

Title HAND HELD FUNDUS CAMERA

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Aim

To assess effectiveness, safety and cost- effectiveness of hand held fundus camera for detecting diabetic retinopathy, hypertensive retinopathy or other retinal disorders such as age related macular degeneration, and glaucoma.

Conclusions and results

A total of 186 titles were identified through the Ovid interface and PubMed. Only seven studies were included in this review on the efficacy/effectiveness of hand held fundus camera. The evidence retrieved for screening of diabetic retinopathy using hand held fundus camera was inconclusive, whereby one study reported low sensitivity and specificity 6.9% [95% Confidence Interval (CI): 2.3, 11.5] and 50% (95% CI: 0,100) respectively in detecting minimal non proliferative diabetic retinopathy while another study reported high sensitivity and specificity in detecting any grade retinopathy (sensitivity and specificity of 93% and 98% respectively by ophthalmologist while medical officer reported 92% and 95% sensitivity and specificity respectively). There was limited fair level of retrievable evidence to suggest that hand held fundus camera has the potential to be used for detecting of retinopathy of prematurity (ROP), and glaucoma.

There was no evidence retrieved on the safety and cost-effectiveness of hand held fundus camera in clinical setting.

Recommendations (if any)

Hand held fundus camera is not recommended for screening of diabetic retinopathy, ROP and glaucoma.

Methods

Electronic databases were searched through the Ovid interface: MEDLINE(R) In-Process and Other Non-Indexed Citations and Ovid MEDLINE (R) 1946 to present, EBM Reviews – Cochrane Central Registered of Controlled Trials – November 2015, EBM Reviews – Database of Abstracts of Review of Effects – 2nd Quarter 2015, EBM Reviews – Cochrane Database of Systematic Reviews – 2005 to November 2015, EBM Reviews – Health Technology Assessment – 4th Quarter 2015, EBM Reviews - NHS Economic Evaluation Database – 2nd Quarter 2015. Searched were also run in PubMed. Google and Google Scholar were used to search for additional web-based materials and information.

Further research/reviews required

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