**Additional file 1: Table S1**

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| --- | --- | --- | --- | --- | --- |
| **First Author, Year**  | **Population of interest** | **Intervention** | **Control** | **Outcome** | **Reason for exclusion** |
| Mansberger, 2015(1) | Patients with diabetes aged >18 years. | Retinal imaging during a regular primary care clinic visit. | Eye examination by eye care professional. | Percentage of patients who received DR; percentage of telemedicine examinations requiring referral to an eye care professional; percentage of eyes that had higher, lower, or the same level of DR. | No economic evaluation |
| Mansberger, 2013(2) | Patients with diabetes aged >18 years. | Retinal imaging during a regular primary care clinic visit. | Eye examination by eye care professional.  | Proportion of DR screening examinations; prevalence and stage of DR; risk factors for DR.  | No economic evaluation |
| Olayiwola, 2011 (3) | Patients with diabetes. | Digital retinal images by numerous staff.  | None. | Percentage of patients who set a self-management goal; percentage of patients who aren’t ready to set SMG; percentage of patients who did not set an SMG during the visit. | No economic evaluation |
| Owsley, 2015 (4) | Patients with diabetes aged >18 years. | Ocular imaging by trained technicians. | None. | Percentage of other ocular findings; percentage of DR in minority groups; the percentage of patients with health insurance; percentage of participants with specific types of DR. | No economic evaluation |
| Zhijian, 2012 (5) | Patients with diabetes aged 28-77. | Digital Retinal Imaging. | Standard Ophthalmologic Evaluation. | Percentage of patients who have DR; patients screened positive with clinically significant disease.  | Co-morbid eye disease |
| Rein, 2011 (6) | Patients with type 2 diabetes or retinalmicroaneurysms aged 30-90 years. | Retinal Imaging in a primary care office. | Patient self-referral; annual eye evaluation; biennial eye evaluation | Costs and benefits of three screening scenarios to each other and to a counterfactual of self-referral. | Patients with known DR |
| Coronado, 2016 (7) | Patients with diabetes aged >15 years. | Retinal imaging in a pharmacy.  | In-person examination. | Prevalence of any DR; the screening rate; volume increase of screening compliance.  | Patients with known DR |
| Kurji, 2013 (8) | Patients from diabetic clinic. | Digital fundus images in a diabetic clinic. | None.  | Patient preferences questionnaire.  | No economic evaluation |
| Tufail, 2017 (9) | Patients from diabetic clinic. | Automated DR image assessment systems.  | Human graders. | Screening performance; economic analysis estimated the cost per screening.  | Patients with known DR |
| Garoon, 2018 (10) | Adult diabetic patients.  | Retinal imaging. | None.  | Costs and cost savings. | Co-morbid eye disease |
| Martínez Rubio, 2012 (11) | Adult diabetic patients.  | Retinal imaging.  | None. | Prevalence of DR; Percentage of mild-moderate proliferative DR; Percentage of non-proliferative DR, Percentage of proliferative DR; Percentage of DR.  | No economic evaluation |
| Malerbi, 2015 (12) | Patients with type 1 DM.  | Mydriatic 2 field retinography.  | mydriatic BIO. | Clinical outcome was either observation or referral to the ophthalmologist (moderate or severe non-proliferative diabetic retinopathy, proliferative diabetic retinopathy, or apparently present diabetic macular edema) | No economic evaluation |
| Daskivich, 2017 (13) | Patients with diabetes aged >18 years. | Retinal imaging during a regular primary care clinic visit. | None. | Screening rates and screening wait rates.  | No economic evaluation |
| Hussain, 2017 (14) | Diabetic patients.  | Retinal imaging in a special equipped van.  | None.  | Prevalence of DR subtypes and odds ratios for development of DR and proliferative DR. | No economic evaluation |
| Verma, 2020 (15) | DR patients.  | Retinal imaging. | None.  | The frequency of a PPL distribution; frequencies of mild non-proliferative DR, moderate NPDR, severe NPDR and PDR.  | Patients with known DR |
| Liu, 2019 (16) | Adult diabetic patients.  | Retinal imaging via ultra-wide-field (UWF) imaging. | Conventional earlytreatment DR Study. | Percentage of retinal neovascularization detection and PDR pathologies.  | No economic evaluation |
| Walton, 2016 (17) | Patients with diabetes ages 18-98. | Intelligent Retinal Imaging System (IRIS).  | Manual interpretation. | The IRIS algorithm positive predictive; the IRIS algorithm negative predictive value. | No economic evaluation |
| Perilli, 2016 (18)  | Adult diabetic patients.  | Retinal imaging. | None.  | Different stages of DR, AMD and Glaucoma.  | Co-morbid eye disease |
| Romero-Aroca, 2016 (19) | Adult diabetic patients.  | Non-mydriatic fundus camera unit. | In-person examination. | Cost of visits, examinations and interventions carried out for each patient; classification of DR severity; cost of 2.5-year screening program. | Co-morbid eye disease |
| Phan, 2014 (20) | Adult diabetic patients.  | Retinal imaging. | None. | Fiscal cost of teleretinal screening; costs of primary care clinic visit.  | No economic evaluation |
| Brady, 2014 (21) | Adult diabetic patients.  | Non-mydriatic fundus photography with remote grading. | None. | Direct medical costs; teleophthalmology costs. | Co-morbid eye disease |
| Fonda, 2020 (22) | Adult diabetic patients.  | Retinal imaging. | Conventional examination. | Cost-effectiveness compared with a conventional examination; DR examination rate; DR and DME epidemiology.  | Co-morbid eye disease |
| VanAltsine, 2012 (23) | Patients with type 2 DM. | Retinal imaging.  | None.  | Costs of transportation and DR grading  | No economic evaluation |

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