

Title Ultraviolet Germicidal Irradiation (UVGI) Indoor Purifier – An Update

Agency MaHTAS, Health Technology Assessment Section, Medical Development Division, Ministry of Health Malaysia,

Level 4, Block E1, Parcel E, Presint 1, Federal Government Administrative Center, 62590 Putrajaya, Malaysia

Tel: +603 88831229, Fax: +603 88831230; <a href="mailto:https://https:

Reference Technology Review Report, 002/2013, online:

http://www.moh.gov.my/index.php/database stores/store view page/30/206

### Aim

To assess the effectiveness, safety and cost effectiveness of ultraviolet germicidal irradiation indoor air purifier.

### **Conclusions and results**

There was one retrievable evidence on UVGI indoor air purifier via PubMed. Two full text articles were provided by the manufacturer, Sanuvox Technologies Inc.. There were also two local technology reviews conducted by MaHTAS which assessed ultraviolet germicidal irradiation air purifier system. There was no retrievable evidence on the cost-effectiveness of Sanuvox UVGI indoor air purifier or other types of UVGI. As for safety issues, there was no retrievable evidence on the adverse events of UVGI systems.

### Recommendations

Based on the above review, there were only few scientific evidences to support the effectiveness and safety of UVGI indoor air purifier systems. As for other air disinfectant using UVGI, the technology may have potential benefit for airborne pathogen irradiation; however, more research is warranted. UVGI is feasible in its application and the adverse events can be avoided with proper precaution and maintenance.

# Methods

Electronic databases were searched through the MEDLINE(R) In-process and other Non-Indexed Citations and Ovid MEDLINE(R) 1948 to present, EBM Reviews – Cochrane Central Registered of Controlled Trials and EBM Reviews – Health Technology Assessment. Other database saearched was PubMed, Cochrane Library, Australia and New Zealand Horizon Scanning Network (ANZHSN) and US Food & Drugs Administration (US FDA)

# Further research/reviews required

More research is warranted.

# Written by

Khor SF, MaHTAS, Malaysia