

# CLAHRC BITE

A bite-sized summary of a piece of research supported by Peninsula CLAHRC

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BITE 04

## Research Indicates Savings Could be Made in Diabetic Retinopathy Screening Costs



### » Who is this relevant to?

Those with responsibility for the delivery of or an interest in diabetic retinopathy

### » Background

Diabetic retinopathy is a common complication of diabetes. It occurs when high blood sugar levels damage the cells in the retina and, if not treated, can lead to blindness. In all but some cases diabetic retinopathy has a slow rate of progression and can take years to develop.

We developed a model that simulates the progression of retinopathy in type 2 diabetes in order to predict the rates of retinopathy-related sight loss which screening may prevent. The model used data from patients with type 2 diabetes in Devon. We generated comparative 15-year forecasts looking at the difference between current annual screening and a policy whereby people who have not developed retinopathy are screened every two years.

*“Diabetic retinopathy typically develops at a very slow pace, and as a consequence we wanted to identify whether or not there was any merit in reducing the frequency of screening from annually to every two years.”*

Dr Daniel Chalk, Associate Research Fellow in Applied Operational Research, PenCLAHRC

## » Findings

The research paper was published online in Diabetes Care on 7th May 2012.

- The proportion of patients who develop retinopathy-related sight loss is no different between the two screening policies
- It is therefore safe to screen type 2 diabetes patients who have not yet developed diabetic retinopathy once every two years instead of annually
- We predict savings of around 25 per cent based on standard assumptions of screening costs

## » Recommendations

- Evidence suggests that changing screening frequency from one year to two is a safe and cost-effective strategy
- The National Institute for Clinical Excellence has guidelines for annual screening, but admits that this frequency is arbitrary and welcomes research such as this
- The introduction of screening once every two years should be supported by an effective patient recall system and a campaign to impress upon patients the continuing importance and benefit of screening

## Reference

Chalk D, Pitt M, Vaidya B, Stein K. Can the Retinal Screening Interval Be Safely Increased to 2 Years for Type 2 Diabetic Patients Without Retinopathy? American Diabetes Association. doi: 10.2337/dc11-2282



## What is Peninsula CLAHRC?

The CLAHRC (Collaboration for Leadership in Applied Health Research and Care) for the South West Peninsula is a partnership between the University of Exeter, Plymouth University and the NHS in the South West.

We are funded by NIHR (the National Institute for Health Research) with a mission to undertake high-quality applied health research focused on the needs of patients and a requirement to improve health services locally and further afield.

## Website

[www.clahrc-peninsula.nihr.ac.uk](http://www.clahrc-peninsula.nihr.ac.uk)

**For further project information, please visit:**

[www.clahrc-peninsula.nihr.ac.uk/project/33-diabscreen---penchord.php](http://www.clahrc-peninsula.nihr.ac.uk/project/33-diabscreen---penchord.php)

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