INAHTA Brief

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***Title*** **Lung Ultrasonography**

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***Reference*** Technology Review Report - 010/2011,
http://www.moh.gov.my/technology_reviews/189

**Aim**

To assess the safety, efficacy/effectiveness and cost-effectiveness of using bedside lung ultrasonography.

**Conclusions and results**

There was fair level of evidence to show that bedside lung ultrasonography conducted in setting such as Intensive Care Unit (ICU), Critical Care Unit (CCU) and emergency department (ED) is effective for detection of pleural effusion, alveolar consolidation, and alveolar-interstitial syndrome. However, there was only one study to suggest the potential of using lung ultrasonography in detection of pneumothorax. The safety and cost-effectiveness of lung ultrasonography cannot be determined. However, the cost for training of staff should be taken into consideration before utilizing this technology in the Ministry of Health, Malaysia.

**Recommendations**

Bedside lung ultrasonography can be recommended to be used in ICU, CCU and emergency department in certain Ministry of Health, Malaysia facilities for detection of certain lung problems such as pleural effusion, alveolar consolidation, alveolar-interstitial syndrome and pneumothorax. However, its use is limited for research purposes in order to provide more high quality evidence on its effectiveness and cost-effectiveness. It is also important that the operators of the ultrasonograph be well trained in detection techniques for the abovementioned medical conditions.

**Methods**

Electronic databases searched, included PubMed, Ovid Medline (R) from 1990-2011, EBM Reviews – Cochcrane Databases of Systematic Reviews, EBM Reviews - Health Technology Assessment, and EBM Reviews – Cochcrane Databases of Controlled Trial, National Horizon Scanning, INAHTA, ARSENIP-S, CADTH and FDA website, for published reports. There was no limit in the search. Additional articles were identified from reviewing the bibliographies of retrieved articles.

**Further research/reviews required**

More clinical research and studies should be carried out at our various local clinical settings and validate the equipment performance to ascertain the safety, effectiveness/efficacy and cost effectiveness.

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