Cost-effectiveness of strategies for detecting diabetic retinopathy
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Record Status
This is a critical abstract of an economic evaluation that meets the criteria for inclusion on NHS EED. Each abstract contains a brief summary of the methods, the results and conclusions followed by a detailed critical assessment on the reliability of the study and the conclusions drawn.

Health technology
Screening strategies for detecting diabetic retinopathy.

Type of intervention
Screening and treatment.

Economic study type
Cost-effectiveness analysis.

Study population
Patients < 30 years old at diagnosis, onset diabetes > = 5 years duration, patients > = 30 years old at diagnosis, onset diabetes, taking insulin, and patients > = 30 years old at diagnosis, onset diabetes, not taking insulin.

Setting
The study was carried out in the USA.

Dates to which data relate

Source of effectiveness data
Single study.

Effectiveness results
Health effects estimated as sight years gained/1000 invitation [273.2 (discounted at 5%)].

Modelling
Epidemiological cohort model (model of survival and disease).

Measure of benefits used in the economic analysis
Sight years gained.

Direct costs
Direct costs were to the health service and included: screening (nurse; medical, administrative, clerical support; supplies; equipment; travel time), clinic visits and treatment (ophthalmologist, nurse, photographer, mydriatic fundus
Camera, 40% of total costs for overhead) and rehabilitation. Price information related to 1989.

**Currency**
US dollars ($).

**Sensitivity analysis**
Sensitivity analysis was carried out using the method of single parameter variation.

**Estimated benefits used in the economic analysis**
273.2 sight years gained/1000 invitations, discounted at 5%.

**Cost results**
Costs are dominated by the cost of rehabilitation and associated savings.

**Synthesis of costs and benefits**
Outcome and cost duration was life long. Screening was the dominant strategy.

**CRD Commentary**
(This commentary was not written by CRD, but by the authors of the DH Register.) 1) This study shows cost savings, but rehabilitation savings need confirmation in the UK setting. 2) Compliance with a positive test appears optimistic at 79%. 3) The sensitivity analysis was not adequate.

**Bibliographic details**

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**Indexing Status**
Subject indexing assigned by NLM

**MeSH**
Adult; Age Factors; Cohort Studies; Computer Simulation; Cost-Benefit Analysis; Diabetic Retinopathy /diagnosis /economics /therapy; Diagnostic Errors; Fluorescein Angiography /economics; Humans; Ophthalmoscopy /economics; Patient Compliance; Risk Factors; United States

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