.my
Reference	Technology Review Report, 005/07, 2007. http://medicaldev.moh.gov.my/uploads/direct%20digital%20radiology.pdf

Aim

To determine the safety, effectiveness, and cost effectiveness of direct digital flat panel detector (FPD) systems as regards diagnostic image quality.

Conclusions and results

There was *fair* evidence to support that digital radiography based on amorphous silicon FPD systems has the potential to provide equal or superior image quality to conventional screen film radiography systems. This technology was able to reduce patient exposure to radiation dose.

Recommendations

Since there was only fair evidence of effectiveness, utilization of the new generation of digital flat panel detectors based on amorphous silicon technology may be recommended. This is an important step forward in diagnostic imaging and offers equal or improved image quality along with a significant reduction in the patient radiation dose.

Methods

PubMed, Ovid, MEDLINE and Cochrane Library databases were searched using the keywords “direct digital radiography”, “amorphous silicon flat panel detector” and “diagnostic imaging”, effectiveness OR efficacy, safety OR safe OR “adverse effect*” OR “harm* effect*”, “cost effectiveness” OR “cost analysis” OR econom* either alone or in combination. General databases, eg, Google were also sought out. No limits were imposed on the search, and papers of all language were included.

All relevant literature was critically appraised, and evidence was graded according to the modified Catalonian Agency of Health Technology Assessment (CAHTA) scale.